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(BIFAD)

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TRANSCRIPT OF PROCEEDINGS

BEFORE

ROBERT EASTER, CHAIRMAN

BOARD MEMBERS PRESENT:

ROBERT A. EASTER, CHAIRMAN
WILLIAM B. DELAUDER
H.H. BARLOW
CATHERINE A. BERTINI

INDEX

P R O C E E D I N G S

July 29, 2009

THE CHAIRMAN: Good morning again. We have a full agenda today, and it's going to take every minute. And I have a 6:00 flight, and I'm going to be on that flight so we're going to finish in time for me to get to the airport. My name is Bob Easter, and I have the privilege of chairing the BIFAD, the Board on International Food and Agriculture Development. This is the 157th meeting of the Board since its inception back in the 1970s, and we have, as I said earlier, a very full agenda. And the mandate of the BIFAD is to, if you will, be in that space between USAID and the university community that's defined under Title 12 of the Foreign Assistance Act, and our role is to seek to bring to the table the capacity of universities to contribute to the international development agenda of this nation as it relates to food and agriculture. The last couple of years, beginning a year ago, and then back in May of this year, the Board has convened a meeting of a Council of Deans. We invited purposefully deans from universities across the country or their representatives who have engaged or have an interest in being engaged in professional agricultural development, and out of that last year produced a white paper that we

were very pleased with in terms of recommendations and engaged in some legs, if you will, and moving the conversation forward. And we convened under Council of Deans that was attended by about 75 just recently, and the first part of our program this morning we're going to look at the perspectives from that Council of Deans, and I'll introduce the person who's going to do that in a moment. And then our second speaker is Karen Turner, who I think is well known by most of the folks in the audience who has become a real partner with the BIFAD, who is director of the Office of Development Partners, in developing the, if you will, underpinning by which we in the university community can contribute to the mission of USAID. Then we'll turn later in the morning to an update on the legislation that I'm sure all of you are aware of that's on the hill related to food security, both in the House and in the Senate, and we'll have an opportunity just after that for public comment. And I think in the announcement for the meeting or the call for a meeting, we indicated there would be time for public comment, and you should have indicated to Dr. Senykoff, our executive director, that you wanted to do that. Then we'll take a break and turn our attention Afghanistan. I have a couple of speakers well qualified to deal with that topic. And if you have the agenda in

front of you, and if you read the Wall Street Journal this morning, you'll notice that USAID is right on top of it. There's a headline in the journal that says the government discovers that paper has two sides and talking about the savings by printing on both sides, so, Karen, congratulations, or, Rod, you've used both sides of the page and saved a piece of paper and one less tree in the forest that had to come down. After lunch, we'll come back together, talk about agro-ecological approaches, the challenge of sustaining the system, if you will. As we thought about food and agriculture, it's always important to think in the near term, but we have also thought it important for us to begin to think in terms of a longer term perspective, 2030 as a goal. We're going to spend a bit of time on Latin America later in the afternoon. I think for good reason the Board has given a lot of its attention in recent meetings to Africa and food needs on that continent, and that's important that we continue to do that but it's also important that we also look at perspectives from other areas of the world. We'll wrap up today with issues around operational management. Let me just briefly introduce our Board members to those that are attending perhaps for the first time. Catherine Bertini is sitting here, and she has had a number of roles

currently at Syracuse University in the Maxwell school, and previous to that was at United Nations. And among other things, I think her last assignment had to do with administrative services and all of those knotty things, prior to that director of the World Food Program. Dr. Bill DeLauder, toward the center, President Emeritus of Delaware State University, and an intellectual. And, Bill, I'm just going to tip my hat to you, who these days is often on the platform speaking about the role of land grant universities, the role of public universities in the nation's educational and research community. I appreciate every time I have the opportunity to listen to Bill speak. Dr. Elsa Murano is a relatively new member of our Board from Texas A&M, currently a faculty member in food science human nutrition. I'm sorry, that's not right. Food science. Is human nutrition part of that too? Yeah. I thought maybe that was unique. And previously served as president of that institution. The statute, the language that creates the Board is a presidentially appointed Board, requires that there be some citizen membership outside the university community, and H. Barlow from Kentucky, a dairyman, a leader in Kentucky agriculture, fills that role. And of course Kerry Bolognese at the end, APLU, Association of Public and Land Grant Universities. That's starting to

just roll off much easier than it did early on, NASULGC. APLU has a contract to provide logistical support services to the BIFAD. And Dr. Ron Senykoff is in the back of the room, our executive director. And with him now, John Becker, who was long service with USAID as a foreign service officer and now is in a role in support of BIFAD. So with those comments, I would like to introduce our first speaker, who, quite frankly, doesn't need an introduction. Deborah, I lost you. Where's Deborah? Here you are. Deborah Rubin is a senior social development analyst, and she is the owner and director of Cultural Practice, LLC. It's a woman-owned small business that provides consulting service for international development, and the BIFAD has regularly called upon her to help us think through issues and to prepare reports. And she worked extensively with both Council of Deans I and Council of Deans II, and is here this morning to give us some thoughts on what we heard the deans and the group saying at Council of Deans II. Deborah. Dr. Rubin.

MS. RUBIN: Thank you, Mr. Chairman, members of the Board, and members in the audience, some of whom I believe were at the Conference of Deans II. I have to say in my introduction, very nice introduction, you may have noticed that I'm not a dean of a college of

agriculture, but I have been asked to provide some framing of the time that was spent on June 30 of this year by the deans of schools of agriculture to come up with a set of recommendations and thoughts for the future of agriculture under the U.S. government. The title Building of Global Food Security Strategy reflects really the new emphasis that has come about in the last year since the first Council of Deans meeting, which was held in April of 2008. At that meeting the group established the rationale for re-engaging with the university community on these questions of agriculture and in that year since last April or a year and a few months there have been a number of things that have been going on in the world which really relate to creating the context that we're in now. The food crisis had started back in December of 2007 or so and it really started to take off, the financial crisis in September of 2008, and that combined with a renewed focus by the U.S. government on agricultural and food security with enormous new funds becoming available. So the question is if we've established the rationale for why U.S. universities are an appropriate partner in this process, what are we going to do next? What is going to be the approach? What is the how for this work of the universities in conjunction with the U.S. government?

And that was really the theme behind the Conference of Deans II. We know what the global challenges are. They've been presented to us in a number of ways. At the conference they were presented largely by Mark Rosegrant [ph], Franklin Moore, and Josette Lewis, Mark of IFPRE [ph] and Franklin Moore and Josette Lewis of USAID, establishing that we're in a position of continued food price crisis, financial crisis. The world is seeing rising numbers of hungry, poor and malnourished, and especially concern over conditions of climate and water variability. So, as I said, that has led to a renewed establishment of interest in ag and food security issues, and both Mark Rosengrant and the AID speakers laid out several areas in which this focus was going to be directed, one of them being increased investment in agriculture and rural development, as well as investment in some of the supporting services for social services, for education, and for rural infrastructure. A second area that was particularly important was refining the science and technology policies to make sure that the work that was going to be going on would be laid out within an appropriate policy framework. And, third, and perhaps most important for the university community was the idea of increasing support to various agriculture and natural resource

management sciences, all of this coming after, as you well know, years of neglect and declining investment in these areas. Now this next slide is already out of date even though I prepared it yesterday, the context changing so rapidly within the U.S. government, but these points are going to be developed by other speakers later today and this afternoon. It's important simply to recognize that there has been an international commitment to more money, that there is a whole government approach to looking on priorities for agricultural investment, and that there is some thinking under the name of HECTARE for a new way for universities and the government to interact on these questions. Now the conference's purpose has two different elements, and in some ways they were quite distinct and they tried to encompass both within a single day, which led to a lot of very enthusiastic discussion but really not enough time to come to some final declarations. The first was to lay out a road map, what is it that should be done to partner between the U.S. university community and USAID to implement the food security. And the second was really an opportunity to think about what a new program to do that would look like. In the work carried out under the first dean's conference, as I said, the rationale for U.S. university involvement was laid out,

and these are some of the characteristics that were identified as the important ways that the U.S. universities can contribute. Now all of these reasons in some sense could be considered a kind of supply response. These are things that we know that the universities do very well and so very often in terms of making contributions. What's important for the work of the dean's conference is to be able to combine that with the market-driven response to say -- so that USAID is able to say what is it that they need and that there can be some synergy between these contributions and the development imperative, and the question is how to best harness that joint movement forward. I've taken from the very many recommendations that were presented at the dean's conference, which have been summarized by Encompass Limited, who led the facilitation of that conference in a great report, which I think is going to be available on the NASULGC web site -- sorry, APLU web site. And it's worth all of you taking a look at that to really see the richness and robustness of the work that was accomplished, but I've laid out four different areas from what they had presented. The four of them are first to reinvigorate U.S. intellectual leadership. The second, to forge creative, strategic and sustainable partnerships. The third, to engage the next generation.

And the fourth to reintegrate teaching, research and action. So those are the four general themes. Each of the next five slides simply list some of the key points that came out under those themes at the conference. I know that copies of the slides are available. I don't want to take your time to read through each of these. But the most important point under the reinvigorating U.S. intellectual leadership is not that the university communities do not have that leadership. It's how to harness that, how to mobilize that, so that the right people are speaking to the right people on the government side to really be able to set the priorities and to make the decisions. Some of the issues that came out were the way in which work in agriculture now represents systems thinking. Interdisciplinary was mentioned many times, and the need to really conduct research on targeted problems, the adaptation and mitigation of climate change issues certainly, but there are also a lot of other areas that were mentioned. The second point about forging creative strategic and sustainable partnerships was discussed at a number of different levels so that it's not simply a partnership between the university and government but also across government that is being encouraged in the whole of government approach, and also among all of the other

parts of civil society, the foundations, the private sector, as well as government and higher education. And then there was a lot of discussion about linking U.S. and developing country institutions at all of these different levels. But for the first time, I think the focus was also on real country led programs so that at all of these levels and across all of these levels the emphasis was not simply in the U.S. but looking at them in the host countries as well and building the capacity in the host countries to take charge of the direction that they want in agricultural development. Another point that was mentioned was the importance of using all of the different acquisition and assistance mechanisms that were available so that not only the grants and the cooperative agreements that have been in place most recently but also returning to a use of contracts with the universities as another alternative. It was really important in the discussion to find ways to engage the next generation. There was a lot of concern about the lack of interest among the next generation of going into agricultural sciences both in the U.S. side as well as in developing countries. The idea that agriculture just doesn't seem to be the kind of money maker and exciting profession that perhaps working in health or working in computers seems to be, and how can that be

reinvigorated. The idea of mobilizing the university networks that exist that have been the product of a lot of aid investment in the past and also trying to build new programs that integrate across universities and with developing countries, the foreign study abroad, the international student learnings, service learning, and foreign students so that you get synergies among these different programs to move forward. And finally the last of the four areas that I mentioned, the point about reintegrating teaching research and action. We know that the land grant model involves these three areas, and that was seen as a very useful model for thinking about future activities, but in itself is still limited without the partnerships that we discussed before bringing in the private sector, foundations, and other civil service groups. The idea of developing more exchange, more dialogue between the universities and the officers of government, there have been various exchange programs that have worked, been successful, and the hope is that additional resources can be put into developing these exchanges in the future. There is also discussion about the need for new kinds of institutions that would be able to create this integration of these three areas in innovative ways. One of the most interesting discussions was about establishing centers of excellence

and a national food security university. I believe we're going to be hearing a bit more about that as well later this afternoon. So trying to pull all of this together in a way that will make it possible for BIFAD to speak to this issue of U.S. university relationships with the government the following goal has been laid out. This is not necessarily the perfect wording, I will admit, but there are three elements that I think are important that have been tried to be captured here. The first is this point about increasing investments in agricultural science and technology that was brought out so forcefully both by Mark Rosegrant in his presentation and the models that he provided, as well as from U.S. universities -- I'm sorry, from USAID in their talking about their goals. But the second is that the science and technology needs the agricultural education system. There needs to be support for that as well. The support is not for its own sake. The purpose has to be the creation of this safe, secure, and sustainable food supply, so while each of them are important goals in their own right the idea here is that it is targeted towards a specific purpose, and the date of 2030 is there to make sure that BIFAD is able to support not only the short-term vision but also the longer term vision and to establish ways to sustain that. And if

you remember at the beginning of the presentation, I mentioned that there were two different purposes for the conference. I've tried here to outline just one goal for each of those, that the road map can be designed by the use of some mechanism such as a brain trust, a way to really get the right people, as I said, to speak to the right people. It has to be a two-way process. At the risk of redundancy, I will say joint dialogue, which was a phrase that was used in the conference. Too often I think what we have are simply one way discussions, either the universities talking to USAID, USAID talking to the universities, and there's an opportunity here to find the right mechanism perhaps through the brain trust to create the kind of dialogue that can really reinforce new learning for these new directions. And in terms of the new programs, there are efforts under the U.S. government now, the Lugar-Casey bill and the McCollum bill, to rethink the Title 12 activities and the BIFAD under this name of HECTARE, the program. But hopefully the purpose would be to use these mechanisms to bring in the new students and to create sustainable solutions to the problems that we're seeing. So that's a very brief summary of a very long day with many ideas. Hopefully giving you some ideas of how we might move forward, I would certainly appreciate feedback from those of you

who are there or those of you who are just listening after you've had a chance to read the minutes and the reviews by the Encompass group. As the goal for me the next step is to write this up as a paper using this presentation as an outline so it would be very helpful to get feedback from you all on that. Thank you very much.

THE CHAIRMAN: Before we open up for comments from the Board, I should acknowledge Ray Miller who was co-chair of this activity. Ray is known to many of you. He couldn't be with us today. He's in association with the University of Maryland but he's back home in Idaho, I believe. Comments from the Board or questions. Yeah, Dr. DeLauder.

MR. DELAUDER: Just a couple of comments. I know in the slide where you said higher education contribution. I know that came from, I guess, the dean meeting, but it seemed as though the whole issue of human resource development because we had a lot of discussion and you talk about that later in the slide, and that is the institutions prepare more of our young people for careers in agriculture because USAID, for example, has a great need for more trained people. So perhaps that also should be included as part of higher education contribution. I know we focused on

development but that part of it is important too. The second comment is when you were talking about engage the next generation and you talked about improving the synergy between study abroad, international service learning, and so forth. Let me say that in the broadest definition of study abroad, it encompasses all of those things. They're not separate. The only thing we say in study abroad is that it must be an experience that occurs outside of the United States and that it must be of a quality that it can receive academic credit which can then be transferred back to an institution and can count toward their credits toward graduation. So it could be an academic course of study. It could be research. It could be an internship. It can be any of those things as long as it's quality enough that you can give academic credit to them. So I don't want to give the impression that we're talking about different -- maybe study abroad is not the best term but the broadest definition, that's what the definition encompasses.

MS. BERTINI: Thanks. Deborah's excellent presentation was an excellent synopsis of what was discussed. I think one of the most important things she said was when she was talking about focusing on strategic, creative, and sustainable partnerships that she said we need to find out what people in the

individual developing countries need. And that's, I think absolutely critical to any success that we might have. We can't -- especially with more interest from the Hill and from the Administration on doing more of this, and it's critically important, I don't think we can just show up and say, here, I'm here from University X, Y, Z, and I'm here to help you. We have to make the pull come from the developing countries and the universities or the scientific institutions or whomever that we seek to help. So as we flush out what this means, I hope that that becomes part of it too.

MS. MURANO: I just wanted to get -- Deb, thank you for that presentation. Speak a little bit more, if you would, on these centers of excellence and certainly the concept of this food security universities. Was there a particular model that the deans were looking to emulate? Speak a little bit more about these two concepts, if you would.

MS. RUBIN: There were several different models that were discussed. In the afternoon there was an opportunity for the deans to get together in breakout groups and design programs, and so I think there were perhaps eight different groups and maybe half of those designed, briefly designed, activities that one could call either a center of excellence or the national food

security university. So I wouldn't want to say that there was a single model. There has been floating around both at the Conference of Deans meeting as well as in other areas an idea of having a national food security university which could operate somewhat similarly to the National War College model where you bring people in for a limited amount of time. They have an opportunity to work with each other. Also, in the presentation I thought I had a line about food security as national security, that being the over arching theme, so that you get an integrated approach to looking at food security in terms of national security where it might draw buy-in from the Department of Defense as well as higher education, as well as the development and diplomacy community. So given that they had a very short time to discuss this, I wouldn't say that there was any one specific model but the descriptions of the various ideas are presented in the larger summary and will be laid out in the paper.

THE CHAIRMAN: I must say I'm captivated by this notion of a national food security university in part because of the role that it can play in faculty development. I could see as a university administrator approving faculty sabbaticals to spend six months to a year there working on a project related to name the

country or name the issue of food-related issue, and I think the potential for that to have a role in building a cadre within faculties, a very well-informed faculty who can go back and provide leadership not only within their own university community but also to engage in conversations and projects with USAID would be very, very important.

MS. BERTINI: Just one more component. I don't know if it's in the plan or not, but I hope that we're thinking about, and that's the language capability of the faculty or scientists who would be working with countries if we limit ourselves to English, if we limit ourselves to countries also.

MS. RUBIN: I think that's one of the underlying points of informing the study abroad program to ensure that that is developed starting at the undergraduate level.

THE CHAIRMAN: I think most of us have put a lot -- and universities have put a great deal of emphasis in recent years on study abroad, and there's been encouragement nationally to do that as well with funding. I think the opportunity is for us to think of how USAID has the -- would engage in those conversations and perhaps even provide opportunities for internships for students who are going into study abroad settings.

Anything else for Dr. Rubin? Deborah, thanks very much for a good presentation. And next I'm delighted to once again invite Karen Turner to come to our podium. I think as you're aware, Karen came on board more than a year ago, I think, now as director of the Office of Development Partners, and has been a very serious partner over the last several months in engaging in the conversation about university involvement in international food and agricultural development. Last year at the annual meeting of what was then NASULGC she had an opportunity to speak with the deans of agriculture, and I have to say you were well received, Karen, and I think it should have indicated to you the enthusiasm that body has for being partners here. So if you would please come forward.

MS. TURNER: First of all, let me thank Dr. Easter for his introduction, as well as his continued leadership of this really joint effort to energize and revive the partnership between USAID and BIFAD and the U.S. university community. I'd also like to thank Deborah for that excellent summary and particularly to Ron Senykoff and John Becker for all of their efforts behind this meeting. Also, I'm going to apologize in advance that I'm going to speak and run because I also have to make a flight, and I'm off to Brazil so I have

to gather myself together and get out of here, so I regret that I won't be able to stay for the rest of the meeting. Let me just say that we felt that the second Conference of Deans meeting was really very successful in providing an opportunity for USAID to update the deans on the plans for the U.S. government's food security program, and then to follow on with the discussion that you saw the results of that where there was really a very vibrant discussion of future action and directions, and so what I would like to do is really take an opportunity to briefly talk to you about the plans for the U.S. food security strategy, which is referred to as seeking a world without hunger, and then to talk again briefly about the way forward. I will note that the U.S. government's food security strategy is not yet public but the broad outlines of that have been widely discussed with stakeholders, and so I will reference those items. First of all, this strategy seeing the work without hunger will emphasize market-driven agriculture, improve coordination between food aid and development aid focusing on nutrition, better nutrition for children at risk, support for country-managed safety net programs, focusing on countries that have made the hard policy and budget choices to support agriculture, improving U.S. government strategic

coordination by employing a whole of government approach to agriculture development programming, expanding our participation in multi-lateral programs through financial support, holding ourselves and our partners publicly accountable for performance, and finally increasing the level of our funding commitment to food security to $3.5 billion over the next three fiscal years, and that is fiscal years 2010 through 2012. Now many of these themes that I just referenced are very familiar to BIBAD because they were the subject -- not the subject but they were discussed in the white paper that resulted in the first Conference of Deans that was held last year and mentioned in Deborah's comments. This new U.S. government strategy that I mentioned is in its final review and we hope that it will be available soon, and when it is available, Ron Senykoff or John Becker will arrange for it to be distributed as soon as it is available. Now let me talk a little bit about where we hope to go and also just a few comments about the second Conference of Deans. The Conference of Deans recommended an overall goal that has a longer time line food security in 2030 than is covered by the U.S. government strategy. Obviously, this is very sensible because the challenges that we face of increased population in developing countries, higher global energy

cost, increased water shortages and higher temperatures as a result of global climate change clearly are challenges that demand longer term action and solutions. The long-term perspective reflected in the Conference of Deans and the shorter term perspective that is reflected in the U.S. government strategy clearly can be harmonized because the short term -- the short and medium term are an integral component of the longer term vision, but what it means is that the efforts at coordination, collaboration, and developing a shared understanding and a shared voice outward to the public and importantly to the Hill, which is also trying to support the development, the re-establishment of the U.S. role in agricultural development will be very critical. What will also be very critical is that BIFAD and the U.S. university community will need to be very clear as to the investment cost and the rates of return to build human and institutional capacity for science and technology so that the plans the programs for the longer term are able to compete effectively for resources with those activities that will be addressing the shorter and medium term needs. The way forward involves growing the partnership that we have been developing between USAID and the U.S. university community, the brain trust idea to increase the

technical depth of our new food security efforts. And as we actually mentioned at the Conference of Deans, this in part means that we need to ensure that the U.S. university community energizes the flow of students and professors in the areas of agricultural development in which we expect to focus. What we learned is that USAID has actually been trying to recruit students for our new entry level program through the development leadership initiative where we're bringing in about 1,000 foreign service officers over three fiscal years, and one of the hardest areas that we were having challenges in recruiting in was in the agricultural area where we're woefully thin in terms of technical depth. It also means that we should creatively explore three-way partnerships involving high quality, higher education institutions in other countries. For example, Brazil, the country to which I'm headed later today, that have complimentary expertise in the areas of planned assistance. Obviously, there are many other ways forward but what is important is that we all recognize the importance of a high and a higher level of scientific integrity to the programming that we're trying to put in place for agriculture development. If you look at the legislation that's coming forward, there is a significant current congressional interest in

improving monitoring and evaluation of development activities generally, and we can certainly expect that with the significant increase in funding for agriculture development that what will come with that is increased accountability demands. That means that BIFAD and SPARE, which is a part of BIFAD needs to be closely involved in defining informative performance metrics that enable us to demonstrate and explain in very clear terms what is being accomplished with the significant resources that are being mobilized. The second Conference of Deans, as indicated in Deborah's comments, surface several ideas for new programs. Now not all the programs will be able to be pursued and we may not even all agree as to the merits of all them, all of the ideas, but I really don't think that's the key things that we should worry about. I think what's important is that what you saw in the Conference of Deans is very concrete evidence that USAID and the U.S. university community are coming together once again to chart a way forward, a shared way forward, a focused problem-solving manner which I think is very important, and I believe that we've made incredible progress in rebuilding that partnership, and I really would like to give my thanks to Dr. Easter who has provided leadership in that, and to the Board which has been very involved in that as

well. And I look forward to continuing to work with BIFAD and my colleagues in USAID not only in the Office of Development Partners but in other parts of USAID to integrate the U.S. university community and to this global effort to improve food security. Thank you.

THE CHAIRMAN: Thank you very much, Karen. I think as we've had very preliminary discussions about our next steps as a Board, the challenge of creating the mind map or road map of steps forward seems to be something that has to be given priority. And at the moment the thought would be that we would bring together perhaps a dozen or something fewer than that thought leaders to develop some themes that could be discussed with the agency. And I'll say this up front, and it's self-serving, we're strapped at the moment. Our resources are rather limited, and so we will do the best we can within the capacities that we have with staff to move this forward. Other comments? Yes.

MS. BERTINI: Yes. I wonder if, Karen, either now or in the near future at some point you could communicate with us, AID could communicate with us and the broader communities what kinds of staff you'd be looking to hire and with what kinds of expertise because we can all use that to go back to our own constituencies and say, you know, over the next few years here are some

of the plans that AID has and it may be very useful for our institutions to help to be able to promote some of the kinds of issues or expertise you're going to be looking for. And to the extent as it relates to agriculture that USDA or anybody else in the government is looking for agriculture specialists could be included, that would be even more helpful. Thank you.

THE CHAIRMAN: Other comments? I might just say that this issue of human capacity within the U.S. is a growing concern not only with USAID but it's also being brought to deans of agriculture regularly from the private sector. There are key areas, particularly in areas like agronomy that there are just very, very few students enrolled in these programs across the country. And the challenge is to re-energize student interest and it reflects, as many would say, in overall decline in interest in science per se, but it also, I think, reflects an unawareness among many of our urban students of the opportunities that really are there in the food and agricultural system. Any other questions or comments from the Board? Again, thanks very much for coming and best wishes for a successful trip to Brazil. I know this is an up and back or down and back, so I appreciate the challenge that you have ahead of you. We're about ten minutes ahead of schedule, and I

appreciate that. That says that our speakers are efficient and we're moving forward. Let me suggest we just take a brief break and reconvene. I'm anxious not to get too far away from the announced schedule because some of our speakers are working on very tight agendas and may not be here until just before they're scheduled to speak. So we'll reassemble about 15 after.

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[Off the record]

[On the record]

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THE CHAIRMAN: We'll bring our first speaker to the platform, and as we turn our attention to partnership, and that's very much the theme of the program today is partners that are involved in developing food and agricultural systems, and the next section of our program is titled Partners in Development, Business, Cooperatives and NGO Perspectives. And we have three very well-qualified speakers to spend time with us this morning, and our first speaker comes to us from the Monsanto Company, and as you well know, Monsanto is a global firm involved in developing seed materials to address various needs and food production. And Elizabeth Vancil is Program Manager for International Partnerships at Monsanto.

She's been in that role now for a couple of years, and prior to that she was with the Donald Danforth Plant Sciences Center. Those of us in the Midwest are very familiar with this relatively new institution on our landscape but located in St. Louis. It's a center for some very high quality science around the genetic improvement of plant material. And while at that institute, she was focused on an international mission which is part of that institute's overall mission to improve health and nutrition in agriculture developing countries. And in her current role she works on the development of partnerships to improve the lives of small farmers, small holder farmers in developing countries, and managing Monsanto's technology and initiatives for non-core crops. So, Elizabeth, you're with me. Thank you.

MS. VANCIL: Good morning. Thank you for coming today and for taking the time to learn a little bit more about Monsanto and our partnerships to improve the lives of small holder farmers in developing countries. I think we're at a very exciting time right now where more and more people are understanding the value of agriculture, and I think we have an opportunity to continue to raise awareness of the role of agriculture to improve lives and also to develop new

partnerships and new programs to do that. So as a leading agricultural company Monsanto feels -- we feel that we have a pretty unique role to play in doing that. Some of you may know Monsanto as a company that's produced everything from pharmaceuticals to carpet to other various products, and I grew up in St. Louis so I knew that history, and I had seen a lot of those different products coming through the pipeline, but right now we are a company that's exclusively focused on agriculture so we succeed only when farmers succeed, and that's farmers globally. We're primarily a technology company with two research and development engines, one for breeding and biotech, and we use those engines to build cutting edge technologies into seed, specifically into corn, cotton, soybean and vegetable seeds. And we just recently launched -- well, we recently announced that we are planning to get back into wheat, so hopefully some exciting things will come out of that soon. We have approximately 23,000 employees globally in about 320 different locations around the world. So, as I said, we're learning a lot more. We're hearing a lot more these days about agriculture in light of the growing challenges that our world is facing, in light of climate change, population growth, and these other things that are coming down the path for our -- during

our lives and for our children's lives, and agriculture is at the center of many of these debates. As a mother, these conversations make me nervous because I have to wonder what is my son going to see when he grows up? Will there be any land for parks? Will there be grazing lands or wildlife? And unless we can find ways to increase productivity in agriculture, those things may not exist. I don't know about you, but I like those things. I like to go to the park and I like to go see some deer, so I hope my kids have the same chances. And at Monsanto we're committed to find ways to increase our crop production on each acre of land. About a year and a half ago, maybe about a year ago, after debating with and talking to groups for about two years, we announced our commitment to sustainable agriculture, and essentially that's a three-part commitment. We first committed to helping farmers to produce more acre, so in our core crops of corn, cotton, and soy, we've committed to developing seeds that will help farmers double yield by the year 2030 compared to a base line of the year 2000. Again, a lot of you probably heard that in the next 50 years we'll need to produce as much food as we produced in the last 10,000 years combined. As much food as in the last 10,000 years combined, that's a pretty amazing feat that we face, and we need to find

ways to do that. But we have to do that while we're conserving our natural resources. Agriculture is a primary user of fresh water and a large contributor to greenhouse gases, and there's little aerable land left without cutting down forests, so we need to make sure that we are conserving our resources and using one-third less fewer inputs per unit of output as we work to double yields. But none of these improvements in technology matter if they don't get into the hands of farmers and the farmers don't adopt them, and farmers will not adopt technology unless it improves their lives. If it doesn't increase their income or give them more time out of the field and more time with their families, it simply won't be adopted. And that's all farmers. That's including resource poor farmers in developing countries, and that's where I'm going to focus a little bit more of my talk today. Farmers in developing countries are very, very diverse. They range from being 100 percent subsistence farmers to 100 percent commercial farmers. Subsistence farmers are farmers growing what they eat. They consume their on-farm production whereas the commercial farmers are growing cash crops and food crops and they're contributing to trade. What we've learned as a company is that all of these farmers anywhere in that spectrum

benefit from agricultural technology. As a company, we believe that the best way to reach the small holder or the subsistence farmers is actually through commercial mechanisms, so the statistics show that about 90 percent of farmers growing biotech crops are actually small and resource-poor farmers in developing countries. So 12 million of the 13.3 million farmers growing biotech crops are small farmers. That's the most sustainable, the most self-sustaining, the most long-term solution to improving their lives. In India, for example, farmers have actually increased their income by about 118 percent as a result of growing Bolgard cotton. But in many parts of the world farmers are either too resource-poor or the traditional markets aren't functioning well enough for them to participate. So we've also taken the approach to give humanitarian donations. We give donations of seed to the Millennium Village programs in Kenya, Tanzania and Malawi. We also donated cash to the World Food Program. We also donate our technology. We donate the use of our intellectual property to the public sector for use in research projects to improve crops as casaba, cowpea or sweet potato for developing countries. Unfortunately, a lot of those public sector projects haven't developed and delivered a product. They're still in the early stages of product development

and they have a long way to go, but we're hopeful that they'll come through with some key and critical improvements to those so-called orphan crops. So those are kinds of the two ends of the spectrum, commercial or humanitarian. But those aren't the only two options that we have. We also have the option of something in between, and the something in between is where we work with partners in what we consider kind of cooperative development models. We work on business unusual approaches, if you will, and often we need to find ways that we're working with a micro-finance institution or bank, an extension service, NGOs, a grain supplier or grain purchaser, fertilizer company, and others to develop a closed loop system for farmers in developing countries. We also need to develop appropriate products for those farmers such a smaller bag sizes or combo packs so we're having the seed with the fertilizer and the herbicide or whatever it may be, and that's a targeted product for those small holders. So one example of a type of program where we do that is a project that we have in Mexico. It's called Educompo [ph] and through this program we actually reach some of the most remote farmers in Mexico. I was there just a few months ago, and I was absolutely amazed that corn could grow on the soils that we saw. First of all, we

had to go up the side of a mountain with boulders that were gigantic trying to maneuver our way through, and then when we did get to the fields they were of course strewn with rocks, but they were growing maize. And through this program they've actually tripled their yields and their incomes as well. So we partner with an NGO called FUNDAR [ph] that basically is coordinating a program working with input suppliers such as Monsanto, and they've also linked these farmers to a tortilla manufacturer. The tortilla manufacturer is the purchaser for the grain obviously so it does complete this kind of closed loop system. And Monsanto contributes our expertise to the program. We do training of the trainers. We also -- the unique part of the business model for us is that we actually collect payment for our inputs at harvest time. So we wait to make sure that the farmers actually get a profit, and then we collect. So another way that we reduce farmer risk and help them to adapt is actually through our products, so in a commercial platform we are developing drought-tolerant corn for the U.S. market. Pretty early on we realized that that technology had wonderful potential benefits for other world areas, and especially for Africa. Africa is a drought prone continent. Ninety-five percent of the agriculture in Sub-Saharan

Africa is rain fed. And as many of you have seen on TV, we all see the effects of drought in Africa. And currently a third of the population in Kenya is food insecure partially because of political unrest but primarily because for the last three seasons rain has not come. So under the leadership of the African agricultural technology foundation, we're part of a public-private partnership to develop and deliver a drought tolerant maize to Africa. We'll do this using breeding and biotechnology. Through the program, Monsanto has donated royalty free our top four commercial track genes. We've also donated the use of our global germplasm and our expertise and product delivery and development. So we're leveraging our best that we have to give for this program. We're also working with others to leverage their best as well. SIMIT [ph] is an international agricultural research institute with a long history of breeding for drought tolerance in Africa. They are also contributing the use of their African germplasm to the project for improvement with biotech. And then we're working with national agricultural research systems in Kenya, Uganda, Tanzania, Mozambique in South Africa, and those organizations know their local environments better than anyone else, and they also know the regulatory systems

that are in place in their countries. So what we're doing in this public-private partnership is really leveraging the expertise of all of our organizations for the benefit of small holder farmers. The project is supported by the Bill and Melinda Gates Foundation and the Howard Buffet Foundation. So as you can imagine, we have got ten partners in this program. It is definitely a complicated program. And one of the biggest things that we've learned to date is that we need to respect the diversity of all of our partners. The challenges -- IT challenges were not what we needed to overcome. We will face some regulatory challenges in the program, but simply the differences in sectors working together is huge. Companies and NGOs and government organizations work differently, and we need to find ways to work through that because we need to work through that for the benefits of small holder farmers. We need to keep our eye on the prize and be committed to that end goal. So there are many potential benefits of the WEMA [ph] partnership. It's not a magic bullet, but it will combine the best tools we have to maximize protection, and we are hoping that in the end it will reach between 14 and 21 million people. We are also confident that this program will increase scientific capacity in the partners countries, both in testing for drought stress

and standard operating procedures, compliance, and the development sites, especially field testing sites. It's also designed to benefit African seed companies including small and medium enterprises. At Monsanto we have licensed our intellectual property to AATF, who then has the right to license to any qualified seed company in these countries so that they can provide the trait royalty free to their customers so that they can potentially improve their businesses as well through this program. And then the last part that I just wanted to touch on today is that we also need to partner with other organizations to develop capacity in developing countries to conduct research and development for small holder farmers. Rice and wheat are two staple crops that millions of people around the world depend on especially in Africa and Southeast Asia, but unfortunately they lag behind in their yield increases over the past decades primarily as a result of a lack of investment in agricultural research. So while corn and soybean have made significant yield increases, rice and wheat have not. We were approached about this a couple of years ago. Dr. Borlaug, who you see here, was one of the approaches, and he said what are you going to do about that? And last June, we pledged $10 million to work to improving rice and wheat yield specifically for

developing countries. And the Monsanto's Beachell-Borlaug International Scholars Program is a result of that pledge. As I said, it's $10 million. It's funded at $2 million for the next five years, and it's a competitive fellowship program available to students globally to attend a global institution. We're primarily seeking to increase capacity in developing countries for scientific research. One of the key elements of the program though is actually making sure that we are linking a developing country institution with the developed country institution so students must conduct part of their research in each institution. They need to have a practical experience in both settings, so if a student is coming from the Philippines they may find that they want to do work at, say, the University of Arkansas in rice research, but then they go to Erie in the Philippines and they do their field work, and that's what we're trying to do through this program, create those linkages. Through the program, we provide a full package of support for the winning students, stipend fees, tuitions, travel, funds for the collaborating institution and for the professor. And we hope through this program that we'll be developing future leaders in agriculture, people that one day are going to be the next Dr. Norman Borlaug and the next Dr.

Hank Beachell. It's a pretty ambitious plan, and we know it, but we have an outstanding external panel of judges who are reviewing these applications and they take that task very, very seriously. They want to find the next leaders. They want to find the next best young students. So we had our first round of applications this year. We had 48 applications. It doesn't seem like much maybe but we actually announced the program at the end of March and we closed our applications around May 15, so it was a pretty quick turnaround, so we're pretty pleased with the 48 applications that came from all around the world. Twelve applications were funded from ten different countries. The students came from Ethiopia, Kenya, India, China, Argentina, Mexico, Colombia, Iran, Syria, and Nepal. So you can see it was a broad-reaching program. Ironically, one of the best ways that we found to promote the program was through Twitter and Facebook. Our funded applications included nine in wheat breeding and three in rice. We hope next year we'll get some better applications in rice, and we're doing a lot of pounding the pavement right now to make that happen. But our next round will run from November 1 through February 1, 2010, so if you know of some good students, some good quality students, please have them apply. But, most importantly, there are some

real challenges facing our society, and what we at Monsanto know is that we can do our part to help address those challenges, but we can do it best when we're working with partners. We can do it best when we're working with partners in Educompo or in WEMA or even through the Beachell-Borlaug program for training. And in order to meet those challenges, we are all going to need to work together, and it's our obligation to do so. Thank you for your time.

THE CHAIRMAN: Thank you. That was very informative. I learned a great deal. Are there quick questions from the Board or comment?

MR. BARLOW: Speaking of farmers, I think you've got it on the target. If you'll give us an opportunity to make a profit, we'll adapt to technology.

THE CHAIRMAN: That's a time-proved concept, isn't it, Mr. Barlow? It's well proved. Well, our next speaker is one that I really don't know that we need to introduce because she's been involved in international development in a great many different roles, and I'll not take the time to go there except to say that Susan Schram works in the President's office at ACDI/VOCA, is Vice President for Outreach and Cooperative Programs, and she's here to speak today on the topic Contemporary Cooperative Development and Partnership Opportunities.

Thanks, Susan, for coming over.

MS. SCHRAM: While we're getting ready here, I guess I'd like to say that partnerships and friendships can be virtual as well as face to face. Elizabeth and I have been working together on a project and we've never met, so it's delightful to be on the podium with you. I'm here to talk about cooperatives today and partnerships, but what I'm going to do is take five, five, and five minutes for each of these sections because I want to place this in an overall context. I want to talk about what's exciting and new in cooperative development, and then I want to talk about the great potential for university partnerships. So I want to talk about the excitement that I have and the excitement that I hope you all have about what's going on. We have so much to do but be happy. This is an extraordinary year, and we're back. This is, I think, the most exciting year that I've had since I've been in this field. We have much to do, but we still have to be pleased with what's been going on. With the global food crisis as a stimulus the question in '08 and '09 was is it possible to reset our systems, partner across the usual boundaries and create a desired future for ag and rural development via presidential leadership and U.S. government support, U.S. legislative action, and

concerted advocacy with many partners. That was the question with the crisis as a stimulus, can we do it? Yes, and partnering is and was key. Where have we been? We've all -- this field is full of great people working concertedly despite resource limitations, and keeping on, keeping things going, keeping groups going, but it was pathetic. Look at the resource declines and the lowest in 2008, $283 million for the United States contribution to ag and rural development. Frankly, this made me first ill and then angry. What happened? So we have this low water mark of 2008 and many of who have dedicated our lives to this career felt it was time for a change in appropriations and in partnership dynamics, and we had no idea how all of it would turn out, but if we could not capture this moment of the global food crisis and turn this situation around, it would be very sad in my opinion. So we started, and in 2008 we started advocacy partnering. I feel in this field we have fabulous people. There are no better people in this field. We have fabulous papers. We have intellectual leadership. We have justification of hungry people. We have never had a solid partner to appropriations strategy so this is what the first thing is that we set out to do, and there was an unprecedented array of partners that came forward. We organized CPAD

[ph] the coalition for agriculture development. We brought together for the first time in history universities, NGOs, faith-based groups, and private sector companies like Monsanto, Pioneer, Syngenta et cetera, et cetera. Frankly, at some time in the past we've had a splintered advocacy group, some for us, some against us saying why don't you help the U.S. farmer, not the global farmer. Now with global trade, we realize those markets are our future. And then supportive reports started coming forward, incredible supportive reports, the World Banks, WDR, the CSIS strategy, the Chicago Council Report that Catherine helped to lead. IFPRE of course always had excellent information, the GAO report, the APL dean's paper, Hunger road map, on and on. Then what happened? Mr. Lugar stepped forward brilliantly, thank goodness, what a statesman, with his strategic lead with the Lugar-Casey bill. We advocacy folks didn't even have a number to go for, but Mr. Lugar put that number in there. We thought we would be thrilled if we got $750 million, now we're up to the potential of 1.2 billion. This is fantastic. Ms. McCollum took leadership in the House and came forward with a broader approach. She involved more NGO input and the NGOs really like this bill, but McCollum also preserved all of the university aspects

that were put forth in Lugar so we're fine there. We have possible foreign aid reauthorization and we have what's called a marker bill that doesn't authorize anything but it's a result of the hunger road map, Emerson effort, which is excellent. We have unprecedented White House leadership. We can advocate until, pardon the expression, the cows come home. If the President doesn't put a big number in to start the process it's very hard, and President Obama came forward with these incredible numbers. Where are we now? We're successful. We have a House subcommittee mark of a billion for ag and food security for FY 10 and the Senate subcommittee mark of 1.2 billion. If we come in somewhere between those two, fabulous. Conference is pending. It won't happen to the fall. We also had success with the cooperative development program. We already have, like BIFAD, we have the legal standing, the Overseas Cooperative Development Act, saying we should do more with cooperative development, but we've never had, as we all have not had, many resources. So for FY 10 we've been successful in doubling the resources for the cooperative development program at USAID, and of course we cooperative development people like ACDI/VOCA, which I represent, are doing other programs in cooperative development as well. We have

Administration leadership. This is fantastic. Are you kidding me? A government wide food security. Wonderful strategy. We have Karen from the Office of Development Partners, who has been very forthcoming in helping us know how to work together and new Office of Agriculture leadership. The development leadership initiative bringing young people in and more strategic thinking really across the continuum bringing food security together with then what do you have to do after you do the relief or if you're in the conflict, how do you have to turn that into development for sustainability? We've had success for our partners, growth in private sector interest, like Elizabeth said. We have incredible cultural differences but we're working them out, and with good people on both sides we can do that. We have World Bank programs accelerating. Mr. Zelik [ph] has been fantastic UN leadership with the overall strategy. I had as well the EFAD [ph] United States support group to increase our contributions to EFAD. We think we're going to get about a 67 percent increase there. FAO is active, and more country voices are being heard. Bottom line, we're in much better shape financially to help meet the development needs of rural people and ag and food security is going to be a global priority in the coming years. So what is one of the challenges we face,

and just for purposes of discussion today, of course, we have many challenges, but one is partnering, partnering more effectively to leverage those resources and work together to better meet strategic development assistance goals. So in the ideal world, we would have, for instance, reform regularly adjusting U.S. foreign aid policy. We'd have our USAID administrator in place. We've have quantitative and qualitative indicators we were working on, and we'd have consistent expertise in developing countries. Well, we're not quite there yet, but, you know, we can hope. Meanwhile, we've been working on polishing ourselves up in the cooperative development community, and this is where I want to get into talking a little bit about what's new and exciting in co-op development. We've been working with Tom Carter. I don't think Tom is here today but he's our excellent cognizant officer at USAID who has technical expertise from years of working in dairy co-ops in India, and is a very, very dedicated person. And he's helping us working together. We have something called the Overseas Cooperative Development Council and a lot of cooperative development organizations are in that ACDI/VOCA, Land of Lakes, CHF International, and so on. And Tom is helping us work together on issues critical to cooperative development. A few years ago if you

would go in and search on what the U.S. is doing on this, you really wouldn't find many policy papers overall. You'd find a lot of wonderful experts at universities, but not stating what's the U.S. really doing on all of this? So this is what we're about. We're dialoging consistently with ODP. We're very pleased at Karen's leadership. We're better defining our nitch. We have a new executive director. Many of you know Rob Kneuter[ph], and we're overcoming stereotypes in telling our story. So strategically I would like to discuss just for a moment the contributions that we think that cooperatives can make. You know, we can list things but we need to be strategic, and I would encourage BIFAD to do the same. What's the problem and how can strategically cooperatives contribute to it, which is what we're about. We think it's driving economic growth, contributing to ag development and food security, opening markets and expanding trade, promoting Democratic governance, developing people and communities, and mitigating conflict. And the impact is huge. When I started with this group, I set about to write this paper called Pathways as head of the chairman of the development committee because I was reading these statistics. Look at this, 100,000 dairy co-ops in India

with 12 million members, rural electric co-ops in Bangladesh, 28 million people, an incredible success story. I won't go on and read all through them, but you can see that this impact is at scale. And still negative stereotypes have been persisting about cooperative development, much of it based on old parastatals and bad experiences in the past. I really felt we needed to move to the future and say, you know, what really can we do in terms of pathways to development through cooperatives, so we developed this paper. I'll give you the web address where this is at the end, and this is very, very -- there is a lot of university scholar involvement in this in terms of interviews, but we have many examples in this paper of how the modern cooperative can offer a pathway to economic, democratic, and social development. So what's new? There's been a cooperative renaissance of sorts with economic liberalization, global markets, fair trade, democratization, civil society, social inclusion. These are all themes that cooperative development can work on. There's concern about some corporate models. Cooperatives tend to put people first in their welfare. We should emphasize that although we also have economic gains definitely. We've seen the failure of social co-ops. We've seen privatization issues. We are needing

to grapple with gender issues. We see conflict recovery issues. We think co-ops can contribute to all of these things. So what are we doing? Well, we put the Pathways document together, which included contributions and examples from eight U.S. cooperative development organizations with extensive university interviews, and, as I said, articulating sort of a modern view for cooperatives. We've stepped up congressional advocacy for USAID's cooperative development program. As I said, we hope if all the bills pass and things come to pass in the way that we see, we'll double the resources for that. We're working more on joint projects. As many of you know, the enabling environment is key to whether a cooperative can exist or not, especially the law. We put together a series of principles called clarity on what you need to really have in cooperative law in a developing country in order to make that work. And then we put together creating clarity which is examples -- includes examples of how that actually can work. We have a metrics project going. That's headed up by someone we all know well, John Miller, taking a look at the metrics for cooperative development assistance and what you really need to do to have a sustainable co-op in the end. We're working on program evaluation with Brian Foster to see what we can do better, and we're

working more closely with AID and we're reaching out to new partners. So in my last segment, let's talk a little bit about how universities are critical partners for us. We need your intellectual input and there hasn't been much of a connection in the past. This is something that Tom Carter is really promoting and that we're trying to do. We've had seminars with our development committee. Many of you know Mike Cook, a leading scholar in cooperative development from the University of Missouri. He joined us and shared many of his absolutely brilliant cutting edge concept ideas. Research sharing, we were part of advocating for the big University of Wisconsin study on co-ops and what they meant to the economy of the United States. I was at the ICA conference in Italy a few months ago and was on a panel with Ann Hoyt from the University of Wisconsin. This is a mind-blowing study with data that is incredible. I don't know how they managed all of that data. But we are going to now say, okay, look what the United States economy has benefitted from. Look at how they benefitted from cooperative development, can't we take that to developing countries and make the same kind of thing happen. And we're going to go around on the Hill and say, look, Congressman so and so, in your state this is what has happened. Can we do this in developing

countries? We use intellectual resources. I have a web page that I've developed at ACDI/VOCA on cooperative development. I'll give you the address at the end, and we link to intellectual resources at universities all around the country. We have links to university cooperative development centers like Wisconsin, Kansas, and so on. We have links to the papers of scholars, and anyone can access that at their fingertips, and we need this continuing input. We have CDP project partners. ACDI/VOCA has BARA, Bureau of -- I can never remember the acronym, Bureau of Applied Research in Anthropology, at the University of Arizona. And they're doing research and evaluation for us. They're taking a look at some of our interventions and seeing where we could have done better in terms of staging the interventions that we applied and so on. So it's really this long-term involvement, intellectual resources, research evaluation, those are key watch words for university partnerships with co-op development. And I want to talk a little bit about the importance of research and a research agenda, which we address in the Pathways document. And this is where we had a lot of interaction with university scholars, which are all listed, by the way, at the back of the document, and what we need really is to bring back cooperative development in the

same way we're bringing back food and agriculture. A forward looking international network of researchers and practitioners to bring new analytical and practical methods to the advancement of proper development in the global economy and to dispel outmoded assumptions about co-ops. And in the document you'll see the research issues that we've identified, and we look forward to interacting with you on these. Capitalization, a huge issue especially in developing countries, legal and regulatory environments, governance participation, roles and conflict, strategic change, designing for impact assistance, and on and on it goes. We need university partners especially for these research issues. Okay. That pretty much concludes my remarks. I would refer you to two sources, ocdc.coop is the OCDC web site where you can see more on cooperative development. And acdivocacoopx.org is our ACDI/VOCA page. So thank you very much. It's a pleasure to be here and to be here in this exciting time for our field. Thank you.

THE CHAIRMAN: It truly is an exciting time, and thanks for helping build our enthusiasm this morning, Susan. I occasionally put on that small hat that I have and serve as a small Midwestern grain farmer, and as you were speaking I could only think about the role that cooperatives play in that part of my

life. I get my seed from a co-op, my fertilizer from a co-op, I sell my corn through a co-op and on and on, and it's an incredibly valuable dimension especially to American agriculture but also to global agriculture. I'm in this embarrassing situation where I'm introducing the next speaker that I don't know. You probably never had that situation. Now I'm past that. Okay. If you would come forward, Brian Greenberg, who's with the NGO community. His topic is NGO Community as Frontline Partners, and he's the Director of Sustainable Development, InterAction. Brian, thanks very much.

MR. GREENBERG: Well, it's a pleasure to be here, and I want to thank all of you and to BIFAD for your interest in my perspectives. It's tough to follow Sue to the podium, but I hope that I can share some perspectives with you that offer you something a little bit additional and that provides some food for thought, if you will, as we go along. And I apologize in advance. My comments are a little bit tossed together. I've been trying to think how I might add value to your conversation here and so it's not as polished a presentation as I'd like it to be, but I hope you find some useful points in it. Just to help you understand where I come from, I come from the nonprofit NGO community and I am now with an organization called

InterAction which is an umbrella organization for 180 U.S. NGOs that do international development and humanitarian assistance and environmental work in developing countries across the world, and which collectively program in the neighborhood of $6 billion to $9 billion a year into developing countries. And disproportionate of the amount of that given the allocations that we generally get out of our USG budgets goes to rural development and agriculture, so this is a significant investment in agriculture in developing countries, and as you'll see there's some ways that we might work better with you and that you might help us to do better work. It's important to say though that the perspectives I want to share are in a sense personal and not meant to represent a consensus opinion in the NGO community because we're extraordinary diverse and broad. So some of what I want to say comes from my background through more than a dozen years working directly in applied field agricultural development programs in half a dozen developing countries, and it comes from sort of a confused intellectual personal background in that I was an undergrad major in botany and biochem and did my graduate work in cultural anthropology and always wanted to work in agricultural development. Some of the challenges I faced in doing that as an anthropologist, I

think are interesting in terms of the stovepiping of intellectual tradition and training in our university systems. But for our community in general, it's fair to say that food security and agricultural development is really a major issue, poverty reduction, livelihood improvement, hunger are sort of at the center of what a lot of our organizations do. And we have continued to as the NGO community to prioritize agricultural development against the currents of official ODA in large part, and as Sue pointed out, the progressively evaporating U.S. support for ag development. But, sadly, it took the food crisis really to change the circumstance of ag development for us and to inject more dynamism in a sense of renewed purpose into our community around these issues. So really the two major forces that we're dealing with are, first, the sequel to the food crisis, and, secondly, the current financial crisis, which has really stressed our membership, and on average probably our member budgets are down anywhere from 15 to 40 percent this year, so it's a challenging time for our community. But in those challenges I want to suggest that there's some opportunity for partnerships. And what I want to say, I know I'm making some generalizations and risking some simplifications to try and highlight some points that may be useful to us.

The first one is that the causes of the hunger crisis that peaked a year and a half or so ago but is still with us, food prices still historically have been high, really had to do with global food prices, persistent poverty and less with overall food scarcities on a global scale. It was putting the money together with the food supply that caused a problem for a lot of developing countries and especially for the most vulnerable communities. Poverty is really the root cause of hunger and it was the oil price run up and biofuels mandates and distorted trade policies in global agriculture, not simply here at home, that really made things difficult. Nonetheless, that came against a backdrop of decades of under investment in agricultural development and capacity in developing countries which reduced resilience for many people. It pushed many people into more dire circumstances, but as many of you know if we're talking about hunger it's located in the large sense in urban areas and seasonally in rural areas and among the landless, and it's very difficult to address that effectively or at least completely through improved agriculture, though that is a key component to it. Fortunately, now, as Sue pointed out, we are enjoying a positive trend in terms of renewed support for international agricultural development, and a

rebalancing of the allocations that had gone to something to food aid and back in the direction of long-term agricultural development. And if you need any better indicator of the shortcomings of long-term agricultural development, it has been the 10 to 1 or so investment in food aid which we have continued to make over the years at the expense of long-term agricultural development. But the fate of key legislation is still in doubt so I'd suggest there's really no room for complacency, and I really want to applaud the kind of advocacy partnering that Sue was talking about in terms of really solidifying the renewed awareness and public support of this, but we're not there yet. So I want to suggest that it's in part the extremely tight resource environment for U.S. NGOs that makes possible partnership opportunities that may not have been there before. And in saying that, I'm essentially saying that things have not -- the partnership profile, and now here I'm talking about field programs. I don't mean this to refer so much to the advocacy situation but in the field partnering between the NGO community and universities had not been as strong as it might be. And that's not withstanding important exceptions such as the CRSPs, and co-appearance of NGOs and universities in some IQC teams, but those relationships have tended to be remote,

at least in the field because there's targeted technical assistance drawn from one or the other, so it isn't a close collaborate experience. A lot of NGOs have had closer relationships when they think about moving from research results into the field with the CG centers, for example, so I think it's worthwhile thinking about what the reasons for that might be. And I'll risk being -- I want to risk being a little bit provocative here in offering the perspectives of my tribe. And I know that all of you without breaking a sweat could spank the dust out of the NGO community and that would be a valuable contribution, and maybe you'll have another chance to do that. But I want to make some suggestions about ways that we might work together and the ways that you might adjust the kinds of programs you support to make that more likely. I think there's a significant opportunity and incentives even for greater engagement between us . NGOs need technical support. We need new ideas. We need regeneration of our program approaches. And we have a lot of staff turnover. That's an edemic hazard in the field. We need to find ways to overcome that. But we tend to look for lower overhead ways to get the kind of good enough technical solutions that are typical in the field rather than high end expertise, so that's one of the gaps that we face. At the same time, we

really need to improve our practice standards. NGOs have developed sort of a core body of shared knowledge and understandings and in many cases impressive expertise, but there's also a sense in which the programs that we feel because some of us are somewhere independently funded are less accountable to current technical standards than they might be. And if we could find ways to push the technical power of improved productivity, packages, and so forth out to the field regularly and update the knowledge of our staff, it would be very -- I mean we would be more effective in development terms and for us we'd be more effective in terms of competing for always scarce field resource dollars. And at the same time, I might just guessing a little bit here but the university community probably wishes for greater development scale and field impact for all of the good work that's done and the educational training and the research breakthroughs and so forth that are sought at universities. Probably you'd like to get those out into the field and to have a greater, more reliable pathway and the tens of thousands of NGO staff and field programs that are out there provide ways of doing that. And especially if productivity gains, production gains, aren't the only objective if poverty reduction and livelihood improvements are what's at

issues for the most vulnerable then there's certainly more that we could do. But I'd be sugar coating the issue to say that if I didn't say that current identities and business models on both sides perhaps complicate the partnership prospects. The NGOs tend to present themselves as already having the experience and the development solutions that they can feel and that can be replicated easily and effectively if only the resources were available. As we'd say, we have the experience. We really don't need advice. What we need is resources. And there are other things that create skepticism between the communities and things like the legacy by DOLE [ph] and what that's -- and issues around biotech and GMOs. And sort of it's not a luddite, but if you will there's an affinity for less technical perspectives in the NGO community on what the needs are in the ag sector. NGOs often tend to see the constraints as social, economic, educational, environmental, governance, political, market development, and so forth. There's a sense, and perhaps some reality, that the universities' perspective on agricultural development is more in terms of technical deficits so that you're drawn to technical and research strategies is ways to solve those. So from the outside perspective outside the academy there's an urge to

knowledge creation rather than problem-oriented knowledge dissemination, and I'd like to suggest that we already know an enormous amount about what makes for effective agricultural development and what can make for low cost productivity gains for resource poor farmers, and these are things that also make good environmental and sustainable sense, agro-ecological approaches, low external input approaches, and for me if I would be looking for exponents of this in additional or beyond Normal Borlaug, I would look to people like Dr. Uphoff as spokespeople and as representatives for this, and I've always found his work inspiring in this regard in terms of pointing practical ways for NGOs to get ahead. So we know a lot already about human capital creation and low on the medium end for rural transformations and for market development. The problem is getting it out to the people who need it and can make best use of it. And the university model of lengthy trainings and educational research approaches sometimes to be a slower response to that, and I understand the importance of long-term technical capability and so forth. But NGOs are in the field and they have a community presence, and they are uniquely able in the current development context to push that out. I want to suggest that there are research approaches and knowledge management

approaches that could be adopted by universities, and I want to point out specifically things like EFAD's effort, the innovation mainstreaming initiative, IPRE's effort to document proven successes and my own organization, InterAction's initiative to identify best practice approaches in agricultural development. They're all low tech and they all really promise significant kind of productivity gains. I also want to suggest that there are opportunities for universities to shape the research agendas of upcoming graduate students by putting them into the field with NGOs to do things like help define their Ph.D. research agenda, and that could be a summer program which exposed people to the realities of developing country, agricultural context and help them shape research agendas around that. I'll close here by saying that in terms of the overall strategy for international agricultural development that we would advocate, we have developed a response to the interagency, the U.S. governments' interagency task force on food security, which had been called the one table, and I have a couple of copies of that if you'd be interested. We've also developed a recent position paper on ag extension, which may be relevant to you if you're interested. We definitely as a community support the kinds of things that Deborah's presentation

identified. Climate adaptation and mitigation opportunities are going to be enormously important. The production or the yield declines that are projected in many of the most vulnerable countries are really frightening and in order to do ag development, we're going to have to first compensate for those before we can build the productivity gains we all seek. So that's got to be an area of focus. Environmental sustainability, I'm sure I'm preaching to the choir here. And a high priority for pro-poor value chain development, not simply the economic development approaches through agriculture but for our community it needs to be pro-poor. Closing thought here. It's really not as much about agriculture as it is about livelihood's improvement in terms of development and improving the condition of people in developing countries in rural areas. Ag has a vital role to play in that but we need to move much beyond the perspective that sees it as a production issue. Livelihood gains go to poverty reduction which goes to improved food security, and I think at the core to that how you do that, that's the strategy. Tactically, I think most of us see that as a matter of access, involvement, rights, education, and empowerment for women who really are most of the farmers in developing countries, and so I don't

think that -- perhaps that note hasn't come across this morning, but we see that, along with community participation, transparency, accountability, and aid effectiveness perspectives. So we see those as important to really creating context in which the technical improvements that you generate in agriculture can work to have a fertile social, economic, political human capital ground for those technical improvements to work. Thanks for your patience. I appreciate your time.

THE CHAIRMAN: Thank you, Dr. Greenberg, for coming along and sharing your thoughts, and certainly the notion that it's more than just technology resonates with the Council of Deans notion that it is a system and the system involves cultural components as well as science and others. I've asked Dr. Kerry Bolognese, VP for International APLU to introduce our next speaker. Kerry.

MR. BOLOGNESE: Thank you, Bob. This is an honor. I really do appreciate it. Our next speaker is Connie Veillette. Many of you know her. Connie is currently the principal staffer working on food security legislation that we all dearly call the Lugar-Casey bill. She's working on this bill for Senator Lugar on the Senate Foreign Relations Committee. She's been a

wonderful colleague to work with. She's open, she's accessible, she listens to concerns of the university community. We've had a lot of back and forth with Connie as a multitude of stakeholders have. And so she's put together with the help of others a very, very good bill. In fact, last year at the APLU annual meeting, we had our session about the Lugar-Casey legislation. The first hand went up and the comment was are you kidding? This is what we've been working on for the last so many years so that's a testimony to your work, Connie. Before her tenure with the senator, she worked for the Congressional Research Service, and as a former staffer the Congressional Research Service was our cheat sheet. It always used to give us the facts and figures of things we needed to know. And then before that she was a long time staffer for the long time member, Ralph Regula [ph] from Ohio, who was a long time member of the House Appropriations Committee and chairman of the Labor committee, subcommittee, on appropriations that we worked with. So without any further adieu, Connie, the floor is yours.

MS. VEILLETTE: Thank you very much. I had prepared very brief remarks because I was supposed to be sharing the stage with my partner in crime, Peter Frosch, from Congressman McCollum's office, and then I

got to listen to great presentations by Susan and Brian and realized that they are saying everything I wanted to say anyway. So I'm going to be even briefer. I wanted to give you some brief background on the Lugar-Casey legislation, talk a little bit about the staff study that we did, talk about the role of higher education, the vision we have for that within the legislation, give you a little bit of background on the approach that we took in the legislation within the whole debate on aid reform and talk to you about the HECTARE program, and then I'll give you the status of the bills in both House and the Senate. Unfortunately, Peter is not here, and he could give you a lot more information on the House. Peter and I did not have a chance to talk before I got here, so I can tell you generally what's going on, but we'll have to get Peter back here at some point to talk in more detail. As you know, the Lugar-Casey legislation was put together as a result of the price inflation that we had in 2007 and 2008. Senator Lugar was very interested in this for a lot of reasons. One, he's a farmer, two, he's the former chairman of the Agriculture Committee, and former chairman of the Foreign Relations Committee, and now the ranking minority member there. And he was very interested in all the studies and a little bit of the hysteria on the

causes. Everybody was trying to figure out what was the cause of the price hikes. And for him it was very evident that we, both donors and governments in developing countries, had been under investing in agriculture, and that that created a chronic condition. You add in then high fuel prices and that chronic condition became acute. So that was what led us to get more involved in it. Senator Lugar at one point told the staff of the committee go forth and figure this out, so we did. We did a staff study, went to ten different countries from a full range of food security so Costa Rica and South Africa at one end, Ethiopia on the other end. And we really wanted to bring a field perspective as to what was going on. There are so many studies out there, really good studies from a lot of different organizations, private organizations, NGOs, international organizations on how to achieve food security. It was good for us, and I think our unique perspective was to actually go out into the field and talk to the implementing partners to USAID, to the universities, and just try to raise and highlight some of the issues that we felt needed to be overcome if we were really going to be able to work together to achieve food security. So what we found during that study, and the study, by the way, is available online. It's a GPO

print. It's called Global Food Insecurity, a Field Perspective, and you can also get it on the Lugar web site so if you're interested if you haven't seen it already. So the study informed the approach that we took in the legislation, and these were some of the things that we found. One, addressing chronic hunger requires a multi-sectoral approach. It's not just about raising farm productivity, that if you don't have roads and you don't have storage, et cetera, you're just never going to reach security. There are just so many other factors in play, and I'm not going to name them all but transportation, food storage, nutrition and health, land rights, market development, clean water, education, technology, you could add a handful more. The second thing that we wanted to highlight was that hunger and poverty are two sides of the same coin, so if you're hungry you're probably poor. If you're poor, you're probably hungry, and that we had to look at solving both of those problems as one problem. And, in fact, we make the statement in the study that food security is the essence of development, of development work, but that the work that we do on development has to have that hunger and poverty alleviation focus. That has to be the main objective and that everything else can follow from that. We also found an important role for

education, both for U.S. universities and for foreign universities in countries with chronic hunger and poverty. In each country that we went to, we made an effort to visit at least a couple of universities that had agricultural sciences departments, and what we found is that they were not structured to promote innovation, knowledge sharing, research, or even teaching for any other purpose but to produce government bureaucrats, and that wasn't going to be enough to get the ball rolling. And then in addition to that, you have Senator Lugar, who is a firm believer in the model of land grant universities and the role they play in developing U.S. agriculture, so it's no wonder that we had a program in the bill that we call HECTARE. That was a directive from Lugar to -- you know, there was recognition that U.S. universities have always played a role in foreign agriculture, but he wanted to up it. He wanted to provide a fuller and more robust structure for that type of engagement. So let me talk a little bit about the approach of the legislation because this is something that I talked to a lot of you about as you asked me to put this in or put that in, and I would resist because I told you we were trying not to micro-manage. At the same time that we were writing the food security bill, we were also immersed in trying to figure out aid reform

and how we can bring about better coordination and coherence in our aid programs that are just littered across government and across so many different accounts. So the food security bill actually became our first foray into aid reform. So what does that mean? It means that we are trying in the bill not to micro-manage USAID but to set priorities and objectives for U.S. development policy. You know, on Capitol Hill everyone thinks they're an expert but in fact we're not experts. We're generalists. We're flying at 3,000 feet. Some of us are on committees or when I was at CRS got to delve a little bit below the clouds and learn a little bit more detail. We don't know development policy and we should not be dictating development policy to USAID. But Congress does play a big role in determining what are U.S. priorities and how we can organize government to achieve those priorities. The bill also actually rewrote Title 12 of the Foreign Assistance Act. We did that because there's so much talk about trying to rewrite the entire Foreign Assistance Act. We thought we'd take Title 12 since it was so central to food security and see what we could do with that. The approach is multi-sectoral so the bill provides a lot more money, but doesn't say that it's supposed to go for just agricultural productivity. It's very clear that we

want to get at how do you solve hunger and poverty by looking at a multi-sectoral approach. It's trying to improve responsiveness and flexibility particularly to food emergencies, and for the HECTARE program the bill's approach is to provide some pretty detailed guidelines as to what we envision, how we envision the program working, but leaving it to USAID and to BIFAD, which the bill calls you the HECTARE board, to figure out and to make those recommendations. We realize that we could not write a program. If we did write a program in detail that it was going to be a one size fits all and that that's not the way it should work, that there are different approaches for different countries, and that USAID should have the flexibility to design programs that work for each country. And we tried to avoid possibly uninformed congressional earmarks in the process. Let me talk to you a little bit about the status of the legislation. As you know, in the House it has been introduced with Congresswoman McCollum as the lead sponsor. Her staff person, Peter, and I have talked a lot over the last year and they took the Lugar-Casey bill and added some stuff to it. Peter and I had agreed on the principles that we all should be following during that process and we feel pretty confident that the McCollum bill and the Lugar-Casey bill can be

conferenced very easily. We don't think that they diverge very much from each other. My understanding is that the House bill is waiting consideration by the House Foreign Affairs Committee, and that that is largely a determination that Chairman Berman has to make as to when he is going to bring that bill to the committee for consideration. In the Senate it's already been reported out of our committee. We are looking for opportunities to bring this to the Floor, and that means also trying to partner with Secretary Clinton's interagency process. We have not been pushing to the Floor for a couple of months. We've held off in deference to Secretary Clinton's process. We felt that we were happy that they were trying to do something that was whole of government and we wanted to give that process a chance to develop more. We pretty much told the State Department that we're ready to roll, that we need to get this bill to the Floor. Secretary Clinton has told us that she believes that passage of the bill would be helpful, which is maybe one rung less than a wholesale endorsement, so anything you can do to get us that endorsement would be great. In the meantime, we're collecting as many co-sponsors as possible. We just had Senators Cardin and Johnson add their names so we're up to 11. We think that's pretty good. We've had some

opposition expressed to us because we make reference to GM technology as an additional tool in the toolbox that we should use and some groups are not happy with that. We've had some resistance, and I'm sure you're all aware of this, from the Department of Agriculture, who really, really, really like the HECTARE program so much that they want it. So we're trying to work that out with both the ag authorizers. We have Senator Harkin as a co-sponsor, but we're working with Senator Chambliss on trying to figure that out. We think that coming to an accommodation with the Department of Agriculture is very possible and we're willing to talk to them, and we've also told them that we really want Secretary Clinton to weigh in on this topic as to what the appropriate role for USDA should be because this is supposed to be a whole of government initiative, and the bill is promoting a whole of government approach and so we don't want to just pick and choose on our own. Just to close, I want to thank all of you who worked with us from the beginning on this and those that continue to work with us. Your support has been absolutely fantastic. If we didn't have your support, we wouldn't be where we are right now. So I hope that that continues and we're open to continuing the dialogue and doing what we need to do to get this bill passed, so thank you very much.

THE CHAIRMAN: There may be a few questions. Would you be available to respond? From the Board, any questions or remarks? Yes.

MS. MURANO: Any reason as to why Secretary Clinton has not fully endorsed it? It seems like she should.

MS. VEILLETTE: Okay. You're going to require me to be more diplomatic than what I'm actually possible capable of doing. I think the diplomatic answer is that she wants to complete her process first and she's put together a good team of State Department and USA folks and made it fully reflective across government. They're just not there yet. This is being run out of the Secretary's office, and so there was a lot -- there was a steep learning curve coming up. And then I think that there's this bureaucratic thing that goes on between the executive branch and Congress as to who's got the better idea. So, you know, but it's something that Secretary Clinton had said early on that she wanted to make food security a legacy of her tenure at the State Department, and I think that once they get to the point where they feel comfortable of the direction that they want to go in, I see us partnering up. We just would rather that partnering occur sooner rather than later because we really want to get the ball rolling.

MS. MURANO: What's your prediction if you had a crystal ball as to how this bill, whether, you know, conference with McCollum's -- as far as timing?

MS. VEILLETTE: It really depends on if we can get it the Floor on its own and getting to the Senate Floor is always problematic, so you have to have overwhelming support, almost unanimous, to get a stand alone bill to the Senate Floor, and you also need the White House to tell the leadership that this is a priority for them, and that's what we don't have yet. So the other possible route is to hook it onto a train that's already leaving the station, and that is often the way that it happens, and so that's why I can't -- my crystal ball is totally cloudy because I'm not quite sure what that vehicle is going to be or if we're going to get a turnaround from the White House and they call Senator Reed's office and say bring this to the Floor.

MR. DELAUDER: I assume that the board that's referenced in the document is to replace BIFAD?

MS. VEILLETTE: Uh-huh.

MR. DELAUDER: Okay. Does it give it a more narrow focus than BIFAD now has?

MS. VEILLETTE: I don't believe so. When we created the HECTARE program, we created a HECTARE board to oversee it, and then realized in the first iteration

of the bill that we actually had two boards and that they were redundant, and so we just folded -- basically we folded the HECTARE program into the BIFAD structure but then renamed it HECTARE because we just like HECTARE better than BIFAD.

MS. BERTINI: Thanks. First, I want, Connie, to join Kerry in thanking you for everything you've done and also all of us are so pleased with Senator Lugar's continuing leadership, so thank you both. Two things. One is you mentioned the co-sponsors so far. Is there anything people in this room can do in terms of encouraging others to join? And, second, in terms of opposition you mentioned GMO concerns. Are there any others, and, more specifically, how nervous are the food aid people? Are they pretty okay with it? The panel just before you, there was a comment from InterAction that we were kind of suggesting we had been doing food aid before at the expense of long-term agriculture development. I just want to be on the record, I don't think that's true. I think we've been doing food aid and not thinking about long-term agriculture development, and I think both can and should exist together. We should just lead with agriculture development, and I think that's probably where Senator Lugar is, but could you just give us all some language

about that that would be useful?

MS. VEILLETTE: Okay. Great. To the first question on co-sponsors, we just want to run the numbers up because the more we have the easier it is to go to leadership and say, look, we've got support that we need to bring this bill to the Floor. We're very happy that we have 11 right now but I'd really like to double it. On the food aid versus ag development issue or development assistance issue, we've always portrayed the bill as not taking away from food aid whatsoever. And I mean as much as I'd like to say that I'd love to live in a world where you don't need food aid. We're always going to -- there's going to be some natural disaster. There's going to be some man-made disaster. There's always going to be a place for food aid. But what we were hoping to do by ramping up development assistance for rural development was to get to a point where this all becomes a little bit more predictable and that there's more funds available for NGOs and PBOs and cooperatives through a regular and more standard stream of funding so I think the bottom line is we do not see a diminution in food aid at all and I don't even think the number is going down. We do like the fact -- where we're not waiting for supplemental food money to figure it out up front based on previous needs so it's a more

realistic request that goes in at the beginning of the year. We think that that makes everyone feel a little bit more comfortable, and it doesn't get us into a situation where in order to respond to a crisis we have for supplemental funding and that just slows down the process completely, and it's not helpful to anyone.

THE CHAIRMAN: We're now upon the time of public comment, and given the importance of this particular issue, I'd like to ask if there are any questions or comments from the audience. Anyone wish to speak about this? Yes, Brian.

MR. GREENBERG: Just very quickly. The word that I would use to describe the relationship between food aid and long-term ag development was rebalance and assuming that there are greater resources from both that isn't in any sense a suggestion that we're not going to do both and that food aid should in any sense -- long-term development. We certainly are going to need both. The question is how do we strategize those together in a more coordinated way. So that was certainly my intention. I don't think given the ratios -- for food aid that anyone expects that to go away any time in the near future. In fact, the unfortunate reality is that the number of hungry people in the world has grown and disasters and so forth the need for food aid in the

future is assured and InterAction certainly supports that. We also support a strong role in ag development. So thank you for pointing that out, but I just wanted to clarify.

MS. BERTINI: I'm glad you did clarify it because after you talked about rebalancing -- I took notes, so after you talked about rebalancing food aid back with agriculture development you said we have done food aid at the expense of long-term agriculture development. And that, A, is not true, and, B, I think the food aid community or some people in the food aid community are concerned, and so I think we should be really careful about how we use the language as I just stated before, so that's -- thank you.

THE CHAIRMAN: Good comment. Any other comments? Thank you so much for coming over and spending time with us, and good luck. We're interested, very, as you see, with the success of this. We do have time now for public comment that was announced, and I think, Dr. Williams, you had asked for an opportunity to say something. Is it at this point or there's -- later in the afternoon? Okay. Great. Any other public comments? Dr. Senykoff, are you aware of anyone who wanted to make a statement at this point?

MR. SENYKOFF: Can we take a break?

THE CHAIRMAN: We do have a few minutes. Coffee break, we can do that. Then we'll come back together shortly after 11:00. Thank you.

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[Off the record]

[On the record]

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THE CHAIRMAN: I very much appreciated Sue Schram's comments about this is an exciting time and even at my advanced age it's fun to be excited about something, and the reality is that there's a very real job to be done, and it's this partnership between the private sector, universities, the nongovernmental organizations, and governmental organizations that has the responsibility to the world society to get this task of food done. I think we've heard some really outstanding presentations this morning. I was very interested to hear the status of the Lugar-Casey bill and appreciate very much as many of these things it's still a work in progress but progress is being made. We now turn to the last section in this morning's program, and focusing on a specific country, Afghanistan, which is very much on the minds of most of the world these days as we watch our news in the evenings and look at web sites throughout the day. And our first speaker

today, the overall topic, USAID's Agricultural Development Plan for Afghanistan: Observations on Sustainability. The first topic comes to us from my colleague across the state line from Purdue University, Associate Dean and Director, International Programs in Agriculture, Jess Lowenberg-DeBoer. Jess, welcome.

MR. LOWENBERG-DEBOER: Thank you, Bob, and thank you to BIFAD for this opportunity to talk a little bit about some observations that we developed over our approximately seven year involvement in Afghanistan. Just a couple of weeks after the fall of the Taliban a couple of Purdue faculty members went to Kabul to help them re-establish their universities, and we've been there in one way or the other since. What I'd like to do in a few minutes today is to give a very brief overview of land grant university involvement in Afghanistan to provide a few observations on some principles we might think about in terms of land grant university involvement, and then talk a little bit about characteristics of the land grant involvement that would really help sustainable development in that country. So if we think about some key land grant university efforts in Afghanistan currently there's the Advancing Afghan Agriculture Alliance, A-4, which is led by Purdue. It includes UC Davis, Cornell, Kansas State, and a number

of NGO partners. There's the Afghanistan Water, Agriculture, and Technology Transfer program, AWATT, led by New Mexico State with Colorado State and Southern Illinois as partners. There's the PEACE program, Pastoral Engagement, Adaptation and Capacity Enhancement UC Davis and Texas A&M under the global livestock CRSP umbrella. And I included on the bullet on the bottom the Saffron work by Washington State University which is finished now but indicates an interest in ability by Washington State to be involved there. There's been some other work, non-agricultural work, by land grant universities. For instance, Kansas State has a major effort there funded by World Bank in engineering in English, and there's been a number of other universities involved in other areas particularly universities involved in other areas, particularly the University of Massachusetts and Indiana University involved in education. If we think a little bit about the Purdue involvement there, the A-4 program, right now we have 46 students doing Master's degrees in India with PL-480 money. They are mainly in Bangalor [ph], mainly at the University of Agricultural Sciences. We have 12 students at Purdue doing Master's degrees, two in education, ten in various agricultural disciplines. There's one veterinary medicine student at Kansas State

University from Kabul University. We have 13 Master's students that have completed their degrees and are back at their universities in Afghanistan involved in teaching and the other activities of the university, so we think that that's a really good sign that it is possible to get these students through the system in a timely manner. We've had a program with USDA for ag service funding for the last four years of faculty members from universities in Afghanistan as visiting scholars at Purdue. We've had seven of them and three more are coming this fall, and that's been a very successful program in raising the profile of Afghanistan and the work of Afghanistan on the Purdue campus, so as you might imagine not all faculty members are ready or able to go to Afghanistan but having those visiting scholars there has been very important in helping faculty broadly in agriculture at Purdue understand what's going on in Afghanistan. And then short-term training. We've been involved in a substantial amount of that both for the universities sand for the Ministry of Agriculture Irrigation and Livestock in the U.S., in Afghanistan, in Dubai, in Syria, in Thailand with a variety of funding sources. On campus or in Afghanistan our activities have focused mostly on co-curricular activities, student internships, curriculum development.

The co-curricular activities particularly have focused on the development of university farms so university education in Afghanistan has been very abstract. It was entirely possible for a student to get a degree without ever touching a plant or an animal and the student farms in Kabul and Barot [ph] have helped change that. We've also been involved with curriculum development for agricultural high schools, and this is through Mercy Corps with some funding from BIFIT [ph], from the UK, and also we've been heavily involved with providing training and some reach back for National Guard troops in areas of Afghanistan that we don't normally go to. We started out doing this for the Indiana guard and when some of the other guard units found out what we could offer, they asked if they could also come to campus and have some of that training, so we've provided training now for Kansas, Texas, Tennessee, and the South Carolina guard I think is coming in August. And so that provides us with some important links on those PRT activities. Some observations, and the first one there is one that should be obvious but I think it's important to mention since we've come through a period when there's been -- it seems like there's been a continual search for quick fixes, and I don't really think there is a quick fix. This is a very ill patient and medical analogy, we're

not going to provide that healing very quickly. And the second point is I'm convinced, and this comes from years of experience not only in Afghanistan but also in Africa and elsewhere that in the end it will be the Afghans that come up with the solutions that figure out how to use what the science and technology and other knowledge from the rest of the world and how to adapt that to their setting. And so that means one of the most important things that we can do is to provide them with the skills and experiences and help them build the institutions, the higher education and research and extension institutions that will help them find those solutions. I think the single most effective thing certainly that we do and that I've seen are good quality Master's degrees, that this provides people with Afghans with some very basic knowledge that can help them and help their country find those solutions. Clearly, there's also a need for short-term training that will help the universities, the ministry provide some of those quick responses and also lays the groundwork for future development so that when students with newly minted Master's degrees start coming back from Indian and from the U.S. that they come into a system that is more functional than it is now and is ready to receive their input. One of the ways that I kind of work

through this process is to think -- and superficially there's a lot of similarities so they're both very poor countries. They're hot, dry arid places strongly Islamic culture, very undeveloped human capital, a history of ethnic conflict. But when you think about it a bit more the differences are perhaps even more striking so that there are weak but functional agricultural institutions, so that Adu Mumuni [ph] University in Niame [ph] is by no means a strong university but compared to any university in Afghanistan it's a functional institution. Inran, the Nigerian institute for agricultural research, again is a functional institute certainly for adaptive research and finding solutions, adapting solutions to their country. The Nigerian extension service in the Ministry of Agriculture has some very good people, last year had activities through the extension service in about 5,000 villages in Niger through our Gates Foundation program, and we found them to be very good partners. Niger has a cadre of western trained professionals who can serve in a sense as an intermediary between western type knowledge and what's needed in their countries. And maybe more fundamentally if Niger has products to export they can get them out. Historically, they sold a lot of protein products, cowpeas and livestock to Nigeria, off

season agricultural horticultural products, onions and peppers and so on to coastal countries and exports to other parts of the world agriculturally or other mainly go through the ports in Lomay [ph] and Kortinan [ph]. The Afghanistan reality is that you have non-functional agricultural institutions so that you have universities that overall don't provide even what we would expect students with a good high school education to know. I'll give you just one example. One of the big problems that we've had in getting the TOFAL [ph] levels up on Afghan students coming to the U.S. has been reading. Every foreign student that I've ever worked with always the problem has been in speaking and listening. That's always the last to come. Now with the Afghan students. And our hypothesis is that it's because they don't really read very well in their own language. Learning to read in English is learning to read and being able to understand it and respond to questions and so on and so forth. And that means this is a very different problem than it is with African students who at least from the francophone countries which we at Purdue have many years of experience with have a pretty good basic education. They've mastered a European language. They often have better mathematical skills than our American students because you can teach some pretty high level math with

just a chalkboard. But the Afghan case is quite different. There are very few western trained Afghan agricultural professionals. The ones that were trained before the Soviet invasion, many of them are, if they're still alive, are retired. Many of them were forced into other areas of the economy in exile and their children or those who came very young are of course of Afghan origin but they've assimilated into the places where they are, in the U.S., in Canada and Germany and culturally it just hasn't worked very well. There's relatively few Afghans who were in exile in the west who have gone back to Afghanistan and worked effectively, and again in contrast to Niger Afghanistan has few exportable ag products and it's very difficult to export them. Logically they would export them through Pakistan, and that doesn't work very well at all. It works only slightly better through Iran. Legal products yeah, short-term training issues, there's issues about who participates and particularly in the ministry there's relatively few ministry staff who have the background to really use the kind of training that has been offered. There are issues of language. And, again, it's improving but the English skills of most ministry and indeed university faculty are not that good, what's the motivation for participating beyond

getting per diem and the status that comes along with some sort of foreign training. Because of the leadership, and this is again in contrast to Niger where the leadership in the extension service is looking for effective programs that they can bring to people that kind of leadership is lacking in Afghanistan and then the trainers. Very few U.S. land grant university faculty have the right kind of experience to be able to offer effective short-term training in Afghanistan. The faculty with other development experience in other parts of the world tend to ramp up fairly quickly but it's very difficult for someone who has limited development country experience to address effectively quickly the kinds of problems the Afghans face. Long-term training needs, again I'll emphasize this need for Master's degrees, and one of the problems we've run into is that culturally there are expectations that when someone has a Ph.D that they may not want to or it be appropriate for them to get their hands dirty to be very active in classroom training. They are expected to have some sort of higher level involvement and that may not be what's needed right now. The estimate that my staff came up with is that roughly we need 30 to 40 Master's degree graduates a year to staff, the 17 or so Afghan universities that offer some sort of agricultural

training. Remedial work is needed for most of those students so we have some very bright Afghan students at Purdue and they had two semesters of remedial work to get them ready to start on a Master's program. Those students -- the best students will do thesis Master's. Professional Master's is an option, a non-thesis option, for some of the others. Thesis research in Afghanistan would be the ideal but visa problems, security problems, funding for that has made that a difficult idea. One of the questions that Kerry and Ron brought up was this question of Afghan Pakistan university linkages, and I think the first thing you have to recognize when talking about that is the baggage that comes with that. Many Afghans blame Pakistan for the problems that have occurred in Afghanistan over the last 30 years. Most non-Pushtu [ph], and that's about 65 percent of Afghans -- Pushtu Afghans have bad memories of ill treatment when they were refugees in Pakistan and so most Afghan students would strongly prefer -- number one, they would prefer training in the U.S. but if that's not available India is a good second best, that we find many students eager for training in India. The government of India has been very anxious to help us clear the path for those students and the Indian reputation for bureaucracy is well deserved, but with some help it's possible to

get through them. One of the ideas for developing university linkages that would link Afghans and Pakistani faculty members would be a three-way sort of a partnership which would allow them to develop a relationship somewhere in the U.S. so you might imagine in some area an Afghan faculty member, a faculty member from Pakistan might spend say a semester or six months on a campus in the U.S. working with a U.S. faculty member on something and then be able to go back with some sort of relationship established with a little bit of funding for some sort of ongoing work and that would be a beginning, developing some of those personal relationships that would overcome some of the animosity that is there. Essential characteristics for U.S. universities that want to be involved in the development of Afghan agriculture, things that I would list would be -- I think they have to be ready, those universities have to be ready for a long-term commitment. Like I said, there are no short-term fixes, and what we're talking about are 10 to 20-year involvements, and this is similar to what happened in other parts of the world that Purdue was involved from the mid-50s through the mid-70s in Brazil. Purdue started in Niger in 1982 and we've been heavily involved there ever since. So it's a long-term commitment. I think faculty involvement is

essential. That's the unique aspects that universities bring to this effort. Universities are not very good at being consulting firms. It's not our core competency but when we can get faculty members involved and their long-term commitment and their motivation and their ideas, and I think that involves also some faculty members who are willing to go to Afghanistan at least for short-term duty, and especially active, full time faculty members. Emeritus faculty are great. Adjunct faculty are great and they're involved in our program as well. But for both sides, for the Afghans and for the sending university, to develop that synergy you really need those active faculty members. And then there's a larger group of faculty back on campus who can help with visiting scholars, with advising students, and so on. I think it's important that any university who is interested in being involved look very carefully at their capacity to manage projects in a post-conflict country, and do they have the administrative support, and I would suggest to any of them that they get their provost and their dean and their president on board because inevitably there will be issues around risk management, around banking that will need to be solved and it will need the highest level signature that you have at your university. And I think it's important

that those universities who become involved are committed to helping build commercial agriculture in Afghanistan. In Afghanistan like every part of the world subsistence farmers don't want to be subsistence farmers. They all want some of the good things that money can buy. Helping them find a way to earn some of that money is key. And so a vision that I would present for what our involvement would be in Afghan agriculture and what Afghan agriculture would look in 20 years would be an Afghan agriculture that provides most of the food for the population and has a growing specialty crop and livestock exports that Afghan higher education provides solid Bachelor's degree training for probably upper level government staff, for new university hires, and for what we hope by that time is a growing agri business sector. We hope that by that time some of the 17 Afghan universities that offer agricultural training will have decided to focus on maybe the first two years of technical training and that be a very solid appropriate role for them, particularly in the training of extension staff where there's a real need for that and a number of African countries have institutions like that. And, lastly, I hope that like the case of Purdue, like the case of Brazil and Niger that those institutions are then at a point where they are our colleagues in

research, in education, in outreach, and that we continue to interact with them but on a collegial basis. So thank you very much, and I don't know, are there questions now or they're after Tag?

THE CHAIRMAN: Let's let our official respond and make comments and then we'll open up the conversation.

MR. LOWENBERG-DEBOER: Okay.

THE CHAIRMAN: Tag Demment has been identified as the person who will respond, and, Tag, I'm sure you have some things, the University of California/Davis, Director of the Global Livestock CRSP.

MR. DEMMENT: Thank you. Thank you to BIFAD for inviting me. I surprisingly agree with a lot of what Jess said. I'll just make some comments from my perspective. We have a project called the Peace Project, amply enough, that works with the Kuchi who are the herders who are really transhumanist in many parts of Afghanistan, and we work in 14 provinces that we have a team of Americans and we work closely with Mercy Corps. Our partner in this is Texas A&M. And we've done, I think, a considerable amount of work in the provinces, so we have a sense of what's going on out there. First of all, I guess I would kind of magnify a little bit what Jess said about universities. I think

that universities should in international development and in Afghanistan do what we do best. We educate, we do research, both technical and actually social science. Brian, I think, has left. I was going to make a little jab at Brian on that. And we extend knowledge, and those are the things we do best. We're not NGOs. We're not, in fact, implementers. One of the great challenges I see in development is how you integrate the knowledge that we generate from universities or technologies and make sure that there's a smooth flow of those into the development community, and that's one of the great challenges, I think, that faces us not only in Afghanistan but everywhere. One of the things you find when you go out and sit with a shura or something in Afghanistan and you talk to some of the leaders the government doesn't get very much credit for anything, and a weak government in Afghanistan I think is one of the major issues. Oh, it's the NGO or it's the donor who's supplying this. It's not perceived as being the government. So one of the things that I think we need to do more generally but we need to do specifically as university partners is we need to strengthen the government's presence in the rural areas, and we can do that by or engagement with the ministries in such a way that when we go forward and do good things it's not

perceived as the University of California/Davis. It's perceived as the Afghan government. And in the end, I mean if we don't have a strong government in Afghanistan we're not going to have any progress. I fully agree with Jess. One of the things that has been absent obviously over the last couple of decades is the fact that USAID has gone away from and the U.S. government has gone away from the building of human capacity in the long-term sense. Part of what you could lay at the feet of the food crisis is the absence of a whole new generation of scientists and agriculturists who are doing work and generating new technologies, new varieties in the food area. And one of the most critical absences, at least in my experience across now, I admit, 40 years of development, is the absence of those individuals. I was in Morocco ten years ago doing some review for IFAD and walked into the office of the head of the agricultural institute there, and I was shocked to see this thing that looked like a golden gopher on the shelf. Well, he had been trained -- here's a francophone country. He had been trained at the University of Minnesota along with about 200 other Master's or Ph.D folks. And you look at Morocco. You look at the medicine campus in Morocco. It's world class. We built that scientific capacity in Morocco.

It was a tremendous effort. And there was a thing called the Atlas program. I'm sure you all are familiar with that, but USAID actually commissioned a review of the Atlas program, and in that review they compared the impact of short and long-term training. Now we do a lot of short-term training. Everybody does. But the long-term training, what they said was a couple of long-term trainees were equal to literally thousands of short-term trainees, that the impact over a lifetime was huge. So one of the things that Jess called for was training at the Master's level, and I agree with that, but as a person in higher education, I think we get in real problems with education systems when we begin to segment them. We segmented basic education and supported that. That's very important. But then we didn't support higher education and now we've got a crisis in higher education in many countries of the world. So my feeling is that what you want to do is you want to have a diverse portfolio on the educational front, that you train people in the Master's but you also train them to the Ph.D level. If we had started in Afghanistan seven years ago training people, we'd have a number of people who would be ready to do Ph.Ds now. And as long as we postpone a commitment to building human capacity we're going to be in a position where we don't have the

leadership that's necessary to strengthen the government and institutions that in the end are going to sustain peace in Afghanistan and economic growth. So I once was talking to a fellow who said to me don't talk to me about higher education, we don't do higher education, and I said -- this was about central Asia in our program in Kasikstan [ph]. And I said, okay, I won't talk to you about that. He said I just want to emphasize we don't do anything in higher education. Well, after 45 minutes the conversation got a little bit better and finally we were talking about the problems of Kasikstan, and he said, well, in the end the real problem is the leadership doesn't have any vision. Well, I didn't say anything more. And that's one of the reasons why I think it's very important although perhaps more costly to make sure that some sizable portion of who we train is trained in the United States. Now I don't think that the U.S. has all the answers to life for sure, but we certainly have some answers, and I think the experience of experiencing another culture and seeing how we do business elevates the quality of what people do in their lives when they return to their countries. So I think an investment, not all of the students, but some of those students, some of the very best, should come here as well. The other thing I would like to do, and this

comes in large part from my CRSP experience, is that I think that we should design programs that not only solve problems or attempt to solve problems but at the same time they're trying to solve the problems they're building the human capacity, so if we're going to do work in agriculture, if you're going to work on livestock or you're going to work on horticulture that we then train those Master's students as best we can by doing their research within their own countries. Now I know the security situation in Afghanistan is difficult, but we work with Mercy Corps and Mercy Corps had very good on the ground information about where it's secure and where it's not on a day-to-day basis. And so far we get in our old pickup trucks and we drive out there in the countryside and we've been okay. It's not a risk-free environment for sure although I would have to say that the homicide rate in some of our American cities is higher than Kabul, so it just puts it into perspective a little bit. I think, you know, Afghanistan has a fairly, I think, decent national plan for agricultural development. It exists. I think we should follow it as outsiders. We should take the lead from theme. We should work with them perhaps to refine it but that plan does exist and we should be sensitive to it, and we should -- I think it's reasonable. I would have to say

in a little disagreement with Jess that at least the discussion that while there's 17 universities in Afghanistan that do do agriculture, I would think that we need to think about the possibility of building a center -- focusing our resources so that we have a university that -- at least one university that's of very high quality. If you look at what it takes to build a university of high quality, you have to focus resources. You have to have a sufficient number of faculty. You have to have a sufficient number of high quality students, and you have to have a curriculum that's excellent, and that university then can in a sense extend its quality to upgrade other institutions. And then, finally, I would say that if we're going to do something in higher education extension and agricultural research in Afghanistan that it should be a coordinated university led effort and that it should not be a whole series of small patchwork projects that are very difficult to coordinate between institutions. Thank you.

THE CHAIRMAN: Thanks, Dr. Demment. Any questions for either speaker from the Board or comments? Dr. DeLauder.

MR. DELAUDER: I just want to commend Jess for a comprehensive overview of what is going on in

Afghanistan as it relates to higher education. But I wanted to support Tag's observation that if we're talking about building strong universities in Afghanistan in the long run, I can understand the importance of Master's training to get to some short-term issues but in the long term if we're talking about building strong universities that have their own research capabilities that will allow them to train their own people at an advanced level, you have to include Ph.D training. And I would hope that in the model that's being used even though maybe you're doing more now at the Master's level that you would start to add to that Ph.D training. Otherwise, we're not going to create the kind of institutions that we desire to create.

THE CHAIRMAN: A very good comment. Dr. Bertini.

MS. BERTINI: Thanks for the promotion. Jess, I wanted to come back to Jess and ask about coordination. It was one of Tag's last points, but I wondered if you could talk about what, if anything, goes on in terms of the coordination of the universities that work in Afghanistan, what, if anything, goes on with coordination with USAID, with USDA, and ultimately with the big elephant in the room, the military. I don't

mean this room. I mean Afghanistan.

THE CHAIRMAN: I think it was directed at you, Tag, perhaps or Jess.

MS. BERTINI: No, it's for Jess.

MR. LOWENBERG-DEBOER: I think one of the first things to recognize in terms of coordination, and I would agree with Tag that that would be the ideal, one of the first things to recognize is that in the current Afghan constitution extension is the responsibility of the Ministry of Agriculture, and there's a lot of turf there and they jealously guard that. Early on there were some initiatives, particularly under Secretary Mosley, to try and give universities more responsibility for extension and that ran into a brick wall. So we've been looking for better ways to link those up there. There's a continual back and forth flow between the university and the ministry so faculty members have occupied important positions in the Ministry of Agriculture over time, and so that relationship is good but that's going to take, and this is true of lots of other countries, it's not just in Afghanistan, that our system where higher education, research and extension are in a single unit other than India, I don't know of any place else in the world where that works particularly well, and so Afghanistan is one of them and

that's going to have to be involved. USAID, of course, has been deeply involved. Most of the core funding of the projects that I listed earlier, A-4, the AWATT, the PEACE project comes through USAID. The funding for the Afghan students that are on campus actually comes through a completely different program, not through A-4, and there's been that issue of whether USAID is interested in long-term capacity building, the debate that we've had over the last 20 years or so. In terms of coordination between Afghan universities and the PRTs, we have tried to facilitate contacts between the PRTs that we're involved with and the Afghan universities. There is a university, a small one, in Khost province, which is where the Indiana Guard is there. Some of the students we have in India are from that university, and we've tried to establish linkages but, you know, this is at a very embryonic stage and we hope that it can be stronger in the future. So I hope that responded at least a little bit to your question.

THE CHAIRMAN: I think we'll move on to stay on schedule. Our next speaker, Major Steve Wood, comes to us from an organization that only the Pentagon can name. Let me see if I can get this. Joint Improvised Explosive Device Defeat Organization, is that correct? And his topic here is to speak about what Jess just

introduced to us, Civilian-Military Collaboration in a Conflict Zone. He comes to us with experiences and qualified very well to speak to that topic. Major Wood.

MR. WOOD: I just wanted to say that I'm really honored to come here and speak to this forum. I grew up on a dairy farm so the stuff that you guys do, I appreciate and I think it's outstanding. What I'm going to talk to you today about is actually about a choice and an opportunity. I represent the Joint IED Defeat Organization. Roadside bombs in Iraq and Afghanistan, currently in Afghanistan roadside bombs are responsible for 80 percent of the casualties, KIAs that we're having overseas, and it's even worse for the British right now. This organization was developed in 2006. It was formed out of an Army task force in 2004 when the insurgency started to kick off in Iraq. The Army vice chief of staff said, hey, we need a national Manhattan Project like organization to fight this IED. So what has resulted is a joint organization that covers all four services and the way that this has expanded from just Iraq and Afghanistan is that we started to look at this globally. We're a counter insurgency type of organization and if you look at the current insurgency whether you want to call it an Islamic insurgency or something else, I would say it's almost something else.

And this is an unfortunate title because this is the way it's being presented in the Pentagon right now. We're in an era of persistent conflict. Well, as a soldier, I don't like the idea of a era of persistent conflict because it means that I'll always be gone going to these wonderful countries so I'm looking -- in the position that I have right now, I have the opportunity to look outside of conventional solutions to try to stop these things from happening. And if you look at the problems on the left-hand side of the blue globe all these things that are occurring demographics, especially resources, lack of water are leading to the black or reddish globe on the right were you have criminal environments, resource wars, which creates terrorist recruitment out of dissatisfied populations humanitarian crisis. All these things are leading to persistent conflict. When our organization was established, it was established to provide more armor, if you guys remember that, more armor on humvees, flack vests for soldiers, that kind of thing. We were developed as an antibody to the Department of Defense acquisition system which typically takes between three and ten years to send something to the field. What we do is we get something to the field between two weeks and two years depending on how complicated that issue is. We looked at the problem set

that we presented with and we did a lot of engineering solutions, a lot of defeat the device protective type ways of defeating this particular threat. We've done a lot of the easy stuff. Now we're delving into the deep physics projects and if you know any engineers that want to help with this or physicists it would be great. You know, finding a command wire while you're moving down the road at 40 kilometers an hour buried underneath two inches of dirt, those kind of problems are what we're looking at right now. That is the defeat the device aspect of our organization. As we started to evolve under now retired General Meggs [ph] was is a professor at Georgetown now, he looked at something called Attack the Network. We're a staff acquisition agency really. We don't attack anybody. We don't do any kinetic operations but what we do do is we try to -- we determine that it takes a lot of people to put that little bomb out there. It's not as simple as one guy deciding one day that he's going to go find an artillery shell and he's going to run out to the road, he's going to bury it, and he's going to blow it up. It takes a financier. It takes planning. It takes reconnaissance. It takes a lot of things. And all those people must be recruited. So my choice that I present to people when I give this presentation is do we want to choose to seed

an era of persistent conflict? Are we going to accept this as a given? People fought forever. Since there's been people there have been wars, but we don't have to accept this and we can try to attack these things before they happen. And I'm not talking to you about development. I'm talking to you about stability, strategic stability. And as JIEDDO approaches this problem, we look at it from a whole of nation approach even more than a whole of government approach. And I really appreciate USAID and the things that I've been working on with them. But JIEDDO looks beyond that to universities and private industry as well. Since this seems to be an Afghanistan centric group, I'll just talk to this a little bit. The interesting thing about the X and Y axis here is if I flip back to the Iraq chart it looks like we're doing pretty well. However, this blue dot has just recently been passed by that blue dot so what that means is attacks in Afghanistan are now exceeding attacks in Iraq, and there are a few reasons for that. In addition to Afghanistan this is a global threat and that's why we reach out to places like USAID, State Department, and nongovernmental organizations and universities. The average number of monthly IEDs reported that we know about in open source because is an open source forum, 305 each month in the last six

months. What you're seeing is you're seeing is an incumbent organization. If any of you have read Christensen's theory of disruptive innovation an IED is a disruptive innovation technique. You have an incumbent organization, the United States military. It's kind of like IBO. It's doing really well. And then you have somebody that needs to oppose that so what he's going to do is he's going to go out and he's going to find something really cheap and easy to do, the IED. And what has this caused the United States to do in response? Create JIEDDO, a $2-1/2 billion a year organization to respond to something which costs them about $300 -- pay someone $300 to stick out on the road. Other places we're seeing this and it's becoming more and more prolific, it's proliferating rather rapidly, you can see that a lot of these countries are also countries that are listed on the foreign policy failing state index or failing state index, but the bottom line is if you want to oppose an incumbent political group and you do not have the military power to take it over you will attack in as many means that you can and if you're going to use violence the IED is becoming a weapon of choice across the world unfortunately. So what we're trying to do is we're trying to defeat it as a weapon of strategic influence. Tactically, the IED is

insignificant. You cannot stop an armored column with one bomb. We're still going to go to the objective. We're still going to raid that house. We're still going to do what we need to do. But if you look at the way the insurgents work what they'll do is they'll take the weapon, they'll explode it, they'll film it, they'll download it to the Internet, they'll upload it. People will go the Internet and look at it, and they'll have two audiences, one here in the United States or in Great Britain or Spain, for instance. Spain is a great example of strategic influence. And they'll try to affect the host nation's will to maintain the conflict. The other thing that will happen is they'll show them attacking an iconic American weapons system, for instance, the M1 tank. They blew up an M1 tank. That is a huge victory for them. They'll show one little guy running out there blowing it up and then he'll say his stuff at the end and they'll post it on the internet. It becomes a recruitment tool. So those are the kinds of things we're trying to target as a weapon of strategic influence understanding that we'll never be able to keep every bomb from going off, but we're going to try to mitigate it as much as possible. Why are we unique at the Department of Defense? We have three-year uncolored funding. If you don't know what that means,

it means that we can take the money that we're given by the Department of Defense and by Congress and it's put into a special fund called the Joint IED Defeat Fund. We have three years to spend it and we can spent it on anything we want to as long as it relates to IEDs, and this is where the opportunity comes in. Our boss, a three star general, works directly for the Deputy Secretary of Defense. Three lines of operation, train the force to defeat the device and attack the network. Attack the network, although it sounds very martial is the area that I believe that we can collaborate and we already are collaborating with a lot of universities and a lot of university groups. We will pay for research. We will pay for all kinds of things that universities do. I know you said you don't do consulting but you guys are really smart and we're not so we'll pay for that kind of expertise. So another example to get away from Afghanistan, we'll talk Colombia. A lot of people that use these particular groups will use drug money to fund terrorist activity so Colombia is a great example. The FARC, which uses more IEDs, they're number three in the nation -- in the world right now for IEDs in Colombia. They use it frequently against civilians as well as military targets in Colombia, and they fund their activities and they pay for their explosives with

drugs so from an agricultural perspective I know it's kind of a stretch to think how we can work together, but I believe that there are ways that we can work together and that's why I'm here. IEDs is all we worry about, and we are -- our director will tell you that we are a DOD venture capital organization. We're very well funded, and what we're willing to do is accept risk, so if you have an out of the box idea and you bring it to us, we do have experts that will review that and will say, okay, this has a 75 percent chance of working. Inside the United States government if you tell somebody it has a 75 percent chance of working they're going to throw you out of the office. But inside JIEDDO if it has a 75 percent chance of working and we can tie it to IEDs, we will fund it. We will. We're willing to accept failure, just not too much. Okay. We partner with co-comp around the world. If you think back to the mission statement, which I didn't go into, the bottom line is the way we like to partner with people when we deal with USAID and nongovernmental organizations is we'll go to USAID conferences and we'll say, hey, we got a problem in the Philippines, the Philippines need this, and the NGO will say, hey, we can provide this particular thing to you. We can say that this type of development project will lead to stability against the

mill from the south. Well, we'll go to US PACOM [ph] and we'll coordinate with US PACOM and they'll fund it, and it'll become a supported a co-com initiative. So in terms of DOD theaters of security cooperation that's what we do. A little brag chart. The bottom line is we have physical presence at JIFCOM [ph] here in Washington, D.C., and then we have two field teams deployed forward. Some of the things that we're working on, and again don't feel that you're tied to anything that I present to you here. If you have an idea or one of your peers has an idea on how to defeat IEDs, we're willing to entertain it, and it's very quick for you to go to the JIEDDO web site, look at the application form and fill it out to determine whether you'd be able to fit our needs or not, but we can get your program moving if you really need help. Social dynamic network analysis is something that we're working a huge way with universities right now combining social scientists, physicists and mathematicians to create modeling simulations that will determine if a network -- if an insurgent network becomes active, how do we influence that network so that it's no longer violent. And kind of going on Dr. Mark Sageman's [ph] theory on the network once it becomes active, once you have a street gang on your street corner you're never going to be able

to get rid of that social activity. They're always going to be friends unless you kill of them. We don't want to kill everybody so we want to influence it away from that. How can we determine who are the correct people to put pressure on to move that away from what's going on. Some of the explosive devices that are being used right now, a lot of explosives particularly in Iraq and starting to happen more and more in Afghanistan, homemade explosives. As they go through the military grade ordnance that they've blown up, they've blown it all up or we found it and we destroyed it, they've learned -- and I know that we've had that problem in the United States, they've learned how to make explosives in their back yard, so the use of fertilizers and what's the correct use of fertilizer and what's the wrong fertilizer to show up in the country, those are things that we're also looking for. And one of the real cool things that has to do with the medical that's really cool, we're funding people to re-grow limbs. That's some of the research that we're funding right now, so I'd like to mention that because that's awesome. Real quickly, we have three ways that we get requirements in. We get it from -- operational needs which means life and limb needs to be solved right now. Solutions network, that's what I talked to you about. We have emerging

technologies and gaps. We don't know what we don't know, so if you can think of something or your peers can think of something please approach JIEDDO and let us know. It goes through a review process. An evaluation and proposal is done by usually a military person like myself and we'll bring in experts in your field. We hire consultants that will say whether you are valid or not. And we entertain everybody. The bottom line is it goes up here. If it's under 24 million, if it's $24,999,000, our director can sign off on it on the spot. If it's 25 million and above it has to go to a senior resource steering group, which is basically the Joint Chief of Staff and the Deputy Secretary of Defense so you can't believe how many initiatives that we get that are exactly $24,999,000 so they don't have to go forward. We will entertain anybody. We've entertained everybody -- literally we had a guy with a divining rod show up and say that he could detect explosives with this divining rod, and he was making it work. It got to the point where our physicist had him put on a blindfold and do it and they realized that there was a cueing mechanism that he had built into the stick and a little experiment but they wasted a good half a day trying to figure out the divining rod. These are some of the things that we've done so far. That's budget

information. We will give you a hard look. We're not just a cash cow, so if you do have a great idea come to us and we'll talk to you but we'll make sure that it's valid. All right. These are the five focus areas for the director right now. I know I'm standing in between you and lunch, so I appreciate the ten minutes that you gave me. Thank you very much.

THE CHAIRMAN: Thank you. We have a question. Yes.

MS. BERTINI: Why have the British sustained more casualties?

MR. WOOD: As in terms of percentage they sustain a lot of casualties because they do not have the same protective equipment we do and they've made a decision not to chase it the way we have in terms of budget.

THE CHAIRMAN: Other questions, comments? Dr. Senykoff, anything before we wrap up this morning, and we'll see you back here at 1:15, I believe it is. So we'll go to lunch.

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[Off the record]

[On the record]

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THE CHAIRMAN: First of all, let me thank both the

Board who have an obligation to be here, and those in the audience who perhaps don't, for returning and being part of what I thought this morning was a very productive and engaged conversation, and I look forward to what we have yet to do this afternoon. I think the word of the morning was enthusiasm and exciting. I don't want to carry that too far but it certainly is something that is exciting for us. This afternoon's program continues to grapple with this issue of providing an adequate secure supply of food for the people of the world. It's the mandate of the BIFAD. And certainly we're conscious that day by day the environment in which that is done is changing and its changing environment encompasses not only temperature but it also relates to soils and water and all those things that are part of the environment in which food production takes place. And this afternoon -- I'm already making your presentation for you. This afternoon's program, Agro-Ecological Approaches to Agriculture: Lessons from the System of Rice Intensification. And we have three speakers. Our first speaker is Norman Uphoff, and he told me earlier I would either make him royalty or a farmer depending on how I pronounce that, and I'm not sure what I did, Norm, but congratulations. Our first speaker this afternoon,

Sustainable Rice Intensification, Cornell University Institute for Food and Agriculture Development.

MR. UPHOFF: Good afternoon. I'm glad to see as many people here this afternoon. I'll try to give you some antidote to the post-lunch blahs, something that I think will get you very interested in what are the possibilities for agriculture development as we move ahead. And I'm going to talk a little bit about how this relates to issues of climate change. As I understand, a lot of people here in Washington and elsewhere are getting more and more concerned with this. I have two take-home messages I hope you'll agree with. For various objective reasons, the agriculture sector in the 21st Century will need to develop a different strategy from what's known as modern agriculture. This has been very successful in the 20th Century but times are changing. It's the notion that we don't necessarily keep doing more of the same, I hope you'll at least consider. And, secondly, the outlines of what might be called post-modern agriculture are beginning to emerge and evidence is growing for more agro-ecologically informed agriculture. This will not simply replace what we're doing now. That's not the way the world works. Any change will be gradual and based on evidence, but I think we're moving toward a different paradigm for

agriculture that we've worked within the last 40 to 50 years. The 21st Century presents some very different conditions from the 20th. First, land per capita will keep declining which makes extensive agriculture production less advantageous economically. Secondly, both water availability and reliability are diminishing so we need to get more proper drop and higher energy costs will probably prevail making large scale mechanized production less competitive and also making long distance trade in agricultural commodities less profitable. Now these are things that are not matters of opinion. At least I don't think they're matters of opinion. These are things that are happening. The estimate of land per capita, area of land per capita will go from 1950 level, only one-third of that by 2050, which means you have to be much more productive with our land and our water and also to be very attentive to energy costs. Further, climate change will affect the agriculture sector more than others. I think we all know that. Global warming will cause significant shifts in production patterns and what we call extreme events, a wonderful euphemism, drought, storms, temperature extremes that are going to become more frequent and more severe and the environmental impacts of agriculture will need to be reduced, less greenhouse emissions, less

nitrogen in the ground water supplies. We can't afford to treat our environment with as much cavalierness as we did in the 20th Century. And modern agriculture as it's developed has certain vulnerabilities, climate change that we should keep in mind, monoculture in large scale units reduces farm resilience. Genetic uniformity also creates vulnerability to large scale losses. When they hit, they hit hard. Capital intensity raises farmer's risks from climate-induced price swings and mechanization and agro-chemical use to degrade soil systems and reduce fertility. Now these may be more debatable, but I put them forward as I think reasonable propositions. Now these may be more debatable but I put them forward as I think reasonable propositions. And also accessibility of technology to the poor remains a great concern because hunger and poverty are still with us and we're nowhere near achieving the development goals for reducing them. So I think about how what we do will actually reach and benefit those persons. So these considerations suggest that we should be involving what might be called post-modern agriculture, which I will suggest would be the most modern agriculture. This isn't going back to dibble sticks. We're trying to move head and draw upon the advances in soil biology, soil ecology, microbial genetics, and even epigenetics. How

many here know the term epigenetics? Unfortunately, not many. I think that's going to be the next -- large advances are going to come in the field of epigenetics which deals with how genetic potentials are expressed. So much of our first generation genetic work has been to understand the genome, and we're mapping it, but we don't have much of a handle of why is it the same DNA in all of our cells becomes eye cell, becomes fingernails and so forth. The expression of that potential is going to be where we have to be going next. And the system of rice intensification I'm going to talk about presents some really wonderful challenges, wonderful opportunities to do -- I want to emphasize what I'm talking about is not going back to a previous way of doing agriculture. It's a way of moving forward, building upon our most recent knowledge. This table is a fascinating one. It's published in a journal, applied in environmental economics, microbiology, and what they were looking at was how soil bacteria, rhizobia, infiltrate and migrate up the roots and the stem into the leaves here of rice plants. They infect the philosphere [ph], as we say. And it turns out doing controlled experiments with five different strains of rhizobia versus a control with no rhizobia infecting the leaves, everything else the same, you see that the net

photosynthetic rate which was 10.23 micromoles per second is 13, 15, 16, instead of 10. So the plants themselves have a faster photosynthetic rate. The water utilization efficiency is 15 or more percent higher, and the yields for the same area of 50, 77, 64, 61, 86, 86, simply because of the infection of the leaves by soil bacteria. We never knew that before because we never looked, but researchers in China working with Frank Dazza [ph] of Michigan State University, he's one of the co-authors of this paper, have been able to show that it's this integrated view between the bacteria and the flora and the fauna, if I can stretch it, which really is behind the performance of our crops and animals. We need to take the calm effect that the green revolution has been losing momentum. Since the mid-1980's the world's cereal production per capita has plateaued and since the mid-90's has actually been in absolute terms plateaued so there are limits to what we can achieve by making genetic improvements without making improvements in management and especially maintaining and improving soil fertility. This is a table I put together from FAO and USDA figures. This is the grain production total. This is per capita. We still keep saying how these technologies are so potent, and they are potentially but they have not been delivering the last 10 to 20 years as

we'd like to think they have. This is an article by Peter Jennings, who helped develop IR-8 at Erie and the Erie publication Rice Today. The majority view contending that more productive new varieties were needed led to massive investment during the past 25 years in biotechnology and genetics and under investment and crop management. Decades of little progress following the adoption of semi-dwarfs indicate a mis-identification of the yield constraints as institutions directed resources inappropriately. Researchers, like generals, often fight new battles with strategies and tactics of previous wars. That's good advice for someone who's at the heart of in fact our genetic revolutions in rice. This is a graph from an article that my colleague, Chris Barrett [ph], wrote with one of his students published in the American Journal of Ag Economics looking at the return to investments and use of nitrogen fertilizer as a function or corresponding with their soil organic carbon. Look at the price of fertilizer in western Kenya. It was done in plots in Western Kenya. Until you get soil organic carbon to about 4 percent it's not even a break even operation. Why don't farmers, all farmers, invest in fertilizer? Until their soil fertility is high enough it doesn't pay to add all that nitrogen, so I think that's a very

important lesson for us. So agro college which you've heard about all this morning, I would summarize there are two ideas. First, enhancing the life in the soil is the critical start in the foundation. Recognizing the precedence of soil biology over soil chemistry and soil physics. They would be fighting words for some of you, but of all the soil chemistry the last 50 years, I'll bet 60, 70 percent of soil chemistry, maybe 30 percent soil physics, cut soil biology is a minority. We have to go back and start retracing some of our steps. And, secondly, improving the growing environment of crops to induce more productive feeder types from any given crop gener type. This is a picture from Cuba. I know the farmer. I visited him four times. He's using the same variety, VN2084. These plants are the same age, both 52 days after seeding, but this plant was taken out of the nursery when it was nine days old, planted not in a clump but in single plants, a square pattern, wide spacing, good organic matter in the soil, good aeration of the soil. There was 52 tillers. That is 40 tillers, that is 5. Same genotype, but a very different -- he said it yields as high as 14 tons with these SRI methods on his farm in Cuba. This is from Indonesia, Lumbuk [ph], where the plants are the same variety and same age. The farmer obviously prefers the one on the left.

Nippon Koi, a Japanese consulting firm you probably heard about does a lot of work throughout Asia. Their irrigation team oversaw 12,133 trials on farm with a total area of 9,429.1 hectares. Every farmer and monitor reported the average increase in yield was 3.3 tons which is 78 percent over their 4.4 average, and that's with 40 percent less water, 50 percent less fertilizer, and 20 percent lower costs of production. Now this probably sounds really fantastic. This is done by people totally independent of me. This is a Nippon Koi team that worked for the Indonesian government doing these trials in a big way in Indonesia. This is from Mali, a farm in the Timbuktu region showing the difference between a normal rice plant and SRI rice plant. In 2007, Africare, I'm so glad Bill Noble is here today, did some first tentative trials and found the SRI methods gave about nine-ton yields compared to 6.7 tons using all the best management practices, high yield varieties, fertilizer, et cetera. So they did next year a series of more systematic trials with funding for the Better You Foundation, and this is their results. SRI average was 9.1 tons versus 5.495-1/2 using regular control methods, improved methods, and farmer's practice in the adjoining areas where they matched and was 4.86, very substantial difference on the

edge of the Sahara Desert. So the system of rice intensification which I'm talking about was developed in Madagascar in the '80's and it takes these agro-ecological principles, which I would discuss with you, and puts them into work, and these are relevant especially for climate change. This is a picture sent from an AID colleague in Madagascar. The technician measured this field and estimated a 17-ton yield. I can't alter that. But if you look at those panacles, the length, the fullness of all those heads, and they're not lodgy. They're even as tall as the farmers but they're upright and they will be harvested. Sri has six basic ideas. I won't go into them. You change the manner of the plants, the soil, the water, and the nutrients to get a different feener [ph] type, and we find with these methods up to 36 countries now, we can increase the grain yield by 50 to 100 percent, even more farmers at the low end. We reduce the irrigation water requirements by 25 to 50 percent because we don't get the fields flooded, just moist with small applications. The cost of production goes down 10 to 20 percent because you don't have to buy fertilizer or pesticides, insecticides. The milling rate is about 15 percent higher so you have about 15 percent more KG per bushel or per bag because there's less chaff, fewer unfilled

grains, and there's also less breakage during the milling process. There's less need for agro-chemical use because the plants have natural resistance to pests and diseases, and there's less vulnerability to droughts and storms which are going to be more and more of a problem. The International Research Institute has been one of our main partners in evaluating this. Two of their super hybrid varieties and they use what they call standard rice management which is 30 day seedlings, 20 x 20 spacing, continuous flooding, and all chemical fertilization versus it's not fully SRI but it's moving that day, 20 day seedlings, 30 x 30 spacing, alternate wetting and drying, and then 50/50 organic, inorganic of the same nutrient applications. And this is where they found by changing plant densities from 150,000 plants per hectare to 180. The standardized management does increase yield a little bit as you increase the plant population. But what these different management practices, the different feener type, and it reduces the population up to 2-1/2 ton difference. We have been wasting seeds. We have been wasting fertilizer and wasting water. So CRNI understands that now. This is a picture from Sri Lanka showing two fields, same soil, same irrigation, same drought, same variety. And the plants on the left have been grown with conventional

methods, flooded continuously so the roots start degenerating after two weeks or so. Then when the water stops, it stopped here three weeks ago, the plants can't survive. With SRI methods, we put small amounts of water so the roots go down. They don't degenerate because they're not hypoxic. Then when the water stops for three weeks they're still growing nicely and normally. I just got last week these translations from China, this report from Sichuan Province, where they found that these methods where you normally get about 4-1/2 ton yields, SRI gives 7.7 to 9-ton yields and even as high as 12 tons. So that's almost a tripling of yield. And the cost of the mulching they add with this as well is like 40 yuan per mu, but they save for weeding, land preparation, fertilizer, irrigation, 230 yuan per mu, so the economic returns are very substantial with less water which is important for us. And this is an article by four scientists. Actually the fourth author is the dean of natural resources at China Agricultural University, Jung Vu Sol [ph[, but they found in a normal year the yield will go up with SRI methods about 2-1/4, 3 tons. In a drought year it goes up three tons or more, so it actually does better relatively speaking in drought conditions. The net income in a normal year is raised from about $220 per

hectare to 1,500. Seven times, that's really good. But in the drought year it goes from a loss of 550 to a profit of 880, huge improvement. So in Sichuan now there's very great excitement of what they can do. There's a picture from Vietnam about an hour's drive north of Hanoi coming from the FAOIBM program. This one I'm holding up -- I don't know how well you can see over there, but this is an SRI plant. This is a conventional plant. This is a conventional field, SRI field after a typhoon went over. You see what the typhoon has done of the conventionally grown rice, droughted, flooded, poor root systems, can't stand the storm damage, and they don't grow as well. This little darker color you can see it clearly. This plant is big and healthy and it can resist the storm damage as well. This is data from the Vietnam National IBM program where they did side by side on farm comparisons in eight provinces in 2005-2006, and they took the two leading diseases and pests and the average reduction in the SRI plots compared to the adjoining farmer plots was 55 percent in the spring season and 70 percent in the summer. These plants don't need the kind of chemical protection which we've been giving them. This is sort of an accidental finding. Researchers at the Agricultural State University in Hondrobadesh [ph] where IBM actually was looking at pest

damage but they happened to keep track of the temperature. It turned out in the cold season they had dropped -- five days they were down to 9.2 to 9.8 degrees celsius and the normal crop was just wiped out where as the SRI crop gave a 4.16 ton yield in spite of that cold spell because that root system gives them protection, buffering whereas in the season also there was 50 percent more yield with SRI methods. So, anyway, the requirements or constraints because everything has certain constraints is you need to have good water control to supply smaller but reliable amounts of water so farmers can comfortably let the water go and not flood. That may require drainage facilities in some of the places. If you're going to go the organic route, you need a good supply of biomass, not just the straw but other access to manure or weeds or cuttings and so forth. You can use fertilizer. It works. But the very best results are coming with fully organic fertilization. You might need crop protection because you have so much more biomass for the buggies. But generally we find that's not a problem, but we have to keep in mind that with more crop to be predated and infected, you might have a problem there. Use of a mechanical hand weeder, which costs about $12 to $15 is recommended because that aerates the soil. At the same

time it removes the weeds, and then skill and motivation of farmers is the most important thing. We can't forget the farmers. And we try to not tell them what to do but help them understand the principles behind these changes and practices, they will themselves make the adaptations and apply this. And we're finding that although this is initially more labor intensive once farmers have mastered the techniques they can even save labor. When I was in China summer before last in Sichuan Province the Extension Service said the large farmers are taking this up more quickly than the smaller ones. Why? Because they save money on seed, on water and labor, as well as cash or their cost. So this can't even become -- - labor intensive was thought to be a barrier for this adoption but once we got outside of Madagascar and got to Asian farmers or even African farmers, they're finding they can actually save labor because there are so few plants. That makes the difference. And then the support of experts is helpful but so far we've had more opposition than support from the rice experts, which is unfortunate. In 1999, ten years ago, there was one country in the world where this was even known. Today, like I say, we have 36 countries where it has been demonstrated that these changes in the management practices will give you a better feener type. This is

one of my favorite pictures from Cambodia. That women is holding a plant grown from one seed and her yields used to be two to three times on this field, 6.72 was the calculated yield from four crop cuttings. One crop cutting was an 11-ton yield in that area where the soil biology was really mobilized. I met this woman about six months after the picture was taken. I thanked her for this picture that I was glad to include in my Power Point, and so forth, and she looked a little worried, and I thought, oh, did I do something wrong? Maybe I should have asked her permission or maybe her husband wouldn't like us showing her around the world this way. And I said is there a problem? She said, oh, if I had known how you were going to use the picture, I would have gotten my biggest one. She thought she was taking a random plant from that field. This is Afghanistan. I'm sorry our friend from the military isn't here. This is about 1,700 meters elevation in Bagwan [ph] district where the Ogacon [ph] Foundation has introduced SRI. These farmers are planting little 13 days seedlings, 30 x 30 spacing. This is one of their fields at 30 days. It doesn't look very promising yet, but this is a picture of a single rice plant at 72 days after seeding 133 tillers. And the yield calculation by the Ogacon Foundation staff was 11.56 tons per hectare. And for

the six farmers that did this carefully their average was 10.1 tons. That's in Afghanistan. That's not your prime rice growing area normally but you can get really good plants if you can mobilize, grow good roots and then mobilize. This picture is from Iraq from their rice research station near Najof [ph] where Dr. Kejare Hamid [ph] was comparing different varieties of SRI methods and conventional methods side by side. So I don't have to say much about that. You can see the difference there. So I'm almost through here. Reduction in greenhouse gases is a good issue. Think about Dr. Dorothy Kamora [ph] from Tokoyo University has been doing work in Indonesia looking at methane flux in seven different locations and nitrous oxide flux. Her conclusion was that the methane flux tends to be higher as we sort of expect that because they're flooded versus unflooded, and the highest emissions were during the early stages of the conventional methods, but we were worried. What about the nitrous oxide? If you lower methane but you raise nitrous oxide, which is a much more vicious molecule, it could offset it. But her finding was that the values for nitrous oxide are in the range found for conventional paddy fields so it looks as if it's kind of a optimal situation. You improve the methane and don't make the nitrous oxide situation

worse. At Epabay [ph] in Indonesia they've been doing work. This is the maps showing with methane emissions, conventional, and then inorganic, fertilized SRI, organic SRI and then organic SRI plus bio-fertilizer, so you can get very substantial improvements in methane and for the nitrous oxide emissions between the conventional and SRI inorganic not much difference. Organic, a little better, but if you use bio-fertilizer also, they find that you can actually get considerable improvement in nitrous oxide. There was recently an article published in global bio-chemical cycles where they looked at the effects where if you have just one break in the continuous irrigation or at least one application of straw in the field, substantial reductions, a total of 7.6 gigatons of emissions. But for us the important sense was this one, although draining continuously flooded rice fields may lead to an increase in nitrous oxide, which we expect, the global warming potential resulting from this increase is negligible when compared to a reduction in global warming potential resulting from the methane reduction associated with draining the fields. So we think actually we're making claims that we have some primary evidence saying we can actually make a contribution on greenhouse gases. These ideas are being tied to other crops, wheat, finger millet,

sugar cane, tef, kidney beans, cotton, vegetables. This one, Indian Business Weekly on SWI, the system of wheat intensification being practiced up in Utrakhand and Amatrabadesh [ph]. Farmers get as much as a threefold increase from wheat using these ideas. This is finger millet in Jakon [ph] state in India. On the right we have a traditional plant, traditional methods. The middle is improved variety with traditional methods. And you see you can improve things with genetic approach, no question, but if you use the improved genetics plus management you see a different feener type results. This is a new publication from Inkrasat [ph] and now applying these ideas to sugar cane. And they said at least 20 percent more yield with 30 percent less water and 25 percent less chemical inputs, which is very important for a very thirsty and chemical dependent industry. And they say the inspiration for putting this package together is from the success of SRI. This then -- I'll close with this. This is research reported by Dr. Turaki Berhay [ph] who is the rice leader for Sasakaba [ph] Africa Association based in Adasababa [ph] but he's originally a tef [ph] man. In Ethiopia it would be tef first. And he took SRI ideas, he calls it STI now, and replicated trials and found that whereas he would normally get about a ton yield of tef, and that's

what you usually get with tef, he'd get three to five-ton yields when he took small seedlings and transplanted 20 x 20, and good organic matter in the soil. He got a whole different plant coming from that. He then tried in a second set of trials adding some micro-nutrients, and got up as high as almost nine tons. Now it's his footnote. He says yield levels never reported before. He's never seen or heard of anything this responsive so he's getting tef also to respond to these ideas of spacing, soil aeration, soil organic matter working together. So we're still -- we say this is a work in progress. It's kind of a progress report I'm giving you, not a final answer, but we're finding that by taking management really seriously and thinking outside a lot of boxes that both farmers and researchers have had for a long time, we can get really remarkable and cost effective results especially those that would be important in an area of climate change. So my six points for what I call this emerging post-modern agriculture, grow roots. Don't think about the canopy first. Think about the roots first. Promote the life in the soil. It only works in the soil. Improve soil structure and functioning. Conversation agriculture is part of that. Focus on green water, not just blue water. Green water is that which gets stored in the

biosystem, biosphere, not just putting dams or rivers and stuff like that. Make increased soil organic carbon a priority because you can both increase production and sequester carbon so there's a kind of benefit there. And reduce our chemical dependence in agriculture. I think that's -- it's not as much imperative but I think that's the direction we're going to be going. As we start mobilizing better the potentials are in crops. Anyway, let me stop there because I hope I get some good feedback from Carol and from Bill. Bill, by the way, knows about this because Africare has been doing this kind of work in Mali.

THE CHAIRMAN: I feel really good, but my crop science leader, soils leader, convinced me to hire a microbiologist recently, soil microbiologist, so that's a pat on the back here. Thanks very much. Our first respondent is Carol Kramer-LeBlanc, Director, Sustainable Development Program, USDA/CSREES. It's now changed. Whatever it is now so thanks, Carol. Sorry we didn't get a chance to chat before.

MS. KRAMER-LEBLANC: Hi, everybody. It's a pleasure to see you. Hi, Calvina [ph] especially. It's been a long time. It's great to be here this afternoon, and I very much admire the work that Norm Uphoff has undertaken in advancing sustainable agriculture and food

security in Madagascar and elsewhere, and I had the good fortune to work a little bit in Madagascar a few years ago when I was with the Millennium Challenge Corporation and got to visit some of the SRI plots and talked with people in the field. And I find it a very intriguing system and must say that I'm struck by the controversy, if you will, that's out there in the scientific literature and so part of my message today is to say that I am extremely positive that we're discussing alternative systems and practices to meet what are really monumental food security and income livelihood needs in the future. I have just participated with many colleagues from the government and nonprofits and academia in a two-year cycle at the United Nations Commission on Sustainable Development, and our two-year cycle was to review in year one global agriculture, rural development, land, drought decertification in Africa, and then this last spring to try and reach a consensus, Phil was there, Phil Steffens [ph] of AID, on some key agricultural policy issues. And I think we can all agree that productivity growth will be essential as the global population increases from 6.4 to 9 billion in the next 40 years or so, and along with productivity increases we have food security needs which are not the same thing. They are related but not the same. Second,

not only must ag productivity grow but also agriculture profitability. And remember that is the difference between revenue and cost. So the cost of inputs are very significant in calculating productivity -- excuse me, profitability. And then the third thing that is so emphasized in the Commission on Sustainable Development, and I think we are understanding more and more is that sustainability depends on good utilization of social, environmental, and economic capital so that we as a planet exercise good stewardship and leave the planet in as good or hopefully in better shape for the next generations. And so far we're not on track on that last trajectory. So how do we do this? The picture is very complex because the dimensions are many. And let me just say a word about the CSD and then I'll turn back to what I got out of the discussion today. The Commission on Sustainable Development called for enhancing agricultural production, productivity and sustainability by first employing science-based agricultural approaches and local and indigenous knowledge while understanding research and development to include plant varieties, livestock and soil. And these are direct words from what our consensus document looked like. Encourage development and adoption of locally appropriate farming systems and agricultural practices so the farming system

is a concept that I think we have to keep in mind. Secondly, promote the use of soil conservation and improvement techniques including integrated nutrient management and nutrient use efficiency especially to prevent degradation of vulnerable land and restore degraded land. And this emphasis on soil was very pre-eminent among the experts and among the representatives of different ministries from around the world. That's very much in keeping with what Norm Uphoff is saying. Thirdly, in our document promote sound water management and saving in agriculture through efficient irrigation, through water harvesting and storage, through treatment and reuse, and again this is a feature of the system that you've just heard described. And we also had a mention in there which the U.S. was supportive of, as appropriate support countries to strengthen research in areas of growing market demands such as organic agriculture. This surprised many people that we wanted to include organics. We made a very strong point that we are not advocating any exclusive reliance on organics but where there is consumer demand and where it is growing, this is an area that we think should be supported. So we have a deputy secretary at USDA now, Secretary Kathleen Merrigan, and she went and spoke to the ministerial. She emphasized the need to manage land

within ecological capacity, the development of appropriate land tenure systems that incentivize improved land management, low and high tech special management planning tools that allow land and water to be integrated into national, regional and local development planning. And there are an array of domestic and international policies and programs that are useful to manage land and water resources to achieve long-term sustainability. In addition to the clear need to meet food security needs of a growing population our challenge is to provide co-benefits, and what are we talking about here? Improve bio-diversity, sustained water quality and quantity management, carbon sequestration among others. Added to that is to manage inputs carefully to protect human health of workers and consumers. And some of you may remember the Erie research from several years ago where John Anthel [ph] and Pablu Congali [ph] looked at the costs and the benefits of trying to improve worker exposure to pesticides used in rice management systems. So this is also a feature that should be incorporated, I think, into the overall analysis. Global agriculture right now faces many challenges but there are some impressive opportunities. I came this morning from a congressional briefing breakfast that was held to talk about the

legislation that you also heard about this morning, I understand, and there is a lot of interest in trying to finally do something that would address food security and sustainable agriculture problems around the world. And there's great recognition that the productivity increases of what I guess Hillary Clinton is calling the green revolution 2.0 recognizing that it needs to go beyond what was done in South Asia 25 years ago. This is important but also important are all of the connections of the agricultural unit to the market and to the social structure beyond that. So one thing that comes to my mind as I think of Madagascar, for example, one of your colleagues did some research there. I think it's Chris Barrett, who looked at factors influencing sort of economic viability of rural households there. And isolation is one of the biggest factors governing success in agriculture. Another is the unpredictability and the riskiness of relying on input markets when you don't have a policy regime that can supply predictable supplies of inputs at reasonable and appropriate levels, and so you may have one fertilizer prescription for a very heterogeneous set of land masses, you know. It's just not appropriate. So you get over fertilization of particular nutrients and under in other areas. And so as a collective body, we need to come to some way of

balancing a whole array of very heterogeneous factors that go into successful performance of agriculture, and we have to look at systems both in terms of management systems on the ground but also larger systems as the farmer gets links into the larger society. So I will not go on too long. I just have a couple more remarks. I would challenge those in the agricultural community to try and work together to really look at these systems in a meaningful way and make sure that the right paradigms are used to capture some of the complexity in the systems. My colleague from past days, Sarah Shear [ph], in speaking with her about eco-agriculture, she pointed out the importance of landscapes and the importance of going beyond just plots and looking at landscapes in terms of measuring impacts. So we live in a time when our technologies can provide instant communication, that can provide widespread technology dissemination, the ability to map resources of every category in layers, and plan intelligent sustainable resource use. And, as I said, but we see that in the developing world there are still people in very remote areas who are not connected to markets or to the knowledge economy, who are not food secure, and who continue to live on less than $1 or $2 a day. So we need to synthesize the best of science and practice that exists. And I welcome the

prospects that practitioners can and will work together and look at some of these systems in new and different ways and try and challenge whether or not the plan growth you see there can be sustained and can be a meaningful contribution to our future sustainable food security. So thank you.

THE CHAIRMAN: I think the operative word is system, and I'm glad that we're beginning to think in that term. Our next respondent is Bill Noble. He's already been mentioned, Regional Director, Francophone West and Central Africa Programs, Africare USA. Bill.

MR. NOBLE: Thank you. Dr. Uphoff, I'm not going to make any criticisms of your presentation obviously because the work that we're doing in Mali with SRI, which has received some unofficial report, for which we're very grateful. I am going to talk very briefly a little bit about Africare in terms of food security and agriculture, and then I'm going to talk a little bit about SRI and a couple other observations about the program, which is slowly becoming very well known in Mali as potentially a model for repetition. Over the last 20 years, Africare has become a major partner with USAID in Food for Peace programming, and that is by far the largest source of support for small scale agriculture that we've done in Africa partly

because there just hasn't been very many resources for agriculture, and we're very excited with the changes that are being proposed and discussed in the Congress and coming out of USAID in terms of focusing on agriculture and defining food security in a slightly different way. But the realities are that ourselves and some of our other colleagues in the PVO community have really only had the opportunity to work in small scale agriculture on a long-term basis through the Food for Peace mechanism, which has been pretty much a stable and abundant source of support for our work. Our work in small scale agriculture has focused on more isolated areas because by definition we're looking at areas that are food insecure such as northern Mali, northern Niger, eastern Chad, central Guinea, southwestern Uganda, and other places that are not necessarily bread baskets. And I think this may separate a little bit some of the areas that the research that's been done on SRI and practical experiences that have focused on taking what has become the standard for rice production and certainly in the Asian countries. Africare has been working in Mali for about 35 years and we've been pretty much a standard presence in northern Mali for the last 25, and that includes during the insecure times in the mid-'90's. The work that we're doing in Timbuktu region

has started about 12 years ago, and for those of you that are familiar with Mali as a country it's set up in such a way geographically, ecologically that once you get above the multi-area the rainfall levels go down to 150 to 200 millimeters a year which makes it very difficult to think in terms of any type of major production. The good news is that the Niger River does go through that part of Timbuktu region. There's a delta, and there's a very complicated system of tributaries and water that rises as during the rainy season, which creates an abundant opportunity for recessional agriculture which has been practiced there for probably a millennium, certainly with the traditional cereal crops. And over the last -- certainly since independence there has been a movement to develop irrigated agriculture in northern Mali using motorized pumps as the main source of water getting the water from the river up to the fields. And the model has been 30 hectare irrigated perimeters. And Africare and a lot of other agencies, including the Malian government, have developed this model. And there's probably been more than a thousand of these perimeters that have been established in the last 30 years. Ourselves, we established probably upwards of 40 of them. Some work and some don't because it's not just a

question of getting a bunch of farmers together to grow rice. It's a question of organizing them, training them to work together as a group, and then if you want to add on storage and taking advantage of markets and price swings for the commodity because most of these activities are to increase not only food production or rice production for consumption but also for marketing because in Mali rice is looked at as a marketable commodity. So we were working with this model in Timbuktu for probably almost ten years before the SRI idea developed as an alternative to be explored. And, frankly, the work we did was well received. There was no question. The analysis, the evaluation, the outside, internal said that any communities that were involved with an irrigated perimeter that we were supporting were overall much better in terms of food security and food provisioning and what have you. So it was a good support that we were providing with our work. What SRI has done is to make a good thing even better, and you saw the results in Dr. Uphoff's slides. Those are documented. And when we started the trials in 2007 it was within the context of our Food for Peace program, and then we were able to continue those last year, and we're currently doing a slighted expanded version of the program with support from USAID Mali, and also from the

Better You Foundation. We have developed the technical goals that we hope USAID will support that will allow us to expand SRI throughout the entire Timbuktu region. And from my perspective, and I was in Mali a few months ago, I actually lived there for three years before this program was adopted, the SRI was adopted, we had a lot of failures with our irrigated perimeters. I would say probably about four out of ten didn't work after quite a bit of investment, anywhere from $30,000 to $50,000 in terms of motorized pumps and organizing the -- getting the land level appropriately and building the drainage canal, the canals for drainage, and what have you. And always the failures were because of the lack of level of cooperation between the farmers themselves, leadership, if you will, decision making. We had a couple people that stole money and all that kind of stuff, the same issues that we deal with as development professionals day in and day out. So from my perspective, and I think my colleagues in Mali would agree, that a lot of the software was in place for some of the work that we did the trials for SRI. We also took advantage of that so the reaction of the farmers has been phenomenal. They're clearly showing increasing revenues for their households based on the increase in production and, more importantly, the reduction in costs for the motorized

pumps, which is by far the biggest expense for this model. It's something that you don't see in a lot of other countries, obviously, because there may be higher levels of rainfall, maybe elevation, mountains and what not, for irrigation that way. There aren't no mountains in northern Mali to speak of. It's all related to the pump. That's the biggest expense. And the biggest impact in our work with SRI has been to reduce the amount of cost to manage the pump by 50 percent, which would increase the life of the pump for growing seasons, and what have you. So that is a perhaps somewhat unique application of SRI in terms of benefits, but all the other benefits in terms of reduced levels of water, the improved planting, and reduced numbers of seeds for transplanting, and what have you, the weeding with a manual weeder. We're using all those aspects of the methodology and it's having an excellent impact. The level of response from the farmers, as I said, is phenomenal. We have also kind of on our own, I think Dr. Uphoff mentioned about some work with wheat in, I think it was Afghanistan. We're also -- we did some experimenting with wheat last year in Mali, and it was pretty well received. The levels of increase in yields was not as substantial but several of the perimeters that we worked with over the years historically have

been focused on wheat. Mali is not a very large producer of wheat but it's just kind of developed. The biggest challenge for us in the SRI program, and I saw this when I was there in February, I actually visited a perimeter where they're using SRI for wheat, but it's the same for the rice program, which is currently going on now in its third season is the access to organic fertilizer of the biomass. Most of the populations in northern Mali, probably if you had to -- livestock is more of an issue. It's more of a support for their food security. There's a lot of ethnic groups and what not. So livestock is a big issue. It's a big source of support for the household. So you'd think there would be a lot of biomass, but the truth is there's just not a lot of people. Yes, there's more animals than people but there's still not a lot of animals. So having ready access to the biomass and where it is by far the biggest challenge to have enough organic fertilizer to support a hectare or a 30-hectare PIV, and that's really what we're focusing on is ways that that can be collected and put into these pits for composting. Another point I'd like to make, and again I'm not disagreeing with anything that's been presented, you're speaking to the choir here, is the observation Dr. Uphoff made about resistance, and not going into the debate in the

scientific community about organic versus technology saves agriculture, which I understand very well. I'm a product of Davis so I was given the drill back in the day. And I don't -- I think there's benefits to both sides, but within Mali the policy of the government historically has been over the last 15 years to become a net exporter of rice in west Africa, and they're very proud of the fact that they reached that five years ago, seven years ago. They became a net expert at rice because of all the investments that were put in the office in Niger in the central part of the country and which is currently one of the focus areas of the NCC program, the compact that was signed three years ago. Wonderful. That's great. But what people don't understand obviously from the outside is that the northern part of the country where the rainfall levels go down by half there's still a large population, and politically there's still some issues in terms of the ethnic groups in the north versus the groups in the south is such that the need for rice production, increasing rice production, is even more important. So we've had strong support and buy-in from the Ministry of Agriculture in Timbuktu. They've actually identified an SRI that we've trained, an SRI advisor for the province with the region, and with this new program that we hope

will be funded later on this year we will basically instill a network of SRI field agents throughout the region in Timbuktu. We're currently working in four of the five circles with our Title 2 program but this will actually go beyond that. But when this program was presented to some of the people to administrate at the national level, the initial reaction -- I would say to this day the reaction is still that's nice, but that's not what we're going to do elsewhere. So we still have some work to do in terms of convincing people. We have the support of the people in Timbuktu. I met with the regional director when I was there a few months ago. He's in. He understands the benefits. But I think partly because of the training and the perspective in the country from some of the other agronomists and research people that work in central and southern Mali, they're still not convinced. So I think our role as a development agency is to support that and hopefully at the end of our program kind of withdraw and let the technicians within the ministry and the farmers themselves take charge for what they think is best and give them the tools they need. In a nutshell, I'm not going to say anything negative about the presentation. I agree with everything that was said. And we'd like to look at doing this in other countries, and we do work

pretty much everywhere where no one else wants to go to. So thank you very much.

THE CHAIRMAN: Okay. Now let's open up the floor for questions. Yeah, H. Mr. Barlow from Kentucky.

MR. BARLOW: Dr. Uphoff, a couple of questions for you. You mentioned -- and I am a farmer so I totally agree with the importance of saving the soil and I believe in it with all my heart, and I think it's an issue that we need to put more focus on. However, you mentioned you think a challenge of the energy cost of moving, transportation moving food and those kind of things are a problem we have in the future. I was fortunate enough this past October to go to Kenya, and we saw the small stakeholders and we saw those people out there and we were trying to improve their food production, but nobody ever said anything, and this bothers me about this whole operation, no one ever says anything about the people that are behind those tan sheets that were sticking up that were in the teeming cities. Millions and millions of people all over our world, nobody ever said anything about getting food to them, and if we don't improve the infrastructure and talk about how are we going to get food to those people, I think we're not really addressing global hunger. And

I think we're really missing something here. You stop back and think about the history of our country, how did we get to be so self-sufficient where one farmer creates enough food for 90 people. It might be 110. I don't know what the number is today. Just because of our infrastructure. We produce it and we can move it and we can feed people, therefore, that frees people to do other things. And we've got to look at that, and that's a challenge. I think it's great to talk about these little small stakeholders but there are billions of people that live in these cities that don't have a little plot of ground, and they've got to get food. If you talk about food security, global security, if you want to keep people happy and not hungry and not fighting, you got to give them food. So I would like to see someone address that situation.

MR. UPHOFF: I can...

MR. BARLOW: Tell me how are you going to move that food. How are you going to move that food?

MR. UPHOFF: We will...

MR. BARLOW: Well, that may be true. He just talked about Mali, people in Mali the north to the south -- obviously the north can't grow the food because they don't get the rainfall.

MR. NOBLE: There have been some

efforts to increase cereal production in the north...

MR. BARLOW: But I just feel like we need to think about the people, the masses of people that don't have any food, you know, besides just the ones out in the country.

THE CHAIRMAN: You make a good point. Carol, did you have a comment?

MS. KRAMER-LEBLANC: I think you're exactly right. I think moving food is very important, and I think that there's been a lot of thought given lately to growth corridors and looking at ways of improving infrastructure to get food from the interior to the capital cities, and some of the good things about that is for farmers who don't -- we may have a lot of trouble assessing initially markets or getting food into our country because we have a lot of standards and they're hard to meet sometimes, but they have capital cities. We now have more people in urban areas in the world just recently so these are folks that are customers that can help if there's a marketable surplus. I think you're exactly right and it is very important.

THE CHAIRMAN: And creating markets creates a flow of currency back into rural areas which helps address that poverty issue as well, so again the word system keeps coming to mind. It's not a single piece.

It's a whole that has to be developed. Were there other questions? Bill.

MR. DELAUDER: I was going to follow up on that comment because we know that that's an issue, and we know that ultimately if African countries are going to become more self-sufficient as it relates to food and they can trade with each other and so forth, if we don't address the infrastructure problem then we're going to continue to have problems. And the frustrating part about is it that the United States knows that this is an issue but we don't seem to want to do anything about it. I wonder too whether -- I mean we look at what the Chinese are doing. I wonder if we worry about that because they are addressing some infrastructure problems.

MR. BARLOW: We saw a big Chinese road built in Kenya while we were there.

THE CHAIRMAN: That was one of the things that's still a question in my mind was why because it was in a desert area as we were traveling across Kenya, a massive road project that the Chinese have undertaken. Are there questions from the audience about the topics that we've covered here? I think it calls upon us to think about productivity increases in a different way than we have historically. I think in most cases the

science has been very focused in different disciplinary areas, and this notion of management of interdisciplinary as it relates to production of crops is something that deserves our very serious attention. And I appreciate very much you getting that topic on the floor for us to consider here today. I think unless there's further questions from the Board, we'll move on to our next topic, which I've been looking forward to. I have a special interest in Latin America so I've been looking forward to this all day, food security in Latin America. Agriculture, Economic Growth and Trade is the overarching theme. And I don't know if our speakers are here. David Jesse, are you the first speaker, is coming up. And the Economic Growth Team, Office of Regional Sustainable Development, USAID Bureau for Latin America. We had a chance to sit together and get acquainted briefly at the Council of Deans.

MR. BYRNES: Well, the dynamic duo of David and Kerry, you're getting the short end of the stick here with Kerry. My colleague, David, is within a few days of retiring going into the retirement seminar. He's also dealing with an illness in the family. His sister has cancer, and so I think you can understand he has some other issues on his plate. So what I'd like to do, and I thank everybody prior to me staying on time,

so I'll try and get done in the allotted time. I've been asked to talk a bit about the issue of food security in Latin America. I think we have three types of hunger in Latin America, what I'm calling headline hunger, children who are malnourished under five years or under two years. We had hidden hunger. We have a lot of poor people earning less than $1.25 or $1.00 per day, hard to buy the food that is available. The problem is not lack of food. The problem is poverty. We also have what I've coined as Haites hunger or hot house hunger. That looms on the horizon as climate change may bring reduced rainfall, higher temperatures, and this will have a negative impact on yields so this issue speaks to the need for investment in research for adapted productive technology. You all know about the food price rises. Over the past two years the same hit the region. There were a number of government responses in the short term, none of which are really sustainable. There were efforts to expand food availability through free or subsidized inputs, tariffs and taxes on food, restrictions on food exports. There were efforts to expand access to food through food subsidies, targeted cash transfer programs, increasing government salaries. That would have been nice here in Washington to keep up with the food price crisis here. Some efforts were

maybe a little more longer term focused on stimulating more food production at the level of small scale producers. I'll come back to comment on that with respect to Central America. Of course, the effectiveness of these programs will depend on a range of factors, ultimately, if there's someone around to buy what the farmer produces. Poor farmers in the Central America region tend to operate on small plots, low soil fertility, isolated, lack of access to support services. Part of this scenario points that to reduce food insecurity will more likely require increasing jobs and raising incomes than just increasing domestic food production. We recognize that some opportunities may exist to improve efficiencies in domestic food markets, lowering shipping and logistic costs for imported food. Looking a little bit longer term, there were some instances of conditional cash transfers, policies and programs to increase employment, support for cash crops, agro-business development, and of course the underlying need is to develop human capital. Some of the effects on LAC economies for countries mostly in South America that are commodity exporters the rise in food prices meant positive effects on growth, some negative effects on inflation, but for Central America, who generally are commodity importers, there were negative effects on

growth and negative effects on inflation. You all saw in the newspapers, the headlines on non-violent and violent protests highlighted here by the picture of some protesters in Haiti. Overall adverse effect on consumers, increasing the number of poor and threatening the already precarious nutrition situation in some of the countries, obviously, poor consumers being most affected. Generally, inflation being higher for food than overall. Generally, in Central America, to cite one example, a lot of the households are net consumers of food, meaning if you're a rural based producer you don't grow enough to feed your own family, and you have to go into the market and buy food, and now you're facing higher prices for food. Here are some examples of how the price rise impacted on increase in poverty. Effects on small scale producers. In the near term some benefitted, and I use that word benefitted with entra comias [ph] from government-provided free or highly subsidized inputs. However, by this year Central America ministers of agriculture who were under the gun last year, you know, we don't have enough food, we need to produce more food, food prices are up. Now they have a problem where are the markets to buy the food that was produced with all of the free fertilizer and free seeds and so on. There's a longer term issue facing not just

Central America but other countries such as in the Andian region, Colombia, Peru, and Panama, those LAC countries that the U.S. has free trade agreements in place now being implemented or which are pending ratification by the Congress, and that's that the tariffs on very sensitive ag products will be declining over the coming 15 years, and this will make it increasingly difficult for smaller scale producers to be competitive in those crops in the face of cheaper U.S. exports unless we can find ways to shift those producers into higher value crops or value added enterprises or get them off the farm into jobs in the value chains. Right when we were completing the study, this study which we called the Trade Led Diversification Study done by my colleague, David Bathrick [ph] under contract initially with Carona [ph] and then with Camonics [ph] this food price thing hit the screen. And here we were arguing there's a need to shift producers into higher value crops and all of a sudden everybody is scrambling to produce more of the low value basic crops. Well, you know, that's fine if you're a net food producer who has the land, has access to credit, has the machinery, has the know how to take advantage of those higher market prices but most of the rural population in Central America are net food consumers. As I mentioned, they

have to go in the marketplace to buy food because they can't produce enough, and they're not well positioned for various reasons to be able to produce more. So we're looking at a situation where we felt there are still potential benefits from diversification. It's a way for families to increase their incomes through higher value crops. It increases the variety of nutritious food available. For examples, if kumquats or asparagus or raspberries or whatever don't quite meet the export requirements it still is available in the local market and will help improve nutrition. Overall, we feel this will improve the balance of winners relative to losers as tariffs decline. Part of our concern about that issue derives from 15 years in the NAFTA. There was a transition period. Today in southern Mexico there is many poor campesinos producing more corn than ever if they're not marching northward. Nothing was done to help them transition into alternate enterprises. We do not want to see the same happen further south in Central America. So I shift now kind of into more of a discussion of food security. You all now the standard definition and you know there are these three components of availability, access, and utilization. Part of the presentation or a good part of the presentation was developed by colleague Bobbi

VanHefton [ph] who happens to be down in Nicaragua working on a food security assessment for the AID mission there. I tried to get her back so she could give this presentation but she has to get that job done first. So we all know how many kinds of factors are interrelated that ultimately impact on a country being more food secure. In Latin American, the Caribbean food insecurity was already a problem prior to the food price increases and some countries have problems in all three dimensions of food security. This slide highlights that some countries such as Bolivia and Guatemala, Nicaragua, aren't much different than countries in Subsaharan Africa in terms of food being available in the market place based on calories per person per day available. That doesn't mean that the farmers or the rural population or the urban population have access to that food because that's an issue of income. On the issue of access the root cause of food insecurity is lack of purchasing power. When you look at the percent of population that is below $1.00 a day, you can say it's highest in Haiti and closely followed by countries in Central America and the Andian region. On food utilization there's great prevalence of chronic malnutrition, notably in Guatemala where child stunting is very severe. This chart just gives some examples of

how chronic malnutrition rates are much higher in the rural areas than overall country wide. And I see here one example in Guatemala, 69 percent in the northwest. Bobbi here makes the point that it's a very time sensitive issue. If mothers, pregnant mothers, small children, don't get food and the right nutrients and the right time period when they're young, it's going to have a very adverse consequence on their physical and mental development. My colleague, Robin Comfort, at USDA brought to our attention a new assessment that USDA, Economic Research Service did on food security based on IMF projections that export earnings, growth, and capital inflows in the region would contract over the 2009 base. Food insecure people across 70 countries worldwide would increase by 12 percent. The impact though will be greatest in the LAC region. The food insecure people to increase by 20 percent which equates to about 10 million. For comparative purposes just in Colombia alone there's 7.8 million people who live on less than $1.25 a day so just the worldwide impact is having the effect of creating another Colombia within the region. In 2009, 32 percent of the LAC population identified as food insecure and now projected at more than 38 percent in the context of the global recession. LAC countries are going to find it difficult to finance

the necessary imports, capital inflows likely to contract. Export revenues down due to lower commodity prices and demand. Foreign direct investment down due to uncertainty and lack of credit. Remittances down as people here in the U.S. aren't finding work, aren't sending as much money back to their home countries. So USDA estimates that in the long run to 2018 food insecurity's percent of the population will be about 33 percent, and particularly Guatemala is one of the more problematic countries. And because of the great inequity in the distribution of access to assets, productive assets and the poverty in the region it's going to take a long time to ensure that all people there have access to sufficient food. So in the bureau we've been thinking about how to respond to this. Partly in our discussions with the -- discussions within the agency and interagency about the global food security strategy, we see the pathway as a combination of increasing access to food by raising incomes of the poor and reducing chronic malnutrition by improving food utilization. Bobbi, using a methodology from the Food for Peace office did an index combining food availability, food access and food utilization measures, and based on that analysis the most food insecure countries in the region were these six, and that was

true no matter which way you weighted the three measures, like 60, 20, 20, 35, 50, 15, whatever, the same six pop up. Which one might be in first place might vary depending on the weighting. So we think the first priority is to improve access to food by expanding what we call trade led agricultural and agro-business related or agro-business based programs that generate jobs and increase incomes. And by enhancing the direct and multiplier effects that these programs have on food insecure by including more of the food insecure and targeted client groups and increasing emphasis on activities that increase value added and stimulate rural enterprise, you may recall from speeches by President Obama and Secretary Clinton in the Western Hemisphere there's something called pathways to prosperity in the Americas, a major theme being social inclusion and how to reach vulnerable populations defined as afro-descendants, rural poor, women, indigenous people, and youth at risk. So those are some of the groups that I think we need to figure out how can we help those groups improve their access to food. The second priority, improve food utilization by reconfiguring health programs to give greater emphasis to reducing chronic child malnutrition including by strengthening community and facility based health and nutrition programs and by

putting more emphasis on improving practices for feeding young children. And a third priority, and this, I think, comes from thinking about that hot house hunger of Haites hunger that looms on the horizon, and always the need for investment in maintenance research to ensure that over time your yields don't drop and research to push raising the yields. And I think from Norm Uphoff's presentation the importance of looking more closely at management practices, not just the basic genetic material, how can we get more bang for the buck and more output per unit of land. This is going to become a very knowledge intensive exercise and it's going to require investments in research and training of the next generation to help develop and carry on this work. But assisting in the near term countries to improve the function of their food import systems and domestic food markets, but in the longer term assisting countries to access production technologies to preserve or increase productivity in the face of climate change. On the issue of access basically what we were calling the Trade Led Ag Diversification or TLAD, and I have a few CDs up here that have all of the related documents on them so help yourself. It's a process that involves the shift of land and labor from increasingly sensitive, low value crops with respect to imports coming in under

free trade agreements to value added products derived from those crops, higher value crops, or other value added, that is, industrially of processed products which have high demand in local, regional, and export markets. My colleague, David, said when he did the study one of the issues that came up in every country where they were trying to produce these higher value crops goes back to an issue that one of the speakers, I think it was Sue Schram, discussed this morning about cooperatives. The issue, how do you get the container full? That is going to require giving the small scale that these producers operate, the small land base they have available. It's going to require organization so that through producer groups, cooperatives, you can assemble and pull together the volume of produce that is required to fill those containers. TLAD also involves growth of on-farm and off-farm enterprises to provide value-added processing of crops into higher value products and into market. They're sold into market-oriented supply chains. And then there's the whole issue of the institutional restructuring and industrial service sectors and ag-related public sector institutions that will facilitate this process that involves backwards and forward linkages between the production sector, the services sector, and the industrial sector, and all of that needs

to be supported by the right kinds of policy reforms. So if we were looking for some type of formula recipe, I think in the near term to reduce the headline hunger, we need to focus on malnutrition and those children who are chronically malnourished with the kinds of interventions whether it's feeding or health or education interventions that will lead to improving utilization of food. Also, in the near term we need to address the issue of hidden hunger by helping producers shift into more remunerative enterprises. Recently some work that we did in collaboration with Hunt-Hobbs of the MCC developed this idea of the sustainable value chain matrix where you have -- it all comes together here with a deal being made with the next buyers with products and you're not going to have that much. You have product quality meets market standards, complies with sanitary and sanitary requirements. To get there, you have to mobilize the factors of production through issues around physical capital, human capital, financial capital, and access to technology. And even beyond that, you have to be thinking how do you upgrade your ag sector, how do you make it more competitive, how do you promote the sector, when in the past 20 years that's not the first place we look for making development investments nor the countries that we work with. And in the longer term, we

need to address the Haites hunger through ag research and development investments to develop climate adapted technologies to improve quality and availability and lower per unit per capita production costs or per unit production costs. You all know the story about AID funding, how it declined over time during the past 20 years. We also had the phenomena in the last couple years that the Food for Peace programs under Title 2 have been phasing out. By the end of this year, 11 of the 17 programs operated in the region will end, meaning next year there will only be Title 2 programs in Guatemala and Haiti, and this is going to have an additional adverse impact on food security in the region. Looking at FY 2010 this is being talked about as the year to gear up for the launch of the global food security initiative working with host countries on developing a national vision and strategy, so-called compact or commitment, reach out to other stakeholders, NGOs, development banks, and so on. The administration -- the CBJ for 2010 does have a funding request for Haiti Guatemala, Honduras and Nicaragua and at least for the latter two to compensate that the Title 2 programs in those two countries were ending this year, the notional very draft 2011 budget seems to be only proposing funding for Haiti and Guatemala as to the two

LAC countries that are being notionally targeted under the global food security initiative. We have our reasons to explain why that is, but I won't go into that. But I will point out that even if we only have Haiti and Guatemala under that global food security initiative, I think the LAC bureau with what resources we do get, and I know we're requesting increased growth resources for economic growth which won't have as many strings attached. This will be associated with the food security money that we will be looking for ways to program those funds to address the hidden hunger issue of how do you raise rural incomes. We are exploring with CIAT [ph] the possibility of funding a project on how do you link a vulnerable population to the best technology that's available for fruit production. I haven't even seen the concept paper yet but I know they're working on it. And so even beyond Haiti, Guatemala, Honduras, Nicaragua, Ecuador, and Bolivia, we also know in the Western Hemisphere we have major poverty and food insecurity generally particularly in southern Mexico, also in the Andian region, and into Brazil, northeast Brazil. So with that, I hope I've kept us on time, and thank you for the opportunity to present some information on food security in the LAC region.

THE CHAIRMAN: It is a complex problem, isn't it, and it does demand our attention and our commitment to a solution. Questions from the Board? Bill or anyone? Ron, we don't have another speaker in this section, is that the case? We're ready now for -- we did have an announced period of public comment so the floor is open for that, and again, Dr. Williams, did you want to bring forward your comment?

MR. WILLIAMS: ...operations and management issues.

THE CHAIRMAN: Okay. Any other -- we're moving through this quickly. Surely someone has something that you'd like to say to the Board and bring to our attention. Yes. Please identify yourself, and if you wouldn't mind, go to the microphone.

MR. HATCH: I just wanted to mention that we believe -- and I'm David Hatch from IACA, Inter-American Institute for Cooperation in Agriculture. We have two colleagues here, one from Costa Rica, Chris Hansen, the deputy director general of IACA, and then also Hugily Poon [ph] who just joined us after working with the IFC in Peru for many years and elsewhere. We wanted to say nothing more than this that we believe that it's a critical element for us to look at our own back yard as it relates to food security. We hear a great deal about

Haiti, and that is a very, very important country, but I reality the percentage of those who are poor in Haiti as compared to the rest of the hemisphere, the Haitian population makes up about 5 percent of the poor in this hemisphere. So as critical a need as Haiti is, we have an acute need in other areas of this hemisphere. To that point, we wanted to announce that the Organization of American States and IACA has organized a conference set here for the 1st October in Washington, D.C., which will be housed at the OAS headquarters here in Washington. And its theme is agriculture for development and food security in the Americas. We hear a great deal of talk about the critical needs in Asia and Africa, and we have very few voices who are speaking about the needs within this hemisphere, and we believe that the civil instability that we've seen thus far and that we certainly will expect to see if we don't address this issue correctly will only increase and create more problems for the United States and for other countries as well. And so this is a bit of a drop in the bucket in terms of preventive medicine but we believe that the theme is very timely for the Western Hemisphere. Those of you who would like to be invited to this event, we anticipate that it will be perhaps standing room only simply because we have space for about 250 to 300

people. We'll have the ambassadors to the OAS from the various countries in the Western Hemisphere there, as well as a wide range of other individuals from the donor community, governments as well as the private sector, but we believe this is just a start or perhaps better said this is a continuation of an emphasis on the part of IACA as well as other organizations to raise the banner within the Western Hemisphere and to provide more attention and hopefully more resources in the future. So if you have any questions, feel free to talk to any of us, but we felt that this is an important forum to make this announcement so we appreciate the time. Thank you.

THE CHAIRMAN: Very good. Thank you. And if you wouldn't mind forwarding that information to Dr. Senykoff at BIFAD so we can be aware of those dates. And in keeping with that same thought just I think some of you have seen this save the date announcement. The next BIFAD meeting will be, as it has been now for several years, in conjunction with the World Food Prize symposium and event in Des Moines, and the dates for the -- that whole week is the 13th through the 16th of October, and the BIFAD meeting is on Tuesday, October 13, so if you're making your calendars and need to know that, that's the scheduled date for the next meeting.

Further public comment?

MR. WILLIAMS: I would...

THE CHAIRMAN: If you're prepared to do it, Tim, why don't you go ahead and make the announcement and then we're a bit ahead of our schedule, so it's a good time to do that. I did meet with the CRSP -- several of the CRSP directors this morning and suggested that this comment be made as a matter of getting it into the record of this meeting.

MR. WILLIAMS: Okay. I'm Tim Williams from the University of Georgia, and I represent the CRSP Council, and I'm charged to raise this matter which we believe is a failure management issue and is relevant to the failure of BIFAD in that context. Recently, we were notified of a revised ADS relating to the collaborative support programs which sets out to reverse BIFAD negotiated terms under which the CRSPs operate. And this is being applied to existing CRSPs and future CRSPs by modification or inclusion in the RFAs which again are subject to BIFAD consideration. And we feel that this change which essentially -- it removes a lot of the issues and the opportunities for the CRSPs to manage on behalf of the universities with a restricted USAID involvement, and that we think would have a significant detraction to the value of CRSP programs and the ease

with which they may operate into the future. And I think that, you know, our concern is that this is raised as a matter with USAID in terms of maintaining a good partnership because if a negotiated gets unilaterally voided, I think the partnership is done with that way. Thank you.

THE CHAIRMAN: Thank you, Dr. Williams. Let me just for the Board's benefit, the issue, and we don't need to go into detail in this conversation, the issue concerns the contract between USAID and individual CRSPs, and the agency's role in terms of selecting and evaluating the science that's done, and to what detail or to what level is that. And my understanding is there was a back and forth conversation between the BIFAD and the agency several years ago that agreed to protocol, and we have not been consulted in terms of this current revision. And I think it's very appropriate this is the kind of thing that the BIFAD should be involved in doing, and that is working between university concerns and the appropriate individuals within the USAID. So what I would propose to do as chairman of the Board is to engage with Karen Turner, who will be our point of contact, and bring that issue up. I think if you could, Dr. Williams, provide me detailed comment specifically so that that conversation could be well informed before

I begin it. I think I understand the issue, but I need to be sure we have the appropriate background for the conversation. And, again, I think it's in the goal of working these things out in a collaborative partnership relationship rather than getting into an adversarial conversation about this. With that, I'll close the period of public comment, and ask Sue Schram to come again and bring her enthusiasm as she brings to us a report from what by several reports was a very useful SPARE meeting that was held down in sunny Florida back in February. Sue.

MS. SCHRAM: Thanks, Bob. Well, my task in this segment is to report on the most recent meeting of SPARE. SPARE stands for the Strategic Partnership for Agriculture Research and Education. It is the major working group of BIFAD. For those of you who may be new, you can recall that this group has been called various things through time. It's been called JCAD, it's been called JCARD, and then it was renamed SPARE. It's an illustrious group with quite an effective history. I can remember, I guess I'm ancient now, but I can remember being back in JCARD or JCAD. I can't even remember which when the actual CRSP model was proposed and developed. That kind of rose up out of that group, and they've tackled many issues through the years. I

remember Morris Whittaker writing an incredible paper on decentralization of aid authority and how that would impact Title 12 programs and so on. I'm here for our chair, Sandra Russo, from the University of Florida. She's out of the country so she asked me just to share a bit with you about what happened in Florida. We had a long and a very enjoyable meeting down there hosted by David Sammons [ph] and others. And at the conclusion of the meeting, Patti over here from Encounter and Sandra and some of us put together a couple of pages to crystallize the recommendations that we were highlighting for BIFAD. Sandra said, gee, you know, I apologize for asking you to do this because many of these things have been overtaken by events, and as you will read this short summary indeed they have, so let me just kind of highlight a few key points. I would go actually to the suggested priorities above the little chart that's on the third page because that really kind of boils things down. The crux of what we were saying is that given the very important events that are going on today, we were hoping and recommending that BIFAD will indeed become very engaged with the agency in interacting and bringing the expertise of the university to the fore as we proceed with these new resources in agriculture development and food security that the voice

really needs to be heard, and indeed a lot of this has already been going on so I certainly am not saying that it's not being done. Dr. Easter has been talking with Karen Turner. There have been dialogues. We already had the dean's meeting and so on so, as I say, a lot of these things have been eclipsed by events. But we think that the agency really needs to hear BIFAD's voice about how HECTARE should be -- the HECTARE portion of Lugar, Casey, and McCollum should be implemented. We've heard some concerns here today, what does this really mean? It's a little bit different from BIFAD and we have a bit of a question, will BIFAD have the ability to help negotiate this. I worked for a group at USDA that was put together by the Congress, and then the agency had quite a bit of ability to say how it would carry it out. Do we have that input, it's important to get the BIFAD input in there. Afghanistan and Pakistan are going to be huge in the coming years, and what does this mean for universities? We had an excellent session on that today so the dialogue on that is definitely starting. But that will also need to be an area that is guided. We feel it's very important to advise on the African higher education initiative that is being coordinated at APLU. We had a few other -- those were kind of the main ideas. Let me just highlight a couple of things under

recommendations. We talked about a town hall or some way to interact and plan for HECTARE. I think that that dialogue has been initiated with Deborah's good report. I could hear this morning a lot of things were starting to be discussed at the Council of Deans meeting. That's an excellent start. We had suggested that BIFAD might want to have the visibility of convening a session at the World Food Prize that would showcase some of the university capabilities. Again, I'm not sure if that's already been considered. There was a topic that came up that was rather interesting in that ODP was considering having an MOU with BIFAD, and we discussed that but we decided that we needed more information in order to advise on that. It sounded a bit odd. It seems that USAID forms MOUs with universities but we didn't quite understand how it would form an MOU with BIFAD. That sounded like it might need a little bit of legal consultation and a little bit that SPARE would need more information before we certainly advised on anything. The concept of the brain trust has been brought forth really by the previous administration of USAID. In intent, I think it's an excellent idea and the group thinks it's an excellent idea to be able to have some sort of way to bring the great minds of the universities to the fore in terms of USAID issues, but we're not so

sure whether the new administrator will still think that, so we think that there should be some consultation there before that's actually implemented. Let me just add just quickly some other issues that have emerged that weren't necessarily discussed at the Florida meeting. As we see the potentially greater opportunity for university contributions, I really -- the group also thinks that we need to take a look at the overall governing and support structures that surround this very large amount of money. What does HECTARE mean? As I mentioned, what does it really mean for us, and if there are questions in how it is carried out how much latitude do we have to help define it. Connie said this morning there were broad perimeters, can we help define it. Secondly, we were wondering over time how the brain trust fits in vis-à-vis SPARE and BIFAD and APLU. SPARE is supposed to be a working group. Of course, APLU with Kerry has access and linkages to all of you in the universities. How do all of these players come together so we have the intent that's been talked about and the intent is to tap the great brains of the university and bring them in on a long-term basis or even on a short-term basis but how do we do that by working carefully with all the groups, what is the role of the different groups, and how do we best carry that out. There are

CRSP operating issues. For a long time, the CRSPs were the only program that we had to worry about, and we all stayed engaged with that and worried about those, and they are continuing to be a large earmarked program. There are issues. Tim just raised one. There are issues that were identified by Deborah and Ray Miller in their study that was done not so long in the past, and I'm told there was a study done by Hawaii some years ago where there also were issues raised. What do we do about these issues? They seem to be floating around. SPARE wants to be helpful. To tell you the truth, as you can see, we didn't even discuss the CRSPs at this meeting. So what is our role? How can we most be helpful, and, furthermore, how can we settle these issues? We need to have an effective structure that engages, that tracks what the CRSP directors are concerned about, and that takes action and that resolves issues so that we can move on and work together. Finally -- well, next to finally, Ray Miller, one of our members, has done some excellent thinking about this mind mapping concept. He sent an e-mail to some of us early this morning, I believe, and I talked to him yesterday. And he raises excellent points. We have many reports on agricultural technologies, and what it will take to solve some of these issues in the coming

years. We have Dr. Uphoff's excellent report. We have IFPRE. We have the National Academy report. We have FAO. Again, as I said earlier, our system has never lacked for intelligent reports. But what do we do with all of them? How can we bring them all together, take advantage of the hard work that's been done by all of these people, map some of them, and then this is the intellectual analysis and research aspect that we need to bring back in to USAID and then say, okay, we've done this and this is what we think it means for how things need to move forward as you allocate these dollars. Ray calls it mind mapping. I think of it as mind blowing if you can think of all these variables and to possibly come up with a map of how to look at all of them, but I have great confidence in the minds at our university and I think that could be a great contribution, or universities, I should say. Finally, I'll conclude by saying that we need to think about, as I said, the structures as we move forward. Do we even want SPARE anymore as we have HECTARE? Do we need SPARE? If we have a brain trust, do we need SPARE? So we think that as things move forward with HECTARE and new ideas feel free to take a look at the structure. The bottom line is effectiveness. What do we need one, who can best do it, and what structures do we put together to make that

happen? I think that's all I have, Bob.

THE CHAIRMAN: Any questions or comments? We come to this point often where there are good ideas put on the table and we don't actually do much about it. And I'm anxious this time, Sue, and I think the SPARE went into the meeting with the notion that they were going to do serious conversation, bring forward recommendations that we would do something with. So, Ron, I think one of the things that we need to put high on our agenda is actually responding to some of the points that are being made here. So let's -- I think perhaps you and I should have a discussion and then broaden it to the Board. The real question that I think you raise at the very end is what kind of support under whatever status we have is required by this Board and there are operational issues that in some sense are very different from programmatic issues and there may well be a need to separate those two enterprises so that there's one organization that focuses on operational issues such as you've identified here. And then the brain trust may be more like the structure that's needed to think about the vision that -- the issues that may change almost monthly as different things emerge. So I think very good points. My thanks to Sandra for chairing the committee and also to you for bringing the report here

today. For those that have been with us for a while you'll recall that the BIFAD took up the question some time ago, I think probably about two years ago, relative to subcontractors and substitution of contractors in the process of responding first RFPs and then what might happen after an award was granted. And the BIFAD took a position on this and sent it on to USAID and over time there's been an attempt to respond to that. And I think, Jean Horton, if you'll come forward and tell us where we are. Is Jean with us? I don't see her. Okay. John Becker is going to come up and bring us up to date on that conversation.

MR. BECKER: It's my understanding that the subcontracting issue is one of key subcontractors in a proposal and then subsequently being changed to address that issue. First, it's a contract issue. It's not a grant-related issue although it's a problem with grants as well, but the way they're looking at it is limited to contracts. Secondly, they have started a pilot activity and the results of those pilot examinations of this process that they're trying to look at how they will handle that are not complete yet. They hope to have the analysis done by the fall of this year and perhaps a more complete readout in the winter months. Basically, I think what the approach that they're taking is they're

addressing key subcontractors in terms of oversight by the CTO, not unlike the address of key personnel. When you make a proposal to AID and you list key personnel that word is tied pretty much to those key personnel. If you then change those key personnel that has to be vetted subsequently with the contract officer and they're looking at that type of model. There are some complications to it, but at this point that's about as far as they're prepared to go in the context of resolving this issue, and they will be back again with us hopefully at the next Board meeting.

THE CHAIRMAN: Do we need to send a letter forward to remind that the Board is still interested in this issue?

MR. BECKER: I don't think so.

THE CHAIRMAN: Okay. It's moving then. Okay.

MR. BECKER: And it's a much larger issue than a university BIFAD issue. It's been on the plate in a major way for the agency for some time.

THE CHAIRMAN: Very good. Comments from the Board on the SPARE report or the contracting report? This brings us to the end of our announced agenda other than other business and announcements. Do you have items, Board members, that you'd like to put on the table, anything for discussion at this time? Yes,

Catherine.

MS. BERTINI: Yes, I do. This has come in and out of our discussions today especially when there was mention before of accountability, but one of the things that I'm hopeful that our community will be able to provide support for the Administration's proposal for the issue of how do we define success and how does the Administration ultimately define success in their agriculture development plan. And I don't know how exactly we make -- BIFAD makes that offer or someone does on behalf of the university community but it could be a critical part of a need for the Administration so I'd just like to suggest we look into it.

THE CHAIRMAN: Metric seems to be a very simply subject. You just measure something, but when you actually try to define metrics that relate to impact in achieving desired goals, it's not simple to do. Yes, Sue.

MS. SCHRAM: Thank you for raising that. I was actually going to make a comment on that but I thought it was way outside my purview, so I'll make a comment anyway. We have been discussing in the co-op community the indicators that are presented in the F process for success that are then reported on to the Congress. And there is a huge, thick packet of

information on those indicators, and I believe it did come out of the F process. So the discussion was that many of our programs in the co-op community are not adequately reflected in these indicators. Indicators are like how many people came to your meeting, and so on, not really what happened. So then we were shown indicators of the micro-finance program. It's such a huge program that the community took it upon itself to put together a page full of indicators that are much more meaningful than were reflected in the F process. So I believe if there's this huge amount of money out there that someone needs to take a look at those indicators that are reported to the Congress and then say, okay, do we need to fix these? I don't know to what extent the F process is negotiable at this point. It was from a previous administration. But perhaps SPARE or someone from our community working with BIFAD could help identify what we think success would be and what the indicators are that should be reported upon, and perhaps this is happening as part of the food security strategy and I don't know it, but I think that's really a key question because when we go on the Hill people say how are you going to report on this. We haven't even gotten a report from X, Y and Z how this money was spent. Be sure if you're getting this much

money you have a way to report your success.

THE CHAIRMAN: Very good. Thanks for that comment. Other comments from the audience? Yes, John.

MR. RIFENBARK: John Rifenbark, the Office of Agriculture in USAID. I'd like to support Board member Bertini's request for recruiting for junior officers for USAID. I brought a little handout. They're out there on the table. I have copies for the Board members. Essentially we have open announcements for junior officers, and this page describes the program, the qualifications, the selection process, the training, and everything you want to know about the junior officer training program. Thank you.

THE CHAIRMAN: Those of you that come from university communities, I would just ask that you take a copy of this back. I suspect that most of your colleges have a placement or career services office or something of that nature, pass it on to those individuals so that they can become aware of the opportunities in this area. Other comments? We're about to adjourn here. By the way, I referred to you as doctor this morning, and you very modestly said, well, no, but you have ten honorary doctorates. I think that deserves Dr. Bertini.

MS. BERTINI: Thank you. I didn't realize except that the university that gives it to a person

that it counts, but, anyway, thank you, Mr. Chairman, Dr. Easter. I just want to circle back again on this accountability thing, the vision thing, I guess, as my President once said. I think there are two different ways that we should look at it, and I'm not saying we're going to decide any of this now, just in terms of thinking it through for the future. One is exactly that each project or each entity or each thing that's funded by Congress needs to have something very specific that goes back, but there's hopefully now -- if we are all correct in our optimistic assumption that there really is $20 billion or even $10 million or even some new attention to agriculture, significant new attention to agriculture development from around the world, it seems to me that we also need to think of global indicator. And maybe this is for an international organization to figure out, but not very complicated and not very many. This is going to be really hard to say, well, you know, USAID funded this piece over here and DIFID [ph] funded this piece over here and Save the Children did that. Everybody can do their own for their own projects, but ultimately what is the end result for the people that we're all trying to serve. So is there, for instance, a very simple indicator like the health status of the children under two, the nutritional status of the

children under two or something that could be, well, we really did have an impact ultimately on hunger and poverty because we had an impact on that collectively. So just in thinking about it, I think we need to think about the specifics and the broad issue as well.

THE CHAIRMAN: If I understand what you're saying is that there's probably a myriad of things that could be measured but there's one or two that could be surrogates for the whole entirety of that that would be representative of success.

MS. BERTINI: Otherwise, we could employ every evaluator in the world forever and not answer the question because they would say, well, we'll have to be concerned about this and how this -- I mean it would be too complicated. We should have an evaluation of every project, no question, but then globally how are we going to say did this all work, was the G-8 really successful and have we really raised a significant number of people out of poverty and hunger.

THE CHAIRMAN: Great suggestion. Other comments from the audience? Dr. Senykoff.

MR. SENYKOFF: I have a comment to Catherine's. You know what comes to my mind, NAID, the last count we had 635 indicators, I believe it is. Not too distance future and a previous administrator, we had

235 strategic objectives. Now we're talking about global food security here. We have discussed the idea of the green revolution and what went in the '60's. Clearly, and as we said earlier in the luncheon, the right questions were not asked because if they were we probably wouldn't be standing here today to deal with the food security issue. What comes to my mind, Catherine, and I think you just made a very great statement, and that is there was a time when we didn't measure electricity the same in every country. We didn't measure the volt, the ohm, or any of these other scientific indicators including what we now call the meter or what we call a centigrade scale. And a world congress over a series of discussions came together to unify and to develop on a scientific basis standards to which everybody measured the same thing the same way and could be repeatable in such a sense that no matter who developed it even if they lost the meter stick they could recreate it on scientific data. What my sense is from USAID because we have indicated ourselves to death -- I'm an AID person. We have more than indicator. I came to the first indicator conference in 1990 something and stood up and said it's going to cost us $125 million to develop a set of indicators, and people said, well, how can you come up with that, and I said I just went to

$40,000 in the Philippines to develop one indicator. I said just multiply that out. It won't take long. We haven't achieved that. We keep developing new indicators. Perhaps off of your statement the idea of some form of global coordinated conference that deals on global indicators to come to a unified perspective might be of benefit.

MS. BERTINI: It's a step deeper than NDGs in my view but I think that's the direction.

THE CHAIRMAN: Well said, Ron. Do you have anything else for us before we wrap up?

MR. SENYKOFF: No. Only thank you to everybody and to the indications of increased interest in BIFAD and working with AID. We're trying hard to make some changes. We've got a lot of struggles. There's new energy that's being applied but we want to share with you, and I can say this on behalf of all of our office and others around, thank you very much for the efforts that each of you have applied. The thinking that's coming out of the universities, I think we might be actually getting something together in the sense of dual communication in both directions. I encourage continue the thinking, break the box, push forward, don't take anything less than the best and take no prisoners.

THE CHAIRMAN: Thanks for that advice. Let me just conclude by saying thank you very much to the speakers. We've had a really good series of presentations today. I appreciate that for many this is above and beyond. It's not part of the ordinary assignment. So thanks for that, and safe travels. Thank you.

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[End of Proceedings]

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HELD AT: Washington, D.C.

DATE: July 29, 2009

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