

BIFAD Public Session

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Contents

Welcome and Opening Remarks	2
BIFAD Chair Brady Deaton Calls 170th meeting of BIFAD to order	2
Introduction of BIFAD members	2
Recognition of departing BIFAD members and staff:	2
Introduction of Dr. Barbara Schneeman, USAID Higher Education Coordinator	4
Item of Old Business:.....	4
Updates on the USAID Feed the Future Initiative	5
Panel 1: Trends and issues - Consultative Group for International Agricultural Research (CGIAR).....	6
Panel 2: Feed the Future and University engagement with the CGIAR	12
Public Comment Period.....	15

Welcome and Opening Remarks

BIFAD Chair Brady Deaton Calls 170th meeting of BIFAD to order

Chairman Deaton had the recent honor to meet with Illinois Congressman Paul Findley, who was one of the founders of the Title XII amendment of the Foreign Assistance Act of 1961. Findley joined with former Senator Humphrey to create Title XII and the Board for International Food and Agricultural Development (BIFAD). Findley wanted to extend a special greeting to the members of the board because he saw this board and the work they do as very important for the nation at that time and continues to see it as a critical way of binding what is done in our land-grant universities with our foreign assistance mission through USAID.

Introduction of BIFAD members

Brady Deaton - Dr. Brady J. Deaton currently serves as the Chairman for the BIFAD. Previously, he served as Chancellor and Chief Executive Officer of the University of Missouri from 2004 until 2013.

Pamela Anderson - Dr. Anderson joined the board in October 2015. She comes from the Gates Foundation, where she served as Director of the Potato Research Institute in Lima for many years.

Cary Fowler - Dr. Cary Fowler joined the board in 2015. He served as Executive Director of the Global Crop Diversity Trust until 2012. Prior to this he was Professor and Director of Research at the Norwegian University of Life Sciences.

Jim Ash - Hon. Jim Ash also joined the board in 2015. He is a Partner at the law firm of Husch Blackwell LLP. He has served as Chair of the firm's Food and Agribusiness Unit since 2013.

Gebisa Ejeta - Dr. Ejeta is a Distinguished Professor of Plant Breeding & Genetics and International Agriculture at Purdue University and the Executive Director of the Purdue Center for Global Food Security. His BIFAD appointment has recently been extended by President Obama.

Board Member Harold Martin could not be in attendance but listened in remotely from North Carolina A&T. Also absent from the meeting was Board Member Waded Cruzado.

Recognition of departing BIFAD members and staff:

The board recognized outgoing board members Dr. Catherine Bertini and Hon. Marty McVey, and outgoing BIFAD Designated Federal Officer, Susan Owens, for their meaningful service.

Recognition of Dr. Catherine Bertini, Outgoing BIFAD member

Dr. Bertini served on BIFAD since 2006 and is the longest serving BIFAD member. She was first appointed by President George W. Bush and later reappointed by President Obama. She has a long and distinguished record of public service. She was the UN World Food Program Executive Director. She was the 2003 World Food Prize Laureate and she was the Assistant Secretary of Food and Consumer Services at USDA. She is also a distinguished fellow of the Chicago Council of Global Affairs.

Dr. Bertini could not be attendance due to teaching obligations, but former Secretary of Agriculture and co-chair of the Chicago Council Dan Glickman accepted the award on Dr. Bertini's behalf and said a few words. Mr. Glickman noted that Dr. Bertini has had a transformational impact on his life. While he was at USDA, he was responsible for re-appointing her to the World Food Program in Rome, and she was an amazing example of the bipartisanship that we don't really see any more in the halls of Congress.

Recognition of Hon. Marty McVey, Outgoing BIFAD Member

Hon. Marty McVey served two appointments by President Obama on the board. He is the founder and CEO of McVey and Associates in Houston Texas. He served BIFAD as Chairman of the Budget Committee and on a Haitian reconstruction task force. He also gave his time to conduct site visits to Feed the Future innovation lab projects in countries including Nepal, India and Pakistan. He also represented BIFAD at various global Innovation Lab meetings.

Mr. McVey accepted his award and said a few words. He noted that serving the board has been a great pleasure. Much knowledge has been gained and transferred to other places around the world, and we must look for ways to give back to those who are ready to receive. He noted that he has developed many long-lasting lifetime friendships with BIFAD, and he will continue to look for ways to serve and remain a great friend.

Recognition of Susan Owens, Outgoing BIFAD Federal Officer

Ms. Owens has been the Designated Federal Officer of BIFAD within USAID since 2010. Ms. Owens has also served as the Acting Office Director for the USAID's Bureau of Food Security Office of Agricultural Research Policy. She has served with the Peace Corps and later held a professional position with the Peace Corps as well. She also served in USDA Foreign Agriculture Service as the Director of the FAS Research and Scientific Exchanges division. Board members each expressed thanks for her contributions and wished her well in future endeavors.

A Certificate of Appreciation, signed by USAID Administrator Gayle Smith, was presented to Ms. Owens by Beth Dunford and Brady Deaton. BIFAD members also presented Ms. Owens with a plaque recognizing her for her contributions.

Ms. Owens accepted her award and said a few words. She has worked with BIFAD for over five years. The partnership began when the Feed the Future initiative was being launched by USAID and other US government agencies with President Obama's leadership. The board engaged with USAID right away in seeing how universities can be better engaged in the fight against global hunger and poverty. The board was asked to look at the way USAID was relating to universities and agricultural research. The board took on this challenge and conducted studies, performed outreach, met with former Administrator Shaw, and really helped guide the research development strategy and programming for Feed the Future. Ms. Owens thanked all of her colleagues for the work they have done.

Introduction of Dr. Barbara Schneeman, USAID Higher Education Coordinator

Chairman Deaton introduced USAID higher education coordinator Barbara Schneeman to say a few words. Dr. Schneeman has been at USAID for one year, and one of her roles is to ensure that the knowledge and skills from higher education institutions to sustain development outcomes are built into the agency. She worked previously at the Food and Drug Administration and at UC Davis.

BIFAD and APLU were very supportive of creating the higher education coordinator position. Thus far, many higher education organizations and institutions have contacted Dr. Schneeman--some that already have a lot of experience working with USAID, but others that feel they have something to offer or want to make sure their programs align with what the U.S. is trying to accomplish through development. She hopes she can make those connections within the agency.

Item of Old Business:

BIFAD formed a workgroup in response to the university community's concern of the visa status of students studying in the US under USAID sponsorship. Board member Ash has led this workgroup and gave an update on its progress.

In October of last year, several universities raised concerns about the process and substantive issues related to the USAID visa requirements for international participants in USAID funded programs. Those concerns centered on instances where USAID policies differed from standard university practices and included primarily the following:

- The adequacy of stipends and benefits for visiting international students
- Health insurance costs
- USAID visa requirements including security risk and fraud inquiry coordination
- The inability to use university authority to sponsor J1 visa holders
- Difficulty with coordination with local jurisdictions and USAID Missions
- Process deadlines and documentation issues

USAID has provided exemption and better coordination with respect to the Innovation Labs (some of the more burdensome and costly requirements); however, a number of these issues remain unresolved. Thus, the Board felt that it could add some value by bringing together a place for universities to focus their concerns and then foster coordination with USAID around those issues. That working group came together in November and December more than once to generate further discussion both among the universities that had raised the issues and the broader university community. The team began to finalize recommendations at the same time that USAID began to undertake internal reviews of its visa-related policies. The working group will provide USAID with a matrix of issues that will allow them to focus some of their attention on the university-related issues.

Updates on the USAID Feed the Future Initiative

Next, Beth Dunford, Deputy Coordinator for Development for Feed the Future and Assistant to the Administrator of the Bureau for Food Security (BFS), gave some updates on the Feed the Future Initiative.

The Feed the Future Initiative has an emphasis on smallholder farmers, particularly women. It supports 19 focus countries and other regions that are making progress toward sustainably developing their own agriculture sectors as catalysts for economic growth in their populations.

Feed the Future was established following the 2009 G8 Summit in L'Aquila, Italy to reverse a nearly three decade long decline in agricultural investment. President Obama's leadership has galvanized support and investments around food security in the amount of 22 billion dollars. Feed the Future has led the way to reinvestment in agricultural development, specifically in country-owned and country-led strategies. It has also focused on smallholder farmers, as well as nutrition, climate-smart agriculture, and public-private partnerships. Feed the Future is making progress towards its goal of a twenty percent reduction of child stunting and twenty percent of poverty. A 2010 sampling of five Feed the Future countries saw an annual average rate of reduction in stunting of about two percent per year. Feed the Future focus zones are seeking reductions in stunting of about four percent per year.

Beyond the increases in nutrition and good health, Feed the Future is also seeing progress toward lifting smallholders out of extreme poverty. Feed the Future assistance or training reached 19 million households and helped 7 million farmers reach new and needed technologies (soil conservation/water management). It has trained nearly 1.5 million people in child health and nutrition and reached more than 12 million children with nutrition interventions. Farmers saw more than half a billion dollars in new agricultural sales, which directly impacts farmer incomes.

The Global Food Security Act would strengthen Feed the Future's accountability mechanisms and establish parameters for congressional oversight, monitoring and evaluation of impact. Having congressional involvement would help prove how Feed the Future is moving forward. Harnessing scientific innovation technology in agriculture and nutrition is critical. BIFAD is especially committed to two areas fundamental to scientific innovation. The first is sustainable human and institutional capacity development in its partner countries, and these efforts will create the next generation of agriculture professionals and promote sound economic models. The second area is research. The Feed the Future research strategy is implemented through research partnerships with both the private to public sectors. It centers around seven important research themes.

- Climate resilient cereals
- Legume Productivity
- Advanced approaches to combatting pests and diseases
- Nutritious and safe foods
- Markets and policy
- Sustainable intensification
- Human and institutional capacity development.

Funding to the Feed the Future Innovation Labs has significantly increased. There are now 24 Innovation Labs, which address a wide range of issues.

At the end of Ms. Dunford's presentation, BIFAD members responded with a few questions. Chairman Deaton asked about the atmosphere for continuing the extension of the Global Food Security Act and whether any additional funding could come down the road. Ms. Dunford responded that there is strong support for viewing food security as a global good and a national security issue from both sides of the aisle. She urged that we build upon this traction and keep the issue on the international stage, particularly by better articulating the work that we are doing, and rallying support from additional donors and alternative funding sources.

Board member Anderson asked what is being done to track impacts, particularly for smallholders and women. Ms. Dunford noted that one of the most groundbreaking initiatives Feed the Future has embarked on has been the development of the Women's Empowerment in Agriculture Index. This index measures women's involvement with agriculture and their ability to make decisions, as well as their engagement in broader food security efforts. She noted that baseline measurements of the index have been collected, and midterm results will be available sometime this year to show how Feed the Futures programs have been able to contribute to progress. Feed the Future has also been encouraging the international community to adopt and utilize this index as a way to evaluate success.

Panel 1: Trends and issues - Consultative Group for International Agricultural Research (CGIAR)

Moderator: Cary Fowler, *BIFAD member*

Panelists: Rob Bertram, *USAID BFS, Chief Scientist*

Jonathan Wadsworth, *CGIAR Fund Council at the World Bank, Executive Secretary*

Molly Jahn, *Professor, University of Wisconsin and CGIAR Consortium Board Member*

Marianne Bänziger, *Deputy Director General for Research & Partnerships, CIMMYT*

Board member Fowler made a few opening statements. He noted that the partnership that USAID has with CGIAR is one of the most important partnerships to the goals and missions of USAID, and reminded the Board of the necessity of looking closely at this partnership. He then opened it up to the panelists to share.

Robert Bertram highlighted that while universities and CGIAR centers occupy similar space, they have distinct—but often complementary—strengths. His comments focused around projecting the overall place of the CGIAR within the larger Feed the Future research programs. He noted that USAID, working with the Treasury Department, APLU, and the Hill, pushed very hard to maintain the World Bank leadership of the CGIAR system. He also noted USAID's advocacy for an alignment between priorities and funding, as well as for a strong Science Council.

Bertram noted a few key reasons why USAID invests in the CGIAR: crop improvement, conservation of genetic resources, and international public goods in areas like animal health and livestock production

systems. The CGIAR is very well placed for having infrastructure on the ground for things like large-scale crop breeding programs in tropical areas, and USAID seeks to help them utilize their strengths even better through partnerships with the Innovation Labs. Another key area of focus for partnership is around yield gap reduction research that supports transformation of smallholder systems through sustainable intensification.

Bertram also noted Feed the Future's efforts to move away from a lumpy research portfolio and focus on seven main program areas. Some of the programs—such as the legumes and cereals program—are about breeding long-term efforts that will be sustainable over time. Some programs are about using targeted technologies and leveraging science to overcome constraints. The medium term programs around policy, nutritious and safe foods, and capacity building, as well as longer term research programs, come together in the sustainable intensification program. Roughly 60% of the portfolio is in breeding and genetics and another 25% in sustainable intensification. US universities also bring expertise in such fields as gender and social science, with which the CGIAR may struggle more. Funding window one is not a major part of USAID's effort. Funding window two is where USAID funds six of the CRPs and is a key target for a lot of the long-term FTF research. In Window three, USAID has the partnerships for sustainable intensification targeting the FTF agro-ecosystems, bio-technology and advanced science investments—the former includes CSISA and Africa Rising—and the mission investments, which are about capacity-building, partnerships, and institutional strengthening.

USAID has tried to foster collaboration between the innovation labs and the centers in a number of ways—at the governance level, through involvement in joint strategic planning, and through hardwiring collaboration in a number of the new innovation labs. The centers in many cases are part of collaborative efforts with US scientists who compete for the awards. Some of the foundational investments that USAID is making in the university community and some of the newer Innovation Labs are really trying to up-the-game in terms of leveraging science into the CG system. One example is the high-throughput phenotyping through the Applied Wheat Genomics project at Kansas State University, which will pay off for the world's wheat farmers, as well as benefit US wheat growers.

Another example of this is the climate resilient chickpea work, where USAID is working with national partners and US universities to broaden the genetic base of this important legume crop. There's also a climate resilient cowpea lab in UC Riverside. The Gates Foundation has made a large investment in partnership with Monsanto to increase cowpea breeding in Africa. The foundational tools for a lot of that work will come out of the lab in UC Riverside.

Bertram next gave a few examples of funds flowing the opposite direction. The Heat Tolerant Maize in South Asia is an example of where USAID is funding CIMMYT to work with public and private sectors in South Asian countries, but also with Dupont Pioneer and Purdue University. This is a case where the funds are flowing the other way, but the achievements have been spectacular. He also mentioned a few other example of leveraging US science into key constraints—in areas such as banana diseases, late blight resistance in potatoes, and livestock diseases like East Coast Fever through generation of a vaccine platform.

Bertram concluded by noting that USAID is thinking about how to make it easier for US scientists to work with the centers. The centers have been facing huge economic constraints and lower overheads that they charge with total cost recovery, which often ends up presenting barriers to US scientists who want to work with them.

Board member Fowler then opened it up to the Board for questions. Board member Ejeta commented that a functional CGIAR is an indispensable institution for global agriculture. As Dr. Ejeta is a member of the science council and the consortium board, he has observed the sustained commitment by USAID to the CGIAR and the establishment of mechanisms for linking with the US universities. The support that USAID has provided financially and the intellectual engagement and the respect generated from the CGIAR community are not as well known here.

Board member Anderson commented that the CGIAR is going through a reform process and a reengineering of the governance structure. A second round of CRPs is currently being created. USAID has an important chair at the Fund Council and is involved in these deliberations. The transition is critical and it is important to get to this second round and use that to strengthen the system. She noted that the voice of USAID is very important and that people pay attention to it.

Rob Bertram replied that a more unified decision-making structure and more streamlined governance for the system are important. USAID has looked for the alignment of funding with a strategic research agenda. That is the highest priority for USAID along with the governance changes that are envisioned. The concern is that the budget structures seem to be increasing. European donor counterparts are dealing with pressures on ODA on their doorstep that are eating into development assistance. Bertram noted that there are the beginnings of a rebuilt shared science agenda. Trying to bring donor funding to reverse flows out of a shared agenda will require changes in how the programs are envisioned. He hoped that we could rebuild a shared science agenda, even if it is smaller in dollar amount.

Jonathan Wadsworth began his comments by reflecting on Mr. Bertram's presentation. Wadsworth noted that the synergies between different institutions and the CGIAR are something of a model for others. The ways the CRPs have developed have facilitated that synergy process with many different agencies. He expressed that he appreciates seeing the U.S. take a programmatic view and a systematic view on how to bring all of its different pieces to bear within the work of the CGIAR. The CGIAR presents a major opportunity for those around the world interested in working in the scientific agricultural development research fields, but find it hard to set up shop in other countries. The CGIAR is a tremendous platform for those connections and synergies in fifteen countries.

Wadsworth next commented on the funding aspect of the CGIAR. Over the last five years, the growth of the CGIAR has been 40 percent higher than the previous five years. This year will be the highest funding in the CGIAR's history at 1.13 billion dollars. The U.S. accounts for about 15 percent of that and is the largest donor. The concept of the fund was to have a pooled mechanism where donors could put their money together. This came out of the aid effectiveness discussions that started with the Paris Declaration. There was a lot of uptake for this in the initial two or three years of the fund, but this has started to change. Window One and Window Two, which are programmatic, unrestricted funding, have grown tremendously to about \$600 million, in terms of the fund. Bilateral support, from donors who haven't

joined the fund, has maintained a steady pace at about \$500-550 million. There is a capability where donors can fund centers directly, through Window Three. Old core funding has not changed a great deal. New mechanisms helped donors put more money in but didn't change the way it was done. Donors have become more selective in the past few years. Something has happened over the last couple of years that has changed the resolve of donors from the pooled funding to the targeted funding. In order for this system to work, pooled funding will need to find a way to incentivize donors again. This will require strong programs, a strong strategy, and a way of prioritizing that pooled funding, which needs to go into those parts of the system which wouldn't necessarily be funded by individual donors on their own.

In 2009 the consortium was set up with the board and with an office based in Montpellier. The fund was set up in Washington D.C. as World Bank trustee and hosting the office of the fund and setting up a fund council. There was a dual pillar governance and management model. Over the last five years an evolution of learning has taken place currently, CGIAR is moving to a more streamlined single pillar model, whereby there will be a single council for the CGIAR, which will involve donors, stakeholders and centers. There will be a single secretariat office based in Montpellier, which will handle the programmatic side and the funding side on behalf of the council.

Wadsworth made a final point that the CGIAR still has a ways to go in terms of aligning priorities and resources. Truly prioritizing requires letting of old things, and CGIAR does not yet have a finely honed process for this.

Molly Jahn began by noting the importance of the BIFAD and its interaction with the agency. She then highlighted the importance of the 2008 reform process for providing clarity and a sense of context for the CGIAR center's activities. The CGIAR consortium provides a view of these 15 centers, which remain legally distinct and independent in many important ways. The reform process allowed the global community with larger concerns to *find* the CGIAR and its legacy investments. Jahn noted a second important outcome of the reform process--the development of the CRPs. This was a transformational transition that allowed for networking centers in new ways and leveraging complementary capabilities and partnering. The 2008 reform has been catalytic for the present and future.

Jahn then talked about some of the new processes of the CGIAR, which will bring the funders and the doers into direct contact with each other and remove some of the currently existing layers. This process will both empower the donors, and also place additional kinds of responsibility on the donors. This is critically important in terms of those who receive this donor support.

Jahn noted that CGIAR's mandate toward research on behalf of the world's vulnerable people through agriculture is incredibly precious, and she hopes that the opportunities that lie before the system do not detract from maintaining and growing its core strengths. She called attention to the strategic results framework that was recently updated and enacted last year. It is a living document, a vision and a set of actions with broad priorities related to improving the human condition through nutrition and agriculture, poverty reduction and natural resource conservation and improvement.

The CGIAR has a particular set of instruments both in and of themselves and as opportunities to help improve the condition of humankind and our world. Jahn noted that changing funding structures might be

painful in the moment, but that it will allow for an exciting time of strengthening both new and existing partnerships. In conclusion, Jahn commended the leadership that USAID has provided for global investments in agricultural research. She encouraged USAID and the CGIAR going forward to be disciplined about their focus and to recognize the need for substantial strategic partnerships toward development and outcomes related to human health and nutrition.

The final panelist, Marianne Bänziger has served in the CGIAR since 1992. She noted that one of the biggest changes she has seen is that the CGIAR has moved from acting as isolated centers to acting as an interconnected portfolio. The CGIAR has and continues to have tremendous impact. An impact assessment conducted last year on wheat research showed a return on investment of two to five billion every year to wheat farmers around the world. CIMMYT alone works with 600 institutions on a routine basis through the Wheat Yield Network.

The challenges ahead, Bänziger noted, are very clear: fifty percent more food will be needed by 2050, while climate change will continue to suppress production. There are also tremendous opportunities ahead, however. The CGIAR holds the major gene banks in the world and is analyzing the genomes of ancestral varieties to more purposefully build new varieties in the future. Bänziger also noted the potential of the data revolution, and how remote sensing and GIS information can help change agriculture in the future.

Board member Fowler noted that given the focus on big issues and institutions, it is easy to lose sight of the fact that the impacts that BIFAD is interested in are actually produced by working scientists in the field. He asked Bänziger to comment on how much of a facilitator or an impediment the current structure for setting priorities and research direction for CGIAR is for individual scientists in the field. What is the impact at the individual scientist level and how does that affect what that person is doing and the impact they can produce?

Bänziger replied that the priorities are much more clearly stated now at the system-level. At the science level, it has always been about designing research that has an impact on the ground and recognizing that solutions must reach hundreds of thousands—even millions—of people. Having the CGIAR work in a more integrated fashion as a system has helped scientists continue to pursue those priorities. She noted that it is important for donors to have a true commitment to the CGIAR's strategies in order for them to be effective.

Board member Fowler turned back to Mr. Wadsworth's comments that the system is not yet at a place where it is making rational decisions about resource allocation. He asked the question of how we get there. Wadsworth noted that having a council for discussion and debate that includes more parties and includes the centers could help the system get to that place. There is discipline needed on behalf of donors to take their role more seriously. This may be one of the reasons why the pooled funding part of the fund has waning support—there are fewer donors with less money than there used to be. When the donors got together in 2010 and 2011 and approved all of the current CRPs, they didn't put their funding into them. Wadsworth called upon donors to be conscious of the collective priorities and goals of the CGIAR system, rather than only being conscious of their own institutional priorities.

Ms. Jahn reminded that the success of the CRPs depends on the center infrastructure-- from seed banks, to administration, to physical infrastructure, to partnerships. She also noted the importance of properly costing enabling apparatuses and fully funding indirect costs as well as direct costs.

Board member Fowler then opened it up to the BIFAD for questions. Board member Ash asked for more information about who makes up the donor group—how many states, how many NGOs, and how many total donors? Mr. Wadsworth answered that in the new donor council, the donor group will be drawn from eligible donors who have over the last three years provided an average of 10 million dollars per year in total to the CGIAR. There are 25 donors in that group, and on the council there will be 15 seats for those eligible donors. Currently there are 36 donors to the fund, and there are hundreds giving small amounts bilaterally. These donors come from a mix of governments and philanthropists.

Ms. Jahn noted that an important technical feature of the governance transition is that the current board has independent individual members, but the new board is designed to be representative of donors. There is currently a suggestion of having a vice chair that would be independent, but this is one of the features of the transition that is of concern to some current CG consortium board members. The action item is to ensure that there is strong independent engagement in the governance of the CGIAR council going forward in each area-- particularly scientific assessment, scientific quality, input for strategy, and risk assurance.

Chairman Deaton asked what the implications of the restructuring have been in terms of attracting the best talent into the CGIAR system, whether through direct staffing or contracting. Mr. Wadsworth answered that each center is autonomous with its own board, and bringing up talent at the scientific level is the business of each individual center. Ms. Bänziger noted that at CIMMYT, the quality of scientists has improved, but not necessarily because of the structural changes. She sees this more as spurring from an increase in interest in agricultural research from students. Ms. Jahn noted, however, that enabling infrastructure is very important for recruitment, and she has seen more and more students who are not going to the CG because of the uncertainty.

Next, Board member Ejeta asked whether there is a leader among the donor community who could bring decision makers together to make the hard decisions? Dr. Ejeta reflected on his work on change management with Jonathan Wadsworth at the AGN in Maputo. A transition team was put together with Dr. Wadsworth at the head, but the team included six Directors General who were unable to remain objective and truly reform the system. Instead of working through the reform, the transition team was in a desperate mode to get more resources into the hands of leadership so they could pay their staff. Board member Ejeta noted that this was a lost opportunity, and asked whether there are leaders or conveners from the donor community who can be brought together to make impartial decisions during this reform process.

Mr. Wadsworth stated his hope that under the clarity of more streamlined governance, a handful of clear thinkers can come together in some way. However, he noted that the system is not structured to do that, and that it will take intentional seeking in order to find that leadership.

Ms. Bänziger again iterated that the system acts more as a portfolio now. She noted that the Director Generals work much more effectively together now than they did a few years ago. Ms. Jahn made a final comment that the CRPs themselves may serve as conveners of subgroups of donors that may actually function more coherently and effectively than at the overall system level with all 15 centers.

Panel 2: Feed the Future and University engagement with the CGIAR

Moderator: Peter McPherson, *President of APLU*

Panelists: Michael Carter, *Program Director for Feed the Future Innovation Lab for Assets and Markets Access, UC Davis*

Vara Prasad, *Program Director for Feed the Future Innovation Lab for Sustainable Intensification, Kansas State University*

Adegbola Adesogan, *Program Director for Feed the Future Innovation Lab for Livestock Systems, University of Florida*

Susan Johnson, *Project Director for Borlaug Leadership Enhancement in Agriculture Program (LEAP), UC Davis*

Chairman Deaton welcomed APLU President Peter McPherson to say a few introductory words. President McPherson noted that we should not just think about how universities engage with CGIAR, but we also need to think about how CGIAR can engage with universities. He recalled that US colleges of agriculture used to receive all of their core funding from USDA, but that as they have expanded to utilize funding sources besides USDA, many agricultural universities have become stronger in obtaining scientific results. He also said that there is a mixed picture of the extent of collaboration between the centers with the university research community. Some US universities have awards to the centers and those may be prescriptive, while others collaborations are looser. He talked about the importance of the bidirectional relationship. He noted that there is more collaboration than we think with some centers and not very much in others. It shouldn't be only about money. It's ultimately about how to make the operations work.

President McPherson spoke of the importance of the CGIAR system as a global public good, noting that during his time as USAID administrator, he insisted that the agency remain firm in its commitment to provide substantial funding to the system. When the World Bank decided on phasing out their funding to CGIAR about a year ago, McPherson worked with CGIAR supporters in Congress to fight against the withdrawal of funding. He was surprised that he did not find a constituency within the US university system to advocate for CGIAR. He noted that this discussion is very timely, and that we have a lot to learn about CGIAR and university collaborations from the panelists.

Michael Carter, Program Director of the BASIS Assets and Markets Access Innovation Lab at UC Davis, gave two main examples of collaborations between BASIS and the CG centers. The first is a project between UC Davis, University of Wisconsin, Cornell, and the International Livestock Research Institute (ILRI) on index-based livestock insurance and poverty dynamics in pastoral regions of Northern Kenya and Southern Ethiopia. This project found that satellite images of forage availability were good predictors

of livestock mortality rates, and resulted in the government of Kenya launching an integrated social protection program that employs cash transfers for ultra-poor and insurance for vulnerable farmers. This project was born out of university-based research, and the collaboration with ILRI was key in moving the project forward to a national level within Kenya. Graduate students moved on to ILRI and became key collaborators.

The second project, a collaboration between UC Davis and CIMMYT, involves testing the logic of bundling agronomic and financial technologies to bolster food securities. This relatively new project complements stress-tolerant seed technologies with financial technologies to decrease risk for farmers. This project has wrestled with how to use good scientific methodology when trying to evaluate impacts on farmers in actual field situations. Though the collaboration, the university researchers were able to bring to CIMMYT ideas and experience on how to implement randomized control trials in the field.

Next, Susan Johnson shared her experience regarding university and CG center collaborations that have occurred through the Borlaug Leadership Enhancement in Agriculture Program (LEAP) at UC Davis. LEAP is a fellowship program to enhance the quality of thesis research of graduate students from developing countries who show strong promise as leaders in the field of agriculture and related disciplines. This program is funded by USAID through Feed the Future, and is managed collaboratively between UC Davis and CIMMYT. Designed by Dr. Norman Borlaug after BIFAD called upon USAID to put more of a focus on long-term training programs, the program puts heavy emphasis on mentorship and innovative scientific practices. While CG and university collaboration was not an express goal of the program from the onset, collaboration has occurred through the connections and shared interests between students and their CGIAR mentors. One of the biggest strengths of the program is that it provides students with international exposure and networking with two systems, as well as the opportunity for training at both CG centers, which offer the developing country context, and state-of-the-art labs in US universities. A few challenges of the program are the high cost of CGIAR engagement, the movement of CG researchers, the high cost of bench fees at CGIAR centers, and the difficulty in finding funding for continued joint research once the program is over. Getting people out of their comfort zone is a key strength of the program.

Vara Prasad, Program Director of the Sustainable Intensification Innovation Lab at Kansas State University, spoke of the challenges and opportunities his lab has come across in collaborating with CG centers. First, he gave a brief overview of the Sustainable Intensification Innovation Lab (SIIL). The vision of SIIL is to become a global leader in interdisciplinary research, knowledge sharing, and capacity building on sustainable intensification, producing measurable impacts on improving farm productivity, income, and nutrition of smallholder farmers. Mr. Prasad noted a few ways that SIIL is currently engaging with CGIAR institutes. First, two CGIAR centers, CIMMYT and CIAT, are hosting the SIIL regional coordinators in Bangladesh and Tanzania, respectively. Second, SIIL is working in direct collaboration with eight of the CGIAR institutions on regional sub-awards. In 2016, about 25 percent of SIIL's total budget was allocated to CGIAR institutions. Some of the strengths of the CGIAR partnerships include benefitting from CGIAR's wide network of partners, their capacity to manage large grants (particularly with financial management monitoring and reporting), and their strong and high quality research programs and researchers. In terms of challenges, Mr. Prasad echoed Ms. Johnson's earlier note that there are high transaction costs associated with collaborating with CGIAR. He also noted

that CGIAR centers provide smaller budgets to national partners for implementation, causing some national partners to question why the Innovation Labs cannot give them the sub-awards directly. Mr. Prasad listed a number of opportunities he sees for future collaborations with CGIAR, including enhancing CGIAR linkage grants, and jointly offering training and capacity building activities.

The final panelist, Adegbola Adesogan, shared on University of Florida's new Livestock Systems Innovation Lab. The objective of this lab is to sustainably intensify livestock production in order to improve nutrition, health, livelihoods, and incomes in the home. Animal-sourced foods have a high percentage of the vitamin B12, which is crucial to improving brain function and reducing the prevalence of stunting in sub-Saharan Africa. From the onset, partnering with the International Livestock Research Institute (ILRI) has been a crucial part of this Innovation Lab because of ILRI's global reputation as a leader in international livestock research, particularly in developing countries. The collaboration includes the decision to jointly hire regional coordinators with ILRI and to jointly lead the future livestock systems areas of inquiry. The Deputy DG also serves on the project's external advisory board. While this Innovation Lab just began in October of 2015, and thus does not have any results yet, ILRI has been a tremendous help in the initial process of getting set up in various countries, engaging and meeting with multiple stakeholders for priority setting exercises, taking care of logistics (even providing English-speaking drivers), facilitating meetings, and hiring regional coordinators. Mr. Adesogan shared that ILRI's vast international livestock experience, local knowledge, contacts, and expertise, and resources and infrastructure, have been big benefits of the partnership. Challenges of the partnership have included the high transaction costs of working with ILRI, and the fact that ILRI is not active in every country that that Livestock Systems lab is working in. Mr. Adesogan concluded by noting that he sees potential in capitalizing on the resources and infrastructure of CG centers as an opportunity for U.S. faculty members to go abroad and gain international experience. ILRI has helped to increase the scope and depth of what they are doing in country.

Board member Anderson thanked the panelists for their honesty in mentioning the challenges of collaborating with CGIAR, and asked how BIFAD can support universities in their endeavors to continue growing these types of collaborations. In light of CGIAR's reform and the resulting change in economic structure, she suggested that Innovation Lab directors and CRP directors get together for a joint meeting to talk about the financial challenges and how to move forward.

Vara Prasad responded that universities and CGIAR centers do communicate informally about capacity building activities. He mentioned that the CGIAR-US university linkage grants have been critical for initiating engagement of new faculty members to go to CGIAR institutions and to develop collaborative linkages so they can go after even bigger grants. Even the smaller grants are useful in this regard. He commented that if new avenues for specific partnerships emerge, that would be very much appreciated.

Michael Carter made a comment about rethinking the division of labor between the CGIAR and university research. He said that universities enjoy advantages because they have their salary one already paid for, and it gives academics the freedom to pursue new ideas. If one is looking to make one's salary, one has less freedom. Long-term partnerships between senior people at a university who serve as resources to CGIAR centers is a potential model. He said that university people can bring more cutting edge methodology into the CGIAR conversation.

Board member Ejeta appreciated seeing the strengthened association between universities and the CGIAR system. He noted that research is conducted on behalf of beneficiaries in poor developing countries. All CGIAR and university colleagues appreciate that, but the mechanisms for connecting with the national systems are not established. He noted the challenges that exist in developing countries--such as inefficient delivery systems, inept extension services, and an under-established private sector--all of which hinder the ability of our research efforts to have an impact on the ground. He noted the importance of capacity building and training programs for research, emphasizing the need to encourage higher education capacity development not only in educational systems but also in research systems on the ground. He asked the panelists if these concepts were included in their vision. Mr. Adesogan noted that the Livestock System Innovation Lab decided that in order to help build in-country capacity, they would only hire nationals, in some cases employees of government or local universities, as their regional coordinators. He noted that capacity-building is one of the core themes of the Livestock System Innovation Lab and they are working with government agencies to foster collaboration with the NARS.

Chairman Deaton asked the panelists to comment on how they balance the tradeoffs between research and dissemination in their projects.

Mr. Prasad echoed the importance of capacity building in order to make projects sustainable. He noted that students who come to the U.S. for training often face difficulties with limited resources and capacity upon returning home. The Sustainable Intensification Innovation Lab is emphasizing projects that provide core support to national institutions so that students who return from training in the U.S. will have the support and resources to continue their research work.

Mr. Prasad also echoed that there is a balance between innovative research and the delivery of knowledge through extension. This is where Innovation Labs are building a pipeline of technologies that the private sector can take up. The focus is on research, but the research is on-farm, where farmers have access to innovations and research so that they can take what is valuable.

Public Comment Period

Saharah Moon Chapotin noted that strengthening CGIAR and US university collaboration has been a goal of USAID's research strategy, and it is gratifying to see such great examples of collaboration. She noted that moving forward, we should strive for three-way linkages between CGIAR, U.S. universities, and national partners.

Jonathan Wadsworth asked how easy or difficult it has been for the Innovation Lab directors to locate the most appropriate groups within CGIAR with which to partner.

Mr. Adesogan noted that it was very easy for the Livestock Systems lab to choose ILRI as a partner, as they are the main livestock research center within CGIAR. Mr. Prasad noted that it was more difficult for the Sustainable Intensification Innovation Lab to choose CGIAR partners, as they have a much larger

portfolio. They went to the host countries and brought in all of the CGIAR groups in those countries to talk about their areas of research and strengths, and from there they decided which groups would be most appropriate to collaborate with. One of their considerations in selecting partners was which CGIAR groups had strong relationships with national partners.

Tag Demment, Vice-President of International Programs at APLU and former director of the Global Livestock CRSP, noted that they had a strong mandate for capacity building in-country, and they partnered much more with NARS and with local institutions than with CG centers. While they did strategically utilize the CG, and the CG strategically utilized the CRSP, their real focus was on building in-country capacity with local scientists. Mr. Adesogan noted that in the request for applications that the Livestock Systems Lab will put out later this year, the first criterion they will use to judge proposals is whether they involve partnership between local organizations and foreign organizations.

Jan Hopmanns from UC Davis asked what initiatives are coming from the CGs in terms of soliciting input and ideas from universities. Marianne Bänziger responded that within CGIAR, 85% of their projects are planned collaboratively with various universities, NARS partners, and private sector partners around the world. With thousands of universities and only 15 centers, the matchmaking is imbalanced. She also noted that every year CGIAR does a gap analysis to see what topics are not being covered, and advertises competitive grants in order to fill in those gaps with contributions from universities.

Otto Gonzalez, from USDA's National Institute of Food and Agriculture, asked what potential exists for leveraging domestic-focused research to have an impact internationally. Mr. Prasad responded that his program utilizes NIFA funding, so their international students are actually able to benefit from the NIFA funding while they are in the US, and take relevant tools learned back to their home countries.

An audience member from the USDA Foreign Agricultural Service who works on the short-term Borlaug Program, echoed a challenge expressed earlier, noting that many of the students who participate in the short-term Borlaug program do not have the resources to continue their work when they go back to their home countries. He asked for ideas on combatting this challenge. Barbara Schneeman responded that USAID has a program called American Schools and Hospitals Abroad (ASHA), which has infrastructure as its specific mandate. They currently have a call for proposals open, which could be one potential way to address this concern. Molly Jahn highlighted the opportunity for BIFAD members to think about investment in the whole research ecosystem. In addition to the CGIAR centers, there are linkages between the NARS and the CGIAR, though they are not as intense as they could be. She urged BIFAD members to think carefully about lifecycle opportunities that provide a pipeline of opportunities for researchers from the developing world.

Barbara Schneeman made the comment that we tend to talk about progress in terms of numbers, i.e., how many were trained through a training program. However, what is more compelling to think about is how trainees used their training and how it has influenced decision-making or policy-making in their country. She noted the need to see more case studies that explore this. Susan Johnson noted that they are working on trying to document this within the Borlaug LEAP program. Many of the first Borlaug LEAP fellows are now finishing their PhDs, and the program is working to understand whether and how they have been able to impact their institutions from what they learned through LEAP.

Michael Carter went back to Chairman Deaton's question about the tradeoffs between research and dissemination, noting that because their Innovation Lab operates as a competitive grants process and their mode of production often involves leading scholars working with graduate students, they are able to achieve a good balance between research and dissemination. He noted that researchers may not be skilled in communicating with governments and national research systems, so they need to be coached to do outreach.

An online listener submitted a question asking for advice on how individual faculty members could get started doing collaborations with CG scientists. Marianne Bänziger commented that the first step is publishing together. Adegbola Adesogan noted that faculty members should consider visiting a CG center for a few months to gain insight into the issues on the ground and the work the CG center is doing. Molly Jahn noted that when she worked at Cornell University, every assistant professor in the Department of Plant Breeding was given a plane ticket to visit a CG center as part of their start-up package. This was a very efficient way to set up lifetime relationships and build networks. Adegbola Adesogan commented that often, there is a perception that junior faculty members should not be engaging in international work, and suggested that BIFAD could help change this perception and show that international engagement is valuable for all levels of faculty and is valued in the tenure and promotion process. Chairman Deaton noted that the HICD study commissioned by BIFAD charged the universities to review their tenure and promotion standard to ensure that credit is given for international work. Michael Carter made the point that we need to ensure that there are incentives for CG scientists to get their work out there and get noticed.

Board Member Fowler noted that while most CGIAR scientists have spent time at research institutions in the developed world, many scientists in the United States have not spent any time in the developing world. He stressed that we should seek out ways to support US professors and researchers in going abroad and spending time at CGIAR centers, in order to give them a new perspective and strengthen collaborative ties.

Chairman Deaton closed by noting that in thinking through the ecosystem of investment, it occurred to him that no one is **not** a product of linkages between universities and other institutions. He noted that the discussion has been an exciting exploration of our knowledge needs as we seek to eliminate extreme hunger and poverty in the world. He emphasized that we are among the privileged few in the world to be able to help drive this process, and it takes a commitment from all of us in order to consider all dimensions of this topic and move forward with poverty elimination.