

**BOARD FOR INTERNATIONAL FOOD AND AGRICULTURAL DEVELOPMENT  
178TH PUBLIC MEETING  
IMPROVING NUTRITION THROUGH PRIVATE SECTOR ENGAGEMENT ACROSS FOOD SYSTEMS**

**Meeting Minutes**

**Des Moines Downtown Marriott | Davenport and Dubuque Rooms  
700 Grand Ave. | Des Moines, IA 50309  
Tuesday, October 16, 2018**

**MEMBERS PRESENT:**

Mark Keenum, Board Chairman, President, Mississippi State University  
Brady Deaton, Chancellor Emeritus, University of Missouri  
Gebisa Ejeta, Professor, Department of Agronomy, Purdue University  
Pamela K. Anderson, Director General Emeritus, International Potato Center

**Speakers**

Joseph Glauber  
Rob Bertram  
Lawrence Haddad  
Will Masters  
Beth Mitcham  
Richard Tracy

Betty Bugusu  
Gladys Mugambi  
Heather Danton  
Godfrey Bahiigwa  
David Dayhoff  
Karin Lapping  
Jean Pankuku

**Welcome and Opening Remarks**

**Mark Keenum, President, Mississippi State University and Chair of BIFAD**

Dr. Keenum greeted the in-person and on-line audiences and called the meeting to order, introducing himself and giving a brief background on BIFAD. He then described the meeting's primary purpose: to examine the public and private sector relationship at different points in the food system to improve the demand, availability, accessibility and affordability of high quality diets to vulnerable populations. He then noted that recommendations from the meeting would be used to inform future USAID's programs and studies. Dr. Keenum introduced the BIFAD board members, and then invited guests present from the Bourlag LEAP Program to stand for recognition. Finally, he encouraged public comments from the audience and welcomed fellow Board Member, Dr. Gebisa Ejeta to announce the recipients of the 2018 BIFAD Awards for Scientific Excellence.

**Announcement of the BIFAD Prize for Scientific Excellence in an Innovation Lab**

**Gebisa Ejeta, World Food Prize Laureate and BIFAD Member**

Dr. Ejeta expressed his regret that fellow Board member and chair of the award committee, Waded Cruzado, President of Montana State University, was not present to announce the award herself. He explained that two awards were offered every year, one to a senior researcher or research team and the second to a graduate student who has excelled in conducting agriculture research on a specific problem. The criteria for the award include: demonstrated creativity in bringing about long-lasting, sustainable improvements in international food and agriculture; evidence of sustainable increases in food security and economic growth without degradation to the environment; and success in communicating and disseminating the results to other peoples and places.

Dr. Ejeta then announced that the senior researcher award was being given to Dr. Hillary Egna and her research team from the Feed the Future Innovation Lab for Aquaculture & Fisheries, led by Oregon State University. This team includes six prominent scientists from the U.S., Vietnam, Kenya, the Philippines, and Bangladesh. The award recognized the team for its work to address the critical production constraints of feed costs in aquaculture enterprises. The AquaFish Innovation Lab team focused on finding low-cost alternatives to fishmeal as a protein source in aquaculture diets for both small-scale and medium-scale farmers.

The AquaFish Innovation Lab research team included, in addition to Dr. Egna:

- Dr. David Bengtson, Professor Emeritus at the University of Rhode Island;
- Dr. Remedios Bolivar, Professor at Central Luzon State University, Philippines;
- Dr. Russell Borski, Professor at North Carolina State University;
- Dr. Charles Ngugi, Courtesy Professor at Kenyatta University, Kenya;
- Dr. Tran Thi Thanh Hien, Associate Professor at Can Tho University, Vietnam; and
- Dr. Md. Abdul Wahab, Professor, Bangladesh Agricultural University.

Dr. Ejeta announced that the graduate student researcher award was being given to Mr. Mohammad Mokhlesur Rahman, a Ph.D. candidate in genetics at Kansas State University. The award recognized Mr. Rahman for his pivotal role in establishing Bangladesh's largest wheat testing nursery, where over 1,800 candidate lines have been tested. This has helped identify promising heat-tolerant varieties for the country's wheat farmers.

Dr. Ejeta then explained Mr. Rahman's background, as he is currently a fellow with the Borlaug Higher Education for Agricultural Research and Development (BHEARD) Program, funded by the U.S. Agency for International Development and administered by Michigan State University. He is completing his doctoral research in affiliation with the Feed the Future Innovation Lab for Applied Wheat Genomics at Kansas State University, also funded by USAID. Mr. Rahman grew up in a farming community, spending many of his childhood days helping to cultivate rice, jute, wheat, vegetables, pulse, and oil crops on his family's five acres of land. Mr. Rahman has been responsible for establishing, implementing, and evaluating field trials for the new wheat testing nursery over the last four years. He has led implementation of electronic data capture and high-throughput phenotyping approaches that are modernizing breeding technologies in Bangladesh.

## Update on BIFAD Commissioned Study on US Benefits of USAID Investments in Developing Country Agriculture and Food Security

**Joseph Glauber, Senior Research Fellow, International Food Policy Research Institute**

Dr. Keenum gave a brief introduction and background on the U.S. benefits study before welcoming Dr. Joseph

Glauber for remarks.

Dr. Glauber remarked in his initial conversations on the study that he was struck by how important the work is to undertake, despite the daunting task of calculating benefits. He then explained the focus of the study: to examine USAID programs and investments in developing country agriculture and food security to assess how the effects of these programs benefit U.S. consumers and producers. He noted the inclusion of both direct impacts as well as those that are more indirect and difficult to quantify.

Dr. Glauber mentioned that the study will not address humanitarian food aid or nutritional food assistance programs, but instead focus on agricultural development efforts and their effects. These include the effects of increasing productivity in USAID partner countries to increase income that will then affect purchasing power and demand for inputs. He discussed how USAID investments lead to a wide range of benefits; environmental, and those in research and development (R&D) with various spillover effects. Further outcomes include benefits to bio-security, capacity building, the combatting of pests and diseases, and geopolitical impacts. He noted the effect chain whereby increased (R&D) leads to improved productivity, which leads to improved household purchasing power. Additionally, an increase in household income leads to diet shifts and increased trade that benefits U.S. producers. He mentioned the implications for benefits in dairy production and feed for dairy animals as families overseas with increased incomes buy more meat and dairy. He then introduced soybean production as an example benefit chain that included benefits to animal production and increased demand for U.S. soybeans and vegetable oil that stemmed from feed efficiencies and USAID assistance.

Dr. Glauber continued that in addition to increased productivity, there are number of other avenues for spillover benefits that will be examined in the case studies selected. One such example is the monitoring and R&D associated with the combatting of pests around the world and the development of more resilient plant varieties. Further benefits include those associated with capacity building that improve human capital. U.S. scientists as well as those from countries that have received assistance and capacity building efforts benefit from R&D collaborations and exchange.

Dr. Glauber also outlined the geopolitical benefits, with examples that included how food riots in Africa correlated with high food prices. Literature on the causality of such benefits are currently being investigated. He concluded his remarks by mentioning again the daunting task of quantifying these benefits, and that their approach is to model those benefits with data when available, but also to rely on digging into individual case studies.

## Bureau for Food Security Remarks

### **Rob Bertram, Chief Scientist, Bureau of Food Security, USAID**

Dr. Keenum next introduced Dr. Rob Bertram. Dr. Bertram first expressed his excitement over Dr. Glauber's work and leadership on examining the multiple dimensions to the benefits study, including those tied to resilience. He congratulated both Lawrence Haddad, the 2018 World Food Prize Laureate, as well as David Navarro, Hilary Egna and Mohammad Mokhlesur Rahman for their work elevating nutrition at this year's prize. He lauded the President's recent five-year reauthorization of the Global Food Security Act and read brief comments from his colleague, Dr. Beth Dunford, who leads the Bureau for Food Security and Feed the Future efforts. Dr. Dunford noted that the reauthorization of the Global Food Security Act was an indicator of bipartisan support in Congress for Feed the Future efforts. She believes that this year's World Food Prize focus on nutrition will demonstrate the importance of food security and nutrition to NGOs working in refugee situations, across efforts in resilience, through public and

private sector engagement, as well as in Feed the Future capacity building.

Dr. Bertram then acknowledged the economic impact of the food security issues, noting that the President of the World Bank, Jim Kim, has stated concerns on the detrimental effects of stunting to building a competitive global knowledge economy. For every dollar invested on nutrition that mitigates under-nutrition and stunting, there are strong economic outcomes associated. Bertram continued stating that public policy will remain a major area for them to engage on moving forward and that there is opportunity in the food industry to develop more convenient nutritious foods through the integration of products like legumes, beans, cowpeas, brown nuts, or vegetables. These foods would not only be more nutritious, but also would save women time in preparing them, which is a key issue in the developing world. These efforts would be a win-win for producers and consumers, as they would also generate jobs.

Dr. Bertram also noted that private investment on the farm and across the food system is critical to ensuring that small holder farmers are able to supply cities and towns with diverse, nutrient rich foods. The value chains in horticulture and animal-source foods are more knowledge intensive, which makes production more challenging, but these foods are often more profitable, too, which gives an incentive for production. Dr. Bertram noted that achieving both micronutrient rich food and food safety will require investments from the private sector to create sufficient value chains. He noted that to this end, the opening of the new Innovation Lab on food safety would be an important contribution. In closing, Dr. Bertram reiterated his excitement about these efforts and thanked BIFAD.

## Keynote Address

### **Lawrence Haddad, Executive Director, Global Alliance for Improved Nutrition**

Dr. Keenum introduced Dr. Haddad, the World Food Prize Laureate for 2018. Dr. Haddad congratulated BIFAD on choosing such a timely topic and explained that for his presentation, he would make '10 points in 10 minutes'. First, that malnutrition usually leads to thoughts about hunger; most worrying is that those numbers have been on the rise for the past two years. Additionally, there are another two billion people who are micronutrient malnourished, and another 2 billion people who are overweight and obese. At least one in three people on the planet suffer from some manifestation of malnutrition, with poor diet at center of all of these manifestations. While a number of other items contribute to this, including healthcare, water and sanitation, women's empowerment, physical exercise and urban planning, diet is the common denominator. Second, the consequences of that poor diet on the burden of health is not something many realize. The Institute for Health Metrics in Seattle, funded by the Gates Foundation, produces an estimate of the global burden of disease, which puts together mortality data and morbidity data at the state, country, and global level. In India, for example, of the top 10 risk factors responsible for India's burden of disease, six of those are related to diet. In Iowa, five of the top seven are related to diet. Third, food systems are the main factor that shape diets, as they impact what is available, affordable, and desirable.

The fourth point was that businesses are the main investors in food systems, so it is important to understand and engage businesses in this work. Fifth, people in the nutrition community (more often than the agricultural community) often do not want to work with businesses, because of a notion that businesses are only interested in profit. However, he says not working with businesses is a 'fantasy world'. As most people acquire their food from markets, working with businesses is inevitable. Even in rural areas like Ethiopia, more than 50% of their food comes from markets. Food prices for foods that are non-staples (i.e. nutritious foods like fruits, vegetables, beans, dairy, and fish) are increasing rapidly and making food inaccessible. Data gathered from IFPRI in Ethiopia has shown an increase of 50-60% in the price of food over a 5, 6, and 7 year period. Sixth, businesses are a part of the problem, especially around

issues like diabetes, cancer, highly processed foods, etc., but they have to be a big part of the solution as well.

His seventh point was that it is important to deconstruct what “business” and the private sector means, because it means lots of things to lots of different people. He said that there are four ‘buckets of business’ important to food systems: first is businesses that work on fortification and re-formulation. This process is much more complicated than many think. There are a number of regulation and trade issues in addition to reformulation issues that make these processes very complicated. The second type of businesses are those that are already involved in activities that produce foods that are part of a healthy diet (not mission-driven organizations, but those that support healthy food because of the sector they are in—i.e. dairy, fish, horticulture). It is important to find ways to support these organizations. He mentioned that the World Bank’s Small and Medium Enterprise (SME) database found that small and medium enterprises throughout Africa list their number one business constraint as access to finance. GAIN has conducted a lot of work with SMEs to help them build capacity to develop investable propositions. They have worked to bring together investors and help the SMEs develop investables to present. The third bucket of business is big multinational corporations, which dominate the soft drink industry, but also account for about 15 percent of the food industry. Those companies are important because their behavior is a signal to other companies who may want to emulate them. He mentioned that governments need to focus on both “sticks and carrots” in terms of regulating and incentivizing multinational corporations. There are many unused ‘carrot’ opportunities to incentivize these businesses to make good choices. If sin-taxes exist, then why not virtue subsidies? Big businesses could be incentivized, right from agricultural R&D to produce more nutritious foods. The fourth category of businesses are those that are not directly involved in the food industry, but greatly impact it. One example is marketing companies, which can help develop campaigns for healthy food and behavioral changes. He suggested making these messages more exciting and noted that the private sector is very good at this. He suggested that healthy food messaging needs to find the hybrid blend of private sector compelling messages and the more educational, logical arguments made by scientists. Another example of this fourth type of business is storage and refrigeration companies, which are important to food safety issues.

His eighth point was that multi-stakeholder dialogues are necessary to make all of this happen. Collective knowledge shared at all levels will make a huge impact. This could happen on a national level, but also on a community level, or on platforms such as the World Food Program, the Fresh Platform, the World Business Council for Sustainable Development, etc. Ninth, information sharing is critical, which means the research community needs to do a better job of documenting when public-private partnerships work and when they don’t. Documentation and independent evaluation is key to developing these public private partnerships. His tenth point was to engage private sector partners and businesses, so that opportunities will not be missed. The risks of not engaging with the private sector are often bigger than the risks of engagement. He concluded with the notion that to change someone’s mind, you have to have them in the room with you. Not taking the time to understand and find common ground leads to missed opportunities to advance nutrition for the most vulnerable.

## Diet Transformation in the Context of Evolving Food Environments and Consumer Behaviors

**Dr. Will Masters, Professor, Friedman School of Nutrition Science and Policy, Tufts University**

Dr. Keenum then introduced Dr. Will Masters. Dr. Masters began with a summary of the timeline for how diet quality and its influence on health have been measured, noting that research on food has played a key role in the history of science and history in general. Among the most important early use of experiments to demonstrate causality was an

18<sup>th</sup> century finding that showed how limes prevented scurvy among British sailors, establishing the precedent that nutrition research can drive national security through military readiness in addition to public health for the population as a whole. A related example is the early 19<sup>th</sup> century French military search for food preservation, which led to the discovery that boiling and sealing preserves food, and the science of food safety. Over time the entire discipline of biochemistry, the discovery of germ theory and the pasteurization of milk, and the early 20<sup>th</sup> century discovery of vitamins drove successive improvements in public health and national security in the countries that took advantage of each new discovery. Recently in the 1990s, enough evidence emerged about diet patterns for dietary guidelines to include recommendations about entire food groups rather than individual nutrients, and evidence about harmful substances, such as trans-fats, emerged as late as the 2000s.

Dr. Masters then summarized current knowledge of day-to-day energy balance and long-term health needs. Daily energy needs are fixed around metabolic set points, while diet quality varies widely. Energy intake and needs are poorly measured, except in laboratories, but are driven by total body weight adjusted for body composition, disease state and physical activity. Energy intake is known to be less than what is needed primarily in infants under age two and this has lifelong consequences; excess energy intake accumulates in later life and is also difficult to reverse. Getting one's energy from higher quality sources is now seen as key to improve body composition and health, as different energy sources (protein, fats, carbs) are metabolized differently; 'essential' nutrients (vitamins and minerals) are needed for specific functions; and many other food attributes (fiber, omega-3, etc.) alter health and disease risk because some attributes have U-shaped benefits (sodium etc.) and some harmful components may be new (e.g. trans fats) or ancient (molds).

His next points focused on how diet quality can be improved, to improve long-term health while meeting daily energy needs. The oldest, deepest solution, he said, is income growth. More money means people can buy better food. Making healthy foods more accessible and less expensive can also have a big impact on improving diet quality. But changes in what foods are available, and the continuing discovery of new links between food and health, means that changing cultural consumption norms and preferences are fundamental drivers of food choice and diet quality. The fact that people cannot see what's inside food implies that standards and regulations are needed to enable the private sector to sell high-quality food in a competitive market, as consumers would otherwise trust only traditional items and heavily-advertised expensive brands. Private sector competition has long relied on public enforcement of food standards, ever since Britain's system of Assizes by which local authorities were empowered to regulate bread and ale in the Middle Ages. Public trust in U.S. food companies relies on the 20<sup>st</sup> century innovation of the Food and Drug Administration as well as USDA inspection of meat. The FDA has set important laws regarding food safety such as packaged food standards, and regulations on additives, and more recently the USDA set organic standards and other innovations like nutrient fact panels and removal of trans fats or other harmful nutrients all of which are key to public trust in a competitive market in developing countries as well as the US.

Dr. Masters shared a chart of FAO data that showed progress to date in global food systems, moving from people getting enough food, to getting more of the right foods but also many harmful ingredients. He noted that food systems link farms to consumers through agribusiness and food companies. Family agriculture dominates crop production around the world, but scale economies in food manufacturing and distribution ensure that local and multinational companies stand between most farmers and most consumers. As USAID continues to engage more on nutrition outcomes, it is essential to remember that agriculture can provide more of the nutrients needed to solve undernutrition by growing more food, but poor diet quality and overconsumption of harmful ingredients cannot be solved by growing less food. Engaging directly with the private sector is necessary to solving problems with food

manufacturing and distribution that cause poor diet quality and diet-related disease from overconsumption.

Dr. Masters noted that Africa will continue to have a rise in its rural population for the foreseeable future, which is why agricultural development is such a big priority there. Agriculture employs a larger share of workers in Africa than in other regions, and African children are more likely to be stunted than children from other regions – although nutrition programs have had great success in reducing the prevalence of stunting at each level of income, in Africa as elsewhere, due to new kinds of programs to help households meet children's needs especially for maternal and young child feeding. He also noted that African adults are less likely to be obese than in other regions, but the prevalence is worsening quickly.

He concluded his talk by reiterating that diet quality, linking the foods we eat and their impact on health, has been an area of very fruitful research with many recent discoveries that have led to tremendous progress in achieved to date in transforming food systems, improving health outcomes, building national security and a vibrant private sector producing high-quality foods to reduce undernutrition. These changes have also given rise to overconsumption of harmful dietary components, even in low-income countries. Much work remains to be done to complete the elimination of undernutrition, even as we struggle to stop the rise and eventually reduce the health burden from overconsumption.

## **Enabling Environment to Accelerate Private Sector Engagement in Improving Diet Quality: The Role of Market Infrastructure, Research and Development, and Enabling Trade Policy**

**Beth Mitcham, Director, Horticulture Innovation Lab, UC Davis (moderator)**

**Richard Tracy, Vice President, International Programs, Global Cold Chain Alliance**

**Betty Bugusu, Managing Director, International Food Technology Center; Director, Food Processing and Post-Harvest Handling Innovation Lab, Purdue University**

**Gladys Mugambi, Advocacy, Communication, and Social Mobilization Officer, Kenya Ministry of Health (via teleconference)**

Dr. Keenum then introduced the first panel moderator, Dr. Beth Mitcham.

Dr. Mitcham expressed her excitement that the focus of the World Food Prize this year is on nutrition. She lauded the focus on going beyond calories to examine the nutrition in foods. She explained that while nutritious foods tend to be more perishable than staple foods, it is extremely important to increase their availability and their accessibility (price). There are several ways that this can be done; one way is to focus on reducing high levels of loss and waste and rates of deterioration in foods; another is to focus on expanding production in the harvest season for nutritious foods, so they are available more year-round, which would include the use of protective cultures, plastic houses, and green houses to protect crops from weather. Another focus area is looking at better varieties that could extend the season. A final consideration is stabilizing nutritious products, so they can be stored and consumed at a later date, using drying methods, cold storage, etc. She then posed a question to the panel: “How can we more effectively engage the private sector in this space? What are the opportunities for the private sector, how can we engage them, and how can we help assure that the foods that they develop will be nutritious foods?”

Dr. Mitcham introduced panelists Mr. Tracy, Dr. Bugusu, and Ms. Mugambi. Dr. Mitcham asked Mr. Tracy first: “Where are the business opportunities along the cold chain for perishable foods? What are the main impediments to private sector participation? Are there examples of successful enabling policies?”

Mr. Tracy noted that the Global Cold Chain Alliance is happy to be represented on World Food Day. They represent private companies and want to improve the business environment globally and help provide safe, quality products around the world. He then discussed opportunities and challenges, noting that while there are opportunities across the food system, GCCA sees the need to grow opportunities for small-scale farmers to ramp up production and get the economies of scale necessary to move food from rural locations to urban locations. There are plenty of opportunities for farmers to develop temperature-controlled mechanisms, and those can be low-tech and affordable, such as sitting food in the shade while waiting to transfer it to market, for example. Education is important as well, so farmers understand what the business opportunities are and what the cost and benefits are to improving these processes. Getting products from rural to urban areas is often a challenge because of a lack of infrastructure such as roads and electricity. As was mentioned earlier, access to capital is a huge challenge; oftentimes money is available, but the issue is in capacity to access it. Many small-scale farmers may not have fully developed business plans, or may be unable to attain funding because of high interest rates, or they may be asked to give up part of their business to venture capitalists in order to obtain funding. Mr. Tracy concluded by noting that policy-wise, governments should be able to support access to capital, access to markets, and access to education.

Dr. Mitcham followed up to ask if Mr. Tracy has seen any policies that are particularly limiting or particularly enabling that have been enacted. Mr. Tracy noted that he liked Dr. Haddad's carrot and stick anecdote. In India and Uzbekistan, the governments have used 'carrot' strategies to incentivize businesses to invest in cold chains by providing subsidies. He mentioned that food safety regulations can actually be a hindrance, especially in countries where the government comes in and dictates that all products need to be handled separately, which is limiting and inefficient. Governments can often overcompensate for food safety violations, and that makes things inefficient. Dr. Bugusu added her agreement that there is immense value for investing in cold chain in developing countries, noting also that infrastructure in developing countries can be improved with enabling environments, and investments from the private sector. Ms. Mugambi added that in order to get foods that are wholesome requires no loss of nutrients across the value chain. This process needs to start at food production.

Dr. Mitcham next asked Dr. Bugusu, "how can U.S. universities leverage their talents in research and development to help develop nutritious foods and de-risk market entry for small and medium enterprises?"

Dr. Bugusu responded by introducing their program, Feed the Future Food Processing and Post-Harvest Handling Innovation Lab at Purdue University. They operate under the principle that food security does not end at harvest. Their work, mostly post-harvest, focuses on areas of drying, storage, food processing, and nutrition. She said the question about how universities can help is 'music to her ears' because that is exactly what the innovation lab focuses on. U.S. universities are powerhouses of research and development, working with multi-disciplinary teams that look at all aspects of the value chain, and engaging the private sector to connect with the consumers. Her lab is looking specifically at developing a market-driven fortification strategy, recognizing that in developing countries there is often a mandate for fortification, but no return on investment, because fortification raises the price of foods so much. Thus, the innovation lab focuses on at fortifying food products naturally and affordably using nutrient dense plant materials such as bao bao and moringa - a strategy they call "food fortifying food." Acknowledging that there is a market for these nutrient dense foods at the base of the income pyramid has been essential to their work.

Dr. Mitcham followed up to ask whether the natural fortification products that they use are generally less expensive for the processors. She also asked whether processors produce the fortification products themselves, buy them from

the market, or have people who grow for them directly. Dr. Bugusu responded by saying that their research focuses on making sure nutrients are preserved when foods are processed. They also make sure nutrients are accessible and available. To do this, they work with small- and medium-scale processors who supply the market in rural and some urban areas. The innovation lab provides service and technical assistance and expertise in processing as well, assisting farmers in making high-quality products so they can attract repeat buyers. The innovation lab also helps processors develop business plans, and the end results have been very successful so far. Mr. Tracy commented that U.S. universities have the brain power to help consider the viability of innovative ideas. He mentioned collaborations with universities on issues like cold chain – discussing what has been done and how it can be done better – can help solve this problem. Ms. Mugambi also reiterated via telephone the importance of having universities on board for technical support.

Dr. Mitcham then posed the next question to Ms. Mugambi: “Are there examples of national or regional policies that have helped incentivize the private sector to engage in the production and sale of more nutritious foods? (e.g., trade, pricing, taxation, infrastructure, public R&D, etc.). Have any hindered private sector engagement? Have there been notable positive or negative consequences from those policies?”

Ms. Mugambi responded, giving Kenya as an example. Kenya’s policies on trade are not specific on what exactly needs to be done. However, they are developing a strategy with the private sector for how the policies can be implemented. To provide these nutritious foods to hard-to-reach areas, the policies need to be specific on what exactly the government should do, which requires input from several ministries, not just the ministry of trade. Dr. Mitcham asked if she sees any challenges in having ministries come together around a topic like this that involves so many different sectors. Ms. Mugambi responded that there are several challenges; one is trying to engage both national government and municipal government at the same time; another is that markets are not clearly defined, and people do not always know where markets are. A final challenge is the public perception that nutritious food is more expensive, and not worth investing in. She suggested that the government needs to help people gain access to these more nutritious foods.

Dr. Mitcham thanked the panelists and mentioned again the need to market nutritious products better, in catchy ways.

Dr. Keenum then dismissed the group for a brief break until 11:30 a.m.

*Drivers for Private Sector Engagement Across the Supply Chain to Improve Diet Quality: The Role of Labeling, Marketing, Processing and Product Standards, and Policies that Encourage Greater Demand for and Accessibility to High-Quality Diets, Including Accountability and Transparency Systems*

**Heather Danton, Director, USAID Advancing Nutrition, JSI Research & Training Institute, Inc. (moderator)**

**Godfrey Bahigwa, Director, Rural Economy and Agriculture, African Union Commission**

**David Dayhoff, Vice President, Programs and Operations, Partners in Food Solutions**

**Karin Lapping, Director, Alive & Thrive Program, FHI 360**

**Jean Pankuku, Group Food Technologist, Universal Industries Limited**

Dr. Keenum introduced the moderator, Heather Danton.

Ms. Danton, for the sake of time, briefly forewent introductions of the panelists and posed to Dr. Bahiigwa, “What key standards and/or policies are needed to promote improved nutrition through private sector investment in Africa, including doing no harm to human health, nutrition, or natural resources while also stimulating economic growth?”

Dr. Bahiigwa responded that public policy responds to observed needs or deficiencies. He noted, for example, that he worked with the government of Uganda for several years as the Ministry of Agriculture was trying to address observed deficiencies in vitamin A. About 30 percent of children in Uganda have a vitamin A deficiency, which leads to stunted growth and blindness. The government responded by taking on the idea of biofortification with sweet potatoes, as a cheaper way to improve nutrition. The government also used biofortification to introduce beans with iron, as there was also an iron deficiency in the population. Working with IFPRI, local communities and farmers, NGOs, and private sector companies, the government has had success with these two initiatives.

He mentioned that successful government programs come from partnerships with the private sector. He noted that access to micro finance is another important priority. Another successful policy is when governments help create demand for nutritious produce by encouraging schools to purchase nutritious foods from farmers, which has an added benefit of ensuring young children are eating nutritious foods. A final successful policy he mentioned is when governments support private sector companies in biofortification, particularly in maize.

Dr. Bahiigwa wanted to make three points directed to USAID. First, USAID should support countries that are prioritizing nutrition programs within their development agenda. USAID can do this by supporting countries in including these policies within their own national plans. Second, intra-Africa regional trade is an important factor to supplement national nutrition efforts that the African countries are making, because what a country cannot produce for themselves, they can get from trade. The African Union recently introduced the Africa Continental Free Trade Area last March, and USAID should help support and grow this effort across the continent. Third, USAID the African Union’s food safety initiative, which derives from the desire for Africans to have safe food and to promote regional trade.

Ms. Danton then asked Ms. Pankuku the next question about challenges and opportunities that come from working within a medium to small enterprise in the food processing area. “What are the key challenges faced by small enterprises -- including those wanting to sell more nutrient-rich foods -- to entering formal markets? What kind of assistance is needed to small businesses to overcome these hurdles and to make their products more affordable to consumers?”

Ms. Pankuku first emphasized that the private sector is always ready to contribute to nutrition outcomes as long as it makes business sense, and is not charity. Small enterprises have a big impact in contributing to nutrition because they are more focused in a particular area. While small enterprises face challenges in entering the formal market, they can be very useful in contributing to nutritional outcomes regionally or locally. Ms. Pankuku posed some important questions for the panel to think about: are rural communities ready to pay for the extra cost that comes with branding, marketing, and the production/processing of nutritional products, and is there a market big enough to motivate the private sector to invest more in producing nutritional products? Do the small enterprises have enough capacity to produce enough products to meet that demand?

Ms. Pankuku noted that one challenge small enterprises face that prevent them from entering formal markets is the cost of research and product development. There is an opportunity for the private sector to work with universities and share knowledge. Universities could do research, for example, while the private sector scales up and improves production. She noted that the private sector in developing countries often does not have R&D-dedicated staff because it would be too costly. Another challenge she mentioned is marketing and branding, which also pose high costs for small enterprises. A third challenge is that small enterprises have low capacity when it comes to production; they are limited by the equipment that they have and limited technical expertise. Most of their activities are done manually, so they cannot scale up easily to meet demand. A fourth challenge is that employees of small-scale enterprises may not have the knowledge they need to sustain the business and create viable business plans. A fifth challenge is the inconsistent supply of raw materials, which is limited by the growing season.

Ms. Pankuku recommended that USAID should work with small enterprises and with capacity building in general. There is an opportunity for USAID to help build the capacity of small-scale enterprises in terms of certification and quality management systems. USAID can also work with governments to create enabling environments for small enterprises.

Ms. Danton reiterated the point that regional trade is key, noting that Ms. Pankuku has been working on introducing the orange flesh sweet potato in Malawi, but being limited by seasonality has posed a challenge. Cross border trade could enable the sweet potato growing in Uganda to support industry in Malawi.

She then turned the next question to Mr. Dayhoff, asking: “What incentives or marketing efforts are needed to improve brand recognition for nutrient-rich foods among rural consumers?”

Mr. Dayhoff began by introducing Partners in Food Solutions (PFS). They are a consortium of food companies that use employees of those companies to provide pro-bono technical help and business assistance for small or medium enterprises. They help with issues like creating marketing plans and equipment procurement. PFS finds companies to work with through partnerships, the most important of which, TechnoServe, is funded by USAID. TechnoServe has teams on the ground in Africa that find small to medium enterprises in need of assistance and puts them in touch with Mr. Dayhoff’s team, who helps connect them with volunteers from around the world to provide as much pro bono assistance.

Mr. Dayhoff said that marketing is about influencing someone’s behavior and making them want to buy something. One important message when trying to sell nutritious foods is to pitch them as a part of quality or premium, and that motivates consumers. He then provided examples of this in maize and whole grain products, whereby consumers in Kenya buy what is perceived to be ‘premium’ porridge before the holidays, not because it is fortified with extra nutritional content, but because it is considered quality. Another example from Kenya is an enterprise that makes whole grain flour, and markets it by differentiating it as ‘unique’ and different from all other flours, rather than marketing it as ‘healthy.’

Another important marketing strategy is to recognize that consumers want to buy products that taste good. He gave an example from Malawi about a corn-soy blend where scientists improved the quality of that blend but also improved that taste, and kids ate more of it. The kids were not eating the higher quality product because it was better for them, but rather because it tasted better.

Mr. Dayhoff then made three final points about challenges and opportunities. First, he reiterated Dr. Bahigwa's earlier point that governments can use their purchasing power to buy the food they want people to eat, like in schools and in the military. He also noted that producers are often incentivized to produce products used by the military, so having the military eat fortified, high quality food products can incentivize the private sector to produce that food. Second, he noted that USAID should continue funding technical assistance for longer contracts. When knowledgeable people have their contracts end while they are providing technical assistance, it impedes progress. Finally, he suggested that USAID expand technical assistance directly focused on feed and animal feed.

Ms. Danton asked a final question to Dr. Lapping: "What do you know about how to effectively create demand and share information, and where might there be a role for the private sector in helping to do this better within the food security and nutrition realm?"

Dr. Lapping noted that she heads up the 'Alive & Thrive' Project, which works in Africa and Asia on maternal, infant, and child nutrition through social behavior change and systems strengthening. Dr. Lapping noted that demand generation is not as simple as, "Build it and they will come." Just because a product or supply exists, that does not mean it will be consumed. In order to help make this translation, Alive & Thrive approaches the world through a social behavior change lens. Dr. Lapping noted that people live in context, so working with individuals is not enough: to create behavioral change it is important to work with families, peers, and service delivery providers to create an enabling environment. Alive & Thrive uses multiple channels to create and drive demand--interpersonal communications, mass communications, and targeted advocacy, all of which are underpinned by data. They aspire to create tailored, understandable, and actionable social behavioral change approaches that result in nutrition outcomes.

One of the lessons they have learned is to take an aspirational approach, not an educational approach. Alive & Thrive rarely talks about nutritional outcomes, instead talking about parents' aspirations for children and what parents need to do to help their children succeed. Another important lesson they have learned is the need to understand the target group's behavioral determinants and who influences people in a given context. One example she gave is in work they have done in Ethiopia, where the Ethiopian Orthodox Church (EOC) is extremely influential. The EOC required that Christians above the age of 7 fast for over 180 days a year and do not eat animal-sourced foods. Alive & Thrive did formative research that showed that children of these families were 50 percent less likely to eat animal-sourced foods and had unilaterally poorer infant and child feeding behaviors and practices. Alive & Thrive worked with Ethiopian Orthodox clergy to add into their sermons that feeding children animal-sourced foods was healthy and not in violation of fasting rules.

A final point she made is the need to define realistic target numbers. Alive & Thrive found in prior work that positive infant and young child nutrition behavior change was most likely when a caregiver had five to seven reinforcing contact points around the same concept to support a behavioral shift, with the interpersonal component being particularly powerful. She also noted that quality matters a lot for sustaining behaviors. With private sector engagement, she said it is important to think about how a product is presented, noting that deliberate, thoughtful demand generation is absolutely required.

## Public Comment Period

**Mark Keenum, Mississippi State, BIFAD (moderator)**

Dr. Keenum thanked the panel and moved to the public comment period to get audience comments.

- Jeannie Blankenship, Vice President of Policy Initiatives and Advocacy for the Academy of Nutrition and Dietetics, recently convened a forum about global obesity and thought about helpful comments brought up there related to policy implications of addressing undernutrition and subsequent contributions to obesity in some countries. She said it is important to think about how country-specific recommendations and messaging can affect migrants, who may follow recommendations for their home country when they move elsewhere, which could end up being harmful in their new environment.
- Cheryl Morton with the International Fund for Agricultural Development wanted to mention two initiatives in the works, in light of the comments on the need for financing for smallholder farmers. The European Federation of the Associations of Dieticians (EFAD) is launching an agribusiness capital fund to build on EFAD's expertise and to reach small-scale farmers to get them financial assistance, coupling that with technical assistance. Another is a Global Food Loss Reduction Facility, will be launched next year.
- John Leary with Trees for the Future works on manuals for training farmers on increasing productivity. He said he believes it is a myth that farmers can just grow one crop to sell and be able to afford other, more expensive foods to eat. He noted that if small-holder families are not growing nutritious foods, they will not eat them. He noted that finding ways to diversify the timing of production throughout the year will help with storage issues. He mentioned that diversifying crops and growing in guilds is good for nutrition and good for the soil, however, the private sector has to deal with the challenge of aggregating so many crops from many different people. The private sector must step in on the input side and on the marketing side, to help small scale farmers.
- Valerie Davis with Catholic Relief Services asked, considering all of the challenges that private sector faces, how can we capitalize on farmer-to-farmer volunteers from the U.S. to Africa and Asia to help build the skills that are lacking?
- A male speaker from the International Potato Center acknowledged USAID's help in supporting their breeding programs. In Kenya, his team is working with the private sector to make more nutritious sweet potatoes. He noted more and more people—rural, as well as urban—are buying food from markets, so having staple foods biofortified with iron and vitamin A can help ensure that even the poor can have nutritious products. He also noted that working with U.S. universities and the private sector has enabled them to come up with technologies that can be transferred to countries in Sub-Saharan Africa and that are customized for their needs. He stressed that it is not just access to capital, but also access to technology, that must be prioritized.
- Mary Ajepong, a Bourlag LEAP fellow asked, are there any partnerships for Africa, especially for those who are in small-scale businesses, so that they can scale up and help the people of their country? Sometimes students graduate and have great ideas and they want to scale up, but do not have the means. She invited comments on that.
- Dr. Rob Bertram addressed the question, acknowledging that finance has been brought up repeatedly, and that it is a huge constraint. USAID is working with the private sector, and sometimes the public sector, to overcome this challenge. He suggested that BIFAD may want to think about this as another topic moving forward because it is salient and timely.
- Mr. Dayhoff also responded, mentioning the USAID funded East Africa Trade and Investment Hub as a body that brings together a lot of different incubators that help with finance and market linkages. PFS also works with the Aspen Network of Development Entrepreneurs (ANDE), which has chapters around the world that help fledgling entrepreneurs start their businesses.

## Closing Remarks

### **Mark Keenum, Mississippi State, BIFAD**

Dr. Keenum said that bringing the different sectors together to engage in order to improve nutrition is critical. Dr. Anderson added that this meeting has shown that the global community is starting to move towards a holistic food systems paradigm, one that is more robust and appropriate for addressing the magnitude of the food security challenge. This paradigm recognizes the need for an inclusive set of stakeholders to work together on this challenge. Administrator Green has laid the challenge that the real point of development work is to 'work ourselves out of the job', getting to a place where all countries are self-sufficient. Dr. Anderson noted that this will not happen if the development community does not address global malnutrition and if it does not figure out how to bring everyone to the table. She continued, saying that the development community does not have the luxury anymore to not engage the private sector. Taking a food systems approach requires having an understanding of all of the aspects of the system, and engaging with all actors within this system. She thanked everyone who presented and the audience.

Dr. Keenum thanked the speakers and Clara Cohen, executive director of BIFAD, and all the others at USAID who helped put the meeting together, as well as Mark Varner and Devin Ferguson at APLU, before adjourning.