

**SYMPOSIUM LUNCHEON KEYNOTE: PROGRESS IN AGRICULTURAL
DEVELOPMENT**

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Jeff Raikes - CEO, The Bill & Melinda Gates Foundation

That was very kind, thank you. Well, thank you very much, Ambassador Quinn, for your kind introduction. It was especially nice of him to seat me next to Secretary Vilsack of the USDA. I didn't bring the latest copy of my résumé, but if things don't work out at the Gates Foundation, I'm kind of hoping that maybe, what do you think, Tom? Maybe I can get a job there in the service.

Ambassador Quinn mentioned my opportunity at Microsoft and to be a part of the high-tech industry the last 30 years. It was an amazing opportunity for me to lead the building of Microsoft Office and to work with a lot of very smart, passionate people who felt that collectively we could change the world through the use of computer and software technology. So I feel very blessed that I had a dream job, even if it wasn't the USDA at that point in time, that I had a dream job that afforded me that opportunity.

But I stand before all of you here today saying that I feel that I have an even greater dream job working with all of you to change the world in ways that will help people to have the food security and their hunger needs met. And so I thank all of you for what you do, and I'm honored to have this opportunity today to share some thoughts related to our work.

It's really a special honor to be here with David Beckmann and Jo Luck and celebrate them as winners of the World Food Prize, but actually all of you here, and many winners of the Prize in previous years, and people who are being recognized in a number of ways, it's really an honor to be here to celebrate so many great people and so much great work inspired by Dr. Norman Borlaug.

Now, as was mentioned, I grew up on a farm. [I hope I'm clicking the right button here. Okay, there we go. I'd chuckle too.] I grew up working on our family farm, just a couple hundred miles west of here near a little town called Ashland, Nebraska. My family is still farming today. In fact, I will spend the weekend on our farm, enjoying the harvest time and maybe a little Cornhusker football.

This photo was taken in the summer of 1978, so it was right in that era of my college career where I was looking forward to working on the USDA. And I do have to say I really, really loved that John Deere shirt, and I was really, really sad when I realized that John Deere shirt no longer fit, and it wasn't that the shirt had shrunk.

While I was growing up on our farm, we hosted farmers and agricultural leaders from many countries — Australia, France, Japan, several Eastern European countries — and I was very impressed by their interest in learning about our approaches to see how they might be applied in their country.

My father would speak passionately about his belief that American agriculture could feed the world, and I reflect on his vision fondly. And I have to say that I know if he were alive today, he'd see that the real

opportunity to feed the world comes from supporting the productivity of farmers, family farmers, smallholders everywhere in the world.

So one of the first things that I did when I joined the Gates Foundation as CEO was to set up a meeting with Dr. Borlaug. I flew down to Dallas, Texas, and was given the opportunity to spend some time with him. I'd planned to ask him about his celebrated career, the exciting days in the 1940s and 1950s when he was in Mexico, his thoughts on the challenges of Africa — that was particularly interesting to me.

But he had other things on his mind — actually just one other thing: wheat stem rust. And he wanted to make sure that I knew that that disease was coming back, and he wanted to know what we were going to do to stop it.

So I think about that day quite often, just how fortunate I was to spend time with him. But in particular I reflect on the fact that if a man who spurred the Green Revolution that fed a billion people was still vigilant well into his nineties, then there's just no excuse for complacency. And as today's laureates prove, Dr. Borlaug's spirit, his sense of urgency, and his moral commitment to small farmers, pervade the entire global agricultural development community.

David Beckmann understands that the fight against hunger and poverty lines up with the values of the American people, and he has built an enormous constituency for global agricultural development right here in the United States.

And for almost 20 years Jo Luck has guided one of my favorite NGOs, Heifer International. On my first Gates Foundation trip to Africa, I went to Okalu, a village in Kenya, to visit a chilling plant that was put in place by Heifer International with their partner, TechnoServe. That was a fabulous trip.

I loved the concept — supporting smallholder dairy farmers across the value chain. The chilling plant gave them a consistent market for their milk. The predictable pricing gave them the courage to invest in better livestock. And the plant provided access to artificial insemination services for that livestock technology. The extension service that was centered out of the plant gave them the know-how to produce more fodder and to store it better. So I loved the concept.

I loved the numbers. In just a couple years they were supporting more than 3,000 farmers in a 25-kilometer radius. The Foundation has an aspiration to scale this approach so that it helps 180,000 households, and I'm pleased to say that we're well along the way because of the great work of Heifer International on this East African dairy project. So I loved the numbers.

And I wondered about the stories behind those numbers. And that's when I met David and Lucy. They live in a small home a few miles from the chilling plant. They farm about two to three hectares. At the time they owned one dairy cow, and they supported eight family members. Both sets of parents, both David's parents and Lucy's parents, and two daughters.

Now, when David and I were chatting, he mentioned to me that he hoped to rebuild his herd to three cattle. Wow, that caught my attention — rebuild? What happened? David explained that, because of the income that the dairy chilling plant now provided to him and Lucy through the sales of their milk, that he and Lucy had decided to sell two of their cattle so that their oldest daughter could complete a degree in hotel management at the University of Nairobi. Wow!

Now, that's the day that I learned it's not about the stories behind the numbers. It's about the stories in front of the numbers. David and Lucy's story is so powerful, and the stories that you have to tell are so powerful, because investment in small farmers has an amazing ripple effect. What you do is not just about alleviating

hunger and poverty. It's not just about preventing stunting and wasting. It is about helping people make their dreams come true. It is about hundreds of millions of people who can dare to dream even bigger dreams for their children and their grandchildren.

Now, two years ago the president of the Gates Foundation Global Development Program, Sylvia Matthews Burwell, addressed this symposium. And she explained why we decided to get involved in this work. Like a lot of things at the Gates Foundation, it's about the numbers. It came down to simple mathematics.

Three-quarters of the poorest people in the world rely on farming for their food and income. If the goal is to help the poorest people get enough to eat and increase their incomes, then the obvious way to do this is through agricultural development, or as Sylvia said — clearly, agriculture and prosperity must grow together.

Now we believe in that rationale as strongly now as we did then. Agricultural development has immense potential. But as Dr. Borlaug once said, “You can't eat potential.” And I'm happy to be able to say that, because of the work that you're doing, we're beginning to see something in addition to the potential inherent in agriculture. We are starting to see the realization of that potential. We are starting to see progress for small farmers. Yes, we've been working together to *take it to the farmer*.

Not everybody shares my opinion. In fact, plenty of people in the development sector say that we in the agricultural development community aren't showing the necessary commitment, that we're not making the necessary progress. Some even say we're not making any progress at all. So I would like to spend a little bit of time today providing evidence in support of my optimism.

Now, the first piece of evidence comes from our experience at the Gates Foundation. When we started our agricultural development program, we announced a package of six grants. They totaled just over \$300 million, and they were designed to help over 5 million poor farming families in sub-Saharan Africa and South Asia improve their lives.

These grants span the agricultural value chain, much like what I described in our work with Heifer International and the East African dairy project. And they amount to a test case of our strategy. And I invite all of you to look at the Foundation's website where we are tracking the progress of these grants.

Two years in, these grants are having a direct impact on hundreds of thousands of farm families and are on track to reach their goals. And I want to give you just one example.

We gave a grant to the International Rice Research Institute to develop a variety of rice that can tolerate submergence, so that rice farmers aren't wiped out by floods. There you can see on the right-hand side the so-called Sub-1 variety of rice that tolerates submergence, next to the rice on the other side that you can't see because it has died underneath the water.

Now, by the end of this year more than 400,000 farmers will be planting this variety, and by 2017 we project that 20 million farmers will benefit from it — and that is tangible progress.

Now, the second piece of evidence is the pace of research and development in agriculture. And when I talk about R&D, I want to talk about high technology and low technology. At the Gates Foundation, we are enthusiastic about the potential of science and technology to help small farmers.

As Bill Gates told this audience last year, we need higher yields on the same land in harsher weather, and we will never get it without a continuous and urgent, science-based search to increase productivity.

Now, most of our grants support conventional breeding, but in certain instances we do include biotechnology approaches, because we believe they can help farmers confront drought, flooding, disease or pests more effectively than conventional breeding alone.

But we don't think high technology is the only answer. Some of the most promising technologies of recent years are ingenious because they are so simple.

My favorite example of that is a triple-layer bag for protecting cowpeas from pests. It was developed at Purdue University in 2007. It costs just \$2.00, and it can increase cowpea farmers' income by about \$150 per year — that is tangible progress.

The third piece of evidence is the fact that investments in agriculture are going up. Last year the G-20 nations committed \$22 billion to agricultural development, and this year the Global Food Security Trust Fund started dispersing money.

Now, of course we must remain vigilant in these tough economic times to make sure that the donors follow through on their pledges. Budget pressures are threatening the progress we've been making, but we can say that agricultural development is back on the global agenda. After a 20-year period which had an unfortunate drop in the commitment, it is back on the global agenda.

A new report by the Partnership to Cut Hunger and Poverty in Africa found that U.S. agricultural development assistance to sub-Saharan Africa has grown significantly in recent years, from just over \$650 million in 2005 to now over \$1.5 billion in the last year.

Donor countries are following the example of African governments when they invest in agriculture. In 2003 the African Union adopted the Comprehensive Africa Agriculture Development Program, or CAADP. CAADP called on African governments to do two things: dedicate ten percent of their national budgets to agriculture, and seek 6 percent annual agricultural growth. And now we see that 20 countries have signed CAADP compacts, launching solid plans to achieve these goals. Ten countries have exceeded the 6 percent agricultural growth target. That is tangible progress.

The fourth piece of evidence that I'd like to share with you are the macro statistics on poverty and hunger. We have seen investments in agriculture have a huge impact in specific places.

And I like to give the example of Ghana. In the last 20 years, cassava production in that country has increased fivefold. Tomato production has increased sixfold. And the cocoa sector has rebounded to become a crucial part of the economy again. In that time Ghana has cut hunger by 75 percent.

Of course, Ghana's story is extraordinary, but the global story is pretty good too. Since 1990, 1.3 billion people worldwide have lifted themselves out of poverty. That growth is taking place in China and India but also in Africa where a dozen countries are on track to meet the Millennium Development Goal on poverty reduction. That is tangible progress.

It's a good thing that we're starting to convert agriculture's potential into better lives for small farmers. It's a good thing that agriculture development is up to the task we've assigned it — because the task is growing larger and more difficult. In the two years since Sylvia came here to explain our strategy, the work has gotten both more urgent and more complicated.

The economic crisis is putting enormous pressure on budgets in both donor and developing countries — right at the time when we are showing a new enthusiasm about agriculture. The G-20 countries, as I mentioned, pledged \$22 billion. That was their pledge last year for the years ahead, but this year it looks

unlikely that they're going to meet their pledges. And we need to use our voice to get them, to encourage them, to meet their pledges.

Earlier this year the Global Food Security Trust Fund was launched. Right now there are 22 countries with almost \$1 billion worth of requests into the Trust Fund, but there's only about \$130 million that is now available. Countries are interested in this work. There are proven ways to do it well, but there is a real danger that we won't get it done.

So this economic crisis is a big challenge. Climate change is a very different but also a very serious challenge. We've known for years that farmers were going to have to contend with harsher weather, but now we're getting a clearer idea of the scale and the scope of the crisis. The places that will suffer the most severe weather, the volatile temperatures, the changing patterns of rainfall, the droughts and the floods are the same places where the poorest farmers live. Their very survival will depend on the ability to adapt to climate change.

Now, water scarcity is, of course, a related problem. It's already a huge issue in large parts of the world. Rivers in China are drying up. Groundwater levels in India are dropping rapidly, and yet because of rapid population growth, urbanization and changing diets, the global demand for water is on pace to double in just 50 years.

Now, without drastic changes, demand is going to outstrip supply in the areas where the poorest farmers live. I consider this issue so urgent that I've committed a substantial portion of my time to Water for Food, a global institute at the University of Nebraska. Ambassador Quinn mentioned that. And we're very fortunate that Robert Daugherty, the founder and creator over Valmont, put such a substantial portion of his fortune into creating that institute because of its potential to try and help us address these issues.

So if you think about those challenges, where does that leave us? Well, I want to show you a short film that I think says a lot about the direction the agricultural development community is headed. It's about a project with CIMMYT and many other partners, including the Gates Foundation, to help 300 million African farmers boost their maize yields in the face of recurring droughts. And I think it's representative of what we're all learning, and it points the way towards the future for all of us. So let's take a look.

— FILM —

So why do I say the drought-tolerant maize project is representative of where the community needs to go? Well, first, it's about innovation. One of the biggest challenges facing a small farmer in Africa right now is climate change. They can't change the weather. They can't change where they live. But this project can help them thrive on their own land. The new drought-tolerant maize varieties will allow farmers to get 30 percent more maize yield in a drought.

A second reason I believe this points the way is this project is directly targeted at small farmers. The theme of this conference is *Taking it to the farmer*, which is apt. It is only by working closely with farmers that we can understand the problems that need solving and to buy solutions that are likely to find traction.

The maize project is structured to include small farmers like Sharifa Numbi, who was highlighted in the film in the breeding process. Drought-tolerant maize just doesn't happen in the lab. Technology can't help farmers unless farmers want to use it. And this is a lesson that we've been learning in agricultural development for well over 50 years.

In Malawi the government introduced various improved maize varieties for farmers to test out in their fields. Of these the farmers preferred an early-maturing drought-tolerant variety over others. In a year of severe drought, early-maturing drought-tolerant varieties offer added insurance against starvation.

Malawi's Ministry of Agriculture took note, and last year the government endorsed the variety preferred by the farmers, encouraging thousands of farmers to use it in the country's most drought-prone areas.

Now, the third reason I think this project captures the direction our community is going is because it's based on massive partnership. Especially in tough economic times, we need to coordinate as never before to get the most out of our combined investments.

This effort to develop drought-tolerant maize is building on more than two decades of research and involves a broad coalition of partners. You saw that long list of partners flash across the screen after the film. Governments, NGOs, seed dealers — each plays a vital role in making sure that quality maize seeds get into the hands of small farmers.

Partnership and coordination are an important way to get the value for the money we're spending. The new institutional model at CGIAR to help coordinate its research efforts is a great example of how we can stretch our resources by reforming, by modifying, by evolving the way we work.

So I'm inspired by the optimism of Sharifa Numbi. She said, "Through our hard work in the fields, we can eradicate poverty." She's right. Agriculture is the best lever we have to pull in the fight against hunger and poverty. We all agree on that.

What's so exciting to me is that we're not staying in one place. Our community has the tools to help farmers grow more and more nutritious crops, even in the face of harsher weather. Our community can keep getting better. We can learn more about small farmers. We can innovate to get ahead of the next challenge. We can form broader, deeper partnerships that allow us to maximize our impact against poverty and hunger.

What's required of us is our unfailing commitment to the cause of agricultural development. It's the same commitment that drives Sharifa Numbi and millions of other farmers in the developing world to wake up each morning and do their part to feed the world.

Last night at dinner I met eight farmers from Africa. One of them was Alice Pachera. She's a widow. She's taking care of three children, and she's taking care of two children from her brother who has passed away. And I could see the pride and the excitement in her eyes — as she said in 2005 on her one hectare, she was able to grow 20 bags of maize, along with her soybeans and ground nuts. And last year, her last harvest, using the benefits of the improved inputs that have been made available to her, she is up to 150 bags in the last harvest. It was so uplifting to hear her story and to see that pride. She is a great example of the story in front of the numbers.

I see that commitment alive in the eyes of everyone here today, the commitment of, *Take it to the farmer*. Progress against hunger and poverty is not only possible, it's happening, thanks to all of you.

Thank you very much.

Kenneth Quinn

Jeff Raikes said he'd be willing to take a couple of questions before we have to break to go downstairs. We have our interns around with microphones. Does anybody have any questions? Such an incredible presentation... Oh, here's one over here. Here comes the microphone.

Question

Thanks. I'm Marshall Bouton from the Chicago Council. Jeff, I want to come back to the challenges we now face as a result of the economic crisis, recession, and the budgetary pressures. And those will continue, as you know, well, long into the future, at least here in the United States.

So how do we explain to members of Congress, to the American people why at such a time of economic distress at home, the United States needs to make larger commitments to agriculture in places far around the world? Is it just altruism? Is it economic benefit? Is it investing in success? There are a lot of narratives here, but we need to figure out how to make them, and I'm wondering if you could share your thinking about that?

Jeff Raikes

Yeah, a few quick thoughts. First of all, the bottom line is — It's about their interests and our interests. I think the recognition of the importance of food security and economic development as a critical element of sustainable progress in the developing world and the security that comes from that, I think, is being recognized by leadership in D.C. and hopefully other places.

If you look very closely — and I was very fortunate to have a brief chat with Rajiv Shah when I was in Washington, D.C., on my last trip. And we didn't have a lot of time to focus in on the recent announcement of the collaboration, if you will, between the White House and the State Department on the direction of foreign policy.

But one thing that Rajiv emphasized to me that I found quite heartening was the idea that people now really see that there is a distinction between stability and economic development and how that can be sustained. And of course given sort of the military challenges, the defense challenges that are out there, I think the recognition of that distinction is extremely important.

Second thing that Rajiv said is that clearly then the administration, hopefully members of Congress, will put a lot more emphasis on the investments that can be made to spur economic development, which can then underlie sustained progress for the future.

But I just want to come back to one third point that I think is so important — is we have to get out there and tell the story. We've got to tell the story of the successes, and we've got to tell the story of the impact. The average American citizen thinks that one of the larger portions of the federal government budget that is, I guess you'd say dispensable, is foreign aid. The average American citizen doesn't understand that less than one percent of the federal budget is in foreign aid or official development assistance.

So what we have to do is we have to make sure that people understand just how important, how impactful the investments are that are made in smart assistance, smart aid, and then make sure then that if we tell that story, we have the public will that's necessary to support political will.

So there would be my three thoughts that I would add.

Question

Hi there. My name is Lauren ... [inaudible]

Jeff Raikes

Yeah. Lauren asked if we deal with challenges from people who are anti-GMO, if that is a challenge or an impact in our work. And I could probably sugar coat the answer, but the truth is we do think that can be a challenge. When I meet with...

The lack of, well...

Kenneth Quinn

I told you they were the toughest questions.

Jeff Raikes

This is not a tough question. The question is whether you're going to get Jeff Raikes unplugged.

When I sit down with farmers in Africa, Malawi or Zambia or Kenya and I see the challenges they face and I recognize that the technology tools aren't the only answer but they're an important part of providing the options that will give these farmers and their families the opportunity that David and Lucy have or the opportunity that Alice Pachera has, I just, I wish they'd sit down with me and look in their eyes and tell me that we should deny the use of that technology opportunity as part of giving these farmers choices. That's how I see it.

You may not see that in the standard answer on the Gates Foundation website.

Now, is safety important? Absolutely, and we have significant grants to help put in place the regulatory structure so that the results of all the different breeding, conventional and GMO can be properly tested.

Are the business issues important? Absolutely. Our approach at the Gates Foundation is to work with the private sector companies who are willing to contribute their resources — it may be intellectual property, it may be their expertise — contribute their resources into partnerships that will ensure that these smallholder farmers have access to the results of the output, the new seeds or whatever new technology, at affordable prices.

In most cases, I see that these agricultural interests are saying this is a way for them to contribute their expertise, their successes to help others. And as part of our grant-making process, we help to ensure that that is the deal.

Take, for example, the drought-tolerant maize project. I think now there's 50 African varieties that have been aided by technology from American agricultural producers, and there's no income stream back or anything like that. So there's a lot of misperception about what's happening here.

So I wanted to start out with what I think is most important, which is — let's give these smallholder farmers choices. And let's work together to figure out what are a set of reasonable choices and let them make the choices. Don't deny them the opportunity to have the choice. But underlying that, you have to make sure you

put in place the support for safety. You have to make sure you put in place a business model so that those choices can be affordable.

We are committed to that, and it is happening. Thank you.