

**SECRETARY'S ADDRESS: THE OBAMA ADMINISTRATION'S LEGACY TO STRENGTHEN
GLOBAL FOOD SECURITY**

Speaker: Thomas J. Vilsack
October 13, 2016 - 4:10 p.m.

Introduction

Ambassador Kenneth M. Quinn

President - World Food Prize Foundation

So every once in a while I get to do something that's fun, and this is particularly fun to introduce the Secretary of Agriculture. I have an unusual relationship with Secretary Vilsack. When I came back to Iowa when I retired from foreign service and I left Cambodia, I had my mission from John Ruan to make the World Food Prize into the Nobel Prize for Food and Agriculture. And so I thought, well, we need a place that looks like a Nobel Prize, so I went up to the Capitol and I asked to call on the Governor. And he very graciously allowed me to come in and meet with him.

And here I was saying, "We'd like to hold our party here in the Capitol, and would you make it available to us?" And, you know, I knew from working there, there's a little button under the desk the Governor has when they push it to call security when there's somebody that needs to be removed. And I thought I saw his finger moving that way, and I said, "You know, it's for Dr. Borlaug." And everything changed, and of course we could do that. But he said, "You have to go up and see the Republicans who control the legislature." So I went up there – same thing, as soon as they heard it was for Dr. Borlaug.

And I wanted to mention that because it was the Secretary's initiative that Iowa create a special day of recognition for Dr. Borlaug. And you may find this hard to believe, but when I came back then, not many people in Iowa knew who Norman Borlaug was. All these students here – I've talked to 30 or 40 students – maybe one would have ever heard of him.

And so Secretary Vilsack and I have been partnering, and he's of course the senior partner and the lead partner, in making sure that Norman Borlaug would be considered the great hero that he deserves to be and that he is today.

After two terms as governor of Iowa, Secretary Vilsack was appointed by President Obama and has been in this position for the full term of both of President Obama's terms as president and now the longest-serving cabinet member in the President's administration. And starting to close in, getting close to Tama Jim Wilson, the Iowa Secretary of Agriculture who served 13 years. So who knows? Maybe there.

But Secretary Vilsack has been a great innovator. He is a great person of great compassion. Nobody has done more. Nobody has done more to promote Norman Borlaug and make people aware of his legacy than Tom Vilsack.

And the one other thing we've done – and this is particularly close to his heart – we've created a program called the Wallace Carver Fellowship. And it should be... There it is – he and I signing the Memorandum of Agreement. And since then we've had 151 high school and college students. They get to spend the summer working at USDA. They have an experience where they get to meet with him, and a leadership experience, and he always has time for them. And this is following in Dr. Borlaug's legacy of inspiring the next generation.

My great privilege and honor to introduce to you Secretary of Agriculture Tom Vilsack.

Thomas J. Vilsack

Secretary, U.S. Department of Agriculture

Thanks, thank you. Well, thank you, Ambassador Quinn very, very much. I appreciate that introduction, but I do have to correct it just a bit. You know, I think you personally deserve an incredible amount of credit for your leadership of the World Food Prize Foundation and for all that you've done to ensure that not just Iowans but people around the United States take great pride and privilege in Norm's work. You have obviously been very much involved in making sure that in the Statuary Hall in Congress we pay honor to Norm's memory and his work. And you have been incredibly important to this Foundation that is now celebrating its 30th year of the World Food Prize. So I would certainly say that you rank far, far above where I am in this. Yeah.

And I think there are two additional individuals that I would want to identify and recognize, and that is both John Ruan III and John's dad. Despite your story about you coming up to the Capitol, it was actually John Ruan who came up as well to explain the necessity of having the state of Iowa embrace the World Food Prize, support it financially, and provide it a place of honor each and every year. And I think the Ruan family, along with the Borlaug family, has done an incredible job with this World Food Prize. And it is indeed now recognized as the equivalent of the Nobel Prize. It's hard for me to understand why we never had a Nobel Prize of Agriculture, but I guess in a way we're fortunate that we didn't, because now we have the World Food Prize.

And I appreciate the opportunity to visit with you all briefly today, and then Ken and I are going to have an opportunity for some conversation and questions. And you'll permit me – since this is the last time I will have the opportunity to be part of this dialogue as the Secretary of Agriculture – if I don't look back just a bit on how far we've come and how far we need to go.

I know somewhere in the audience, I believe, there is a good friend, dear friend of mine and someone who provided incredible leadership at USDA, Krysta Harden. I don't know where she may be, if she's here today; I'm told she is. If she is, I just want to give her a shout-out, just an incredible partner. She was deputy and now working in the private sector. And we worked together to focus on food insecurity both domestically and internationally.

It was in 2009, my first trip, actually – my first overseas trip was to Italy to meet with my colleagues in then-the G8, now the G7, as precursor to the leaders' meeting when they focused in their meeting on the need for the world to consider food insecurity and poverty and nutrition as critical issues that needed to be addressed by world leaders.

President Obama came back from that meeting, and we committed ourselves at that point in time to a program called Feed the Future. The President had already pledged 3½ billion dollars toward a 22 billion-dollar initiative, the idea being that we would begin the process of trying to drive down food insecurity globally.

And I will tell you that it has obviously been a success. The Feed the Future Initiative has been a success, because Congress this year in a sense codified it by establishing and passing with very strong bipartisan support the Global Food Security Act, which now basically incorporates the Feed the Future concept into the way in which the United States and the United States Government will continue to focus on food insecurity.

I think the reason we have seen a decline in overall food insecurity for nearly a billion people, as it was in 2009, to somewhere between 750 and 825 million – we've seen a decline of several hundred million – is in part because of the Feed the Future Initiative. And I start with acknowledging President Obama's leadership, the great work of the folks at USAID who have been very committed to this effort. They have worked in collaboration in partnership with USDA. We have seen an expansion of quality programs that work. But the thing that really, I think, has driven the success of Feed the Future is that it has been focused on a country-led effort. This is not the United States coming in and telling folks what we think they ought to do. It's us coming and saying, "How can we be of help? You can identify for us what you need, and then we will try to bring our capacities to bear."

At USDA we've been focused on three elements, and I'll just briefly touch on these three. First of all, it's very important, I think – and we recognize the importance – of building local capacity in order to focus on increasing the productivity and the market opportunities and the trade opportunities for those in developing countries. We're really focused on trying to equip producers with the best technology for their particular circumstance. Our Food for Progress Program has literally touched tens of thousands of producers in the targeted countries. We have basically worked with them to train them in the new techniques and new technologies. We've also provided a series of microloans to provide credit.

Let me just give you a couple of examples. In Mali we worked with the Agricon Foundation to take a look at 6800 men and women farmers, giving them improved practices in terms of the production of rice, sorghum, vegetable production. In Malawi and Kenya and Tanzania, we have focused on creating with global communities a better supply chain. We have actually seen remarkable expansion and improvement in income for these farmers. Over the course of the last seven or eight years, we have seen, as a result of our efforts an \$800-million-dollar increase in agricultural sales in these developing countries. And that obviously will suggest and is reflected in the fact that, not only do we have a reduction in food insecurity, but we've also seen in the 17 countries that we've focused on, in 11 of the 17 we've seen significant reductions in poverty, some as high as a 35% reduction in poverty – so obviously focusing on making sure that producers have the techniques, the technologies, the understanding of how best to increase their productivity.

And American farmers have been incredibly generous with their time and their expertise. They also have traveled overseas. They don't see this as a competitive circumstance. They see this as an opportunity for us to meet the challenge of a lifetime, which is – how are we going to continue to feed an ever-increasing world population, especially with a changing and challenging climate?

So one is to improve productivity. The other is to expand knowledge base. And there, you know, we're proud of the fellowships that we have at USDA, one of which is named after Norm, the Norman E. Borlaug International Agricultural Science and Technology Fellowship. Over 700 fellows have been appointed in the last seven or eight years, focused on a variety of challenging areas – veterinary science, sanitary and phytosanitary issues, natural resource management, agronomy, biotechnology – all the things that Norm would have expected us to do in terms of providing our expertise and giving people from these countries the opportunity to mentor, be mentored by, to develop relationships with our experts in these fields so that we can help them provide the level of expertise and knowledge in their country that they need.

We also have a shorter timeframe fellowship called the Cochran Fellowship Program, and that's really focused on trade issues and market development. And over 16,000 individuals have been trained and educated through that fellowship program just in the last seven years or so. So expanding the knowledge base.

And then finally the importance that we place at USDA on working with developing countries to drive innovation through research and development. We started by doing an assessment in 77 countries, a food security assessment, so that we basically created a baseline of information and data concerning precisely where each country was relative to food insecurity and how they might be able to focus on improving.

Then we began the process of specific research efforts. We are mapping the wheat genome, which is allowing us to address the wheat stem rust issue. We developed a vaccine for East Coast fever. We are working with the African Goat Improvement Network. All of this designed to create the knowledge, information and new innovation that can provide in these developing countries – in Africa, in Central America and in Southeast Asia – the opportunity for farmers and producers and ranchers in those countries to be more productive. It's a great calling.

This complements our work in feeding and nutrition. I'm very proud of the work that we are doing in concert with USAID to improve the McGovern-Dole Program. Certainly the World Food Prize is well aware of the importance of George McGovern and Dole's work in developing this incredible nutrition program that has impacted and affected, since I've been secretary, over 23 million young people.

What we learned in working collaboratively with USAID is that we weren't really focusing our core competencies. In a sense, USAID's core competency is providing technical capacity; it's helping to make sure that teachers in those classrooms are the very best teachers they possibly can be. And we at USDA have some knowledge about how to work the World Food Program and others to make sure that the food that youngsters are consuming is nutritious and helpful.

We were training teachers, and USAID was trying to feed kids, so we decided – Hey, let's each other, let's focus on our core competencies. So we're working in a couple of countries to try to begin this process of making sure that we coordinate our efforts, and I think over time that coordination will result in us feeding more people and having teachers who are well trained and excited about teaching their students.

My wife Christie is here today, and she just recently got back from Malawi, and I think we're working in a number of countries that she's visited in her work at USAID to try to develop that better relationship and that coordinated relationship between the two federal agencies. And that's part of what Feed the Future has done – it's encouraged us to coordinate.

Let me finish with..., because I know we really want to get to questions. You know, I'm excited about the work that we're doing – and I think there was a brief mention of it earlier – of sharing research globally through the Global Research Alliance as we relate to climate change. We now have over 47 countries that are working. New Zealand and the United States started this process, trying to look at ways in which we can ensure that the research that we're doing on climate change and its impact on production, on crop production and animal production, is coordinated, that we're not essentially duplicating or replicating research. Very excited about the opportunities and the work that's being done in the Global Research Alliance.

In the same vein, I'm excited about the fact that the U.S. and the United Kingdom basically challenged the rest of the world to open up the vaults through our Global Open Data for Agriculture and Nutrition Initiative, so that we could share basic research, so that we would be able to work off of information that was readily available in one country now can be available throughout the world.

We recently developed a source, basically taking a look at all of the datasets and making sure that the information that's in those datasets, that there's sort of a common terminology and language so that it's more accessible, more available. These two initiatives have also spawned an effort by now over a hundred countries and organizations to focus on climate-smart agriculture. We at USDA are really focused on reducing the emissions related to agriculture here in the U.S. by doubling the emission rates over the course of the next ten years. It's something that we believe we can accomplish, and we want to share that information and knowledge about soil health and water quality and better irrigation systems and rotational grazing for livestock, and all of these things that we know we can do to be more sustainable over time.

We are changing the thought process in terms of agriculture, and I think in the U.S. we've really focused in rural areas on more of an extraction economy where we've been extracting things over time. I think we are now converting. We're now becoming more focused on a sustainable economy, and agriculture is helping to lead the way. And we need to make sure we are focused on this, because with a changing climate, we're going to see significant changes in where are things are grown, how things are grown, and the rate at which things are grown.

So I'm excited to be here. I appreciate the opportunity to have been here over the course of the last seven or eight years. I appreciate the partnership that we've developed. It is great that these young kids come to USDA and have an opportunity to experience the activities there. Always look forward to visiting with them, and Ken and I are talking about the opportunities to potentially extend that into future administrations.

And I again want to thank the World Food Prize Foundation for putting a spotlight on this issue of food security. I've been telling folks that it's not just about food security, it's not just about nutrition, it's not just about poverty reduction – it is in fact about national security.

If we think about where the hotspots are in the world today, I would simply say that there are two common denominators, and it has nothing to do with the religion people are following. The two common denominators are that there is not a functioning agricultural economy, and there is a tremendous number of food-insecure or hungry people. And if you think about a situation where you don't have that basic agricultural economy that will allow you over time to have a more complex economy, as we have seen in the U.S., and you have hungry people, you are

obviously going to have very unhappy people who have no reason to want to maintain the status quo or seek improvements.

So that is a way of saying – the work that we do here, the work that we acknowledge with our laureates this year with the tremendous work that they have done in micronutrients and taking a look at how they might be able to create more nutritious food that can be grown and raised. That is incredibly important, not just for reducing food insecurity but for making the world a safer and better place. So congratulations to our four laureates, and I look forward to the conversation with Ken.

Quinn Mr. Secretary, yesterday we had an all-afternoon devoted to food security and national security, and one of the slides that I showed was when you brought the Ministers of Agriculture of Afghanistan and Pakistan when the war there was extremely difficult, brought them to the World Food Prize, and brought just those very issues to the fore. And the assessments yesterday were somewhat pessimistic and particularly the Middle East and refugee flows, so you couldn't be more...

Vilsack Let me, if I can, let me share with you a profound experience that I had not long ago. The U.S. decided to provide some assistance and help to Jordan in the form of wheat that could then be basically sold by Jordan, and then that resource could be used to assist in terms of the refugee situation. And I was fortunate enough to have an audience with the king. And as we sat and talked, the whole focus of his comments were on creating an agricultural economy in Syria, because it was his view – and I think he's right about this – that if we could create an agricultural economy in areas of Syria that are currently more secure than others, that we could create a base, a foundation for a functioning economy, which would put people to work; you then have a supply chain which puts people to work. And all of a sudden you have a different situation, and it would stem the flow of refugees.

It then occurred to me, and we talked about the possibility of creating within these refugee areas and camps a semi-functioning agricultural economy in and of itself, so that the ability to take small boxes, grow boxes, for example, and creating the opportunity for something to be grown and raised in the camp – then create some kind of barter system. You create a whole opportunity here to use agriculture as a way of not only feeding people but also providing skills and providing opportunity. So we're working on something like that to try to stem the flow of refugees, because his country is under enormous pressure in terms of just the basic resources, water just in and of itself. So a very interesting conversation, and again I think we do not fully appreciate the power of agriculture in its capacity to make peace.

Quinn Amen, amen, indeed, indeed. So you've had this incredible eight-year run and looking at American agriculture, the Department of Agriculture, food security programming. Now at the end have you sort of been summing up? Have you come up with sort of the three lessons or lessons learned that you take away on food security programming?

Vilsack I'd say a couple things, Ken. First of all, I think it is important for us to do a better job of coordination within federal agencies. And I think our work with the McGovern-

Dole Program with USAID is a good start in that effort to make sure that we are focusing our efforts on our core competencies and the things that we do best.

Secondly, I think it is incredibly important that we develop a greater respect for science. Part of the challenge of increasing productivity is breaking down the barriers that have been created to scientific advancements. You know, there has been in this country and in many countries a healthy and important debate and conversation about biotechnology. But underlying that debate and conversation, I think, has been a distrust and uncertainty about the science behind biotechnology.

We're now moving into a new era – and you probably have had some conversation about this already – but in biotechnology you're basically inserting things and sort of creating crops that are more resistant and so forth. Now you've got gene editing. Now you have, as you're mapping the genome, as you begin to figure out precisely what makes things tick, you can edit the existing genome. And if we don't do a better job of explaining what that is and explaining the science behind it and the reason behind it was it creates more opportunity for us to increase productivity, deal with a more resistant climate, we could be in a situation where we have the same kinds of negative conversations about that science, make it harder for that science to help us feed an ever-increasing world population.

I don't know if this statistic is accurate or not, but I think it underscores the challenge we face as a humankind. Growing population, two to three billion additional people, hopefully still in our lifetime – I'm not sure – but certainly in the lifetime of our grandkids. Right? The question is – how much food do you have to produce to be able to feed those folks? Well, one estimate is a 50 to 60% increase in food production. Well, that will take about as much innovation, I'm told, in agriculture in the next 35, 40 years as we've seen in the previous 10,000 years. So if we have a distrust of science and we don't have a basic understanding and appreciation for science, fully vetted, fully reviewed and evaluated, then I think it's going to be incredibly difficult to have the pace of innovation that we're going to need to feed an ever-increasing world.

Now, part of that, I think we all need to be focusing on the issue of food waste, because a third of the food that we do grow, both here domestically and internationally, is wasted – it doesn't get to where it needs to be. So that's the first place we can start to substantially reduce food waste. But over time we're going to have to produce more, and that's going to require, I think, embracing science.

So that's one lesson I think I've learned, and one concern I take from this job is our attitude about science generally.

Quinn Amen. So I want to encourage the audience. I'm blinded by the lights here, but with the microphones out here, do you have a question you want to ask the Secretary?

Vilsack That guy sitting in the second row can't ask me a question – Sonny. Sonny, he works with me, and he can't ask a question, but anybody else in the audience can. Well, I guess I'd exclude Christie, too – you can't ask. It is a bright light, Ken.

Quinn It is. All right, here we have...

Q Kent Schescke with the Council for Agriculture, Science and Technology. Good to see you, Mr. Secretary. A comment. I've been reading some stuff that you've either written or said lately about this kind of rural urban divide and what does that mean for the future of agriculture, but it also talks about maybe the previous discussion, more public acceptance for the technologies we're developing but also the disparities, both economic and others, that occur in rural America. There's been a lot lately highlighting some of that here, but more importantly, the implications of that in other countries where probably this rural/urban divide is even multiplied far beyond what we see in our country. Could you share your thoughts on that? And from your observations looking back over the last eight years, are we making progress in closing that divide, or is that divide getting wider?

Vilsack It's a great question. You know, when I started this job in 2009, domestically we were faced with a very high unemployment rate. We were faced with an economy that was in recession that was impacting rural areas. Now, at the time we were fortunate because we were seeing pretty good times in agriculture, which helped to sort of cushion the blow in rural areas. But we didn't see an increase in poverty, we did see an increase in food insecurity and certainly an increase in unemployment. We aggressively responded to that recession; and as a result, today we're actually seeing an unemployment rate that's been cut in half. The poverty rate in rural areas in this country is declining at the most rapid rate that we've seen in 25 years. First time in almost 40 years we've actually seen middle-income families with an increase in wages. So it's improving.

I think over the course of the last couple of years, there has been a growing understanding and appreciation for the contribution that rural America makes to the rest of America. And that is a conversation which I think has to be constantly renewed, because it is sometimes easy to forget about the incredible opportunities that we have by virtue of agriculture.

In other countries, I think they can learn from the mistakes that we've made. Never ever, ever forget the contribution that farmers make to a nation and to the security of a nation. In our case in the U.S., we're food secure in the sense we can create our own food to feed our own people, number one. Number two, we support jobs in cities through trade. And number three, each of us who isn't a farmer has been freed up not to be a farmer because we have incredible productivity within agriculture. So I think it is important for us to have that conversation.

Part of it is infrastructure. You know, there is a divide that takes place in rural areas, certainly in this country with broadband, telecommunications. So there is going to be a divide until there is a fuller appreciation of the contribution that rural places make. And I think other countries that I've traveled, I don't think there is that distinction yet. I think because they are still one generation removed from the farm, they have a closer relationship to folks who have been farming.

I would say one other thing in terms of increasing, bringing folks together. You know, I think we in this country have to recognize the role that women play in agriculture, and I think we can take a page out of the books of a lot of developing countries where women are really 70% of the farmers today. If we're going to have a future generation

of farmers in the U.S., we're going to have to embrace diversity, and that starts, I think, with recognizing the contribution that women make.

Quinn Yeah, that's right—70% of our Wallace Carver fellow and our Global Youth Institute who are here are young women, so that's it. Take your question over here.

Q Hello. Jim Hershey from the America Soybean Association's WISH Program. And thank you both, Secretary Vilsack and Ambassador Quinn, for filling a week with very important information on food security and ag development, especially out here in what some of us call the soybean belt.

One of the USDA's Foreign Ag Service core competencies is in trade. Trade which works best when it goes at least two ways, can help fill nutrition gaps and food supplies. Can you share with us your thoughts on trade's contribution to food security and improved nutrition?

Vilsack Well, I think you've actually answered the question pretty well yourself. I was in Paris not long ago, and we actually issued a report from USDA on the specific impact trade is having on food security and on the ability to adjust to a changing climate. And I think it's incredibly important for us to recognize the role that trade plays in poverty reduction, in greater efficiencies in getting product to folks who need it in the most efficient way.

I think it is important for it to be a two-way street, and I think, you know, in this country (I've got to be careful how I say this), we're having conversations about trade in a political context. And I think it is incumbent upon those who understand the significance of trade to be even more vocal than they've been about the importance of trade. I will say agriculture has done a great job of embracing trade, because I think individual farmers understand that 30% of their income is directly tied to trade, 20% of the net income that farmers in this country produce is tied to trade, and it does have to be a two-way street.

You know, one great example of that is the emerging relationship that we may potentially finally have with Cuba. And where is that conversation easiest to have at this point in time between two countries that have been estranged for 60 years? Agriculture. Agriculture—there's a common language in agriculture. And how can we make this a two-way street? Well, clearly, Cuba needs basic commodities, which we grow in great abundance. We're only 90 miles from their shores; it ought to be something that is more easily done than it is today. We have to end the embargo. We have to remove the impediments. Conversely, it can't just be America saying, "Here, take our stuff." There is an opportunity for Cubans to say, "We can help fill your organic market," which has greater demand than the supply today. So there is an opportunity for a two-way street. I welcomed the Cuban minister here to Iowa several months ago—very interested in developing that to a relationship. And because of that conversation, we're beginning to see slowly but surely, the barriers that existed between our two countries begin to erode.

So I think trade is incredibly important. I think we have an opportunity with the Trans-Pacific Partnership—a lot of controversy about that, but here's what I know. We just issued a report yesterday indicating that we're going to see in dairy a substantial

increase in income opportunities from the Trans-Pacific Partnership. The Farm Bureau has done a report. There's no question that trade is essential. I do believe other industries within the U.S. need to be far more vocal in support of trade.

There's a lot of people that wanted to ask questions, and I'm sorry I'm giving such long answers, but these are not easy questions.

Quinn We're going to make a Cuba connection with our Youth Institute through the University of Florida, building on your initiative. Over here.

Q Mr. Secretary, my name is Jesse [inaudible]. I'm an undergraduate at Cornell University, and I'm kind of a part of a generation that has looked at climate change and looked at these kind of challenges about feeding this massive population and, as a result, even though I kind of grew up in a city, have a focus in studying agriculture.

And one thing that I didn't really expect after so much talk about how much of a challenge this is, is talking with faculty at Cornell and around the country how agriculture programs are shrinking a lot—for example the Cornell faculty has gone from 30 members to 10 in our Agronomy Department. And that's mostly been due to divestment in public universities and divestment in public research. And a lot of my friends who want to study agriculture and want to make an impact are nervous about there not being a lot of money and there not being a lot of investment.

And when I was at the laureate conversation yesterday, one comment from Norman Borlaug there—I loved just what he said—"Do you want wheat, or do you want paper?" And I've found that I spend increasingly most of my time trying to get money, applying for grants, rather than actually getting to do research out in the field. So I was wondering what kind of programs or actual investment the USDA is doing to reverse this trend around the country.

Vilsack Sonny, stand up. You need to talk to Sonny. Sonny's the man with money. He runs the National Institute of Food and Agriculture, and part of the challenge that Sonny has embraced and has acquainted me with is the pipeline of talent and the need for the National Institute of Food and Agriculture to make investments in talent development—that's number one. So, Sonny—seriously, you ought to have a visit with him.

Secondly, you know, it would be a mistake for universities to shortchange their agricultural departments for this fundamental reason. Purdue recently did a review of the job opportunities that exist in agra and agribusiness, and what we concluded from that study is that there are going to be over the next four or five years tens of thousands of new opportunities in this field, but we're only, we're educating about 30 to 40% of the students necessary to meet those demands. So there's going to be a lot of upside potential for employment in this agricultural world and its agribusiness.

And don't be bashful about being raised in a city and being interested in farming. I was raised in a city as well. That's one of the reasons why we're now focusing on urban agriculture. Take a look at our website at USDA.gov and see all of the tremendous progress that we're making in encouraging agriculture everywhere, from

rooftops to brown fields to some of the great rural areas of this country. We think there's a place for agriculture everywhere in the country.

Q Thank you, Secretary for being here. That actually works really well as a segue into my question. So there's been a lot, recently in the last couple of months as I've been following this, continued funding some of the NIFA programs for beginning farmers, young farmers, native farmers, minority farmers, basically the farmers here that could be potentially struggling. And obviously at this conference we've been focusing a lot on food security abroad, internationally in the developing world, but there is also a lot of development that needs to continue to occur in the U.S.

And so my question kind of is about that segue between the U.S. and international development. And as somebody who is interested in development wherever that may be, I was wondering what you had to say in terms of the development that's going on here and the continued funding for these programs that are occurring and how maybe even the farmers here can then impact the issues abroad.

Vilsack Well, I think there's been a lot of progress in the last five or six years in terms of trying to provide diverse opportunities for people to get involved in a farming business. Not everyone's going to be fortunate enough to inherit farms or be part of a farm family. So what we have attempted to do at USDA is first of all to continue to fund and expand beginning farmer/rancher development programs, working with institutions, with land-grant universities, to create programs that will give young people the opportunity to understand how to put a business plan together, how to really evaluate a market, how to figure out how to get into this business.

Secondly, we developed for the first time ever, a series of microloan efforts through our Farm Service Agency offices. We've done over 20,000 of these microloans, up to \$50,000. It doesn't require quite as much experience as our usual loan programs. We've taken a look at our conservation programs and recognizing that it may be harder for beginning farmers to participate in the cost-share by fronting the money which is often required in our programs. So we've relaxed that requirement for beginning farmers. We've developed a way in which they can more afford the crop insurance protection for their crops as a result of premium reductions.

And we've also created this local and regional food effort where we've invested in 40,000 separate investments nearly a billion dollars to build new opportunities to get into the local and regional food system. So instead of competing in a commodity-based market that really rewards size, technology, efficiency, you are in a position as a beginning farmer to sell to your local school, to sell to a university, to sell to a institutional purchaser, to a restaurant that wants to market locally grown product. All of that creates new market opportunities where the farmer can dictate their own price.

And we're providing a tremendous amount of support from loans to conservation programs to market development to try to create an avenue for people to get into this business a multitude of ways.

And then the last thing I would say is we're working... You know, as we sort of readjust our land footprint, there are times when we are basically consolidating some of our research lands. When we do that, we're asking the land-grant university to take

the land that we formerly had – we’re providing it to the land-grant university with the understanding that they will use it to support beginning farmers. We did this with Florida State University. We’re also encouraging our military installations to think about an opportunity to help returning veterans get in this business, utilizing land that surrounds our military bases. We’re actually going on base before these young men and women leave their service, explaining to them opportunities within agriculture. So there’s an awful lot of activity going on in terms of encouraging more people to get into this business.

Quinn I encourage everyone to keep your questions short. We’ll get many more in that way. Go ahead.

Q All right. Hi. I’m [inaudible] from India. Firstly, great appreciations to the World Food Prize, including Mr. Vilsack and Kenneth. We work for small and marginal farmers with... we offer greenhouse in a box, which works for creating a sustainable pathway out of poverty for the small farmers in India. We don't want to recreate the wheel. We want right kind of help, mentorship, and right kind of funding to be able to kind of customize the high-tech technology which is available today in the rest of the world to small farmers where it’s more affordable and meaningful to them. So your guidance in how we can go about it.

Vilsack Well, you know, I think we are learning quite a bit in terms of the capacity of a microloan program to get people started into farming. You know, oftentimes we think of farming in this country with hundreds or thousands of acres, but the reality is, with an organic operation, you can start relatively small. Our focus is probably not so much on countries as large as India. It’s probably focused on, with our Feed the Future Initiative, on smaller countries that are even more impoverished than what you have in India.

So I would encourage the Indian Government to basically take a look at a microloan program. I’d encourage them to work to create an awareness of the supply chain, to make sure that their regulatory systems are in place to make sure that product is safe, that product can be traded across borders. One way of bringing an agricultural economy up is to make sure that you are producing whatever it is that you produce most efficiently and trading it in countries that border India or trading it in countries that want to do business with India.

It would be helpful... You know, we actually have an interesting relationship with India in terms of trade. We’re still working on our relationship with India. We don't have quite as frictionless a relationship with India as we do with other countries because of some of the barriers that have been created, some which we don't think in the U.S. are scientifically based and necessarily consistent with international rules and regulations. So one thing that I think would be helpful would be for your country to take a look at their regulations to make sure that they’re more in line with the science. We have some very serious challenges in our relationship on that score.

Q Secretary, thanks for your work. This is a food as medicine conference, and a healthy diet can help reverse diet-generated disease. Could you share your thoughts on incentives for preventive healthcare?

Vilsack Well, one of the things that we're attempting to do is to better educate, at least within the U.S., better educate consumers about what a healthy diet consists of and what it looks like. You know, I jokingly say that when I started – and it's actually quite serious – when I started this job, I looked at the food pyramid, which was designed in theory to give people basic information about what a (quote/unquote) "healthy" diet was supposed to look like. Well, I tried to really understand that food pyramid, and for whatever reason, it just didn't translate into my head. So we decided – not for that purpose, but we decided that we needed to have an easier way for people to understand what that looks like.

We were deeply concerned about the rising levels of obesity, especially among youngsters, so we created our MyPlate icon, which basically is – half your plate, fruits and vegetables, the other half, carbs and protein with dairy on the side – basically gives you a quick snapshot of what a healthy plate is supposed to look like, number one.

Number two, we looked at our current feeding programs, particularly the school programs, and what we recognized was that it wasn't reinforcing a healthy message. We had too much fat, too much sodium, too much sugar. So we reformulated and redesigned that nutrition programs at schools so that we put more fruits and vegetables on the plate, and we created healthier meals. We've seen an increase in fruit and vegetable consumption on the part of our youngsters, we've seen a plateauing among our youngest youngsters, a decline in obesity rates – which is a positive sign. But this is a long, long-term issue and challenge for us.

You know, we had a very interesting conversation about dietary guidelines in this last year, and I think it's important for people to sort of understand what those dietary guidelines are and what they're not. There was an effort to try to, I think, create more of a conversation and debate about sustainability and sustainable agricultural production processes. There is a place for that conversation, but within the way in which the dietary guidelines statutorily are constructed, it wasn't appropriate in that context, in that venue.

We're working with our SNAP Program now, which is our supplemental nutrition program, to create incentives for more fruit and vegetable consumption. We're trying with our food insecurity initiative to encourage with incentives Double Up Food Bucks programs, access to farmers' markets, our SNAP families having access to more nutritious choices. And we have a controversy now in terms of the grocery stores that redeem SNAP, that benefit financially from SNAP, encouraging them to offer a wider array of basic foods as opposed to processed foods. There's been quite a bit of pushback on that, but I think at the end of the day we will make some progress in terms of making sure that there are more basic foods available, more wholesome foods, more whole foods available even in convenience stores, so that folks in areas that don't have a full-scale grocery store have access to some nutritious options. And we're working with the food industry to expand the awareness of food deserts and try to provide resources to create incentives for full-scale grocery stores to be located in those areas – a lot going on in that space.

Quinn The World Food Prize funded the trial for the Double Up Food Bucks this past summer at six farmers markets in Iowa.

Vilsack We also encourage and increase the capacity of our electronic benefit transfer machines to redeem the SNAP programs. We've expanded that to 6400 farmers markets throughout the U.S.

Quinn We've got about four minutes left, so we'll try to get one or two more questions in.

Q My name's Nick Grandstaff. I'm a Borlaug-Ruan intern. I'm also the son of a small Iowa farmer. I just have a quick question and I'll try to make it short. I've talked to a lot of farmers and producers in our area that we've been affected. Kind of you can feel it when you talk to farmers, by the low commodity prices of corn and beans – we're down to 2.90s for corn. I don't know if it might even be lower now, but it's been hurting. And can we expect to see new markets? Because they've mentioned that a lot – they're concerned that we don't have enough foreign markets for our products to like bring up demand. Or will these current low commodity prices just become a new norm?

Vilsack Well, first of all, you need to tell the farmers you're talking to that we have expanded significantly trade opportunities and market opportunities through free trade agreements by reducing literally hundreds of trade barriers that have existed internationally to U.S. products. And the bottom line is the last seven-plus years of exports, agricultural exports in this country are at record levels. Even this year where our exports are down a bit, it's still going to be in the top ten years of agricultural exports. So we've seen a remarkable increase in agricultural exports. First time in the history of America that in an eight-year period we're going to see a trillion dollars of ag sales, exports. So that has expanded.

So here's why we're faced with the dilemma we're faced with. We have a glut of product in the world today – it's not just the U.S., it's globally – at the same time that the world economy is sluggish, so there isn't quite the demand that we had a couple of years ago, and the dollar, because of the strength of our economy is quite strong relative to other currencies. So that's a combination which provides headwinds, if you will.

It's one of the reasons why the President has been so insistent on getting the Trans-Pacific Partnership Agreement through the process, through the political process in this country – because we know that, if we do that agreement, we're going to open up tremendous trade opportunities, because our markets in the U.S. are relatively open to the rest of the world in terms of their ability to come and bring product into the U.S. Our consumers want choice, they want affordable food – and they have that choice and affordability. We want the rest of the world to lower their barriers, to remove their barriers to our products with tariffs and SBS issues.

So this Trans-Pacific Partnership Agreement would do that. We've evaluated the impact on agriculture, and it will increase, according to Farm Bureau, ag exports by \$5 billion dollars and ag income by \$4 billion dollars. So one is to continue to focus on these trade agreements.

Secondly, is to make sure that we continue to look for new ways to use agricultural products, and that's the bio-based economy. That's not just renewable fuels and energy but chemicals and things that are plant-based. And we just recently put out a

report – we’ve seen a dramatic increase in that type of activity in our economy. Last year it was a \$363 billion-dollar industry. Today it’s a \$397 billion-dollar industry. It helped to support over four million jobs. So we’re continuing to invest in those kinds of opportunities.

Then the last thing I would say is looking for new ways to use land creatively to produce income for landowners and farmers. And one way to do that is by looking at the opportunities for ecosystem markets, the ability to use conservation as a way for a regulated industry to meet their regulation responsibility, or a corporation that’s interested in social responsibility meeting their social responsibility.

Coca-Cola just recently announced and re-upped their commitment to reclaim all the water that they use in their production process. One way they do that is by investing in conservation on U.S. land. Chevrolet recently purchased carbon credits on a voluntary carbon market on a working ranch in North Dakota – increased income opportunities for that farm family.

So there’s a multitude of opportunities here. I’m very bullish on the future of agriculture. You’re going to see prices improve just a little bit in 2017 as we sort of work our way through the surpluses that exist in the market today, and hopefully the world economy begins to pick up a little bit. As it does, demand for American product will obviously rise.

We may have overreacted to eight-dollar corn, which we had a couple of years ago, and I think that was unfortunate. We have programs in place to provide a safety net. Seven billion dollars is being sent out this week to farm families across the United States as part of our safety net program because of these commodity prices. So things are for some, but not for all, stretched.

The last thing I would say is this, to put this in proper perspective: We’ve evaluated the number of operations within the U.S. that are challenged economically, that are highly leveraged, that are deeply indebted. What we found was that roughly 10% of operators in this country today are highly or extremely leveraged. That means 90% are not. We also know that the average family farm household income is about \$23,000 above, above the average American household family income. So we want to make sure we don't talk ourselves into a circumstance and situation that’s more challenging than it in fact is. This is certainly different than the 1980s when we had some very serious problems and the level of debt was significant.

The last thing I would say is the debt-to-equity ratios in the country were in the 20, 25% range in the 1980s. They’re near record lows even today. So while we’re challenged, we’re working hard to make sure we provide new marketing opportunities through trade agreements, through the bio-based economy, through the ecosystem markets. We’re also fortunate to have the agricultural economy that we do have.

Quinn So I’m sorry – we are out of time. Obviously... Another five minutes? All right.

Q Hi, Mr. Secretary. Often agriculturalists say that the youth is the next step in agriculture. And I was just wondering what kind of organizations besides the World

Food Prize where we can make an impact in our communities. And what problems do you see for us in the future?

Vilsack Well, I'd start with the existing organizations like 4-H and FFA, which are terrific opportunities to get some basic understanding and to be able to sort of understand where the options and opportunities are. I would also encourage young people to consider internships at USDA. You know, we have literally hundreds of internship opportunities that exist every year in the wide variety of mission areas at USDA. USA jobs – go online, take a look at Pathways. That's the place where all of the internship opportunities are advertised and displayed, tremendous opportunities there. And I think, you know, if you're fortunate enough to be part of and involved in a land-grant university, there are a number of things on campus that you should sort of search out or seek out in terms of connections.

And the last thing I would say is, you know, our beginning farmer and rancher development programs – and our website has a lot of information on how to get started if you wanted to start small in the farming operation. There is an opportunity to start small and to grow over time. There may be an opportunity for you to get hooked up with the local farmers market. You may encourage your local school district to consider a farm-to-school program where they would be purchasing items for their school meals from local farmers. And there are a multitude of things that you could get engaged in. Take a look at our website, USDA.gov.

Q Hi there. My name is Piper Martz. I was a 2013 Wallace Cover fellow in your office, actually. Before I ask my question, I just want to thank you on behalf of all of the Wallace Cover fellows in this room. You have three standing right here that are so honored to be in your presence again. So thank you for that.

I also had the good pleasure of giving you a tour at the 2015 Expo Milano. It's nice to see you again. So for the sake of brevity, I was wondering if you would divulge the most urgent, paramount issue that you hope that the proceeding Secretary of Agriculture tackles first.

Vilsack Wow, that's a really great question. Let me start by answering that I'm in the process of writing a memo to my successor. And it starts by explaining that he or she will have just an incredible opportunity. This is an amazing department and an amazing job that I've been blessed to have – because of the people that you work with and the people you work for. And each mission area – and there are multiple mission areas at USDA – have incredible opportunities and incredible challenges.

I think that we start with the need for the Agriculture Secretary to continue to promote an appreciation and understanding (an earlier question) about the contribution that rural America makes to the rest of the country. And the reason that's important is because every five years we have a conversation around what we call a farm bill in this country. We really ought to call it a food, farm and jobs bill so that people understand that it isn't just about farms, it's about all of us. And if there is not a full appreciation for the contribution that our agriculture, our farmers and ranchers make to the country and our rural folks make to the country, then it becomes easier for policymakers to shortchange investments in the various programs that USDA has.

I have been encouraging farmers, and I'll encourage my successor to understand that, if the next farm bill conversation starts in the same way that this last farm bill conversation started – which was, we have got to save \$23 billion; we've got to squeeze \$23 billion dollars over a ten-year period out of these farm bill programs – as soon as you start the conversation that way, then you basically pit Sonny's research needs, which are significant, against John Whitaker, who's here from our Farm Service Agency, his need for farm loans, which are now at near-record levels, the second time in the history of this country we've done \$6 billion in farm loans. You pit his need against rural development and the need for water treatment facilities, of which there is literally a waiting list of hundreds of communities.

So the answer to your question, I think, is: First and foremost, make sure people understand what they've got from, and what they're getting from, rural America, and make sure that policymakers begin discussing – what is the need out there? – and defining the need first. And then let's be creative about how we meet that need financially. Let's not start the conversation with – We've got to cut, we've got to cut, we've got to cut. Because as soon as you do that, you're pitting nutrition against farm loans, farm loans against research, research against infrastructure investment, infrastructure against trade promotion – all of which are incredibly important to this country.

So that would be one way I would answer that question, but as soon as I finish the memo, I'll have a better understanding, and so it's already about 15 pages long.

Q My name is Ian. I am a student at University High School in Carmel, Indiana. I am here with the Global Youth Institute. As has been spoken about many times so far this week and what we spoke about many times more, there are over a billion people around the world who are malnourished, who don't get the food they need every day. Yet, there are still hundreds of thousands of tons of food wasted a year that could be given to these people that they need to eat, be it in America with people just throwing out food with generally some apathy or in other countries where even their trade or infrastructure isn't well enough for the food that's grown to be able to get to market. What is the USDA and you doing about this issue in trying to fix the incredible amount of food waste that is produced every year?

Vilsack Well, it's 133 billion pounds of wasted food here in the U.S., roughly a third of what's grown. It costs every American family roughly \$1500 a year. And we basically have worked with the Environmental Protection Agency to challenge the entire country, the U.S., first challenge ever on food waste. By the year 2030 we'd like to see the food waste rate reduced by 50%. We want to cut that food waste in half.

We have three strategies that are involved in helping all of us get to that place. And we have over 4,000 partners now who are working – food companies, universities, a wide variety of folks who are interested in this issue, because they're not only interested in the aspect that you have raised, which has to do with food insecurity, but they're also concerned about the fact that it's the single-largest aspect of solid waste in our landfills and a producer of methane, and it impacts greenhouse gases and climate.

So number one, we are reducing, we're reducing portion sizes. We're working with restaurants, we're working with nutrition programs at universities and schools. My

favorite one is doing away with trays at the universities. Tufts University started doing this – instead of the kids having trays where they load it up, they now have to carry a plate, and they’ve seen a remarkable reduction in food waste. Reducing the size of portions.

Secondly, reusing food – having a better understanding by consumers of what “Sell by, Best by, Use by” dates actually mean. We have a new FoodKeeper app that I encourage you to take a look at that will give you information about how long you can store things in your refrigerator before you actually have to toss them. I think there’s a feeling that you can only store things for a short period of time, but sometimes you might be surprised. The FoodKeeper app.

And then finally, if you can’t reduce, if you can’t reuse it, then recycle it. And we’re encouraging more composting. We at USDA, for example, are composting our coffee grounds. We’re also in a research capacity in facilities that use livestock meat; we’re trying to figure out ways in which we can compost and basically create a lack of food waste, if you will, from our labs.

Take one more?

Quinn We have one more. We have kind of a logistics problem now. The buses are about to leave. The students are not going to be fed.

So Iowa has a lot of distinguished Secretaries of Agriculture, but when it’s all done and written, Tom Vilsack’s name will be at the very top with the greatest figures.