THE WORLD FOOD PRIZE 2014

Norman E. Borlaug International Symposium THE GREATEST CHALLENGE IN HUMAN HISTORY: Can we sustainably feed the 9 billion people on our planet by the year 2050? October 15-17, 2014 - Des Moines, Iowa

2014 BORLAUG DIALOGUE

October 16, 2014 - 2:55 p.m.

Conversation: Hon. Tom Vilsack and H.E. Enrique Martinez y Martinez

Introduction:

Ambassador Kenneth M. Quinn

President - World Food Prize Foundation

The World Food Prize has a special relationship with the U.S. Department of Agriculture, which predates Secretary Vilsack being there; but his having been the former governor of Iowa doesn't hurt anything. And he and I bumped into each other on a train platform in Tokyo, had a brief conversation; and before I knew what was happening, we were signing a memorandum to create the Wallace Carver Fellows Program, which is another opportunity for young people to go through the World Food Prize. And Undersecretary Cathy Woteki and Administrator Chavonda Jacob Young and Tracey Troutman and Don McLellan of USDA are here, and thank you for your wonderful role.

So we're now, my pleasure to introduce the two ministers who are going to be part of the Secretary's Roundtable, and Secretary Vilsack and Secretary Martinez were going to be here last year, and something happened along the way. But they are back now, and we could not be more delighted. So it is my great pleasure to introduce Tom Vilsack, the U.S. Secretary of Agriculture and His Excellency Enrique Martinez y Martinez, the Secretary of Fisheries, Agriculture and Food of Mexico.

THE SECRETARY'S ROUNDTABLE

Hon. Tom Vilsack

Secretary, United States Department of Agriculture

My good friend, Secretary Martinez.

H.E. Enrique Martinez y Martinez

Secretary of Fisheries, Agriculture and Food - Mexico

Hola.

Ambassador Quinn

Yes, he sat in the hotel last night, so welcome. And Secretary Martinez has an extra broad smile on his face because both the World Food Prize Laureate and the Norman Borlaug Award winner are both working in Mexico.

Secretary Vilsack

Well, I want to thank Ambassador Quinn and the Ruan family and the Borlaug family for the extraordinary work that has been done over the last 15-plus years in welcoming the world to Des Moines and to Iowa in celebration of the World Food Prize. It's always a special occasion and opportunity for me in my current capacity to welcome one of my friends that I've met in this capacity as Secretary of Agriculture to visit my home state and an opportunity today to introduce my good friend, Secretary Martinez from Mexico. We spent the morning together, taking a look at a number of things at Iowa State University. We had a great conversation earlier this morning on some of the issues between our two countries. So I'm welcoming this dialogue with my good friend.

And just before we came on stage, I asked Secretary Martinez if there was any one question that he wanted me to ask him initially, and he said, "Oh, no. I can handle any question." So what I thought I would do is ask the Secretary to talk a little bit about the role that trade plays in not just helping producers in countries but also trying to address the issue of food insecurity and the role that trade can possibly play and the direction Mexico is taking in terms of trade. So let me start with that, and then I'll talk a little bit about what USDA is doing in terms of food security. Mr. Secretary.

H.E. Enrique Martinez y Martinez

...very much, and let me first thank you for the opportunity and for this invitation to be here with you today on this very special day, which is the Food Day.

I'd like to share with you all that, for those of us devoted to this work, it's really a great pleasure to be in a state such as Iowa, a leader of food producing state in the United States, the first position in the production of soya, corn, very important production of pork and raising hogs—and most importantly share with Secretary Thomas Vilsack this stage, the next governor of the state of Iowa, a dear governor that is respected by his people. And I can say this because I was also the governor of a state in Northern Mexico and pleased because, and I think this is a universal saying, that everyone can truly know their land. And it's so nice to see that Governor Vilsack, who was the governor of this state for two mandates is so warmly welcomed by everyone.

I'd like to share with you the fact of this being an honor to be here to remember Dr. Norman Borlaug, who played such an important role in Mexico because his research is what truly transformed agriculture in the world. It was the real Green Revolution. This started out in Mexico and that the short-stand wheat that was produced in Mexico was then sent to other countries, India and others, and fight famine. So we always remember Dr. Borlaug, but it's so good that this prize and this event carries his name, the name of somebody who truly dedicated his life to research.

It's furthermore a privilege for Mexicans that one of his close collaborators is the one today receiving the International Award, Dr. Sanjaya Rajaram, who has the Mexican citizenship. He's been working for many years in our country, and he's been working to improve agriculture and production in Mexico.

So now delving into the topic, the issue of trade linked to market is truly important. This morning with Secretary Vilsack we were talking about the paradoxes of our sector. When things go well in our sector, when we have excellent yields and good food production, we nonetheless generate a major problem for markets and marketing. We have truly improved production in Mexico. We have broken major records for the growing of sorghum, of corn, wheat. And when I'm asked, "How about agriculture in Mexico, Secretary?" I always tell them it's of grave concern because it's doing so well. Because this implies that surplus on markets causes prices to drop for producers, and this can lead to major disequilibrium and disorder on markets.

We were talking today about the need for regional work. In Mexico a major decision has been taken, and I am very grateful to the U.S. Secretary of Agriculture for the support made available to us for Mexicans to be able to visit the information systems available in this country to enhance trade, to better plan economic activity through supply and demand. And in Mexico we now have the Control Panel. This is a system that provides a well-controlled equation of supply and demand of the ten most sensitive items for Mexican citizens, thus allowing us to have decision-making elements for public policy, so as to avoid any issues with supply and demand.

Once upon a time, I was a legislator and Secretary Vilsack, in addition to being governor, was also a legislator. So that problem that we're focused on today, if it is the law of supply and demand, then it has to be repealed. But I said, unfortunately that is a law that cannot be repealed; it's something that's been in place for eons, and it's going to remain with us. So we need to find smart ways to ensure that these market distortions and problems do not have such an impact on producers and on consumers.

Secretary Vilsack

That's a great segue to discussing what the USDA is doing in terms of global food security. And obviously I think it is important for us to understand how serious this issue is. I think everybody appreciates that there are 825 million people in the world today that are food insecure. And each of us has an opportunity and a responsibility, especially among the developed countries, to provide some assistance and help. And so, with the leadership of then-Secretary of State Clinton, we formed the Feed the Future Initiative in the United States Department of Agriculture and the State Department and USAID.

And the whole purpose of Feed the Future was to basically reach out to those countries, Mr. Secretary, that have the possibility and capability and potential of producing more, and encouraging them to do so – but to do it in a way where they lead the effort at the country level.

And one of the things that we attempted to do was to really begin the process of educating producers in each country that we were focused on in each country that we were focused on about the newest technologies that would be applicable to their particular landscape and to encourage the adoption of the kinds of technologies that Norman Borlaug brought to Mexico many years ago.

We've already touched over seven million producers in Sub-Saharan Africa. We've reached out to producers in Central America, and we've also done work with folks in Asia. This is having a profound effect on the productivity, and frankly I don't think either Mexico or the United States sees this as a competitive situation. And the reality is, there's going to be plenty of opportunity for our countries to produce, because the world population continues to increase. Middle classes continue to grow in many of these developed nations, which is going to create a new opportunity for protein that will be produced in Mexico and produced in the United States.

So, in addition to helping producers, we're also focused on making sure that they are getting the kind of statistical information and market analysis information that will allow them to understand, as Mexico has done, precisely what their market is, what their supply is, what their demand is. And so we have been working through the United States Department of Agriculture's Chief Economist's office in terms of providing assistance and help.

We also recognize that it's necessary to work with countries to establish the sanitary and phytosanitary standards that will allow them to trade. The reason we can do so much trade with Mexico and Mexico could do trade with the United States is, through the Free Trade Agreement, there has been a basic understanding about what the sanitary and phytosanitary requirements are and if there are differences. If there are issues, then ministers and secretaries sit down with staff, and they work through that process. That doesn't necessarily exist in a lot of countries, and so we are there to provide help and assistance in helping to create those kinds of structures.

We also recognize that there needs to be the establishment of credit systems. Not everybody can afford to put a crop in the ground, and so it's necessary to advance the cost of inputs in some format and then have some credit system allowing folks to repay. So it's a very complicated and elaborate set of steps needed, but we are very engaged, as I said, in Sub-Saharan Africa in particular in an effort to try to make sure that we are doing what countries need done. And I think trade does open up new opportunities for us to address food insecurity in a way that most people may not positively think of.

One of the things that we are very interested in, and which we discussed a great deal this morning, was the issue of climate change, of the weather patterns that are varying to the degree that now are impacting production and the concerns that we have. And, Mr. Secretary, I'd like to ask you sort of your thoughts and concerns as you look sort of down the road at this challenge of food insecurity, how you see our ability to meet that in the context of a changing climate. What are your concerns? What are your worries about that? And what role will science play in trying to help us address that?

H.E. Enrique Martinez y Martinez

Surely one of the major concerns we have is to have that element that FAO tells us we need to have in order to have food security, and that means not to produce a hundred percent of the products, seventy-five percent of the products consumed in a country. And each country faces specific problems. For Mexico I think it can be extended because it's a shared problem, and that is the technological support or technical counseling and advice.

A program was started up in Mexico many years ago for agricultural extension. In other words, these very small family farmers that account for 75% of rural population in Mexico own lots of five hectares or less. This is extremely splintered as far as land tenure in our country. Traditionally, extension activities or advice was to increase production. That is important, undoubtedly, but without elements to have agroclusters, to pool land and to have a more, a smarter way of working in order to achieve greater profitabilities, it's not going to work out.

So what is this new administration of President Peña Nieto doing in Mexico? Well, we want to have holistic extension, in other words, let it be an integral focus. We've got thousands and thousands of advisors, a major army, we could say, for them to go out and recommend what to plant, because that is what market is demanding, to leave aside those mores that are generations or people want to continue sewing white corn because their father, their grandfather used to grow it. But right now we've got an oversupply of white corn, so we need to have a productive reconversion for which it is necessary to provide technical assistance in order to look into what has to be produced, how to best produce it, how to market the product, and how to manage the postharvest period.

That is a true problem for most developing countries of the world. Over one third of production is lost because we don't have postharvest infrastructure — no storage systems, no cold systems — in order to preserve the harvest. So having an integral vision, we are now providing advice and assistance to our small producers, allowing them to take one stride further to achieve food security.

As we have to feed the world while caring for the environment, because for the nonbelievers, every day we witness clear examples of the consequences of climate change. Last year in Mexico, we faced everything. We had atypical frost in areas that never used to suffer any kind of frost—Michoacán, Jalisco, Querétaro, in the Valley of Carrizo in Sinaloa. Those are just some examples—frost. And we had just come out of a tremendous drought, the worst we'd experienced for many years; this happened in August, and carried out many activities to come out of the drought because the capital was dying. And on 13 September last year we had the worst rainstorms and precipitations that had been seen in over a hundred years in Mexico—flooding throughout most of the country, to cyclones or hurricanes, Ingrid and Manuel—and it was a year in which we really experienced the seriousness of climate change.

We're hard at work. There is a special secretariat in Mexico to care for the environment. It's called SEMARNAT, using the Spanish acronym. And agriculture, which is extremely important in Mexico because my secretariat covers agriculture, livestock, rural development, fishery; and all of this is managed under one budget. I wish it were as vast as a title, the title of our secretariat, because we have so many problems to address. But nonetheless, care of the environment is done in coordination with SEMARNAT, which is the acronym for the ministry for the environment in Mexico. So we are working in an integrated manner now, in order to improve our agricultural yields without neglecting our responsibility of caring for our environment.

Secretary Vilsack

Earlier today we were together at Iowa State, and one of the things I wanted the Secretary to see was the great work that we're doing at the Climate Change Hub that is located in Iowa State

and Iowa State's facilities. The USDA has established seven of these Climate Hubs and three sub-hubs. And the lieutenant governor and Paul Schickler were talking about their STEM initiative. I always have a little concern about that. I really think that ought to be STEAM—I keep making that point—the "A" for agriculture ought to be in there somewhere. Yeah, there, clap for that. There we go.

But they are right on target in terms of workforce and the ability of young people to get excited about this area. Well, there's nothing more interesting than sitting down with some of the folks at the Climate Hub and talking about the enormous amount of data and information that they are now accumulating.

Not far from here there is a corn and bean field where there has been 15 years of accumulated data in terms of wind or water vapor, CO₂ emissions, highly complicated and complex instruments that take readings 20, readings of seconds. And from that information and others that have been collected, we've been able to determine that the last five years of weather experience in the Midwest are outside the range of the previous 100 years in terms of precipitation, in terms of heat. So obviously there is a significant change and will have an impact on the ability of folks to raise crops here in this state. That's why the science is so important to be able to adapt and mitigate to the consequences of climate.

So we are doing these assessments and vulnerabilities looking in the U.S. and then our goal is to work collaboratively with our friends across the border and our friends across both oceans. So we have taken a leadership role in encouraging an open data effort. We have basically unlocked a lot of the research that has been done at USDA over the years. We are now making it available to scientists all over the world. And we have helped, along with several other countries—New Zealand and several other countries—in formulating a Global Research Alliance, now 41 countries, including Mexico, working collaboratively on rice production, crop production, animal production and also common methodology, so that we're able to communicate, able to collaborate and coordinate our research efforts as it relates to climate change, as it relates to greenhouse gas emissions from agriculture.

Just last month we were at the United Nations working again collaboratively with a number of nations and a number of nonprofit organizations to formulate the Climate Smart Agricultural Alliance, now over a hundred members. Mexico is working with us to establish a global commitment to increasing productivity, to improving the resilience of agriculture and also to look at ways in which we can reduce greenhouse gas emissions. And I think it's going to be a very significant collaborative effort, which I know North American producers and North American scientists and North American government leaders will be very much engaged and involved in.

Mr. Secretary, you mentioned the issue of food waste as it relates to developing countries, and I think it would be helpful to have this conversation in a little more detail. Tell us a little bit more about the concerns that you have in this area, and tell us a little bit more about the extension work that your folks are doing. And then I'd like to share with the audience a little different twist of food waste in terms of what's happening here in the United States.

H.E. Enrique Martinez y Martinez

With pleasure. In order to address the problem of food waste and the lack of postharvest infrastructure, which means that we really lose high percentages of the product – in some regions it's close to 40%, such as in Southeastern Mexico – so what we did was design a national system of what we call agroparks. In important areas where this problem occurs, one of these agroparks is being established. It provides value added to the product and brings the primary producer especially in the food and vegetable production, which for Mexico offers a comparative advantage because of our weather, our climate, our sky, our way of farming and our labor - mango, papaya, banana, pineapple, guanabana, all of these products including avocado, guayaba, grapes, etc. And they are more delicate to preserve than grains and oil seeds. So we are creating this national system of the agroparks in order to connect the storage areas with the cold chain, bringing them closer to the producer, thus significantly reducing waste and loss. And we're calling it a national system because you find them in Chiapas, Nayarit, Aguas Calientes, and, in those areas and also Vera Cruz, those areas that strategically can receive these products and be able to perform the postharvest work moving on towards the processing to maybe produce jams or dried fruits or whatever and that way make full advantage and use the primary product that farmers are generating.

This morning I'd like to say it was really a pleasure to accompany Secretary Vilsack to the Iowa university, and we saw one of these Climate Hubs. We did understand that there are seven to perform studies on climate, and this is an important step forward. And then we went to a laboratory, a research center where we saw, Secretary Vilsack and myself, how we have been able to work with our teams in a joint effort for greater coordinator to have our health and safety protocols in place and also to reach equivalencies in the scientific rigor that we use to perform food, health and safety measures. It was a very satisfying morning when the visits that we conducted, to see that professionals in research, doctors, and here we have the chief director of SENASICA in Mexico who has been at the head of responsibility in my country and thus is connected and interacts with the team in the United States.

I do believe that we're on the right path, and as a region this is going to be extremely helpful as we address food safety and health.

Secretary Vilsack

You know, this guy is really good. He just did a great commercial for all of the products in Mexico.

The issue of food waste has, as the secretary has indicated, an issue relating to storage in many developing countries. But in this country, the issue is not storage; it's that we waste food after it gets to the plate. Tragically, in this country nearly a third of everything that is produced ultimately is not consumed. To put a finer point on it, it's about 133 billion pounds of food that is produced in the United States that's not consumed. And it's the largest component of solid waste in landfills in the U.S., and therefore it is a producer, obviously, of methane, which is a significant greenhouse gas.

So if you're going to address climate change and you're going to try to mitigate the consequences of it, you have to address this issue of food waste.

Audience question: Can you repeat the percentage?

Secretary Vilsack

A third of the food that's produced. There was just a question in the front here to repeat the percentage – 133 billion pounds, nearly a third of all the food that's produced in this country.

So we have formed an alliance with the EPA and 200 other organizations and business, the Grocers Association, the Restaurant Association, major food companies, in an effort to begin the process in this country of first and foremost reducing portion sizes where appropriate, certainly in restaurants. And, secondly, making sure that we have a better understanding on the part of consumers about when food is no longer safe to consume. We have a lot of labeling requirements. Sometimes those requirements are misunderstood by consumers, and they throw food away that they don't have to, or they don't know where to take it where it could be used.

So we're trying to create methods in which food banks and other locations that could potentially use the food will have access to it. And then finally, to the extent that we have to get rid of it, recycling it. So I've been recently to a number of biofuel and energy producing companies that essentially use agricultural waste and food waste and are converting it into energy and into fuel.

So I think it's going to be a raising the awareness of this issue, certainly in this country and beginning to flush out and perhaps expand our thought process about food waste.

I'm not sure, Mr. Ambassador, Mr. Quinn, if I could get your attention for just a second—how much time do you want us to give for questions from the audience, since this is your show, man?

Ambassador Quinn

Mr. Secretary...

Secretary Vilsack

No, no, no, don't be putting it back to me.

Ambassador Quinn

[inaudible]

Secretary Vilsack

Don't be putting it back to me now. Twenty minutes, 25 minutes?

Ambassador Quinn

Sure, yes. Here's the clock right up here, but you have carte blanche to exceed the clock, but none of the other speakers do it.

Secretary Vilsack

Oh, I don't want to overstep our time here, but I do want to give us an opportunity for some additional questions. But before we turn it to the audience, perhaps we can talk a little bit about, Mr. Secretary, the important role of exchanges of personnel and information, the ability of scientists from Mexico to come here, for scientists from the U.S. to go to Mexico. How important do you see that in terms of our ability to have a better and basic understanding on any of these issues, whether it's climate change, whether it's food waste, whether it's greater productivity?

H.E. Enrique Martinez y Martinez

It is indeed one of the objectives we set ourselves in order to have a sharing and exchange in research, to have better communication. And I welcome the fact that the United States and particularly what we saw this morning at the university, they have this openness, making it possible to share any advances in research, because that is extremely important. In the best of cases, it would stay in a single country, and in the worst of cases, it remains at the desk or on the computers or scientists and researchers and is not really made available to the public for its proper use.

In Mexico what we are trying to do is focus on applied research, and hopefully it will generate positive outcomes both for productivity of our agri-food sector and also advances in health, generating and finding varieties that are more resistant to climate change and each time being able to take another step forward. This is an area where there is still much to be done, and I'm very gratefulness to hear this willingness to share knowledge among our researchers, and hopefully in the near future we will be inaugurating a research center in the state of Mexico. And we'd really like you to come and visit the center once it's inaugurated and continue sharing ideas, talking about marketing and trade, talk about our markets.

I'm an economist—I must admit nobody is perfect, after all, and this week the Nobel Prize in Economics was given to a Frenchman who studied at MIT here in the United States, but he won the Nobel Prize in economics thanks to his work on the power of markets and the need for restructuring the work ahead of us, given the strength and consequences that markets have on all activities but most particularly in agriculture and food. For this reason, we must continue working as a team in this region because we are a united region, and share with other countries.

And I'm pleased to see Dr. Victor Villalobos here. He's the president of the IICA, the Inter-American Cooperation Institute, and they work extensively with all the countries in the hemisphere. And the work that they perform makes it so much easier for our professionals and our experts to be able to share their knowledge among all their countries. Dr. Lumpkin is also here—he's the director of CIMMYT—and the work carried out by that institution is also wonderful, as our professionals are able to have exchange programs and promote research.

Secretary Vilsack

One of the things that I'm proud of what we do at USDA is again in the legacy and the tradition of Dr. Borlaug is, we have a series of fellowships that are awarded at USDA. We have two different types. There's the Borlaug Fellowship named after, obviously, Dr. Borlaug; and then there's the Cochran Fellowship, which was named after Senator Cochran. These fellowships

basically provide and allow us to send people from the United States to other countries for knowledge transfer or to encourage folks from other countries to come to the U.S.

I just had my team pull the statistics, and since the inception of the Borlaug Fellowship, we've had 750 exchanges in 64 countries; 14 fellows actually have spent time in Mexico. And in the Cochran Fellowship we've had over 16,000 Cochran fellows who have gone to 123 countries and serving anywhere from two to twelve weeks of time in exchanging.

The other thing that's great is working with producers. I see Craig Hill from the Iowa Farm Bureau here today, and I know that he and other Farm Bureau members have had the opportunity to travel overseas. And oftentimes U.S. producers are willing to spend a little time with their counterparts with other developing countries to exchange ideas and information.

And so this notion of technology transfer, of research exchanges, of open data — we're all going to benefit from these exchanges of ideas and information. And what I hope eventually will come from all of this is the greater trust in the science behind agriculture. As we deal with some interesting challenges relative to biotechnology, which Dr. Borlaug advanced, it is going to become more important and more necessary for us to embrace science, to be trusting of science, and to use science if we are going to feed nine billion people by the year 2050 in the face of a changing and challenging climate and in the face of additional challenges relative to food production and consumption. So I think it's going to be important for us to continue to have these exchanges.

Question and Answer Session

Sec. Vilsack

So, Mr. Secretary, with your permission, I think what we will do is open it up to questions from the floor, and if there aren't any, why, we'll just continue our little discussion here, but I suspect there are a few. So I think we've got a microphone in the middle.

Question

Yeah, there's at least one. Thank you very much for coming and speaking with us today. The question I have is: As we look at food security in the context of a changing climate, we realize that one of the key adaptation strategies is going to be how we help farmers deal with the increasing risk of extreme events and both in terms of drought, heat spikes, change in precipitation patterns, and so forth. Crop insurance policies are going to be a key instrument in helping farmers to adapt, both in terms of helping them manage the risks of what they invest in and the crops they grow, but it can also be a policy instrument that helps guide farmers into doing more climate-smart practices. Could you both share with us the thinking behind your policies on using crop insurance in a much more precise climate-adaptive way?

Sec. Vilsack

One of the things that we've attempted to do at USDA is to expand that risk management tool. It, obviously, with the passage and signing of the new Farm Bill, it has become sort of a lynch pin of the safety net for producers here in the

U.S., at least among the commodity crops. And so we are continuing to encourage folks to utilize that important risk management tool.

Attached to that requirement and that opportunity is the need for producers in this country to be compliant with a conservation plan, which in the past we linked to direct payments from the government; but now with the elimination of direct payments we have now linked once again crop insurance assistance with conservation compliance. And we think the combination of that is going to encourage that risk management tool but also at the same time encourage the conservation practices that will allow us to maintain soil health, allow us to improve water quality and be able to adapt and mitigate it to a changing climate.

The other thing that we've done at USDA is we've attempted to expand the capacity and the availability of crop insurance to include especially crops. For far too long they've been sort of left out of that risk management opportunity. And within the next several months we will probably launch formally our whole farm policy, which is really designed to encourage those producers who are diversifying their operation, growing three or four or five different crops that may have a hard time having any one covered by a crop insurance policy, to be able to collect, essentially to have a crop insurance policy that covers their whole operation. So an expansion and a linkage with conservation, I think, are two points that I would make.

Sec. Martinez In the case of Mexico. We decided to speedily increase on a yearly basis our budget and the number of hectares that agricultural insurance will cover. The proportion right now – and I don't know what it's like in other countries or the United States – but this year in Mexico we have provided coverage to practically 50% of farmland with insurance and coverage against catastrophes; in other words, the insurance only covers natural disasters, whether it be climate or health disasters. This is an important step forward to have reached this level of 50%, and we need to continue moving forward speedily to provide more coverage. But in parallel we're working on a plan of action that we are implementing to improve the environment through agriculture.

> One of the most harmful practices in our countries, unfortunately has been the slash and burn method, and in some regions this has major consequences where the forest fires, for instance. Under the new administration, this can no longer take place. We are working in a very coordinated, scientific manner with notification and full control to ensure that there may be no repercussions or no risk of causing a forest fire.

We are improving our irrigation systems; it is becoming more technical. There will be a million 250 hectors that will receive public support to have microspraying or drip irrigation or technified [sic] so that we can preserve water, be smarter in its use. And yet another action is that we are rehabilitating some areas, large tracts of land; and with some tractors they are improving the summer pastures by aerating the soil, and thus we are also helping the ecology, improving these millions of hectares. It's going to be a million and a half hectares that will be treated with this soil improvement method. These areas in Mexico are very deserted, they're very dry, very difficult to manage.

Sec. Vilsack We should work together. We've got a soil health campaign that we perhaps could share experiences on. Next question.

Jim Hershey with the American Soybean Association's WISHH program, a Question public-private partnership with the USDA Soybean Check-offs and others. I'd like to welcome you both to what some of us call the Soybean Belt.

> Mexico and the U.S. have strong school lunch and nutrition programs as well as family nutritional support – the envy of many countries. Would you care to comment, both of you, please, on school nutrition as an investment in agricultural systems and human capital?

Sec. Martinez This program has been carried out in Mexico for a number of years, and it evolved from the traditional school breakfast to become a hot breakfast in some states, and this is usually done through state governments in Mexico and the coordination and promotion of a national entity, which is called the National DIF, which is the system for Integral Family Development. Coverage is growing year on year, and I would say it is both a quantitative but most importantly it's a qualitative improvement and growth. The nutrition provided by school breakfasts is now based on well-balanced nutritional formulae that are very closely linked to the region, because in our geography there is great diversity, different climates, different mores, different physiological and nutritional needs—and all this is taken into account in the formula.

> So a lot of progress has been made but still a long way to go. But we are going to continue on this path until we reach our objective.

That's a very interesting question and interesting in terms of its formulation, and I think it makes a very astute point, which is that these nutrition assistance programs in the U.S., whether it's the school lunch and school breakfast program, which involves the U.S. Department of Agriculture helping to purchase for schools certain commodities that are then used to prepare the meals, or whether it's even the SNAP program, the Supplemental Nutrition Assistance Program, which provides assistance to folks who are struggling financially. This is in my view, and I think the question suggests, this is, in part, part of the safety net. It's how you maintain appropriate markets. Because through the school lunch program and our purchasing of commodities, we have the ability at USDA to help stabilize markets. If there's an overabundance of a particular product then we can go into that market, we can use the school lunch program, we can purchase additional pork, we can purchase additional chicken, we can purchase additional vegetables or fruits to lower the surplus to stabilize the price and at the same time provide a healthy and sustainable meal for youngsters.

We serve roughly 30 million youngsters in our school lunch program, roughly 13 million in our school breakfast program. It is in many parts of the country and

Sec. Vilsack

for many students oftentimes one of the most nutritious meals they will receive and tragically and unfortunately in some cases perhaps the only nutritious meal that they will receive during the school year and during the school day. So it's a very important and significant program.

The irony of the program in the U.S. is it started initially because of concerns on the part of the military back in the early 1950s that we didn't have enough young people strong enough, physically fit enough to be able to serve in the military and that there needed to be some way of ensuring so many calories being consumed so that youngsters could defend the country.

Today those same military advisors, admirals and generals are concerned because many of our youngsters in the United States are either dealing with food insecurity themselves or obesity. And so as a result, we've taken a look at our guidelines. We've reformulated the school lunch and school breakfast programs, and we've seen over 90% of the schools in the country basically embrace the changes, and youngsters are beginning to appreciate.

The last point I would make is it's also a learning opportunity, and many schools are now using the school program to encourage a school garden or to a connection with a community garden a farm-to-school program where youngsters in the school district will learn more about what's being grown and raised in the general vicinity and then contracting with producers in the general vicinity for the purchase of locally produced goods. So it's a great learning opportunity. We now have over 13 million students in our system who are benefiting from this farm-to-school effort.

So I hope what it will do is reconnect people with the folks who produce the food in this country and perhaps grow a little higher appreciation for the folks who in fact provide this extraordinary bounty in this country. Next.

Question

Thank you, Mr. Secretary. My name is Brett Blankenship. I'm Vice President of the National Association of Wheat Growers. You mentioned biotech issues, and I represent a commodity where no deregulated biotech event is available as yet. But when that day comes, and I believe that day has to come to meet the 2050 goal you mentioned, in order to not disrupt trade that we mentioned earlier, what are the chances of establishing uniform, low-level presence to not disrupt the markets for genetic events? And what can we do to facilitate that?

Sec. Vilsack

So that is a good question and a complicated one, because it depends on the international community first and foremost accepting and appreciating the role that biotechnology and GE crops will play in trying to address this issue of nine billion people by 2050. We're not there yet. We have, I think, an uneven acceptance, an uneven playing field, if you will, relative to biotechnology crops.

So what we are attempting to do now is to make sure that there is an understanding in our discussions with China, for example, of the need for a better synchronization of our regulatory processes, so that if something is indeed

approved for use in the United States or in Mexico or in Brazil, it will also be approved for use in China, that we don't have to wait an inordinate amount of time or potentially forever for that acceptance to take place. It can cause, as is we're currently seeing, significantly potential disruptions because one country accepts it and other countries do not.

Once we get to a level playing field, then I think the next conversation is — What is that low-level presence that the international community is willing to accept before there is a challenge or an issue with a particular shipment? Again, I think between countries there's an understanding, but we clearly do not have an international understanding, a large-scale, multilateral understanding.

We've been working with the European Union in trade discussions; that is a tough discussion that we're having, because of their attitude—it's very much divided. Some countries in Europe are okay with feed that is GE, but they're not interested in cultivation of crops through GE. Some countries don't want any parts of it, other countries are willing to accept it.

So I think there's a conversation that needs to take place, and I'll turn it over to my good friend to discuss the Mexican aspect of this. But hindsight is always 20/20, and I think what we did in this country and what the companies did that produced these great crops is they did a terrific job of selling the farmer in this country on the technology. I mean, vast percentages of corn and soybeans today, far in excess of 50%, as Secretary Martinez mentioned, are GE. What we didn't do is educate the consumer, and now we're having to play catchup on that education. And it is a difficult conversation to have with some consumers who have already made up their minds about certain things.

So this is a complicated issue. We're working on this every single day, and I have reached out to a number of countries that are embracing this technology, so that at least those of us who are embracing it can approach the low-level presence issue with the same attitude and same approach and that we approach other countries that we know ought to be accepting this technology to synchronize their regulatory processes more effectively than they have.

Sec. Martinez Well, this is one of the most controversial and most polemic issues in my country, Mexico. There are those for and those against, concerning the opinion for the genetically engineered products. Starting from the very first discussion, whether they're harmful to human health or not, but scientifically it is proven that these foods are safe. Whether it can affect the genetic wealth, in particular in the case of our native corn in Mexico, we have a very local type of corn, and there are some people who totally object to the GE in order to not lose our Mexican genetics. And the third one is obviously dependence with trans-national corporations who produce and sell the genetically engineered seed.

> All of these topics are a part of the discussion, and progress has been made in Mexico. We truly want scientific rigor to be the source of a solid and precise explanation. We're particularly careful with our white corn, and let me

underscore the word "white" in talking about corn, because we are the source country, the original country, and we do have surplus production. Just to give you an idea, we import close to nine million tons of yellow corn, essentially from the United States, and practically 100% is transgenic or genetically modified corn that we are importing into the country. We will be very careful and respectful of the decision that the Mexican legislative body may reach in its decision in this matter, but we do acknowledge that this is a highly controversial issue in my country.

Sec. Vilsack

I think we have about five, a little bit more than four minutes left, so we'll try to work through these remaining questions.

Question

Thank you very much. My name is Paul Temple, and I'm a farmer from England, but it's a real pleasure to listen to both you two secretaries of state. I'd just like your views on the EU approach to trade agreements and whether you think we'll ever get a WTO agreement, which really should be a fundamental part of trade and food security.

Sec. Vilsack

We've got 3 minutes and 57 seconds. Let me take a stab at this. First of all, I think it's going to be... There are obviously challenges with the global discussions of trade. There are just, there's a wide gulf between developing countries and developed countries in terms of access to markets, which have complicated those discussions. I think we remain in the U.S. committed to such an agreement, but I don't want to underscore the difficulty of that.

The discussions that we're having with the EU in trade, which could be the largest trade agreement in the history of mankind, also face some serious challenges. Just several of them – the geographic indicators that the Europeans feel very strongly about with reference to a number of their cheese and dairy products, for example; the attitude about biotechnology clearly a challenge; the issue of how we treat our poultry in terms of pathogen reduction treatments; whether or not beef with hormones are acceptable or not – these are major issues that have got to be addressed before there is the possibility of a global EU/U.S. trade agreement.

I keep trying to tell them that the arrangement that we've had with the Mexicans and Canadians in NAFTA has been an enormous success for all three countries. This is not a situation where one country is taking advantage of the other countries. All three of us have seen increased trade activity as a result in agriculture. So our hope is, and our prayer is that we get these agreements done, as well as the trans-Pacific partnership agreement. I think it would be helpful if Congress would give fast-track authority to the President. That would make it a little bit easier as well, but that also faces some challenges.

Sec. Martinez This topic is more specific to the U.S. Let me just say that I concur with the explanation just provided by Secretary Vilsack. And I'd like to take advantage of this remaining one minute to thank you all for your invitation, for your presence here, and to tell you that the task of feeding the world – and according to FAO in 2050 there will be over nine billion people on the planet—and we're going to need, some people say, between 60 and a 100 percent more food, not because from seven to nine billion is a hundred percent, but the universal society is evolving. There is more social justice, there are more demands, and in some parts of the world those people who are only eating once a day will perhaps be able to have two to three meals a day, and this is going to increase demand for food, which has to be addressed very seriously. This is a global issue. We are living in a globalized world. We all have to contribute. And that is why today has been an extremely gratifying day for me as the Secretary of Agriculture of Mexico to see this willingness of the Secretary here in the United States to have a positive attitude to address and tackle problems jointly, in order to take on this challenge ahead of us and to have a successful future. So I thank you for the invitation and for this opportunity of sharing with you the experiences from Mexico.

Sec. Vilsack

So, Mr. Ambassador, we have two people left, asking questions, well, three. No, it's two, just two, right? Two people, three people. Two of them appear, at least from these tired old eyes to be relatively young folks, which is important because it's their history and their future that we're talking about, and one appears to be a woman. Seventy percent of America's, or the nation's and the globes farmers happen to be women. Can we just spend a couple minutes quickly answering these questions?

Amb. Quinn Well, I'd like to help you out, Mr. Secretary. Of course, we can, because two of them are from our Global Youth Institute—right?

Sec. Vilsack Okay, so we have to answer. We have to answer, right, okay.

Amb. Quinn Yeah, we have to. What you have to do is give your question in 30 seconds. No time limit on the answer, of course.

Sec. Vilsack You know, that's what he says. This is just going to come off the time we have to spend with the press, so feel free. Your question.

Question Thank you. So my question is going back to the minister, Martinez, was talking about white corn earlier. So with that, how do we ensure that we're producing enough, while we maintain the economic incentive to the farmers to produce more? Because if we're providing subsidies for farmers not to produce corn, then how are we going to have enough by 2050?

Sec. Martinez In Mexico's case, we are taking a radical turn to transform the former subsidy measure that we had. We would provide subsidies as assistance, but otherwise we want to turn them into incentives for higher production. We think that subsidies engender poverty. There is no doubt that in my country there are over 25 million Mexicans that suffer even from food poverty. But nonetheless, the fact of supporting them through subsidies just inhibits their productive capacity as human beings, however modest these beings may be and however poor they may be. So we shouldn't give them the fish, but we should teach them to fish so

that they may pull themselves out of poverty in a structural way, to have a positive attitude in order to progress.

One of the most important programs we have in Mexico was called, procampo, and we have changed the name now to Pro-Productive Agriculture. And these are significant amounts of resources over 13.5 million pesos, which were granted previously as a subsidy, but now they're going to be provided as an incentive — Here's your resource, but you need to show me that you'll be using improved seeds, that you'll be using fertilizers on your land, that you'll be able to buy some farming tool or implement something that will improve the farming practice — and thus teach small farmers to pull themselves out of poverty. In addition, they are supported by extension activities to pull them into the era of technology.

We are seeing good and positive results already. There is public policy also to ensure that our incentives are not regressive; in other words, the very high incentives that we used to grant have now been lowered, so that in a crosscutting way it's possible to share among more small farmers and producers, and this may encourage them to come out of crisis.

And lastly, when we took our two years ago with President Peña Nieto the loan system in Mexico, and it was a government finance institution that would give loans or credits eight points above commercial banks. And this is a no way a development bank. These were not competitive rates. We didn't provide timely credit. And starting in August of last year, this finance institution became the National Agricultural Finance Institution, and now these small producers receive loans on single-digit interest rate for small producers at 7%. I know that that sounds extremely in the United States, but in my country 7% is a competitive rate, a rate that benefits small and medium-size producers.

So these are some of the activities that we are implementing to address that problem that you raised.

Sec. Vilsack

And I would simply say that our subsidy situation has changed significantly with the passage of the new Farm Bill. We're not providing direct payments to farmers when times are good. The only time we provide assistance is when times are tough, which is the way it ought to be. And I think also we've had a conversation today about the importance of trade, and I think that's really the response. If there is robust trade, if there is free trade, if there's fair trade, then there's going to be plenty of flowing of goods; there will be plenty of market signals that will be sent and understood by people around the globe.

Amb. Quinn Next question.

Question

I'm Marie from Planet 8. We have had the great pleasure of working with USDA for the past ten years in bought Food for Progress and Food for Education. Today we are feeding around 60,000 kids in Mozambique, liking with literacy training. And I know that about 2.7 million kids are being fed every year by USDA through the McGovern Food for Education program.

My question is: When looking at these programs and seeing the tremendous impact it has, not just on feeding kids, improving their health and wellbeing but also improving their educational outcomes, what can we do as members of this fantastic conference, the food here, and also the PBO community in the U.S.? How can we work better together with USDA and do more to ensure that these kinds of very important programs continue and grow?

Sec. Vilsack

First, we have to do a better job of administering the program itself, which is why I've instituted a conversation with Administrator Raj Shah of USAID. They also are engaged and involved in a rather extensive literacy initiative at USAID. My wife Christie happens to be engaged in that, so I hear quite a bit of that at home. And we need to do a better job of coordinating what they're doing and what we're doing, so that we maximize the impact of the dollars that we have.

Secondly, I think we have to be creative. And one idea that I think is extraordinarily creative that could use assistance and help from the international community: We send food in bulk to countries, and we send them in bags, and I think the ambassador will remember those bags from his days in the State Department. They're bags that basically say, "USAID" on them or "USDA." What we ought to be thinking about doing, since there is an inadequate number of books and information for youngsters to read, thinking about taking the inside of those bags and turning it into a book, printing on the inside a book that could then be hung in a classroom, in a village, on a house, that youngsters that could use, so that if we can't get a million books in the hands of kids, we can certainly use those bags not only to deliver food but also to deliver reading material in whatever language is appropriate. These are the kinds of creative ideas that I think we need more of and we help and assistance in implementing them.

Amb. Quinn Last question.

Question

Looking to the future of fighting problems like climate change and food scarcity, can both of you elaborate on the future of U.S./Mexico cooperation to fight global issues like these?

Sec. Martinez Referring specifically to climate change, we have exchanged ideas and acknowledge the work being done both in the United States and Mexico. This very morning I was having a talk about this with Secretary Vilsack. It is not directly our task to focus on climate change – I'm referring to the case of Mexico. There is a specific ministry responsible for this, and we work in close collaboration with them. And this has helped us generate good outcomes.

> As an example, this year, 2014, is the year in which we have had fewer fires, and forest fires in particular, in part because of our preventive work but also because it has been a good year in rainfall and precipitation. And thanks to that, figures for forest fire control have been very good, and this is something that Mexico usually suffers intensely from.

We are working, and I'm sure that the same applies to Secretary Vilsack, we want to develop an agenda so as to find more common ground to interact in these matters that are extremely relevant for the performance of the secretariats both here in the United States and in Mexico.

Sec. Vilsack

When we launched the Climate Smart Agricultural Alliance in September in the United Nations, we created the format, not just for better coordination and cooperation between our two countries but now between virtually countries and organizations now numbering in excess of a hundred—that's the vehicle for us to share information to ensure that we're coordinating our efforts.

The research component of that has also been formulated, again, with Mexican help and assistance and the U.S. help in the Global Research Alliance. The combination of those two opportunities, I think, creates the knowledge base and the format for sharing.

U.S. agriculture is roughly 8 to 9% of our national emissions, greenhouse gas emissions. That compares favorably to the rest of the world where it's roughly 14% of emissions. It's going to be important for us to continue to look for ways to reduce our emissions. We're doing this with our dairy producers, for example, with anaerobic digesters. We're doing it with a number of businesses that are creating biochar that will be potentially used as a carbon sequestration effort. We're creating ecosystem markets. I could talk for a long, long period of time about this. So there is already that sharing.

So let me just take your question and with 30 seconds end this dialogue. And again thanks to the ambassador and to the World Food Prize Foundation for giving us this forum

You are extraordinarily fortunate to be a young person at this point in time in history, because your generation—and the Lieutenant Governor's initiative, Paul's Initiative and STEM—your generation absolutely has the opportunity to solve this issue of food insecurity. You absolutely can do this. The tools are there. The collaborative opportunities and the foundations and the organizations are there. But what is needed is enough bright young people in enough countries willing to continue that effort.

So I would encourage you strongly to talk to your friends and your colleagues and your classmates. Explain to them that agriculture is where it's at. It is absolutely cool. It's something that is extraordinarily challenging. It is as exciting as any other occupation or calling that you can think of. And the future is virtually unlimited. But it does require young people. It does require imagination. It requires commitment. It requires doing what Dr. Borlaug's life basically taught all of us, is just keep working at it.

So thanks for your question, and again, Ken, thank you very much.

Amb. Quinn Thank you, thank you, Secretary Martinez. Thank you, Secretary Vilsack, and we have students from Mexico and the U.S. right there in the back of the room at our Global Youth Institute. So thank you for a wonderful dialogue.