

Collaboration or Catastrophe: Global Trends in Agricultural Development

Panel Moderator: *Ambassador Kenneth Quinn*

October 18, 2019 - 10:00-10:55 a.m.

Introduction

Margaret Catley-Carlson

Council of Advisors, World Food Prize

That was an amazing start to the morning. There were about six questions there that I'm sure each and every one of us would have like to have taken and put in front of the panelists and said – come on, we want you to take this further. But there were some very, very interesting questions that came up there – as there is going to be in our second panel. Now, you have in front of you in the books, you have the bios, so I'm not going to go through the bios of the panelists. I will just simply note as they come in who they are. This is the best way so that we can move and get the best time out of wonderful people.

So our second panel this morning is on collaboration or catastrophe. And we got the beginning of this with Pedro's question – you know, are we in a trade war? What's actually happening here? And Louise's contention that we are in a very real trade conflagration – it would be a very good thing to talk about that. Are we into collaboration or catastrophe? So global trends in agriculture for development. We've got wonderful people to discuss this. Dr. Shenggen Fan. Hello, Shenggen. He has been the Director General of IFPRI for the last ten years. I know what a good one he's been, because I've been sitting on his board watching him. Ambassador Negroponte, who is the ambassador of just about everything to everywhere. He's had some very tough assignments, particularly Iraq but also has served in a great number of other places – Mexico, the Philippines, United Nations, etc., and so he's got a very wide perspective on these things. We've got Ismail Serageldin, founder and Director Emeritus and Member of the Board of Trustees of Library of Alexandria – it's been going for 2,000 years, not always as active as one would wish since Cleopatra set it up. But when Ismail moved in, it has been a place that is open and welcomed the world. And Ambassador Josette Sheeran, president and CEO of the Asia Society. But I also think of her in her past roles as a very important food executive. So, Josette, forgive me for taking away your “N” and I'll put back your food criteria in the bio.

And the moderator for this panel may look a little familiar to you. Ken, take it away, and I will cut you off just as much as...

Panel Members

Dr. Shenggen Fan	Director General, IFPRI
Ambassador John Negroponte	Vice Chairman, McLarty Associates
Dr. Ismail Serageldin	Founding Director Emeritus & Member of Board of Trustees, Library of Alexandria
Ambassador Josette Sheeran	President & CEO, Asia Society

Panel Moderator

Ambassador Kenneth M. Quinn

President - World Food Prize Foundation

Yes, I know that. That's why I have Maggie, if I may call you that, Margaret Catley-Carlson there. Thank you so much for doing this.

So yesterday you heard ambassadors talking about different regions. The real question is about the global trends. There are so many innovations going on in agriculture, developing the seeds, developing the trade. I heard a CEO from the agribusiness companies, reforming the food system, how we're going to make it. But in the end it's about the threats of conflict, of about climate change. And how does it all come together?

So having worked in the government for a long time, we always come up with these national intelligence estimates that Ambassador Negroponte oversaw – What are the trendlines in everything? So I said I'm going to get four of, if not the four smartest persons I know about that question, get them all together on the stage for my last-ever symposium session and say, "Come up here and give us the international estimate for the world about – What are the global trends? Is it going to be collaboration, or is it going to be catastrophe?"

Ismail Serageldin is the person who on the stage I've been working with... Well, just speak, if you don't mind, from your seat. Is that okay?

Ismail Serageldin

If you say so, you're the boss.

Kenneth Quinn

Yeah, so it was meant to be a conversation.

Ismail Serageldin

Fair enough.

Kenneth Quinn

If it would be more comfortable, if you want to go there.

Ismail Serageldin

Yes, I would be.

Kenneth Quinn

Yes, please do that.

Ismail Serageldin

I have all sorts of slides.

Kenneth Quinn

Oh, well, I didn't know.

Ismail Serageldin

Okay. A challenge to cover whatever needs to be covered from the whole planet in six minutes. So here we go. Now, simply stated, as societies develop and economies grow, people become richer and tend to use more energy per capita. Increased energy has tended to rely on fossil fuels, which correlates with more emissions of greenhouse gases. Scientists have warned us time and again about how the greenhouse gases are affecting the climate and the consequences that climate change will have. So far, renewable energies and nuclear have not been able to take over fossil fuels at a fast enough rate.

We, all of humanity, are now poised at the point in history that defies our collective self-satisfied, placid behavior. We are at the edge of a precipice as our collective decision-makers continue to make vague and saccharine promises of decarbonization and removing fossil fuels from the energy mix but by their actions continue this collective sleepwalking to inevitable catastrophes.

The Paris Accord is not being effectively implemented. Last month's climate summit at the U.N. did not respond to the aspirations of the youth that made the right noises. The politicians made the right noises, but the youth that demonstrated across the planet were not satisfied, because they ask if these declarations are just more empty promises.

Fundamentally, a milestone in all our scenarios is the goal of zero net emissions by 2050. Now, is that reachable, and what would it take. I'm citing my friend, [inaudible], in the Japanese Energy system, we have so far fossil fuels representing 90%, 90% of all energy consumption. The first three, oil, natural gas and coal. Biomass nuclear, other renewable and hydro account for about 10% collectively. That figure hasn't changed in the last 25 to 30 years. It's been 90% and continues to be 90%, and in fact the hydrocarbons and the fossil fuels continue to dominate even with new projects factored in.

Second point which we need to make is that the delays, the delays in bringing about reductions, make a very big difference about when and if we are likely to reach a global warming level below 2 degrees. So you see these various curves, and they show if constant emissions for ten years leap to a required mitigation rate, that will require 30% per year reduction afterwards to catch up. If we had started from the beginning, we would be able to do it with 3% reduction per annum, and that's not happening.

Now, on top of that, not only do we have this, the emissions, CO₂ emissions, I said that the fossil fuels remained 90% as the demand for energy grew during these last 25 years. So we are talking about the percentage of a growing set. It grew by 52% over the 25 years. And the emissions grew by 57%, despite all the promises to reduce them – and that's not happening.

So a question for us is to say – Well, okay, what do we need to have this sudden, the blue breakdown that you see here coming down so dramatically? What is it that will happen that now that after 25 years since we signed the framework agreement and other activities that we've done, IPCC, COP, etc., etc., we haven't been able to do anything. That's the top flat line that you see – that's the reality. And then this huge drop is what is needed if we are to stay with

2 degrees – that’s the blue. Then between 2 and 2.5 is the green, and then between 2.5 and 3.5 is the red and orange there. And that becomes a major problem.

Now, these are the scenarios. We are now converging towards a 3 to 5-degree, at best, scenarios that we can see. And more importantly, this is really the fundamental summary of everything that I have to say. The black line is what you have in terms of emissions going up, and the red line is the temperature. And there’s the temperature target that you see there. And if we assume that today will be an emissions peak, then you suddenly have to have this incredible drop that you see in this graph, that there doesn’t seem to be any justification for assuming that next year we will start having a drop of this scale and magnitude.

So it is really a serious, serious problem. This scenario assumes that we will have net negative emissions either by direct air capture, capture and reuse of carbon, or as I hope to say, that through agriculture and carbon, the soil as Rattan Lal and others mentioned, planting forests, etc. And what is sad is that the inescapable question we would need here in this scenario, at the minimum 10 to 20 percent, negative, taking away of carbon. So far the best we have achieved is .9 of 1%, and that was by Europe and by the U.S. And what is more important than that, it is partially a lie, because offshoring of production facilities does not reduce the emissions that you’re getting, because it’s a global climate that we’re talking about.

So my friends, people are already suffering and dying, and the world of 4 to 5 degrees will bring disastrous misery on many of the poorest and most vulnerable people, and the rich will have to cope with forced migration of environmental refugees and major adaptation efforts. To reduce the risks of disaster must be undertaken in parallel with significantly expanded efforts of reducing emissions. And we need real action at the national as well as the international level. We need regulatory structures. We need ways to control carbon in the industry. We need incentives for innovations in all aspects.

But are there solutions to make it possible to stay still under or towards the 2 degrees? Agriculture remains the most promising sector. It has forests, soils, more adaptive plants, reduced feed, and precision agriculture is right around the corner. And all this requires global, collaborative efforts to avoid the catastrophe. Indeed, perhaps we should also start studying collaboration on conserving some geo-engineering projects. The contrast between the slow pace of action and the urgency of the problem was underscored by the powerful denunciation of teenager Greta Thunberg who rightly saw the moment as a critical one to move beyond words to deeds and warning that if we did not do this, future generations would never forgive us.

So let us clearly face the challenge, seek solutions that suit the magnitude of the task ahead, and in the words of the immortal, Bard:

*There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their lives
Is bound in shallows and in miseries.
On such a full sea are we now afloat,
And we must take the current when it serves,
Or lose our ventures.*

That we shall not lose our ventures, the spirit of Norman Borlaug will rise to the challenge. We shall bend the curves to our will, and it can be done, and it must be done, and it will be done.

Kenneth Quinn

Thank you, thank you, Ismail. Thank you. Yes, thank you. So that's a discouraging way with the slides to start this, but thank you for your candor. John Negroponte, Ambassador John Negroponte, my very, very good friend from the American State Department and Foreign Service, has been looking at trends and is National Director of Intelligence in the United States and served around the world. What's your take on the trends and collaborate or catastrophe?

John Negroponte

All right, so the short answer is—We can't be sure. And I would give you as the example, the current state of the United States-China relations. And I depart from the assumption that, if the two biggest economies in the world can find a way to collaborate, it's going to be much easier to address the problems of the globe. We have some examples of where we have collaborated with China. In fact, one of them was with regard to the Paris climate agreement, the agreement between Xi Jinping and President Obama, but that's been overturned since that time.

So it seems to me we're at some sort of a fork in the road. I don't know when it's going to be taken or when that's going to devolve completely. But right now there's the risk—and you see it in Washington—of the decoupling of the two economies, of China and the United States. And if we move into some sort of a cold war, scientific and technological confrontation between the United States and China, I think it's going to make it much more difficult to cooperate with each other on global issues. And that not only bodes well for the bilateral relation between us but I think for the ability of the world as a whole to address these problems.

I say we don't know, because a lot hinges, for example, on the state of the current trade talks between China and the United States. And are we going to have sort of a positive break in that situation? Is there going to be some constructive step taken forward? It seems to me that, if we could begin to resolve some of the trade issues with China, then that would improve the atmosphere for the overall relationship.

So just to highlight the importance of this one bilateral governmental relationship to the future of some of these issues, if I could just make a couple of other points, Ken. We talked some during our meeting over the last couple of days about poor governance as an important contributing factor to many of the problems that we confront. But I think it needs to be highlighted and emphasized. Because it's where you see poor governance, insecurity and eventually war in various places, state failure, that's where we run into the most serious problems of environmental degradation, the collapse of agricultural capabilities, the dependence upon assistance from the international community with imported foods and so forth.

So whatever happens to U.S.-China relations in the next generation, one of the very, very important aspects of all of this is going to be—How successful can we be in addressing the issue of state failure, governmental inadequacy, and so forth at a time of increasing stresses on the political systems of these relevantly weaker countries.

I would just cite one or two examples of past famines, for example. 1958 to 1961 there was a major famine in China. I was a vice consul in Hong Kong in 1961, and I remember, because things were so transparent, I mean so obscure as to what was going on in China, we had a difficult time figuring out what was going on. We had to read the newspapers, interview

refugees. But you couldn't get a really good, open assessment of what was happening. And somewhere between 15 and 45 million people died during this famine, depending on whose estimates you give credence to. And Amartya Sen, the economist, the famous economist said, "No major famine has ever occurred in a country that was a democracy." And one of the real problems of 1958-61 was that there was no transparency. There was no ability of the citizenry to make its views known, to get the word out about what was happening.

So governance, insecurity, these are things that are going to be with us for a long time to come, and the better we can deal with these problems, the better off I think the world is going to be as far as the adequacy of agricultural production and our ability to deal with various problems.

Two other points: Policies are extremely important, subsidies. Chen Fang told me the other day that there's \$750 billion of agricultural subsidies around the world that distort markets and affect sometimes in very adverse ways the choices that are made in various economies about how to deal with their issues. You can see it with respect to, for example, policies designed to favor urban consumers versus the agricultural producers in the countryside. But then at the same time there's the great dilemma, the great IMF problem – the minute you try to avoid the discipline that's employed by the IMF and the sort of Washington consensus on how you run your economic policies... Let's say you lift the subsidies for bread in Egypt – you inevitably get a riot. And governments rise and fall on these questions. And so then that compounds the problem of governmental failure and so forth.

Lastly, on an environment and climate change... And this to me is perhaps the most important message, Ken. When was in the State Department and ran the Bureau of Oceans and International Environmental and Scientific Affairs, my deputy, Richard Benedict, negotiated on behalf of the United States for the Montreal Convention for the Protection of the Stratospheric Ozone Layer. And that was in 1987. Sad to say that in the ensuing whatever that is, 32 years, we've not negotiated another convention or treaty with respect to greenhouse gases. And that's just too long. There's no excuse for it.

And I'm sad to say that the very bureau that I led for a couple of years in the State Department has not had an assistant secretary during the entirety of this Trump administration. They've just chosen not to fill the job, and they're not even allowed to use the word "climate change" in a lot of the literature that they put out about the kind of work they do. So to me that's just... Okay, that's an American problem; it's not a global trend, Ken. But it just brings home to me the critical importance that we've got to rededicate ourselves to a proactive environmental policy in the United States Government. And I think until that happens, I think we're going to be losing opportunities to help avert some of the problems that Ismail described for us before. Thank you.

Kenneth Quinn

Thank you, John, thank you. Ambassador Josette Sheeran has flown all night getting in late last night just to be here. I'm so indebted to her. She's such a wonderful friend. I've known her as Under-Secretary of State for Economic Affairs, as the Executive Director of the World Food Program, and now as the President and the CEO of the Asia Society. And her insights and observations in all three jobs have been so incredible. Thank you for being with us. We're so looking forward to hearing your views on these global trends.

Josette Sheeran

Well, thank you, Ambassador Quinn. In fact, in between two board meetings, I did fly all night, and we'll get on a plane right after this session. But I came here for Ambassador Quinn. This man was the most trusted right hand to my inspiration in life, Norman Borlaug, the man who's driven my career and the things I care about and what I have passion about. And what you've done here is not only elevate food scientists and food innovators and food policymakers to the level of Nobel Prize but give us all a refuge, a place to come when we're losing hope on these issues.

I'm going to not be too optimistic here, because I don't think we really can rest on any laurels as far as food and access to food in particular, which is my cause in life. So I want to focus on that, because again we're in a world where there's enough kilo-calories for all humans, and yet we have a hundred million people acutely hungry. But more importantly last year we were on the verge of another food crisis. If the oil prices shot up like in 2008 to \$150 a barrel or there was another complicating factor, the droughts that swept Europe, the droughts that hit Argentina and Australia, the floods that hit the U.S., we could have seen us tipping into another world food crisis.

I was head of the World Food Program in 2007, 2008, and I quoted... The first interview I gave, the economist asked me, "What do you fear?" I said, "The perfect storm. Food stocks are dwindling, and we see energy prices rising, and we see financial crisis brewing. What if this leads to a food crisis? And we saw over the next six months food prices double. But what struck me during that time is WFP was being called by heads of state for whole countries that could not get access food – not access to humanitarian food, access to basic food supplies on the food shelves, such as Afghanistan, Liberia, the Philippines, we remember couldn't place an order for rice.

So let's look at what's happened since then. In 2011 at the G20 there was an agreement that countries, including with China and everyone, to not put export controls on humanitarian food, so at least maybe there'd be a bit of a trip wire between total disaster. And OCHA and WFP started a food stock monitoring system online, a dynamic system. Basically, though, the systems have not advanced to ensure that we have a backup. All of you have computers – right? – we have backup systems – we care about that. Nothing is more vital than human access to food to global stability. Nothing. Food and water. Without access to food, we face what we're seeing in many places in the world, which is conflict and war and refugees.

And you look at 2014, three days before the flood of Syrian refugees started toward Europe, WFP put out a press release saying they were only funded at 16% for the food for the refugees. It is historic fact that if refugees hear that food will not be coming, they will move. They will risk their lives and move.

So all of these stability systems that ensure we don't enter a true food crisis or cause mass movements of people, we haven't done anything or we haven't done enough, and in some ways we're moving backwards. And so I'd like to call for a few radical ideas here.

First of all, U.S. and China do need to get along and prove to humanity that the two most powerful countries can work together to do a few things. Top of my list is figure out a global food security system. China today... In 2008 it didn't have enough stocks. Today it has half the world's food stocks. That means the remaining stocks are very tight, but China and India need to be able to feed their own populations. But if the U.S. and China put their mind to assuring humanity there was a backup plan in a crisis – and I put India in there, very important – this

could really send a signal that we can work together to do big things. And on my list also is to end polio in the world. We're down to the last cases. China and the U.S. could work together.

Secondly, we know how to help stem and manage the movement of people. We don't need situations like Syria, these human crises. So I'm going to call for a global refugee fund where every nation put in its proportion, 1% of what it's putting into other budgets, and be able to stably supply food and shelter and water. And we can stabilize the movement of people. It cannot be that a begging ball goes out every time we see a mass movement of people. This is in every country's interest, and we need a stable draw-down fund to be able to do that.

And the last thing I would say is we need to go beyond the agreement that in a food crisis humanitarian stocks can move – every country in the G20 signed that – to a broader global agreement that when export controls are put on, that we can somehow address the countries that have no backup plan, that don't even have two weeks of food supply. And even the best of countries have about 28 days. So we need a management system because we are on the edge of these crises between climate, between conflicts and all that we're seeing.

The last idea I have is that we start a World Food Prize to honor those who are innovating... Oops, you already did that, Ken. So we can take it off the list. But we need to recognize and honor the scientists and the technologists and the innovators who are helping solve this problem, make sure they're coming front and center to the world, because that is what drives civilizations and world peace. And so that's the heart of the matter.

Kenneth Quinn

Wow! Josette. Thank you. Oh, my God. So you see why I invited her to be here. Oh, my heaven. It's terrific. And we need nominations of those individuals for the World Food Prize, which honored the World Food Program in 2003. We need to keep doing that. And we need to honor people who do... Catherine Bertini is here, yes.

And so now I turn to Dr. Shenggen Fan, the Director General of the International Food Policy Research Institute, member of our Council of Advisors, as is Ismail Serageldin. You see, I find the smartest people, like Louise Fresco, Gordon Conway, and I don't mean... I'm not going to say all the names on there. They're all that way. I get the smartest people in the world to come and be on our council. Dr. Shenggen Fan, great friend, amazing insights, and a broad, visionary thinker.

Shenggen Fan

Thank you, Ken. And I could be even smarter, because I was undernourished. I was one of your 800 million probably 40 years ago. So the last thing I wanted to see is a conflict over the trade, with the political conflict between China and the U.S. I grew up in China until 21. Then I came to this country. I spent 35 years in this country. Now I'm returning back to China, so you can see I'm torn if there is a war, if there is a conflict. So I think China and the U.S. must work together, but we also must bring others into... It's a global community, work together.

Number one is, you see, the U.S. investment in agriculture, international aid, benefits for these poor people, hungry people. Even here in America there was a benefit from that investment. Just Tuesday afternoon we launched a report together with the administrator, Mark Green, on the impact of international aid, U.S. international aid on the United States. So farmers benefit

from technologies, from CGIAR, from other national agricultural research systems. Every business is benefited by exporting more food and agriculture into other countries, because other countries, because of your aid, they grow faster, they import more. So just for your information every one dollar exported in agricultural sector in this country will generate 1.8 dollars in agribusiness activities. Every \$1 billion exports in food and agriculture in this country generates 8,000 jobs, went into jobs, stable jobs, full-time jobs, good jobs.

So we must look together for more aid from this country and I think emerging economies like China, they've got to offer more to support other countries, Africa and South Asia. So that's the number one point I wanted to make.

Number two, trade, yes, absolutely, we must make sure that trade continues to work. Trade helps us to have access to all kinds of foods. This morning I will have beautiful breakfast and not so... Actually foods are from other countries. So exports help, or trade help to improve the diversity of what you eat, improve your health and nutrition and so on. The trade will have generated jobs and so on.

Now my third point is science. Yesterday Bill Gates leave you a message. He said CGIAR needs \$2 billion, \$2 billion – I very much agree – to double the current budget. Yes, when Norman Borlaug worked with CGIAR, we worked on wheat, maize, rice, all the stable foods. Great. We helped many, many people out of hunger. But today I think I must say that in addition to the climate crisis, we're having a nutrition crisis. We still have two billion people who do not have access to enough micronutrients, and two billion people suffer from overweight, obesity. I think it's a crisis in addition to the climate crisis. How can we really reshape our food systems? By bringing science and technology to offer some of the solutions both Josette and Ismail mentioned.

So, yes, we need money, but I think we must challenge ourself to move towards a new food system that can address climate crisis, food and nutrition crises and many other challenges.

Now, John mentioned a policy – yes, I very much agree. Policy is essential. I heard about it – yes, we have lots of technologies and lots of innovation. It's like you said, we can do it. But why we have not done it? It's a policy. It's a policy issue. John also mentioned the big number, 700 billion dollars question. All these subsidies, 700 billion dollar subsidies, used in water subsidy, food and other subsidy, electricity subsidy – huge waste. So economic is inefficient.

Then in terms of the environment, in terms of climate change, it emits huge amount of carbons into the air, fertilizers actually ..., you know, emits enough nitrogen into the air. And they always don't produce healthy, nutritious foods, most of these subsidies are for rice, wheat and maize.

So CGIAR only missed \$2 billion. Now we are wasting \$700 billion. We cannot just wait after they do more harm. So can we reform that? Let's change that.

Now finally I think the capacity part, why we have not been able to move certain technologies to farmers or even knowledge to our countrymen, I think it's the capacity. The global community now very focus on some of the big issues, but how can we be able to come..., the capacities of the recipient countries, of the developing countries - not just the government officials but also the extension agencies, communities where you have worked before, in Cambodia and Vietnam and so on.

So my final message is – Yes, despite all this crisis, I'm very optimistic. And 40 years ago I was hungry, I was undernourished. My whole village were part of the 800 million statistic, but they're out of that statistic now, and they're out of that statistic. We all work together, global governance, China, U.S., maybe even India, Europeans together – fix the policy. I think we can do it. We can really remove all the statistics to zero.

Kenneth Quinn

Wow. So I made my first visit to China in 1979, accompanying Governor Ray of Iowa. And China, about 70 percent of the population was at poverty level.

Shenggen Fan

90 percent.

Kenneth Quinn

90 percent.

Shenggen Fan

...yes.

Kenneth Quinn

Poverty level. Now, it's 5%.

Shenggen Fan

More than 2..., less than 2%.

Kenneth Quinn

I was going to say, heading to zero, 2% in 40 years. That is, as I say often, the most incredible transformation of any country anyplace on our planet in the last 40 or 50 years and maybe the world record for transformation. And when I go to China, I see that in comparison between '79 and now. In the issues about how, John, you brought, how to rise above the potential for significant degradation of the relationship, I think doesn't really necessarily reside in Washington or Beijing but maybe in Des Moines. Because of the unique experience of how the president of China, president Xi Jinping as a 31-year-old party secretary from obscure county, Zhengding in Hebei Province came to Iowa because Iowa and Hebei were sister states. And spent time here and went to Muscatine and stayed in the home of people there, including Sarah Landy who was here last night with us. And came back as vice president to the U.S.-China high-level agricultural symposium that the World Food Prize hosted at our Hall of Laureates.

And this was the day we had a State dinner, and the night before in the capitol, hosted by Governor Branstad, now Ambassador Branstad. And President Xi Jinping got up to give a toast – most incredible toast I've ever heard by a head of state about another country. And he quoted Mark Twain and talked about his memories of seeing the sun over the Mississippi River and how it was such a part of him. So when he came to our building the next day and I went to the car to escort him in. You know, you have the Chinese Foreign Minister and Minister of Ag

with him, here is Secretary Vilsack and Governor Locke, our ambassador to China, and Governor Branstad. And we're walking in, and I said, "You know, Mr. Vice President, I'm so impressed with your experience, I'm going to commission a painting to put in my building about your experiences in Iowa." And through the interpreter, he said, "Thank you very much." And I said, "You know, I shook your hand to welcome you. I'm one of the few people who shook your father's hand when your father, then the Governor of Guangdong, came to Iowa in 1980 right after we established diplomatic relations." And with all respect, President Xi Jinping literally stopped in his tracks, and his eyes got big, and he got a big smile, and he said, "You have two interesting stories."

So here is this legacy in Iowa of this China-America connection that's felt intensely by the President of China. And I was at the Asia Society a few weeks ago for the China Daily's China Vision, and I said, "I want to make our building, the Hall of Laureates, available for a meeting between China and the United States." Let's, we'll keep dealing with the trade issues, but we need to start the process of China and the United States forming this collaborative partnership to ensure that we are able to sustainability and nutritiously feed the nine to ten billion people who will be on our planet in just 25 or 30 more years. And having those two countries, I said we can bring in India and others, and we can be inspired by Norman Borlaug, Yuan Longping, perhaps the most brilliant plant scientist alive today, 90 years old. Everybody in China knows his name, and he's a 2004 World Food Prize Laureate. And M.S. Swaminathan of India, the first World Food Prize Laureate. With their inspiration, the collaboration of our countries, that we have-

So, Josette, we can partner in doing this. We can have the Asia Society come and host in our building and do this together and maybe IFPRI

Shenggen Fan

-yes.

Kenneth Quinn

Yes, yes.

Josette Sheeran

I just wanted to make one more reinforcing point to what you were saying, and Valerie Guarnieri is here who runs all the policies and procedures at WFP. But China was WFP's biggest recipient in the '90s. And today China is a donor to efforts to end hunger. So that switch from that dependency to being able to feed its own population – a fifth of the world's population – and India too, which again Norman Borlaug so inspired those. We have to understand that's about global stability, because without that capacity... I also think China and the U.S. could have it out once and for all and would like to also propose we have a barbecue cook-off between the barbecue specialists in China who are so proud and U.S. barbecuers, and we have it here in Iowa.

Kenneth Quinn

Yes.

Josette Sheeran

And see who wins.

Kenneth Quinn

Yes, absolutely. And because the foreign policy reform in China was led by Deng Xiaoping and Xi Jinping's father, that produced this incredible turnaround.

John Negroponte

I don't want to be the skunk at the party.

Kenneth Quinn

Yes, good.

John Negroponte

And I laud and applaud. No, but seriously, I honestly, I support all these, what I would call basically people-to-people efforts, and they're indispensable, and we should continue and we should do our darndest to accomplish them. And they're all extremely important. But if you have an atmosphere in the policymaking center of this country, which is Washington, DC, which says – We're going to start examining every scientific cooperation agreement between a Chinese university and an American one and that you're not going to be able to work on certain areas like information technology, and you're going to... My brother's a professor at MIT. He had one of his programs with a Chinese company that they said – You can't have them as a sponsor anymore. If we move down that path, the things you were describing are just going to be that much harder – that's all I'm saying.

Kenneth Quinn

Yes. No, no. You're absolutely right and right to raise that.

John Negroponte

And how are we going to overcome that?

Kenneth Quinn

We've got to overcome that.

Josette Sheeran

We've moved from, if we remember in the 1980s in the U.S., President Reagan said, "Trust but verify." And this kind of opened a new era of, you know, if we pin down these agreements, I think we're in the era now of, "Never trust and always verify." The problem with that...

John Negroponte

It's indiscriminate.

Josette Sheeran

Yes, never trust is the starting point which gets to your point about collaboration. How do you have a world of collaboration or even trade when it's "never trust and always verify." And it's led to a very different... And I don't think it's just in the U.S. anymore. I think it's really spread around the globe to a very protective nationalistic approach to issues and hunkering down of each nation taking care of its own.

John Negroponte

But that's why I make the argument that, if you can achieve at least some limited progress on some of these trade issues, it might be a confidence building thing on the one hand, and secondly it might buy you a little space and time to address these other issues. That's my point.

Kenneth Quinn

Ismail?

Ismail Serageldin

Yeah, I would just want to add, of course, these are all wonderful proposals, and there is a very important part for people-to-people initiatives. But I agree with John that fundamentally at the end of the day it's the center where the decision-making is made for the nation that has to adopt a different perspective in terms of collaborating with others. The catastrophe we're talking about is terrible, and one of the things I said and I hope people noticed is there has been a lot of cheating even in Europe where there was offshoring of production facilities so that the country could report a reduction in its emissions, but in effect this is a global issue, so the climate doesn't care about where the political boundary comes from.

So we do need a global response, and that will not come about unless the leaders of the planet today, the primary leaders – and that's China and the United States and Europe and closely followed by India and Latin America – if these countries don't come together and start saying, okay, we really need to address this. The charts and the graphs I've shown have been shared since last December in Poland by the IPCC, and we are converging on 3 to 5 degrees. We're not even at 2 degrees or not even 1½ degrees. And look at the hurricanes, look at the forest fires, look at the droughts, the heat days that we are having.

John Negroponte

The worst is if you've been to the Arctic and the Antarctic as I have and you watch these huge chunks of ice flowing into the ocean.

Ismail Serageldin

Collapse, yes. Because the actual effect of the heating is much more accentuated on the Arctic than it is in the temperate and tropic zone. So all of this is a global picture, and it needs global collaboration. And thus we have to get over, as John said, we have to get over this hostility or this hostile attitude of "never trust" and start saying – how can we work together? Because it's all our children that are going to be affected by these erratic rainfalls, cycles of drought and flood and increased heat and increased storms. And why? We need to... We have tools that need to get in. And that requires the support of the governments concerned right across the planet.

Shenggen Fan

Good. Ken, I wanted to emphasize the importance of data and evidence. Yes, now are together we can hug whenever, we can kiss a man from Dutch. But I think to really influence policymaking or politics; you need data evidence to empower the citizens. You know, they have voting power. We have a democratic system. So data evidence is very critical. That's problem one.

Now, I have a couple of sort of former colleagues, friends tried to work something on WTO. You know WTO basically it's almost broken. You know, everybody benefit from that mechanisms. Yes, it needs to improve and also room to work around, but if you just abolish it, it will be a disaster for the whole global trade system.

So I think how can we work together as a citizen to bring the data evidence to influence our policymaking, our policymakers, the politicians. We just cannot work by yourself. I mean you are going to work alone, and you're not going to work very far. So data evidence is very critical. I mean, you present some of the data, some. It was very shocking, I think. We need to have more like that.

Josette Sheeran

You know, I think this issue of food and food supply, it's really linked to a historic shift here, the post-World War II era where the U.S. really came out and drove and put money behind an era of global cooperation and open sea lanes and open trade and the U.S. now saying some, all the leadership, we're tired, we're not going to do this anymore, we're not going to be the engine. And the world has to step up and buy into it.

I don't know how many of you have read Yuval Harari's book *Sapiens*. I really recommend it, but it can be a little depressing because, as a species, we're very tribal – right? And we innovate on behalf of our tribe. It's not the natural human instinct to come together and cooperate to benefit all the tribes. And so I think in a way we've..., after World War II we've seen the potential to literally end hunger and child stunting, to end health challenges in the world if we cooperate. And yet we may go backwards – right? We may again need to learn the lesson of what the lack of cooperation and trust can lead to.

And so to bend the arc of history, we need to bend the arc of human behavior and that natural instinct that seems so deep in us. But can we learn from the post-World War II era that we literally have in our hands a chance for a peaceful and prosperous world? Can we learn from that?

Kenneth Quinn

And one of the key questions I learned as a foreign service officer is you analyze societies by, to whom people feel they have an obligation. Who do they owe something? And it's different in different societies. Some places it's just your family. Others it's your community. Others it's people of your religion.

The thing about Norman Borlaug and about Governor Robert Ray of Iowa, who reached out to refugees, that they both saw an obligation to help people around the world who were suffering, even though they were different from them in every way, who were not part of their tribe. They

spoke a different language, came from different culture, worshipped a different god, had different colored skin. But they were human beings. And that question now will be part of political discussions – to whom does our community, our state, our country, your country feel an obligation. And if it's not, as Norman Borlaug would say, to the 800 million who are still chronically suffering, food and hunger, those food insecurity, then it will be a different world.

And the question is – well, can you insulate yourself from all the impact of the catastrophes that can come. And I think the answer that human migration as a species will always go to the food and the water and will produce the chaos.

We have only four minutes left. I want to give everyone one minute for any final thoughts, ideas, insights. John.

John Negroponte

One of the things that I would have pushed, had I stayed in that Bureau that I was talking about of Oceans, Environment and Science, after we did the Montreal protocol, I got called off to do another job, unfortunately. But I would have pushed for a global forestry initiative. We've talked some about forests here. [applause] Oh, maybe forestry should be one of the items on next year's program.

Kenneth Quinn

Norman Borlaug studying forestry at the University of Minnesota. He was going to be a forester.

John Negroponte

Anyway, to me that would make an awful lot of sense, and there's a lot that can be done in that area, both in terms of reforesting the more easily replaceable types of forest, and of course the protection of tropical forests, particularly in the largest-producing countries, you know, Brazil, the Congo, the DRC, and Indonesia. I'm not brimming with optimism about how easy it's going to be to protect what remains of our tropical forests, but I would consider that also a highly urgent task in the field of environmental protection.

Kenneth Quinn

Ismail.

Ismail Serageldin

Well, I would certainly support that and one of the things I mentioned just in passing. But it really deserves focus, because forests are also one of our primary tools against the carbon emissions.

But the other part which I would hope we would have a global attention to and maybe agreement on is the oceans. We have ignored the oceans. We have been very rapacious with them, both in terms of pollution and overfishing and everything else. But now we're beginning to learn from sciences, as Shenggen said, their enormous impact on the climate, on everything else. And we know so little about the oceans, and yet they are, of course, they cover three-

quarters of the planet, and it's the quintessential, global public good. The quintessential global public good is the oceans.

Kenneth Quinn

Then Shenggen.

Shenggen Fan

Yeah, I think we must work together, break the country boundaries. So, Ken, you are looking for a job, a new job after this?

Kenneth Quinn

I am.

Shenggen Fan

I think one is come to China.

Kenneth Quinn

All right.

Shenggen Fan

To make speeches, then we can split the speech fees.

Kenneth Quinn

Oh, yeah.

Shenggen Fan

But more serious now, I think that one-to-one individual interactions are so important. You know, they will see you, see your face, see your heart. All this sort of political animosity will be gone. So I truly believe it's one-to-one, people-to-people, get rid of this political ideology slogans. I think that will save our world.

Kenneth Quinn

Well, Shenggen, thank you. I've been to China four times this year.

Shenggen Fan

This year?

Kenneth Quinn

This year, yes, and I've got... I doubled the number of Chinese students who are here at our Youth Institute who were there at breakfast, and I believe there's 350,000 Chinese students at American universities, I believe, so passionate in that. Josette.

Josette Sheeran

I have one minute and 15 seconds.

Kenneth Quinn

No, no. One minute. I get the last 15 seconds.

Josette Sheeran

Okay, all right. So first I just want to put in a vote for our wonderful fish; 45% of the world's protein supply, and my mother's burial site is on an artificial coral reef off the coast of New Jersey, as she would have wanted. We have a deep devotion in our family to our oceans. So forests and oceans, we have to love them and appreciate them.

I'm going to put my hope at the end of this panel really with the next generation. How many of you are under 35 here, let's say. Wow! Right, so when I was head of the World Food Program, my favorite thing literally was to come to the Iowa State Fair, meet with the 4-H Clubs and then go to the land grant universities, meet with the scientists whose minds are on fire with how to feed the world and how to build a better planet. So I'm voting for this generation that is globally connected, globally minded, cares about the world, wants to make their hometowns better, but also putting their minds to finding solutions. So you all are stepping up to the plate, and we all are... I know all of us do mentoring and support, but you're what give me hope, really, and I know that you see a world where these problems will be solved and addressed.

Kenneth Quinn

Wasn't this an incredible conversation? Global trends. Thank you so very, very much.