PRESENTATION: FOOD AT THE CENTER OF GLOBAL CRISIS

October 15, 2009 – 11:00 – 11:45 a.m.

Ambassador Kenneth Quinn – President, the World Food Prize Foundation

I've been doing this ten years now at the World Food Prize with our symposium. And I look back and I try to think of – What were the great moments at the Borlaug Dialogue and the World Food Prize symposium? And clearly Bill Gates this morning is going to be one of those moments that I'll always remember and where there's this spontaneous standing ovation.

But our next speaker is also on that short list of great moments at the World Food Prize. Jeff Sachs came here several years ago, was our luncheon speaker and gave one of the most compelling addresses about the need for development and taking on global hunger. And there's rarely been a time when you have six or seven hundred people stand up afterwards and cheer for an address on these subjects – but that happened then, because Jeff Sachs is one of the leading individuals in the world in talking about these issues.

He was special advisor to UN Secretary-General Kofi Annan for the Millennium Development Goals and developing those; he's now continuing as the special advisor to Secretary-General Ban Ki-moon while at the same time running the Earth Institute at Columbia University and collaborating with Pedro Sanchez, one of our Laureates. He's also a star on one of my favorite morning shows, "Morning Joe."

So it is my great pleasure to welcome back to the World Food Prize and the Borlaug Dialogue Dr. Jeffrey Sachs.

Jeffrey Sachs – Director, The Earth Institute at Columbia University

Ambassador Quinn and ladies and gentlemen, it really is wonderful to be here. And I think the responsibility that we all feel is even higher in this year of Dr. Borlaug's passing. What he helped to start here is of profound continuing global significance and, I would say, increased urgency.

And I'm going to give a talk this morning that's not very uplifting, I'm afraid, but I believe sobering; because I just want to share with you in a few minutes why I think we are at a graver challenge on food than we've been at for many decades and why the challenge is even more complicated now than perhaps it was at what was certainly an urgent time at the start of the Green Revolution.

We face a challenge in which the food sector of the world, which is the single-largest sector of the world economy, is really at the heart of multiple intersecting crises. And we're going to need a level of honesty, investment, directness, and urgency to overcome this. And I want to spell out in just a few minutes the outlines of the challenge and number of steps that I believe are going to be essential.

First, we're not winning the battle against global hunger, that's for sure. And even less are we winning the battle against global malnourishment; because, if we define malnourishment as an improper intake of food – including not only overall caloric protein insufficiency, which is chronic hunger, but micronutrient deficiency, and now a startling, nearly worldwide epidemic of obesity, which also reflects terrible imbalances of the kinds of foods that we're eating, not only our lifestyles but also the food intake – we reach some startling conclusions.

First, as you know, FAO has just estimated – on admittedly imperfect information, because this is a complicated metric – that we've breached against one billion chronically hungry people, 1.02 billion in the most recent estimate released a couple of days ago. This is an addition of perhaps 250 [million] people from roughly five years ago.

We have another 2 billion people on the planet, in addition, who are suffering significant, continuous micronutrient deficiencies, whether it's iodine, vitamin A, zinc, iron, omega-3 fatty acids, or other nutrients which are vital for human wellbeing. We've not solved problems even when we've understood them for a long time, such as the iodine deficiency. That's another two billion. We have at least a billion people suffering from obesity.

That adds up to more than 4 billion people on the planet out of 6.8 billion, who are severely malnourished. This is not a world that has solved the hunger crisis. It's a world that is battling a massive crisis in rich and poor countries alike.

Second, we're in the middle of an immediate and acute food crisis with sharply higher food prices that did come down after peaking last year but remain very high, especially in poor countries, by historic standards. And a beneficent pattern that we had come to expect – of trend decline in the relative price of at least the main grains – has clearly ended and, I think, is not going to reverse easily.

Underpinning this rise of food prices, for example, is the now much higher price of oil and other energy sources compared to three years ago. And there's every indication that those energy prices are going to remain high into the future. And that, of course, pervades the food-production system from the fertilizers to the energy inputs for farming itself and, of course, the processing and distribution.

We have a world of climate shocks that clearly is a change of state of the world, not simply a run of bad luck. And when these shocks occur, they of course have remarkably acute effects on the world economy now because of the interconnected global food system.

The El Niño-related droughts in India this year pushed up pulse prices and sugar prices to highs in recent months that have percolated throughout the international system. Of course, the droughts in grain production in recent years have done the same. These are not going to go away; they're going to intensify.

Water stress is going to intensify because [of] every aspect of the water challenge, including in this part of the United States, based on groundwater of a depleting aquifer, but even more acutely in the Indo-Gangetic Plain, in north China, in the Andean region, in places dependent on snow melt, in places dependent on glacier melt, as we were just hearing. We face an absolutely unsolved challenge of water.

The biofuels choices that we've made, which I believe are deeply wrong-headed, have added to the food stress. Dietary trends, the rising intake of meat in many emerging markets and the remarkably high intake of meat in this country – absolutely off the charts – of course add enormously to these pressures. And the global inventories of grains remain at historic low levels compared to trend demand.

Now, the third aspect of this adds yet another layer of complexity, and that is that the food industry is absolutely at the center. It is the leading cause of global anthropogenic change. It is the number-one sector of greenhouse-gas emissions in the world. This is because around 18 percent of greenhouse-gas emissions come from clearing rain forest and other forest for pastureland and cropland. And roughly another 12-15 percent reflect the carbon dioxide of fossil-fuel use in food production, the methane from our rice paddies and livestock, and the nitrous oxides that come from the now more than 100 million tons of nitrogen-based fertilizers, which we absolutely need to feed the planet but which have fundamentally altered the nitrogen flux and are a major independent source of greenhouse gas forcings.

But what food is doing is not only the greenhouse-gas emissions; one third, roughly, of all greenhouse-gas emissions [come] from the food sector. What food does is pervasive in terms of its anthropogenic impacts. The food question is the number-one driver of habitat loss for other species. And there's hardly a class of

species around the world that is not suffering a significant decline of abundance because its habitat is being taken by humanity for the purpose, essentially, of feeding ourselves.

Water stress I've already mentioned; [it's] multifaceted, whether it's the 50 or 60 thousand dams on major rivers around the world, whether it's the groundwater depletion, whether it's the evanescent use of glacier melt, which will no longer be available in 40 or 50 years. This is essentially the key input, of course, to food production. And the food sector, to put it conversely, is by far the leading consumer of freshwater around the world.

The food industry is the source of the nitrogen and phosphorous loading that affects what we know in the Mississippi and in the Gulf of Mexico as the dead zone. But now science has shown that [there are] about 130 significant hypoxic zones in estuaries on virtually every populated river system around the world. We need that fertilizer – let's be clear about it – but we have not solved the implications of this for our global society of, now, 6.8 billion people. And remember when Norman Borlaug was introducing, with M. S. Swaminathan and Minister Subramaniam, the Green Revolution in India, the world's population was essentially half of what it is today. It was 3.3 billion people in 1966-65; 6.8 billion now.

And of course we all do remember Norman Borlaug's Nobel acceptance address where he said, "Don't kid yourselves; this is temporary unless we get the global population under control" – which we manifestly have failed to do.

The food industry stands at the center of fisheries depletion, mangrove destruction, wetlands drainage, invasive species. It's not an accident; it's the most important function of economic activity in the world – feeding ourselves. But its anthropogenic effects are not only important, they are at the center now of the global challenge. And it's not only climate change, [although] climate change would be enough.

And I'd say the fourth challenge is that the food sector has lost the public's confidence. And this is also making change absolutely more complex. The public is losing confidence in food safety. It's losing confidence in the healthfulness of the food that we eat. It is losing confidence in the environmental impacts of food. Wrongly, I believe, it has lost confidence in GMOs.

There is mass confusion about the use of fertilizer, but understandable. People think sometimes that organic food could feed the world, which it manifestly could not. But on the other hand, there has been no solution to the manifold damages that come from having to use a hundred million tons plus of fertilizer.

And there is a campaign for local foods that is widespread; again, totally understandable, deeply misguided – because there's also no way that the planet can feed itself with local foods. But this is an objective sense of how far the industry is from public confidence right now that's needed.

I don't think we have a holistic approach to these challenges right now. I don't think we have any holistic approach. And I don't believe that these are under control in any of their dimensions. And I worry about it. And I apologize for the unpleasantness of it.

But this is the world's forum for this issue, and there must be a way to create a framework of action in which we begin to redress this massive crisis of malnourishment in a way that is ecologically sound, that is equitable, that is global, and that regains the world's confidence of the food industry.

I'd mention briefly ten items that I think can help, and I'll just run through them very quickly.

First is a global fund for smallholder agriculture, which has been discussed at this meeting. I've been working on that for six years. We have money promised. There's no money in the bank.

To the U.S. government officials here, what I would urge you is – Put the money in the bank; in this case, with a capital B, the World Bank, and let's get on with it. The money was announced a long time ago, and Washington still doesn't have a head of USAID, it isn't able to move, we're missing one growing season after

another, people are dying of drought, they're dying of lack of fertilizer input. And the promise is out there – it needs to be implemented. The way to implement this, in my opinion, is multilaterally – not through a USAID or USDA-led program but through a global program. And I think the World Bank is the right place to put it, because they're moving. I would hope IFAD and the World Bank can partner together on it.

But the days are moving; I count the days because this proposal has been around for a long time. And we've gotten to an announcement, but we are not to a reality. And I know, from what we see and what my colleagues in the field report every day, people are dying because we're not moving fast enough.

Second, on climate change: The food industry and the food sector scientifically need to address directly and head-on the fact that the food sector is the leading anthropogenic driver of climate change. And there are different components of that. The 18 percent of carbon emissions coming from deforestation is a category. The methane that is coming from how we produce or from how we produce rice is another category; the options on nitrogen use to reduce the volatilization of nitrogen, more accurate scientific dosing, less percolation and eutrophication as a result of more effective nitrogen use is another aspect.

There needs to be massive spending on adaptation for places hard hit by climate change. You know how much money is the adaptation fund already approved? $18 million – because we don't function to actually produce results. Remember, the Green Revolution was produced by Norm Borlaug and Swaminathan and Subramaniam within two years of proving that Sonora wheat would work in India. It took two years for scale-up, because there was an effective, direction partnership of the U.S. government, through USAID at the time, the Ford Foundation, the Rockefeller Foundation, and the Indian government. Why can't we respond in the same way now as we used to respond?

Now we have an added strength. It's not just the United States. There is a world of countries ready to contribute, but we don't move.

Third is seriously moving to agro-ecology on many fronts – how water is used, how tillage systems are changed – to address these other anthropogenic drivers.

Fourth is ending the conversion of our corn into ethanol, which makes no sense from a greenhouse-gas direction, from an economic direction, no sense from an ecological direction. To compete with the world food system at a time like this, when there are no discernible gains in any event on the environment side, does not make sense. The science is clear, and we should act on the science.

Fifth, I believe we're going to have to address the dietary issues, which also underpin many of these crises. As you know, a kilogram of final beef consumption requires up to 16 kilograms of grain input. The water use, the fertilizer use, the land use to produce that means that 40 percent of our grain production now is for animal feed. The animal feed is soaring because meat production is rising. The United States stands way off the charts in this, of course. And the nutritionists tell us, persuasively, that our beef consumption is so high that it is highly deleterious to our human health at the same time.

Our daily food supply is not healthy in this country. And as I arrived here from New York here this morning, it was very hard in the three airports that I was in to find something healthy to eat. I couldn't do it; I went shop to shop to shop. I couldn't find a piece of fruit. I couldn't find vegetables. I could find trans-fats, refined carbohydrates, highly sweetened beverages, but I couldn't find a salad.

And throughout New York City, in the boroughs of Bronx and Queens and Brooklyn, there are large areas where you cannot get fresh fruit and vegetables. You can only get processed foods with a high glycemic load and soft drinks and so forth that are pretty much guaranteed to contribute to this obesity epidemic.

So we also need, as my sixth point, urban strategies. We're an urban society, and we're now a globally urban society. We need access to safe and healthy foods, which we don't have. We need healthy fast foods. There's nothing wrong with fast food, but it should be healthy fast food. And we need to control the vast amount of waste of our food supply, because we're throwing away 40 or 50 percent of the food that comes into the

cities as garbage, land dump, goes down the drain. But the ecological costs of producing this are absolutely phenomenal.

Seven – we need a strategy in this country and in the rest of the world for nutrition for early childhood development. We're losing children all over the world, including in the United States, because if brain development is not supported from ages 0 to 3, you never recoup that. In the United States of America 20 percent of our children, one in five, are growing up in poverty now; 30 percent of children of African-American households growing up in poverty, and 30 percent in Hispanic households growing up in poverty. They're not getting the nutrition that they need for proper brain development. The situation, of course, is even more dramatic in other parts of the world. And that's a lifelong cost when that happens.

Eight – we need a population policy, just like Norm Borlaug said back in 1971. We cannot keep ahead of this curve. The world population is continuing to rise by 80 million people per year. Africa is on a trajectory, according to the U.N. Population Division, of rising from 800 million now in the Sub-Saharan region to 1.8 billion by 2050. I consider myself a pretty good development economist, and I can tell you, I don't have a clue – I don't think anybody has a clue – as to how 1.8 billion people in Sub-Saharan Africa could be gainfully employed and healthy in 2050, especially with the climate stresses that will come between now and then.

We are on an absolutely unsustainable population path. We just went through eight years of the Bush administration, which canceled all support for family planning. Some of it has been restored, but it is so profoundly underinvested that it's almost willfully ensuring that we cannot solve these problems.

Nine – we need a massive global research effort that we don't have right now on how to address these challenges. At the Earth Institute we're doing many things to try to understand this – helping villages around the world to grow more food, understanding smallholder choices, working with governments on scale-up, such as in Malawi. Pedro Sanchez is leading the digital soil map in partnership with the Gates Foundation. And we will launch a worldwide effort at sustainability metrics to systematically sample farm systems around the world for their water use, land use, biodiversity, greenhouse-gas emissions, and social sustainability of the farm communities.

And we would like partnership with other scientific bodies around the world for those global metrics, because the global-scale data that we have are not refined enough to make proper policies. We're using maps and tables which lack the resolution, the refinement, the detail, the specifics, to actually solve the problems which I am discussing.

And tenth, finally, we need a venue to address these challenges. And I would hope that the World Food Prize can be the venue. And I would pledge all my support for that, both in my role as special advisor to the Secretary-General and as director of an institute of more than 800 scientists, in covering all of the fields that are needed to address these challenges, to work together with the World Food Prize community.

But I tell you, we cannot go on the way we're going. And we need the food industry to say it first and foremost, because we cannot do this without the food industry's leadership to solve the problems.

I've worked with a lot of industries over the past 25 years. I'm a believer in the private-sector economy. I'm a believer in globalization. I am a booster of capitalism. But I also believe that when an industry doesn't take these problems face-on, it leads to disaster. This is a powerful lobby. And this industry could lobby its way just to [General Motors]'s success. You can be so powerful that you lobby your way to bankruptcy. And this industry is powerful enough to do that. I also have worked with industries that have gotten into the line of fire – like the pharmaceutical industry, that couldn't figure out how to address the global AIDS pandemic. And then finally, through public/private partnership with a new global fund, which I worked with Kofi Annan to help establish, with real partnership with the industry, there was a way to solve very tough problems.

So I want to close by appealing to the industry to understand and take on the fact that the sector is at the core of the unsustainability right now. But it's a sector that we depend on every hour of every day to stay alive, and that the planet now depends on to get these choices right.

Let's do this honestly, scientifically, equitably, and globally.

Thank you very much.