

**SYMPOSIUM LUNCHEON**

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It is my sincere pleasure to be here with you today on this important occasion. To follow Bill Gates is pretty overwhelming, and I'm humbled and honored to be here on this platform.

Now, if I were you, I'd be wondering what the CEO of a food and beverage company that makes Pepsi and Mountain Dew and Doritos and Cheetos and Fritos and Gatorade and Quaker is going to talk to you about.

Believe it or not, companies like us can thrive only if we have access to agricultural crops to make our products. And we can only thrive if society is healthy enough to have productive jobs, earn wages, and buy our products. Our very existence is tied to a thriving agriculture base and good nutrition practices.

So what I want to do this afternoon is spend some time talking about a grave but serious issue: How do we make sure that agriculture is organized to serve the nutrition needs of the world? How do we make sure agriculture is organized to serve the nutrition needs of the world?

Let me try to summarize the basic problem. The agricultural community tends to focus on the quantity of food produced and the price it fetches in the marketplace. But to those who are most concerned with nutrition, they focus on the quality of the food and who it is getting to.

The absence of overlapping incentives results in a problem that is encapsulated in two terrible facts.

One: every day, a billion people the world over go hungry – more than anytime in history – and the situation is getting worse. That's why we need to ensure that nutritious food gets to the people that need it.

The second problem: More than half the food produced today is lost, wasted, or discarded, and that's why, as a system, we need to become more efficient.

Unfortunately, we have accepted the reality of these two problems for far too long. It is a problem that's worsening due to the current economic crisis, and it's a problem that needs immediate, concerted action.

So in my short remarks today, what I'm going to do is not talk about the importance of world trade. I'm not going to talk about pulling down protectionist tendencies. I'm not going to talk about empowering women. Neither am I going to talk about the glooming disaster of climate change. I know that those topics will be addressed by people much more qualified than I.

But what I do want to do is try to explain why the needs of agriculture and the needs of nutrition are so poorly aligned. I'll then lay out what I think the consequences of this are. And I want to suggest ways in which engaged companies, companies like ours, can actually help. But then I want to finish with a call to action – a partnership between governments, multilateral organizations, NGOs, and corporations, to address this grave issue.

Now, all these seem like daunting questions, but we should remember that we do not confront them alone. We are, as Isaac Newton said, standing on the shoulders of giants. The great agricultural pioneer Norman Borlaug we are all here for – the patron saint of this gathering – showed us in his remarkable career how to feed the world.

Norman Borlaug is someone that anyone from India has to be grateful to. It's amazing to think of the story of human progress that can come out of doctoral research into semi-dwarf, high-yield, disease-resistant wheat varieties. It's remarkable. Out of the curiosity of Norman Borlaug came a Green Revolution, which probably saved over a billion lives the world over. Between 1965 and 1970, thanks to his work, wheat yields nearly doubled in India.

And let me tell you a personal story. I grew up in India in the '60s and the '70s, and I remember in Madras growing up – and, you know, we came from a humble, middle-class family – going to the store, it was a ration store, with a little ration card, waiting in line for rice and wheat. And when you did get the rice and wheat, they were terrible quality. They cost too much if you bought them on the open market, so you had to buy it from the TUCS, as they called it, the Trade Union Cooperative Society. The rice was full of stones, and the wheat was just full of junk.

And all of a sudden, end of the '70s, life improved. The rice quality became better; the wheat quality got a hell of a lot better. People like me actually lived the benefits of Norman Borlaug's work and Dr. Swaminathan, who worked on the rice side. So I was a beneficiary of the Green Revolution.

For the remarkable contribution that Norman Borlaug made in India, he was awarded the Padma Vibhushan as Dr. Quinn just mentioned. And of course he received the Nobel Prize. We do not encounter such great men as Norman Borlaug very often. He was indeed one of a kind.

But let me also note the work of another great scientific pioneer, the great sage of nutrition, David Morley. If Norman Borlaug showed us *how* to feed the world, David Morley showed us *what* to feed the world. His work, starting in Nigeria back in the 1940s, has made us understand the need to monitor growth and good food intake from a very young age. The Morley baby scales were named after him, and it reminds us that, before Morley came, weighing babies was actually quite unknown.

I do not know if they ever met – Norman Borlaug and David Morley – but it would have been a fascinating conversation if they had met. Between them, they provide the answer to the problem that we confront today. By using both Norman Borlaug and David Morley's insights, global agriculture and global nutrition can be fully synced up.

So let us get to the heart of the big question here. Why is there a gap between agriculture and nutrition? And what causes this damaging division? I believe there are three things that cause division.

First, agricultural incentives are not well aligned. There is, for example, an economic incentive to produce meat and dairy for the richer countries, rather than cereals for the poorer people. The economic incentives are just not aligned. Second, too much food is lost through inefficiency. And, third, people go hungry because we do not have the right alignment between supply and demand.

The consequences of this misalignment can be terrible. The most obvious and most distressing is massive undernutrition. The United Nations estimates that over 1 billion people worldwide are undernourished – that's more than 15 percent of the world's population. Iron, vitamin A, zinc, micronutrient deficiencies all affect billions of people, damage the brains of babies, and increase the risk of many diseases.

And undernutrition is not the only problem. In many countries we face a rising tide of obesity, which leads to diabetes and heart diseases. In fact, chronic diseases are now the dominant causes of death everywhere in the world except in sub-Saharan Africa. And we know that adults are far less likely to contract chronic diseases if they have a healthy nutritional start as a baby and their mothers have better nutrition in pregnancy.

So clearly the harmony between agriculture and nutrition is a long way distant. So what can we do about it? It is such a tough problem, how do we even start?

Well, obviously it requires many hands to make it right. In fact, the importance of partnership was the golden thread through the proposal for combating hunger that Secretary Clinton recently unveiled.

What I want to do today is build on this notion of partnership and concentrate my remarks on what I think the contribution of the private sector might be to this problem. But before I get into detail on that, I want to point out that we do need to fix the serious issue of access to finance.

Farmers, particularly smallholders, cannot invest in technology and innovation or improve their distribution network without capital, which is hard to find. Rural households in developing countries are still largely reliant on informal credit, such as money lenders and pawn brokers. Microfinance and community lending are so important for these people, but governments, NGOs, and other agents cannot develop these without at least some investment and backing of large financial firms.

If the finance is in place, I do believe that the contribution of the private sector, especially consumer-products companies like ours, could be immense.

This belief comes from my conviction that most corporations, especially corporations like ours, have a soul. The soul is made up of all the people who comprise the enterprise. Our associates are, first, children, wives, husbands, fathers, mothers, citizens of the community. They do not want to park their persona at the company door in the morning when they come to work and then pick it up on the way out. They want to work for a company that cares about the world collectively, as they do individually. And they want to be part of a good company.

So with that as a backdrop, I think there are three things that we, the private sector – especially the food and beverage sector – can do to help address this issue. We can help across the entire process of our business, from farming to product formulation to distribution. So let me walk you through these.

First, we can and must share our core farming expertise. In the course of building business, we build a great store of knowledge on things like nutrition science, irrigation techniques, and the development of resilient crop strains. There is no reason why this knowledge cannot be shared with small-scale farmers to help improve their yields and enrich their crops.

And small-scale farmers who benefit are vital to the solution because two-thirds of the 3 billion rural people in the world live off the income generated by farming less than two hectares each. And these small-scale farmers are the ones who are least able to get hold of agricultural advancements – but they're also the ones who have the greatest capacity to turn the sector around.

You know, it's not very well known around the world, but when PepsiCo launched its business in India in the 1980s, we began with agriculture. We worked directly with thousands of farmers in the state of Punjab and other states, and we transferred techniques and best practices to improve the yields of tomatoes, chili, and rice – I'm talking of chili peppers. We also introduced new tomato and chili varieties that tripled the yield of these crops. Recently we also started a high-yield citrus processing farm, planting millions of orange trees that have the potential to make India a global orange-tree growing base.

At the same time we introduced critical food-processing technology. This meant fewer fruits and vegetables would rot on their way to the market. We've also worked with local scientists in India to implement drip irrigation in the paddy fields, and this is a technique that's going to cut back the usage of water in paddy fields. It's going to save crops, it's going to reduce water usage, it's going to make more money for the farmer.

And it's not just in India. In inner Mongolia, in China – I was just there a few months ago – we helped local potato farmers develop thriving crops in the middle of the desert. Water-saving irrigation, crop-rotating methods, were all shared along with regular training on modern, environmentally friendly technologies.

Production per hectare on the Baotou farm in inner Mongolia is world-class at 39 tons per hectare, more than double the 18-ton average in all of China. And interestingly, we benefit from these productive techniques,

because we buy the output from these farms at competitive prices. And the farmers in turn make a good living. So that's what we can do to help farming.

Second – I believe that the private sector can use its R&D and product-formulation expertise to incent healthier eating by providing consumers with products that are both highly nutritious but taste great.

For many years now, we at PepsiCo have found creative ways to reformulate our products. We've reduced fat; we've taken out added sugars. We're now adding whole grains, fruits, vegetables to our snacks, and making many of our drinks much healthier. For example, over the past five years in the United States alone, in our beverage business our total calories per 8-ounce serving has decreased by 11 percent.

Frito Lay, which makes great-tasting snacks, has led the industry in 2003 by being the first major food company to remove trans-fats from its entire portfolio. We are reformulating our packs and products to address obesity, with better nutrition labeling and portion control. So companies, food and beverage companies in particular, can do a lot to address nutrition.

The third thing that private-sector companies can do is to leverage our distribution expertise. Lots of companies have highly developed supply chains, and these can be used in the biggest task of them all – to distribute food to places where it's needed the most.

I hate to talk about our company, but that's the one I know best. Just take PepsiCo in India, South Africa, Nigeria, Mexico, China as examples. We service between 100,000 and 1 million urban and rural outlets, depending on which country. And we reach all of these outlets once, twice, maybe even three times a week – a million outlets, three times a week. How can we and other companies with similar distribution networks utilize this precious resource to help address the undernutrition issues that are so rampant?

At our company we recently launched Project Asha, which means “hope” in Sanskrit. This project draws on the expertise that we have gained throughout extensive food R&D. And what we are doing is partnering with several organizations to develop a highly nutritious snack to feed the world's most undernourished.

We are in the process of finalizing the snack itself, and then we want to use our extensive distribution system to get the snack to the people that need it most: the poorest of the poor. And in countries like India, Nigeria, Mexico, South Africa, and so many other countries around the world, they are the ones that need this completely nutritious snack. It is a work in process. We have run into many obstacles, but we are resilient. Finding innovative solutions is what we in the private sector do best.

We also have another great resource, which is a highly qualified and capable people. We have seconded our retirees with expertise in distribution to the World Food Program. And the whole idea is to transfer our best practices on distribution-supply chain to help the World Food Program improve the efficiency of distribution of food aid.

We have business initiatives with UNICEF and Valid, from Ireland, who are working in Nigeria to support and learn about possible roles in addressing undernutrition. And all of these programs form part of a commitment I made to the UNDP and the British government with 17 other companies, to show how we can use our core business capabilities to address the Millennium Development Goals.

Knowledge transfer, understanding of consumers and nudging them to make the right food choices, and distribution and reach: that is the holy trinity of the private sector, and this is what we can offer to agriculture and nutrition.

You know, the picture that I've painted is of a company that cares about its responsibilities. Companies, in my view, operate with a license from the societies that host them. They have the privilege of limited liability in return for being a responsible corporate citizen. At PepsiCo we call it obligation “performance with purpose.” It means that we think of the responsibilities as part of our core mission.

But a word of caution is in order. I have to say that this will not be enough. Even if we did 100 percent of what we can do, would that solve the problem? I don't think so. It wouldn't really solve the problem at all, because I think the time has come for concerted action. As we're dealing with a global problem, organizations such as the United Nations, the WHO, the FAO, and other large NGOs all need to play a coordinating role.

And first of all, I want to salute all the people in this room who come from all these organizations for the amazing work they do. You know, I always say in the corporate world we do good work, but we get paid a hell of a lot of money. For all of you who work in these multinational organizations and in NGOs, what you do is many times a labor of love. And I salute all of you for your great efforts.

But I think all of us need to ask ourselves now whether our work is making enough of a difference, at a pace that begins to curb the root of the problem. Let's not forget something – problems in the modern world today cannot be contained within national boundaries. We need global solutions; we need them fast. And unfortunately, progress today is glacial.

So, what if we take the conversation that's taking place here and put it on a more formal footing? What if we created a commission of all the interested parties to look ahead to 2020 or 2030? The commission's task will be simple to state but difficult to do: How do we align agriculture and nutrition to address the world's nutritional needs? And in doing so, how do we use the R&D expertise and knowledge and supply-chain capability of private industry to bridge the farm-to-family divide? This is the biggest issue of the 21<sup>st</sup> century, as WHO Assistant Director-General Dr. Ala Alwan identified at last week's International Conference on Nutrition in Thailand.

We have to act now. We have come a long way, but time is short and the need is great. We all demand food – it is a basic human need. United by commitment, underpinned by science, operating with a sense of community, we have to make a difference.

It was this task to which Norman Borlaug and David Morley devoted their distinguished careers. It's up to us now to pick up where they left off and complete their work. It is up to all of us when we leave this gathering to continue the Borlaug Dialogue. It's very hard to imagine a more important task today.

I'd like to commend the conveners of this great gathering one more time; it is a great program and a noble cause. It has many dimensions and requires partners from every sphere. It needs our attention, our skill, and our devotion. But most of all it needs action, and it needs it now.

Let me just say one thing in closing. The stores of the developed world are full of fruits that are rich in vitamins. They have traveled many times the world over, so we can eat well. Yet, back at home in the countries where the food grows naturally, people go hungry and people remain deficient in vitamins. People who do not get the nutrition they need find their energy is sapped, their brain power is diminished, their economic potential reduced. And, of course, they become more vulnerable to chronic disease.

Ladies and gentlemen, it is within our power, and not beyond our expertise, to consign this suffering to history. We must do what we can. Thank you all for listening.