

## The Clean Energy Challenge, Conference on "Biofuels for Transportation," Washington D.C.

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**MR. WOLFOWITZ:** Thank you, Christopher Flavin. Thank you Mr. Ambassador (inaudible). And it's good to see you this side of the Atlantic. If I seem a little spacey at some point in this talk, I have an excuse. I left last Friday, I believe it was; went to Kyoto and Tokyo and Seoul and Frankfurt, where I met you, and Hamburg, where we had an excellent World Bank German forum, Rome, and I'm here. I think this must be Washington.

And I'm only here for this meeting briefly, but I was eager to take advantage of the opportunity just to say a few words about how important the subject of this conference is to the developing world and to the work we do at the World Bank.

My colleague, Eckhard Deutscher, the German Member of our Board of Directors, is going to be here also. In a special act of courage, he was persuaded to go to Costa Rica and talk to some trade unions there about the importance of Costa Rica joining CAFTA. So I admire him.

I'd like to begin by congratulating all of you for organizing this important gathering to help raise awareness on the potential of bio fuels as an alternative energy source to petroleum in the global transportation sector. I hope that the conclusions of the study carried out by the Worldwatch Institute can contribute to the debate on how to promote bio fuels on a larger scale.

For a development institution like the World Bank, one of the key challenges to support developing countries in meeting their energy demands and to help poor people escape from poverty is a critical issue, and how to do that with a smaller environmental footprint is increasingly urgent as well. If you look at global energy statistics, it's a daunting picture: 6.3 billion people on the planet today; 1.6 billion don't have access to basic energy services. 500 million of those live in Sub-Saharan Africa. For those people, it's a matter in some cases literally of life and death to have access to clean energy. They are using dirty fuels; they're breathing carbon; and they're getting diseases.

The International Energy Agency estimates that developing and transitioning countries will need to invest about \$300 billion a year from now until the year 2030 to meet energy demand, and the IEA is projecting that world primary energy demand will increase by nearly 60 percent between now and the year 2030. That is the equivalent of adding 16.5 billion tons of oil consumption a year, and two-thirds of that increase is projected to come from developing countries.

We're already seeing the major effects of that, I think, on the world economy. It's a major force in driving up energy prices. And, of course, it's contributing substantially to the carbon in our atmosphere. The cost of the gap in predicted climate change is a separate cost. In developing countries alone, it's estimated to be somewhere between \$10 billion and \$40 billion a year, and about a third of that cost is going to have to be funded.

Last year, at the G-8 Summit in Gleneagles in Scotland, the eight industrialized countries invited the big middle-income countries, China, India, Mexico, and South Africa, to participate specifically to exchange views on the issue of meeting the energy demands of developing countries. The G-8 Summit ended up with a Gleneagles action plan on climate change, energy, and sustainable development, and the World

Bank was asked from that to work with other multilateral agencies and with our development partners to create what was called a new investment framework for clean energy and development.

The initial report on that investment framework was presented at the Spring Meetings of the IMF and World Bank to the Ministers of Finance and Development, and a final version of that report will be presented at our Annual Meetings in Singapore in September. The investment framework's goal is to serve as a vehicle to accelerate investment so the developing countries can meet their energy demands for growth and poverty reduction in an environmentally sustainable way.

That report focuses on three important considerations: first, it reviews the investments to meet long-term energy needs of developing countries while taking into account efficiency and the local environment. Second, it outlines additional steps required in the energy, transport, and industrial sectors to address the effects of climate change by reducing greenhouse gases. And third, it explores what developing countries need to do to adapt. That report, by the way, is available on the World Bank Website. As I say, the final version is due in September, and comments from both individuals and institutions are welcome on that.

Against that backdrop, bio fuels present an opportunity to build a strong partnership between rich countries and developing countries. I had the opportunity back in December to visit Brazil. I imagine, actually, that's in addition to the report I just mentioned, that's the other main reason I think I was invited here, and it is certainly a major reason I wanted to come.

I remember very vividly meeting with President Lula in his office and the enthusiasm with which he presented to me the display of various types of nuts and other potential sources of bio fuel. For this very remarkable President, and he is a remarkable President, bio fuel is near the top of his agenda. And later, during the course of my visit, I got a chance to see in a number of dramatic ways exactly why. I got to visit one of the large sugar cane manufacturing areas in Brazil, where they are producing ethanol on an enormous scale and with exceptional efficiency. And then, I got a very vivid presentation of how ethanol prices have been steadily coming down in Brazilian industry at the same time that global energy prices have been coming up.

And it certainly, from that point of view, presents a very promising picture. It's an opportunity to add to the world's supply of energy to meet this enormous, growing demand and hopefully to mitigate some of the price effects. It's an opportunity to do so in an environmentally friendly way, in a way that is carbon-neutral. It's an opportunity to do so in a way that developing countries like Brazil can provide income and employment for their people. And it's an opportunity also for developing countries to earn carbon credits for mitigating the environmental impacts.

There are still obstacles, of course, significant obstacles, and I suppose the most fundamental one is economics. What can be successful in Brazil may or may not be successful elsewhere. It may be difficult to duplicate the success of Brazilian production in other places, but it certainly seems like something that should be pursued. There may indeed be places in Africa with the right mixture of climate and water and land to make this kind of production effective.

One of the barriers that I think is unnecessary, and I hope something might be done in this Doha Round of negotiations are the barriers to trade in ethanol. I'm getting, to be honest, a little concerned about the outcome of the Doha Round, but it seems to me at a minimum, one thing that ought to be in that is to remove unnecessary trade obstacles that make bio fuels less competitive. If anything, we ought to be doing everything we can to make them more so.

I guess to conclude, while in the short run, ethanol from sugar cane may offer the best chance for commercial viability, in the long-term, manufactured ethanol from cellulose offers the greatest hopes. This technology, which is so far only developed on a pilot scale, uses new catalysts and enzymes to speed up natural processes. The advantage is that it does not rely on valuable crops. It can use

waste products, such as straw, corn stalks, or agricultural debris. Their widespread availability, low cost, and the potential to reduce greenhouse gas emissions make this technology attractive.

Bio fuels will certainly represent a growing share of the energy mix in developing countries. How big that share will be and what type of bio fuels will be produced will depend on the circumstances of each country, their competitive advantages, the alternative uses of land, and the potential for environmental risks associated with conversion of forests into crop land.

The World Bank, through its work in the Investment Framework for Clean Energy and Development, will be looking at ways that we can strengthen cooperation between developing countries and between them and developed countries on bio fuels. Our goal is to provide advice, technical assistance, and investment programs to help our partner countries meet the energy challenges while protecting the natural environment.

I appreciate what the Worldwatch Institute is doing with this report. I appreciate very much what the German Government and GTZ are doing in this area. They have indeed been pioneers on renewable energy, and I thank you for that, Mr. Ambassador. Thank you for this conference, and I look forward to hearing the results.

Thank you very much.