

Keynote Speech
**“Meeting Energy Security and Environment Challenges:
The Crucial Role of Renewable Energy Policy”**

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Señor Secretario Canales, ladies and gentlemen, friends and colleagues, good morning. I'd like to extend a much-deserved thank you to the Government of Mexico for providing such an outstanding setting in which to host this forum — the cultural richness and diversity of Mexico and her people are second to none, and all of it can be found and enjoyed in this amazing city. Señor Secretario, I sincerely thank you and all of your staff at the Mexican Ministry of Energy for inviting me to speak to such a distinguished audience – it is a privilege and a pleasure.

I'd also like to thank all of our other partners — the Global Environment Facility, the Global Wind Energy Council, and our Energy Sector Management Assistance Programme — by recognizing the hard work and forethought it took to bring together the vast and varied collection of knowledge, experience and talent gathered here today.

A recent UN-Energy report on energy and the Millennium Development Goals confirmed what all of us here know about energy: that it has the power to support economic growth and create jobs that lift people out of poverty. It can improve productivity and support private sector development. It facilitates the delivery of social services and expands opportunities for women. Deployed properly it can enhance environmental sustainability at the local, regional and global levels. Over the last two decades alone, the proportion of people in poverty in the world fell by half — from 40 percent to 21 percent. Life expectancy in developing countries has increased by 20 years. Adult illiteracy has been halved to 22 percent. Modern energy has enabled improved household lighting, leading not just to a higher quality of life, but also greater opportunity for learning. Improved cook stoves have reduced indoor pollution leading to a decreased frequency of respiratory diseases and child mortality. Thanks also to the availability of electricity; the world of communications has opened up even to those living in the most remote of places.

Some more encouraging news on the energy front is that today, a year and half removed from the Bonn International Conference on Renewable Energies, and over three years since the 2002 Johannesburg World Summit on Sustainable

Development, renewable energy is the fastest growing of all energy forms worldwide.

For the developing world, however, where the majority of future energy growth must take place, the expansion of energy is occurring far too slowly. In fact, if the rate of electrification of the past decade remains unchanged, it will take more than 40 years to electrify South Asia and almost twice as long for sub-Saharan Africa. My friends, this is unacceptable.

Furthermore, we cannot talk about the energy and development agenda without discussing two major interlinked issues of concern that have the potential to impact the lives of the poor profoundly: energy security and climate change. These two issues are not only going to grow in importance, but are going to require enormously far-sighted and cooperative energy solutions across the board. If, for example, low-income, oil-importing nations can't find secure and economic sources of energy, they won't have the resources to properly nurture their economies and provide for their citizens as resources are diverted to buy fuels. In fact, for the poorest oil-importing countries, the cost of the recent shock in rising oil prices exceeds the total net International Development Association transfers to these countries.

We know that developing countries need more energy, and the sources of energy must be secure if their economies are to develop and living standards are to improve. This is supported by a recent World Bank study that found that high oil prices, together with domestic capacity constraints and slower import demand from industrial countries reduced growth among oil-importing developing countries from 6.9 to 6.1 percent. The study also reminded us that in general, lower income countries dependent on oil imports were the worst affected by oil shocks. When prices rise, the very security of the poor is threatened as their ability to purchase sufficient fuels for their essential cooking, heating and lighting needs is greatly diminished. Renewable energy can enhance a country's energy security by reducing energy import requirements; reduce supply risks by diversifying its energy portfolio and protecting precious financial resources.

Climate change — perhaps the least quantitatively understood, but also potentially the most devastating — poses particular risks to developing countries, and is inextricably linked to poverty reduction due to its economic disruptions and the inability of government coffers and institutions to absorb the impacts. For example, farmers and consumers will pay the price of unpredictable weather patterns, failed crops and disrupted water supplies. The residents of small island

nations and those in coastal areas will be displaced as sea levels continue to rise and major weather events increase in severity. Developing countries must therefore focus on incorporating climate change considerations into the development of their energy markets, institutions, and technologies. Renewable energy offers a smart solution for the provision of energy services while also providing climate change benefits.

In a nutshell, renewable energy must realize its rightful and significant position if we are to ensure that development, energy security and climate resilience are to be attained. We in the development and energy communities have a profound responsibility to make this happen now.

We must work together, to find the most effective policy instruments to spur greater use of renewable energy in both the developed and developing world so that its enormous potential can be fully realized. The developing world has enormous unexploited renewable energy resources. But, for example, only 20 percent of hydropower resources in developing countries are utilized today — in Africa alone, only 5 percent of hydro resources are being used — compared to 80 percent of hydro resources in developed countries. The United Nations Environment Programme's solar and wind energy resource assessments found

enormous solar and wind power potential in the 13 developing nations it studied in Africa, Asia, and South and Central America, ranging from more than 100,000 megawatts of wind power in China to thousands of megawatts in Sri Lanka.

Biomass continues to be the most dominant of renewable energies used today as it has been for millennia but its potential is yet to be realized. Solar energy is omnipresent. Geothermal energy potential in South and Central America, in Africa and in Asia remain barely utilized. Economic opportunities for renewables not only exist but are ripe and ready for adoption, particularly for grid-connected technologies as urban and peri-urban expansion leads to increasing electricity demand.

So what are some of the major challenges to the widespread adoption of renewable energy in developing countries? First and foremost for many countries, is the need to adopt coherent energy policies that will support its development. Governments and donors alone cannot be expected to mobilize the billions in energy sector investment needed each year to support energy development. With the right policies and good governance conditions in place, the private sector can be a significant partner. The right policies will help lower risks and improve investment conditions so as to encourage investment in capital-intensive renewable energy projects. Such policies might include offering incentives for use of new

technologies during market build-up, adopting and enforcing the right legal frameworks and setting development goals.

Another important policy challenge is to ensure proper economic pricing of energy. The benefits of renewables are often not accorded their full value given the overall unfamiliarity with how best to integrate them into existing power systems. If environmental externalities and the value inherent in a country's diverse energy mix are taken into account fully, many renewable energy technologies are economically competitive with conventional sources, but market imperfections must be removed.

Let us be clear – Many forms of renewable energy are economic and offer a least cost energy solution today and deserve fair consideration and a level playing field to compete. They do not need crutches.

You may ask: why should developing countries begin adopting these types of policies now? Why not wait until renewable energy technologies are mature and when costs are lower? The fact is: you need more than technology to be ready. You need the institutional and human capacity to adopt these technologies, you

need the operational experience, and you need the confidence of the financial community for such investments — and these things won't happen overnight.

Unfortunately, we don't have a lot of time to wait around for others to take the lead; much of the developing world is in the process of building its energy infrastructure. With energy infrastructure lifetimes of up to 50 years, this gives us a global window of opportunity of about 15 to 20 years to incorporate renewable energy substantially into the world's energy mix. Make no mistake, if we wish to build a more secure and climate resilient development path then the time is now!

Let me share with you a few successful stories – stories about ways in which countries have introduced laws, policies, and regulations to promote the use of renewable energy in their countries.

- Just last March, **China** passed its Renewable Energy Law in order to accelerate the development of its enormous renewable resource potential. China committed to increase the share of renewables in its power portfolio to 15 percent by 2020 from 7 percent today. We are proud to say that we were able to support China in formulating this law during the preparation of the China

Renewable Energy Scale-up Program, and are supporting the policy implementation and renewable energy investments through this project.

- In **South Africa**, the government drafted a white paper on renewable energy that sets out the government's vision, policy principles, and strategic goals and objectives for promoting renewables. Approved in 2003, the white paper also established a target of 10,000 gigawatt hours per year of renewable energy contribution to South Africa's total energy consumption by 2013.
- And in April 2005, the **Nicaraguan** National Assembly passed a new renewable energy law that applies many of the recommendations made over the course of a two-year ESMAP study.

There are many other success stories in a number of countries including India, Sri Lanka, Uganda and others, where we served as a partner offering financing and policy advice to increase the confidence necessary to invest in renewable energy.

Indeed, all across the Bank, we are pursuing initiatives that, if realized, will help us leapfrog the barriers to clean energy. The World Bank Group committed to scaling up our support for new renewable energy and energy efficiency at the 2004 Bonn

International Renewable Energies Conference, and I can proudly say that in FY05 we exceeded our commitment target. Our total commitment for renewables and energy efficiency in FY05 was nearly three-quarters of a billion dollars, with the help of our partner GEF. This commitment will leverage an additional \$3 billion for project investment from the private sector, governments and others.

In addition, given the aforementioned concerns of energy security and climate change, the World Bank in partnership with the development community has embarked on the development of a Clean Energy Investment Framework that will promote secure, climate-friendly technologies for developing countries. We have held meetings already with technology companies, the reinsurance industry, international financial institutions, and have consulted with the governments of Mexico, Brazil, India, China and South Africa. We will discuss our ideas with our member countries and development partners during the World Bank's Spring meetings this April in Washington, D.C.

And we are committed to do more. We have enhanced our support for renewable energy policy and development planning assistance, and for the transfer of know-how and good practices through ESMAP and the Asia Sustainable and Alternative Energy Program. We offer investment financing and technical assistance directly

and in partnership with GEF. In addition, our carbon finance facilities have \$1 billion dollars under management and are proving to be a catalyst for the provision of new and additional sources of revenue for clean energy projects. We welcome – we encourage –, and we will support renewable energy efforts in all our partner countries. And while governments and the private sector must take the lead and initiative, we will be alongside to support with advice and financing. I am certain other international and bilateral agencies will do the same.

In closing, there is little time to wait for perfection in energy policy to arrive on our doorstep. We must get started now and improve as we go forth. I think I can speak for all of us here when I say that if we fail to meet the challenges of poverty reduction, energy security and climate change, it won't be because of a lack of opportunity. The opportunities to work together and to build on one another's successes and experiences are plenty. But we cannot fail. We must demonstrate to the world's children and grandchildren that their future can be different. We owe them success, and this requires that we learn from those who have gone before us and move forward step by step.

This forum is one such step; and, as the pop sociology theory of the “tipping point” goes, when small numbers of people start changing their behavior, that behavior

can ripple outward until a critical mass or “tipping point” is reached, forever changing the world. Please join us these next few days in taking these small steps and aspiring to forever change the future to one with access to sustainable, secure, economic, and environmentally sound energy.

Thank You.