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Climate Change with Deputy Special Envoy Dr. Jonathan Pershing



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The following is a transcript of a webchat held with U.S. Deputy Special Envoy for Climate Change Dr. Jonathan Pershing on February 18, 2010 about the outcomes of the COP-15 UN climate change conference. He also answered questions about U.S. policy on climate change and on future initiatives.

Dr. Jonathan Pershing serves as the head of the U.S. delegation for the UN Climate Change negotiations and represented the United States at COP-15 in Copenhagen, Denmark, December 7-18, 2009. Before joining the Department of State, Dr. Pershing served as a lead author for the Nobel-prize winning Intergovernmental Panel on Climate Change, which provides regular assessments of climate change issues.

Moderator: Welcome to the *Q&A Live* discussion on Climate Change. Dr. Pershing is with us and is reviewing your questions. We will begin shortly.

Jonathan Pershing: Hello, my name is Jonathan Pershing. I am the Deputy Climate Envoy here in the Department of State, and it's a pleasure to have this opportunity to talk about climate change and the U.S. policy on climate in the international discussions. I look forward to your questions. Let me start off with a few observations about where things currently are. First, let me begin with one comment on the science. We in the Administration are of the view that the science is not only compelling but indicates the need for prompt and substantial efforts at a global level to reduce greenhouse gas emissions. Without that effort, the world will face damages including sea level rise, increased drought and storm frequencies, melting of ice in mountains as well as in the poles, changes in disease vectors around the world, including for things like malaria, as well as consequences for agriculture and human health. Unfortunately, the inertia in the system means that even if we act quickly, we are unlikely to avoid all damages. So, a mitigation effort must be accompanied by an adaptation program to manage the effects that we can avoid.

So where are we in this collective effort? We have a good understanding from more than

20 years of intensive scientific effort about the problem, and we have had a series of international negotiations to develop an international set of agreements on global solutions. In 1992, we adopted the UN Framework Convention on Climate Change. In 1995, we began negotiations which concluded in 1997 on a protocol to that convention (the Kyoto Protocol). The U.S. is a party to the convention but not to the Kyoto Protocol. However, we are the only country in the world who is not a party to Kyoto.

It is clear that the agreement taken in Kyoto does not solve the problem of climate change. It does not include all major economies, and the emissions reductions that it proposes would not be adequate to reduce greenhouse gas emissions to a level that we need to avoid future damages.

Since 1997, the world has been involved in both implementing Kyoto and developing recommendations for next steps. Those culminated in a meeting in Copenhagen in December 2009. At that meeting attended by more than 100 heads of state, including President Obama, we adopted the Copenhagen Accord. The Accord calls for a limit on the rise in global temperatures to be less than 2 degrees Celsius (a level that we think would avoid the most significant damages). The Accord proposes to develop and implement a series of actions on adaptation. For the first time, the Accord calls upon both developed and major emerging economies to take actions to mitigate climate change and list these actions in the agreement for international review and verification. The Accord recognizes the critical role that forest play in reducing greenhouse gas emissions. It also recognizes the role that the market will play in minimizing the cost of mitigation.

Finally, the Accord calls for significant new financing to reduce greenhouse gas emissions and support the most vulnerable countries in adapting to the unavoidable impacts of climate change. Over the course of the next three years, we are seeking global funding approaching \$30 billion and by the year 2020 this would rise to a collective total of \$100 billion per year.

Q [Jacob from United States of America]: The COP-15 in Copenhagen has been branded a "failure" because the primary goal of a binding treaty limiting greenhouse gases was not achieved. What were some of the positive outcomes of the Copenhagen conference? What lessons have been learned?

A [Jonathan Pershing]: It was decidedly not a failure. For the first time, it includes obligations from all major economies representing more than 80% of global emissions. While the process was difficult, the outcome of the Copenhagen Accord sets the world on a much more constructive pathway. We need to take the lessons from that negotiation, including the particular concerns of the least developed countries, as well as the major economies into account as we negotiate the next stages of implementation.

Q [Delano David from Brazil]: Are COP-15 results going to make a significant difference in our world environmental and major social issues? Was the main purpose of this global meeting respected by its participants?

A [Jonathan Pershing]: The Copenhagen Accord sets the world on a new pathway for development. Until now a few (primarily the large developed) countries were taking actions in their energy, transport, and forestry sectors to address greenhouse gas emissions. For the first time, this agreement calls for such actions from all countries. That will mean that as countries think about their energy development (for example: What kinds of new power plants they put in place – coal or wind?) or transportation (whether or not they develop mass transit or distribute goods or services more efficiently) or even agriculture (how they do their tilling and whether or not they're clear cutting forests). If we are successful, we can have all the benefits of a society that meets human needs and economic growth and welfare with a modest carbon footprint. If we are

not successful, we may have a near-term benefit in economic growth, but the long-term consequences will lead to enormous global suffering.

Q [Ted from Belize]: There are so many people all over the world that question the overwhelming evidence of climate change, and I wanted to know what evidence you would highlight that should not be taken for granted and why?

A [Jonathan Pershing]: There are a number of key undisputed facts that support the reality of climate change. The science is clear on the rate of decline of the icecaps, both in Arctic and Antarctic. The science is clear on the change in the composition of the atmosphere – where carbon dioxide emissions have risen at an ever increasing rate over the past 100 years. The science is clear on the physics of how the atmosphere responds to such changes. While there are uncertainty in the details, particularly on how the climate will change on a local level, the global trends are undeniable and give overwhelming evidence for prompt action.

Q [Toshiaki from Japan]: Carbon tax or "cap and trade," which is the better method? Which method is the U.S. government or Congress contemplating to adopt? What is the reason for their choice? How would "cap and trade" be implemented in the United States?

A [Jonathan Pershing]: There are many policy choices that governments may take to reduce greenhouse gas emissions. Countries have tried voluntary approaches, regulatory standards, and market-based instruments. All have met with varying degrees of success – this is as much a function of good policy design as of the efficacy of the instruments themselves.

In the market options, both carbon taxes and cap and trade have been used. Both essentially put a price on greenhouse gas emissions. The United States has been moving toward a cap and trade approach. Under this system, greenhouse gas emitters (usually power plants or large industries, such as refineries) are allocated a set amount of emissions. If they can reduce emissions below this level, they are allowed to trade the excess with others who have higher costs for reductions. This leads to substantial overall efficiency. A tax does not provide this kind of flexibility.

We have experience in the United States with cap and trade programs in other environmental areas, in particular for air quality and emissions of sulfur and nitrogen. These have been implemented through the [U.S. Environmental Protection Agency](#) and have reduced costs below those anticipated by factors of 100 or more. We think that similar efficiencies could be gained in the implementation of greenhouse gas emissions trading programs.

Q [Sona Zambochova, Ministry of the Environment of the Czech Republic]: I would like to ask Dr. Jonathan Pershing about the current situation of the climate change legislation which is now under consideration in the U. S. Senate. What is the position of the Democratic Party concerning climate change policy?

According to the poll by the Pew Research Center for the People and the Press, only 35% of Americans think that global warming is a very serious problem (in comparison with France, for example, where 68% of people see global warming as a very serious problem). I would be interested to know how the U.S. government tries to promote public awareness of this issue, also considering the advantages for the economy – such as investments in renewables and energy efficiency.

Thank you very much.

A [Jonathan Pershing]: Climate change is currently under active consideration in the

Senate. A number of committees have jurisdiction, including the Foreign Relations Committee, the Energy Committee, the Environment Committee, the Finance Committee, and the Commerce Committee. A number of these committees have made recommendations on legislation. The administration is actively working with Congress in support of climate legislation which would include a cap and trade program.

While Americans are increasingly focused on the economy and on jobs, the numbers of people who think this is a priority issue remains higher than is suggested by these polls. However, there are concerns that efforts to reduce greenhouse gas emissions could conflict with economic recovery. We think that these could be complimentary, that technologies and green jobs could benefit both the environment and economic issues that are of interest to all Americans. Part of the administration's efforts is to better explain this link to the American public.

Q [Haidong from China]: How do you evaluate the future of Sino-U.S. cooperation regarding climate change? From the U.S. official point of view, which issue is more important for Sino-U.S. relations, human rights or climate change?

A [Jonathan Pershing]: From a climate change perspective, the United States and China are the two most important players. China is the world's largest greenhouse gas emitter, the United States is second. Between us, we represent about 45% of the world total. There is no solution unless we can both move forward. The United States and China also share a large and common interest in new technologies that would reduce greenhouse gas emissions – not only because of their environmental benefits, but also because of their energy security and economic advantages. We are working with China as we develop new technologies and we believe that the combined market potential in each country offers enormous opportunities for growth in these technologies and the jobs that come with them. While we have had some conflicts, on both human rights and on climate change with China, the increasingly deep relationship between our countries will certainly continue and evolve. We think that climate mitigation and adaptation efforts could play a leading role in this evolution.

Q [Enn from Estonia]: Why has the focus been almost totally on carbon dioxide when so much evidence suggests it is not the (only) critical factor?

A [Jonathan Pershing]: It is correct that carbon dioxide is not the only critical factor; statistics show that at a global level it is responsible for only about 60 or so percent of global emissions. Other gases, including methane and nitrous oxides, as well as fluorinated gases are responsible for the remainder. The convention, the Kyoto Protocol, and the Copenhagen Accord seek to address all gases. The U.S. government has policies not only for carbon dioxide, but for all other gases as well.

Q [Kedareswar from India]: Could you please elaborate on the U.S. policy on the "making available of the new technologies combating adverse effect of climate change" for developing countries?

A [Jonathan Pershing]: As I mentioned earlier, climate change is expected to have a number of adverse effects. One of those that is likely to be widely felt relates to water: its availability, or, in some cases, its super abundance (floods). A number of technologies are available to more effectively manage both kinds of problems. On the scarcity side, drip irrigation technologies, as well as plant genomics that allow for drought-tolerant crops can be brought to bear. On the flooding side, technologies that manage predictions to enable better preparation, technologies that can fortify coastal areas against floods, as well as communication technologies that allow information to be more widely

disseminated, are all relevant. The United States working with others, including international organizations, is engaged in an effort to both identify these technologies as well as to make them more widely accessible. Two agencies focused on widespread dissemination are the [U.S. Agency for International Development \(USAID\)](#) and the [National Oceanic and Atmospheric Administration \(NOAA\)](#).

Q [Venelin from Bulgaria]: Dear Dr. Pershing, I have been an active member of [ICLEI - Local Governments for Sustainability](#) since 1995 and I was a member of the executive committee of ICLEI from 2006-2009. At the moment, I'm leading a small alumni project called, "Green Youth Academy" in Burgas, Bulgaria. The main purpose of the project is to explain and educate young people from secondary schools and from the Technical University "Prof.d-r Asen Zlatarov" in Burgas about global warming, climate change, efforts and activities of Bulgaria, the United States, the European Union, and the United Nations, and how to use renewable energy and implement energy efficiency. I will be glad if you send me a brief material on U.S. policy and measures in the field of global warming and climate change, Kyoto protocol, Bali, Poznan and Copenhagen road map and how the United States is preparing for COP-16 in Mexico. Do you think it is necessary to have an intermediate meeting in Bonn in the summer of 2010?

A [Jonathan Pershing]: There are a number of excellent websites that contain information about U.S. policies. I would suggest that you might start with the U.S. Department of States' website (<http://www.state.gov>) which has a separate page on climate change including links to the websites of the various U.S. agencies including the [U.S. Environmental Protection Agency \(EPA\)](#), the [U.S. Agency for International Development \(USAID\)](#), the [National Oceanic and Atmospheric Administration \(NOAA\)](#), as well as the [White House](#).

With respect to your second question, there are likely to be meetings of the UN negotiations in addition to those scheduled for June 2010 and December 2010. A final schedule of meetings will probably not be decided until after the June session.

Q [Jacob from Netherlands]: What are the chances for a strong international verification regime? Or is it better in principle to have domestic verification and only international peer pressure without legal compulsion?

A [Jonathan Pershing]: One of the things that is called for in the Copenhagen Accords is strong measurement, reporting, and verification (usually referred to by its acronym MRV). The United States believes that there are compelling reasons for strong provisions for each. We cannot control what we do not know; measurement provides this basic information. It is also important to make this information public; that way others can see what we are doing and can hold us accountable for the actions we are taking. Finally, a process of verifying the accuracy of the information is required to give us confidence that all countries are doing what they committed to do and enable each of us to go farther than if we did not have this kind of confidence. Rules, norms, and standards need to be developed for appropriate MRV. This is something that will be taken up in the ongoing negotiations. MRV will end up being both domestic and international. At present, not all countries (particularly major emerging economies) are prepared to have a legal regime and binding verification. This too will be a matter taken up in ongoing negotiations.

Q [Sarah from Sweden]: Do you think the two degree goal will be met?

A [Jonathan Pershing]: The two degree goal is a long term stabilization target. The policies currently proposed by countries move us substantially forward toward meeting this goal. The question, however, is what countries will do between 2020 (the date by

which most of their policies are completed) and the longer term (2050 and beyond) by which time we need to have stable atmospheric concentrations. Current measures would not be enough if no additional measures are to be taken. The United States has announced its own longer term intent: our policies go through 2050 and would reduce greenhouse gas emissions by more than 80%, consistent with a two degree goal.

Q [Zoran from Croatia]: Dr. Pershing, I would be very much interested to hear your comment on recent news about "Climategate" that some newspapers are emphasizing that there has been overestimates in global climate change.

Is it true that there have been no statistical indications of warming in the last 15 years and that there was manipulation of data by some members of IPCC?

Thank you very much and best regards.

A [Jonathan Pershing]: I believe that the reports of inaccuracies about the climate science are vastly overstated. While there are errors (and we must work assiduously to fix them and to make sure they don't happen again) the overwhelming evidence in the scientific literature indicates that climate change is real and accelerating. There are statistics that you may wish to look at which show temperature trends over the past decades that are publicly available and indicate an increase in global temperatures over that period. I suggest you look at the data from [NASA](#), [NOAA](#), the [UK Meteorological Office](#), as well as the [World Meteorological Organization](#) if you wish to confirm this for yourself.

Q [Delano David from Brazil]: Brazil is a very notable country in local environmental politics and projects that prevent great deforestation. However, it is responsible for a considerable amount of carbon emission in the atmosphere, perhaps the highest in Latin America. Due to this, we cannot think that under-developed and developing countries do not have play a role in increasing the effects of global warming.

A [Johnny from Canada]: Good day, Dr. Pershing. What role will geo-engineering have in U.S. climate policies?

A [Jonathan Pershing]: At present, with the rapid increase in human-related greenhouse gas emissions, we are conducting an experiment on the global atmosphere. Essentially, we are currently undertaking a dangerous geo-engineering program. It has been proposed that we seek to reverse this through geo-engineering solutions, such as seeding the atmosphere with reflective particles or adding iron to the ocean to increase the growth of algae. Few studies have been done, however, to evaluate the consequences to the global environment of such efforts. Meanwhile, there is an enormous amount that could be done without recourse to such options, including programs in efficiency, fuel switching, reforestation, and agricultural practices that do not have potentially large-scale global consequences. Governments as well as citizens around the world have preferred to start with these options.

Q [Guzal from Uzbekistan]: Thank you very much for your willingness to answer our questions. My question concerns COP-15. I attended this conference and witnessed that none of the countries denied the importance of climate change issues. But then why could countries not come to some legally binding agreement on further actions? I assume that results of the conference cannot be viewed as satisfactory, after two years of preparation, so what do you think should be done to make COP-16 in Mexico a successful conference? Thank you very much.

A [Jonathan Pershing]: While all countries increasingly acknowledge the reality of the problem, there continues to be disagreement about the responsibilities for the solution,

as well as the role of international organizations in specific actions. These differences were on display in Copenhagen. For example, China and India refused to take on legal obligations to reduce their greenhouse gas emissions – although they were willing to voluntarily report on actions they are taking at home. The United States was unwilling to have a legal agreement in which these major emerging economies were left out. Another example comes from the small island states who insisted that the collective effort reduce emissions so they would not exceed 350 parts per million in the atmosphere (a level even below today's – and well below the levels anticipated over the next 50 years). Such a target could only be achieved if the major emitters were to reduce emissions by 80% or more in the next 20-30 years. Few countries think that is feasible – and therefore there was no agreement on including these levels in the text.

Mexico can be successful if it builds on the agreements we reached in Copenhagen. We have made major strides: we have agreed that the science is credible; we have proposed two degrees as an appropriate level; we have called for actions and a framework to report on those actions from all emitters; we have established financial support goals scaled to the level of the problem. If we follow through on these, and focus our attention on the implementation of these efforts, the Mexico meeting could be a significant success.

Q [Bora from Cambodia]: Deforestation in Cambodia has been a continuous process and the government is unlikely to take any action to stop such activities. Sometimes, the leaders, encouragingly to loggers, say that cutting trees can not affect the global environment or cause problem to the ozone layers. In this instance, is this saying true? Why or why not?

A [Jonathan Pershing]: Deforestation and land-use change is responsible for between 15 and 20 percent of global greenhouse gas emissions. Given that the world needs to reduce total emissions by 80% or more to solve the climate problem, it is apparent that a solution will only be possible if it includes programs on forests. There are benefits to good forest management. Avoiding large-scale deforestation does not mean halting sustainable logging – and such sustainable practices can bring substantial benefits to local communities as well as to national economies. Efforts to manage forests can be supported through international financial systems that are included in the climate change agreements and the United States looks forward to working with forested countries in these areas.

With respect to ozone, deforestation does not contribute to the loss of the stratospheric ozone layer. However, particulates released in large-scale burning of forest lands do contribute to tropospheric ozone (smog) as well as to climate change.

Q [Taiwo from Nigeria]: What is the United States doing to help Nigeria carry out some Clean Development Mechanism (CDM) Projects?

How can the United States also help in making sure Nigeria has access to carbon funding and proper ways of distributing the funds for renewable energy, especially in rural areas through the supply of solar stoves, solar lanterns, and in urban centers through energy efficient light bulbs and other ways to save energy?

A [Jonathan Pershing]: The Clean Development Mechanism (CDM) was created in the Kyoto Protocol. As the United States is not a party to that agreement, we do not participate in the CDM. However, our current policy supports the idea of using "offsets" (that are at the heart of the CDM proposals) domestically and in future international policy. In that regard, we would anticipate crediting programs and projects in renewable energy (particularly solar), efficiency, and other low greenhouse gas technologies. This would include projects in Nigeria as well as the rest of Africa and other countries in the

developing world.

Thank you very much for these questions and for engaging in this discussion. It is only through such dialogues that it is possible to both explain our thinking and to understand issues and concerns that people have with both the U.S. position and with the overall climate issue. Over the course of the next year, as we negotiate the implementation of the agreement reached in Copenhagen, we look forward to continued input and conversation on this critical question.

Our time is up for today! Thank you to all the alumni around the world who submitted questions and participated in this important discussion. And a special thanks to Dr. Pershing for taking the time to join us today.

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