

**CLIMATE CHANGE: STATUS OF THE KYOTO
PROTOCOL AFTER THREE YEARS**

JOINT HEARING
BEFORE THE
COMMITTEE ON FOREIGN RELATIONS
AND THE
**COMMITTEE ON ENERGY AND
NATURAL RESOURCES**
UNITED STATES SENATE
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CLIMATE CHANGE STATUS OF THE KYOTO PROTOCOL AFTER THREE YEARS

Thursday, September 28, 2000

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C.

The committees met jointly, pursuant to notice, at 3:08 p.m. in Room SD-419, Dirksen Senate Office Building, Honorable Chuck Hagel presiding.

Present from the Committee on Foreign Relations: Senators Hagel [presiding] and Lugar.

Present from the Committee on Energy and Natural Resources: Senators Murkowski [chairman], Craig, and Bingaman.

Senator HAGEL. Good afternoon and welcome. Mr. Secretary, welcome.

The Honorable Frank Loy, Under Secretary of State for Global Affairs, is our witness today, and we appreciate you being here, Mr. Secretary. I asked Secretary Loy to meet with us today to discuss the status of the Kyoto Protocol 3 years after its negotiation and 6 weeks before an important U.N. climate change conference in The Hague, the Sixth Conference of Parties, or COP-6, of the Framework Convention on Climate Change.

The mandates of the Kyoto Protocol would have a dramatic effect on our Nation's energy use and policies. I welcome the participation of my friends and colleagues from the Senate Energy and Natural Resources Committee as the co-sponsors of this hearing this afternoon. Chairman Murkowski will be here shortly. We have Senator Bingaman with us now and we will ask Senator Bingaman for his comments in a moment.

Secretary Loy, although our views have sometimes differed, particularly on the Kyoto Protocol, you have always been straightforward in your testimony before the Foreign Relations Committee on this issue, and all other issues. Our two committees today now look forward to your appraisal of the status of the Kyoto Protocol 6 weeks before the convening of COP-6 in The Hague.

Three years ago the protocol was agreed to in Kyoto and, as you know, I was in Kyoto and had strong objections to the terms of the protocol. The language of the Kyoto Protocol does not meet, and directly conflicts with, the clear baseline of the United States Senate as represented in the 95 to 0 vote on S. Res. 98, or the so-called Byrd-Hagel Resolution. That resolution called on the President: one, not to agree to any treaty that would exclude developing countries from "legally binding obligations in the same compliance pe-

riod" as developed countries; and two, not to agree to any treaty that would cause serious harm to the U.S. economy.

Two years ago at COP-4 in Buenos Aires, President Clinton announced the decision to sign the Kyoto Protocol and later signed it. However, he and Vice President Gore refuse to submit it to the Senate for ratification. This committee, the Senate Foreign Relations Committee, has yet to receive a treaty agreed to by this administration nearly 3 years ago.

I need not remind you, Mr. Secretary, that the Kyoto Protocol is meaningless in the United States until its ratification is supported by the United States Senate. In Buenos Aires a target of November 2000 was set for completing the negotiations over how to implement the Kyoto Protocol. That day is now almost upon us.

This November, a week after our Presidential and congressional elections, the nations of the world will meet in an attempt to work out the final details of the implementation of the Kyoto Protocol. This will be difficult since no industrialized nation has yet ratified the treaty and, unless you have new news today, Mr. Secretary, not a single developing country has agreed to accept legally binding commitments to reduce their greenhouse gas emissions within the treaty's first compliance period.

This is a good time to review the Kyoto Protocol because over the last few months there have been a series of developments that present a considerably different perspective than the one of doomsday certainty advanced by climate change activists just a decade ago. One by one, reports have come out showing these early doomsday predictions to be not only grossly overstated, but quite inaccurate. The uncertainties and complexities of the climate change question have become more and more apparent as we look at it more scientifically.

Some of the earliest and strongest advocates of global warming have now revised their conclusions. Even the scientist most associated with global warming, Dr. James Hansen, the Director of NASA's Goddard Institute for Space Studies, has revised some of his earlier statements based on new research. In 1981 Dr. Hansen was the primary author of a report describing a connection between carbon dioxide emissions and warming temperatures. In 1988 he testified before a Senate committee that human activities were causing global warming.

Just last month Dr. Hansen issued a new analysis which said the emphasis on carbon dioxide may be misplaced. He found that man-made emissions of carbon dioxide have already been falling and that they shrank in 1998 and 1999. In his new report he stated that other greenhouse gases, such as methane, black soot, CFC's, and the compounds that create smog, may be causing more damage than carbon dioxide and efforts to affect climate change should focus on these other gases. Furthermore, technology already exists to capture many of these gases. "The prospects for having a modest climate impact instead of a disastrous climate impact are quite good, I think," said Dr. Hansen, as he was quoted in the *New York Times*. I hardly see this as an endorsement for the draconian measures of the Kyoto Protocol.

We also have the changed position of one of the early architects of the U.S. negotiating position that led to the Kyoto Protocol. On

June 22nd of this year, the *Financial Times* reported on a speech by Eileen Claussen before the Royal Institute of International Affairs in London. As many of my colleagues know, Eileen Claussen was an Assistant Secretary of State for Oceans and International Environment and Science during much of the Clinton Administration. Ms. Claussen left the administration just a few months before the Kyoto conference and now heads the Pew Center on Global Climate Change.

In her speech she called for a renegotiation of the Kyoto targets and timetables. She said that Britain and Germany were the only two countries that looked like they had any chance of complying with Kyoto mandates. There are very clear reasons why these two nations could comply with the Kyoto Protocol. Both nations, as we know, are already below the baseline of 1999 emission levels. With the reunification of Germany, the smokestacks of East Germany were included in the 1990 baseline of Germany and have since been shut down. Since 1990 Great Britain made the economic decision to switch from coal to natural gas for its power needs because of the great abundance of natural gas in the North Sea.

Ms. Claussen then argued against countries even trying to meet their Kyoto obligations, saying that any effort to reach these unreasonable targets would cause so much economic harm that it would undermine international support for cooperation on all climate change issues. Ms. Claussen still supports the Kyoto Protocol, but believes it must be substantially renegotiated.

I believe that it is time for us to move beyond the Kyoto Protocol so that we can restore a bipartisan, common sense, scientifically based approach to the important issue of global climate change. Secretary Loy, I will have a series of questions on these and other issues, as my colleagues will, relating to the protocol.

Before receiving your testimony, sir, I would like now to recognize and introduce the co-chairman of today's hearing, the distinguished chairman of the Energy Committee, Senator Frank Murkowski.

Senator Murkowski.

Senator MURKOWSKI. Thank you very much, Senator Hagel. I want to thank Senator Helms as well and recognize the ranking member of the Energy Committee, Senator Bingaman.

You know, in a lighter moment my staff occasionally puts little ditties on the front of my briefing book. This one shows a group of gentlemen—and it is gentlemen because there are no ladies in the group—standing up, making the announcement: “The only solution I can see is to hold a series of long and costly negotiations in exotic locations in order to put off finding a solution.”

Well, I am not suggesting that is applicable here today, but this is something we have been seeking a solution for a long time and have not found one. I do not think we are in an exotic location today, but nevertheless some of those who negotiate seem to enjoy these extended meetings, and I am not one of them.

Let me get into what I think is appropriate that we consider here, and that is that the risk of human-induced climate change is a risk that we have to take responsibly. Now, my committee, the Energy Committee, has had significant interest in climate change in the last two Congresses and I think this joint hearing dem-

onstrates our view that climate change is fundamentally an energy issue.

Eighty-five percent of the energy consumed by the U.S. comes from combustible or fossil fuels, a major source of greenhouse gases. Interestingly enough, that is not so in France. France made a decision in 1973, after the Arab oil embargo, not to be held hostage by the Middle East and imparted on a commitment to nuclear energy, and as we know nuclear energy is very kind to global warming in the sense of any additional greenhouse gases.

Now, energy is the principal driver of our economy. We heat and light our homes, we transport back and forth, we power the new economy, an electric-dependent economy—e-mails, computers, you name it—and it produces the conveniences of modern life. Yet our energy policy in this country has detracted from our conventional sources. We have seen the price of gasoline as a consequence of our increased dependence on imports. About 56 percent of our oil is now coming from abroad—Saudi Arabia, Venezuela, Mexico.

Who sets the price of energy? Is it big oil profiteering in this country, our oil companies, or is it those that control the supply? Well, clearly if you control the supply you control the price because they set the price, we are addicted to it and we pay it.

We have not built a new coal-fired generating plant in this country since the mid-nineties. We are talking about tearing down hydro dams, offsetting those with barge traffic that would move to the highways. The nuclear industry that supplies 20 percent of our generating is capacity choking on its own waste because we will not address what to do with the waste.

So this forces us over to one area and that is natural gas. Natural gas is the favorite energy source. But you cannot in this mix move off your conventional sources to rely on natural gas without a tremendous price surge. We have seen natural gas go in 10 months from \$2.16 to delivery in November at \$5.43. It has doubled.

Now, the reason it has doubled is if you are going to build a generating plant and help San Diego out you are going to go to natural gas. We are now depleting our natural gas reserves faster than we are finding new ones.

So I think we have got a problem here as we address global warming and we also have a problem of where this energy is going to come from. We would like to see renewables. We have spent an astronomical amount on renewables. We have not achieved the percentage of the market share we would like, but it is not because we have not expended the money.

We cannot consider national or international climate change response without considering an entire energy-economy-environmental system. They all kind of come together. We cannot abandon any one of them.

Now, the Energy and Natural Resource Committee considered the economic impact of the Kyoto Protocol back in March of '99 and we learned a few things that, frankly, disturbed us. According to the Energy Information Administration and their economic analysis, if we were to adopt Kyoto here is what an American consumer could face in the year 2010: Approximately 53 percent higher gasoline prices; 86 percent higher electric prices. These are not my fig-

ures, those of you who are smiling out there. These are the Energy Information Agency's, put out by the Department of Energy. You either believe them or you do not. Upward pressure on interest rates and new inflationary pressures.

Make no mistake about it, as it stands right now the Kyoto Protocol does not do enough to address the risk of climate change. It does not help the environment in a meaningful way because it does not stabilize greenhouse gas concentrations and overall it does not reduce global emissions, because, because developing nations basically get a free ride. They get a chance to expand their growth in the developing world and that will overwhelm emissions limits placed on industrial nations.

We should be using our technology to mandate as they develop that they use the latest technology. The protocol only punishes the industrial countries with higher energy prices and reduced economic prosperity. Consider this for a moment: Higher energy prices have already sparked fuel protests and supply disruptions throughout Europe. Talk to Tony Blair. He will tell you about what it means at home. It is shaking the foundations of his government.

Why should we further raise energy prices and disrupt our economy for a treaty that as it is structured in its current form, the bottom line, is largely ineffective?

Prior to Kyoto the Senate provided a very clear instruction to the U.S. negotiators in the form of the Byrd-Hagel resolution. There should not be anybody be able to miss the intent of Congress. You know, we are an advice and consent body. We certainly gave our advice with that 95 to 0 vote. So no one should expect our consent.

We said developing countries must also take on commitments to limit or reduce greenhouse gas emissions, the protocol must not result in serious harm to the economy. It is hard to imagine this Senate voting to ratify the Kyoto Protocol or any subsequent agreement if these two conditions are not met. So if the goal is to come home from The Hague with a protocol that the Senate can ratify, I am curious to know how this administration plans to get there by ignoring the need for developing country commitments, limiting use of emissions trading to meet targets, and excluding nuclear, hydro, and clean coal from clean development mechanisms, no mention of nuclear, and delaying the use of carbon sinks to offset emissions.

Finally, there are things that the European Union and developing countries have said are nonnegotiable if there is to be an agreement, but for the most part these things that would increase the cost of the U.S. and undermine our economic stability in the coming decades appear apparent in their demands.

What are the administration's alternatives? How do you plan to ensure that your position prevails in The Hague? Most importantly, is your negotiating position designed to result in a protocol that the Senate will ratify? If it is not, then really what is the administration's intent in the few months left to the administration? Should we not then start the process over with a focus on global longer term strategies to manage the risk of climate change?

I do not envy the witness, but I wish him well. I look forward to the comments of my colleagues.

Senator HAGEL. Mr. Chairman, thank you. Senator Bingaman.

Senator BINGAMAN. Thank you very much for having the hearing. Secretary Loy, thank you for being here. I look forward to hearing your testimony.

I do think perhaps this committee has focused more specifically on the Kyoto Protocol than we have in the Energy Committee, although we certainly have gotten into it indirectly, because of our focus on energy issues more generally. My sense is that there is more of a consensus today than there was at the time Kyoto occurred on the fact of global climate change. I do not think we have a consensus yet as to the extent to which it is caused by human activity.

We also do not seem to have much of a consensus on what types of solutions could be agreed upon that were binding and that would apply to all of the major contributors to the problem, to the extent that we understand the problem. I do think it is useful for us to have the hearing. We are, as everyone undoubtedly knows, extremely distracted, we the Congress, with other matters here as we try to complete this session. Well over half the Congress, of course, is running for reelection and that is another distraction.

But I hope that we can learn something here and I know that you have been working hard in preparation for this meeting in The Hague and I am looking forward to hearing what your expectations are from that meeting.

Senator HAGEL. Senator, thank you. Senator Craig.

Senator CRAIG. Mr. Chairman, thank you. To bring our two committees together I think is extremely important as we examine the issue of the Kyoto Protocol.

December 1997—the Vice President personally negotiating the protocol—a promise to the American people that it would not threaten American security or American global economic competitiveness. He called the protocol the most important environmental agreement ever conceived. The administration called it a work in progress.

Well, Mr. Chairman, here we are today asking where is the progress. Is there global scientific consensus that the protocol, if fully implemented, will actually prevent global warming? Is the protocol now more cost effective? COP-6, convening at The Hague in November, brings the critical phase of the Kyoto Protocol negotiations. Some claim that progress has been made on key issues that benefit the United States interests. Today I hope we can examine that claim.

But my broader concerns are the kinds of concerns reflected by you and Chairman Murkowski, and that is—and let me underline those concerns with this question—is the protocol itself now obsolete? Is it something we are just in search of because it is something we have been in search of for a long time, but we have not stopped to analyze whether it is really still a player?

The recent energy prices and the supply problems concern you, Mr. Chairman, they concern me, if you take a look at what the Department of Energy's analysis says will happen to the U.S. economy if we accede to the international energy limits the Vice President wants us to adopt in the Kyoto Protocol. Those predictions are found, as the chairman mentioned just a few moments ago, as a product of the Energy Information Administration study entitled

“Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activities.”

Simply summarized, as of October 1998: consumer energy prices skyrocket, inflation is up, employment opportunities down, economic growth potentially halted. EIA’s econometric projections have understandably upset the White House, and I do not blame them. If they are all hooked on this and yet their own analyses are suggesting that these could be problems, they have a reason to be concerned.

But now the increase in our oil prices has provided a glimpse, I think, of the economic and the political chaos that could result from a fully implemented and well enforced Kyoto Protocol. Politicians on every continent are now running for cover. Back in March, Japan’s Kyoto negotiator acknowledged that Japan will not meet its Kyoto targets. We know what happened in Norway; it collapsed a government. That government had to leave town as the people chose another course for their energy needs.

Canada, the Canadian environmental minister is quoted as doubting whether Canada can or will even meet its targets. In England, as we speak you see what is happening over there with Tony Blair’s government on thin ice.

Coincidentally, Mr. Chairman, it was in England this year that Ms. Claussen, a former administration official and experienced environmental negotiator, spoke bluntly to the Royal Institute of International Affairs. In that speech she said: “With all due respect to my former colleagues in the current administration who negotiated the agreement, it is highly unlikely that the U.S. will be able to meet its Kyoto targets of reducing emissions by 7 percent below 1990 levels between 2008 and 2012. It does not take an engineer to see that a 7 percent reduction is overly ambitious in a country where emissions already have grown to more than 11 percent above the 1990 levels and is likely to continue to rise.”

A new Australian study entitled *Climate Change Policy and the European Union*, September 2000, says the same for Europe. It shows that the cost of compliance with the Kyoto targets in the first budget period, never mind the cost of even more severe energy rationing beyond Kyoto, will be higher than any government official in Europe has been willing to admit to their constituents.

If they’ve got problems now politically, then wait until this is put upon them and they have to talk about it in the bold terms that they will. For example, the marginal cost of meeting its 2010 targets for Germany will be over \$175, U.S. dollars, per metric ton carbon. If plans to eliminate nuclear power plants, all retired by 2021, forced on the German government by its political partner, begin now, the cost will rise to over \$200 per metric ton. For Finland the cost will be \$300 per metric ton carbon. For Denmark the cost will be \$400 per metric ton carbon.

I am not sure any politician in any of those countries could withstand that, and this is now becoming a very real political issue.

So let us bring it home, Mr. Chairman. It was after Ms. Claussen’s speech that we heard from our constituents about the price at the pump. Even without Kyoto, prices are high and, guess what, they will probably get higher. Now home heating has so scared politicians that Vice President Al Gore, for example, has

pressed the Clinton Administration to deplete the Strategic Petroleum Reserves to give him cover through the election.

No wonder, no wonder at all. Home heating oil prices are going through the roof in the Northeast. DOE officials are saying there may have to be choices about eating and staying warm this winter. Those are choices none of us will ask our constituents to make.

President Clinton is now downplaying the threat of recession, but Europe is in political chaos, with blockades at the refineries and traffic protests. Current European governments are under attack by their own people. Can we be far behind if this were carried out to its fullest?

Mr. Chairman, preoccupation with the protocol is preventing us from dealing with the climate change issue in a more thoughtful, comprehensive, and, more importantly, immediate way. Chairman Murkowski, yourself, myself, others, have introduced what we think is responsible multi-track approaches: critical analysis, evaluation, integration of all scientific, technological and economic facts.

We are not walking away from the issue. We are suggesting a blueprint for the coordination of action that is both practical and makes sense so that the government will not neglect an issue or back us into less optimum policy choices. Aggressively advanced climate science by integrating and focusing on the core question, encouraging practical technology development without picking winners and losers, and so on and so forth.

Mr. Chairman, let me close by saying, as I mentioned earlier, the Vice President said that the protocol is the most important environmental document ever conceived. Well, let me suggest that if it was it is not any more. It is obsolete. He is right that the gravity of the Kyoto issue must not be underestimated. Our economic security hangs in the balance.

I am anxious to hear Mr. Loy's testimony. It is critical as we move toward The Hague in November. I hope I can attend some of those meetings at The Hague. I am now planning to do so, as I think others are. I know of no other issue more important at this time to be dealt with in the right and appropriate manner, most assuredly in a way that does not lock us into an agreement that is both untenable and unrealistic for our people and our economy and our environment.

Thank you, Mr. Chairman.

Senator HAGEL. Senator, thank you.

Senator Lugar.

Senator LUGAR. Mr. Chairman, I want to hear Secretary Loy, but I will briefly comment that it appears to me that the timing of The Hague meeting is unfortunate. It seems to me that the politics in this country, and perhaps the politics in many countries that are even more severely affected by the high prices of oil, have made the negotiating position a good bit more tenuous and difficult.

I am eager to hear what our strategy is going to be, but it appears to me as I visit with constituents that the Kyoto Protocol is perceived more as an academic interest and pursuit, but without political relevance at all. The anticipation is that officeholders in this country, whether it be the President, the Vice President, or members of Congress, are going to provide an energy policy for the

country, a plan in which we will have sufficient energy to do our work. That is the preoccupation.

To the extent we are able to deal with the Kyoto Protocol, that becomes interesting in the event we are able to solve this initial quest.

Thank you.

Senator HAGEL. Senator, thank you.

Mr. Secretary, thank you again for being here and we look forward to your testimony. Please proceed.

**STATEMENT OF HON. FRANK E. LOY, UNDER SECRETARY OF
STATE FOR GLOBAL AFFAIRS**

Mr. LOY. Thank you, Mr. Chairman. Good afternoon. I want to thank both committees for having me here today and giving me a chance to talk about the upcoming COP-6, the conference that will take place at The Hague in November. I have a longer statement that I would like to submit, but make a few remarks now.

Firstly, I want to thank the members of this committee for the remarks that they have made and giving me a chance to address some of them in the near future here.

Eight years ago, the United States under the Administration of President George Bush joined with more than 150 countries around the world to begin to tackle the challenge of global climate change. Then 5 years later, as has been noted, in Kyoto we took the next step in addressing this challenge by negotiating a historic agreement to limit the emissions of greenhouse gases.

As policymakers, we have to base our decisions on the best scientific evidence available. We cannot wait until the details of the climate system have been understood 100 percent. We ought to ask, are the risks of human-induced climate change great enough to justify taking action? We answer emphatically, yes.

We need, in essence, to take out an insurance policy to protect us against the risk of climate change. This insurance policy is fully justified today based on our understanding of the science. If we act now, the insurance premium will be far more reasonable than if we delay and hope the problem will simply go away.

A crucial element of our insurance policy against global warming is to complete the work on the Kyoto Protocol. As has been said and as we have said, the protocol is both an achievement and a work in progress. It combines ambitious, but I would say realistic, environmental targets with other, with innovative market-based mechanisms to help parties achieve the targets and achieve them in a cost-effective manner.

We negotiated for, the U.S. negotiated for, and won acceptance of a multi-year time frame for emissions reductions. That allows us greater flexibility and lowers the cost. We negotiated for and won inclusion of all six significant greenhouse gases. We insisted on and won inclusion of market-based mechanisms, such as emissions trading, that will dramatically lower costs. We insisted on and we won the inclusion of carbon sinks, so that activities such as planting trees and restoring degraded soils would create economic opportunities for the U.S., for U.S. farmers and the U.S. forest industry. We rejected both unrealistic and prohibitively expensive targets and mandatory policies and measures, such as carbon taxes.

That said, we made it clear from day one that the Kyoto Protocol is not yet a finished product and that by itself it is not a complete solution to the problem of climate change. As we try to complete Kyoto, we must address three fundamental issues: the environmental effectiveness, the economic cost, and the participation of developing countries. Let me say a word about each of those three.

First, environmental effectiveness. Any elaboration, any implementation of the protocol, must ensure that the reductions and the removals of greenhouse gases from the atmosphere required by the protocol actually occur. Toward this end, the U.S. has taken the lead in developing comprehensive, effective, binding rules to estimate, to report, and to review emissions and to track the trading of the parties' emission allowances. We are vigorously promoting provisions that would ensure compliance with the obligations of the protocol.

The second fundamental issue that we need to resolve in order to complete the work of the Kyoto Protocol is economic cost. The final agreement, and it has been mentioned here, must ensure that overall costs will be reasonable. We must get the greatest environmental benefit for every dollar devoted to addressing climate change. In a world of limited resources, it makes no sense to design deliberately a system that is any more expensive than necessary.

Furthermore, overly bureaucratic requirements or artificial limits will only restrict the ability of parties to meet their targets at reasonable costs and thereby undermine support for the protocol.

I am pleased to report that we have come a long way since Kyoto, when emissions trading was little understood by developing or industrialized countries. Many nations are now enthusiastic about designing trading systems on the national level. In the past year the parties also have moved forward with a process to define sinks activities that will be included in the protocol.

The United States believes that a comprehensive, broad-based accounting approach that includes sinks, provides a critical long-term incentive to protect existing carbon reservoirs, increase carbon sequestration, and reduce greenhouse gas emissions through better land management practices, actions that not only mitigate climate change but have other environmental benefits.

In order to combat climate change, of course, key developing countries will need to join in the fight against climate change and recognize that it is a global problem that requires a truly global solution. Industrialized countries must take the lead, but other countries must contribute in ways that promote sustainable development.

In the past 3 years we have seen some notable progress in the area of developing country participation, both within the context of the Kyoto Protocol and apart from it. In the Kyoto negotiations there is now a genuine and enthusiastic support among many developing countries for the clean development mechanism that would allow industrialized countries or their private entities to earn emission credits through projects in developing countries.

The CDM also will stimulate investment and economic growth. We are working hard in the negotiations to shape strong market-based operational rules for the clean development mechanisms that will be high on the agenda for The Hague. Furthermore, several

countries have stepped forward and moved to take on national emissions targets. We have urged the parties to build on these successes and to establish mechanisms that enable developing countries that voluntarily limit their emissions to reap all of the rewards in terms of technology and investment that will come from joining in Kyoto's emissions trading system.

Quite apart from the context of Kyoto, many developing countries are making real strides to mitigate their greenhouse gas emissions by improving energy efficiency, by expanding the use of renewable energy, by slowing deforestation, and otherwise stemming their emissions.

The U.S. fully intends to be an active partner in this progress. In March, in connection with the President's visit to India, for example, the United States and India announced a joint statement on cooperation on energy and environmental issues, in which India pledged to improve energy efficiency in power production by 15 percent by the year 2007 to 2008. China also is making dramatic progress in improving energy efficiency and carbon intensity per unit of GDP.

As was noted, 2 years ago in Buenos Aires the parties agreed to a plan of action for advancing the ambitious agenda outlined in the protocol. We anticipate that many very complex issues in this action plan will come to a head at The Hague and that COP-6 will be a very significant conference, maybe the most significant since Kyoto.

As we approach these negotiations, I want to assure both committees of three things. First, the U.S. is committed to making as much progress as possible at COP-6. We believe that the stakes demand no less. Second, however, we will not seek progress or agreement at the expense or at the sacrifice of our principles in these negotiations. Finally, as we go forward I pledge to you that we will continue to consult closely with you the Congress, with the American business community, and with the environmental community.

I thank you very much and I am ready for your questions.
[The prepared statement of Mr. Loy follows:]

PREPARED STATEMENT OF FRANK LOY

Good afternoon. I want to thank both Committees for having me here today to talk about the upcoming Sixth Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), which will take place this fall in the Netherlands at The Hague.

Eight years ago, the United States, under the administration of President George Bush, joined with more than 150 countries from around the world in forging an agreement to begin to tackle a great challenge—the challenge of global climate change. Five years later, in Kyoto, Japan, we took the next step in addressing this challenge, by negotiating an historic agreement to limit emissions of greenhouse gases.

SCIENTIFIC ASSESSMENT

In taking these actions we were spurred by the overwhelming weight of scientific authority, which tells us that the build-up in greenhouse gases in the atmosphere creates risks that are too serious to ignore. Since Kyoto, this scientific consensus has only gotten stronger—both as to the evidence that human-induced climate change is occurring and as to the dangers it presents.

Today, there is indisputable evidence that the Earth is warming.

- Studies show that the 20th century has been the warmest century in the past 1,000 years and that the 1990s have been the warmest decade in that period, while 1998 was the single warmest year on record.
- Temperature profiles in boreholes, for example, now provide independent verification of surface warming of 1 degree C over the last 500 years—with 50 percent of this warming occurring since 1900.
- New evidence shows that the top 300 meters of the ocean have also warmed by about 1/3 of a degree C over the past 50 years.
- New research reveals that arctic sea ice thickness has declined by about 40% over the past 20 to 40 years.

These and other studies make scientists more confident than ever that natural processes cannot explain the dramatic warming we have seen in the 20th century. Indeed, the data only makes sense if one includes the effects of human-induced warming.

Scientists predict that, if we continue on our current course, concentrations of greenhouse gases in the atmosphere will reach roughly twice pre-industrial levels during this century—a level not seen on this planet for the past 50 million years—and proceed upward from there. The Intergovernmental Panel on Climate Change (IPCC), which represents the work of more than 2,000 of the world's leading climate scientists, estimates that a doubling of pre-industrial levels will lead to an increase in average global temperature of 2 to 6.5 degrees F, and significantly more at some locations. By way of comparison, the last ice age was only 5 degrees to 10 degrees F colder than today.

Scientists warn that these unprecedented changes in our atmosphere will bring many potential dangers—including more severe and extreme weather events, such as storms and droughts, increases in respiratory and infectious diseases, rising sea levels, and widespread damage to forests and other ecosystems.

NEED FOR PRUDENT ACTION AT A REASONABLE COST

As policymakers, we must base our decisions on the best scientific evidence available. But we would fail in our duty to safeguard the health and well-being of our citizens and the environment they cherish if we waited to act until the details of the climate system have been fully understood. The science tells us that this would be a recipe for disaster, for we will only fully confirm the predictions of climate science when we experience them, at which point it will be too late. Instead, we should ask, "Are the risks great enough to justify taking action?" When it comes to the challenge of climate change, the answer is an emphatic "yes."

We need, in essence, to take out an insurance policy to protect us against the risks of climate change. This insurance policy is fully justified today, based solely on our current understanding of the science. If we act now the insurance premium will be far more reasonable than if we delay and hope the problem will simply go away.

That is why the President has proposed increased investments for the research and development of clean energy technologies, and voluntary partnerships with industry to reduce emissions. We have also proposed tax credits for clean and efficient cars, homes and appliances. These are "win-win" programs that not only reduce greenhouse gas pollution and energy consumption, but also save money for consumers and businesses. Unfortunately, Congress has not adequately supported this aspect of the Administration's energy policies.

U.S. NEGOTIATING OBJECTIVES AT KYOTO

A crucial element of our insurance policy against global warming is to complete work on the Kyoto Protocol.

As we have often said, the Kyoto Protocol is both an historic achievement and a work in progress. The agreement negotiated in 1997 reflects the core objectives that the United States sought to achieve and provides a basis for real action, at a reasonable cost. The Protocol combines ambitious but realistic environmental targets with innovative market-based mechanisms to help Parties achieve those targets in a cost-effective manner. It represents an important and judicious step forward in meeting a very great challenge. And it is undeniably a document that reflects our key negotiating objectives.

- We negotiated for—and won acceptance of—a multi-year time frame for emissions reductions, which allows us greater flexibility than a fixed single-year target, lowers costs, and smooths out the effects of short-term events such as fluc-

tuations in the business cycle and hard winters or hot summers that would increase energy use.

- We negotiated for—and won—inclusion of all six significant greenhouse gases, including the fastest growing and longest lasting gases. By including all of these gases, we will both better protect against climate change and reduce the cost of doing so.
- We insisted on—and won—inclusion of market-based mechanisms, such as emissions trading, which will dramatically lower the cost of meeting greenhouse gas emission reduction targets.
- We insisted on—and won—the inclusion of carbon “sinks,” so that activities such as planting trees, restoring degraded soils, and adopting best land-use management practices can potentially be counted against emissions targets—thereby creating economic opportunities for U.S. farmers and the U.S. forestry industry.
- And we rejected both unrealistic, prohibitively expensive targets and mandatory policies and measures, such as carbon taxes.

That said, we made it clear from Day One that the Kyoto Protocol is a work in progress and not yet a finished product, and that by itself it is not a complete solution to the problem of climate change. In order to do so, we believe that three fundamental issues must be addressed: environmental effectiveness, economic cost and developing country participation. Let me briefly speak to each of these.

ENVIRONMENTAL EFFECTIVENESS

First: environmental effectiveness

Any elaboration and implementation of the Protocol must assure the world that the reductions and removals of greenhouse gases from the atmosphere required by the Protocol actually occur. Toward this end, the United States has taken the lead in developing comprehensive, effective, and binding rules to estimate, report and review emissions, and to track trading of Parties’ emissions allowances. We can report at this point that these vital elements of environmental effectiveness have already gained wide acceptance in the negotiations.

We are also vigorously promoting provisions to ensure compliance with the obligations of the Protocol. The United States supports legally-binding consequences for exceeding emissions targets, and believes that these consequences should be non-punitive and agreed upon in advance. A meaningful and predictable compliance regime is critical not only to achieving our environmental objectives, but also to assuring that other countries will fulfill their commitments and that the Protocol’s cost-reducing market-based mechanisms will work as planned.

ECONOMIC COST

The second fundamental issue that must be resolved to complete work on the Kyoto Protocol is economic cost. The final agreement must ensure that overall costs of compliance will be reasonable and no higher than necessary.

Only if we adhere to this principle will the planet get the greatest environmental benefit possible for every dollar, euro, or yen devoted to addressing climate change. In a world of limited resources, it makes little sense deliberately to design a system that makes removing a ton of greenhouse gases from the atmosphere any more expensive than necessary.

In our view, cost-effective action is possible only if the Kyoto mechanisms and the Protocol’s sinks provisions can be implemented as simply as possible, while preserving the environmental integrity of the Protocol. Overly bureaucratic requirements or artificial limits on these important tools will only restrict the ability of the Parties to meet their targets at reasonable cost and thereby undermine support for the Protocol.

Let me just touch on two specific, key topics that affect critically both environmental effectiveness and economic cost.

Number one: emissions trading

The inclusion of emissions trading in the Protocol was an important victory for our negotiators at Kyoto. At the time, the potential benefits of trading were little understood or appreciated among most international climate negotiators. I am pleased to report that we have come a long way since then, both among developing and industrialized nations. In fact, many nations are now enthusiastic about designing trading systems on the national level, realizing that it will help them meet their emissions target more quickly and more cost-effectively.

At the international level, we recognize that we still have a lot of heavy lifting to do to finalize how trading will work under Kyoto. But it is an endeavor that will be well worth the effort.

We believe that well-designed emissions trading system will:

- Cut the cost of reducing greenhouse gases by allowing the marketplace to identify the most cost-effective reductions, thereby making efficient use of limited global resources; and
- Quicken the pace at which countries address climate change by creating a market for innovative ways to reduce emissions cost-effectively and fostering the rapid development and diffusion of new technologies that reduce emissions.

As I have already summarized, the United States has been a forceful advocate for strong provisions on monitoring, reporting, and tracking, which are needed to assure the integrity of international emissions trading. But we will continue to reject restrictions that would not contribute at all to environmental integrity but would only burden the market and impose unnecessary costs. In particular, we will resist efforts by the European Union to put an arbitrary and distorting “cap” on a Party’s ability to use the mechanisms—an idea, I would note, which they do not propose be applied to their own ability to “bubble” their emissions under a different article of the Protocol.

Number two: carbon sinks

The Kyoto Protocol recognizes that sinks must be included as part of an economically and environmentally sound approach to climate change. Specifically, Article 3.3 of the Protocol requires certain forestry activities—afforestation, reforestation, and deforestation since 1990—to be counted toward a party’s reduction commitments. Article 3.4 allows the Parties to the Protocol to add additional sink activities, such as those related to agricultural soils.

In the past year, the Parties have moved forward with a process to define those sinks activities that will be included under the Kyoto Protocol. The United States has stated its support for:

- Broad and comprehensive inclusion (based on sound science) of land use, land use change, and forestry activities;
- Inclusion of forest management, cropland management and grazing land management under Article 3.4;
- Rules—including definitions of key terms such as “reforestation”—that help protect forests and avoid creating “perverse incentives” (for example, to log old-growth forests); and
- A strict accounting system that looks at the total impact of land management on carbon stock changes, including both emissions and removals, and that requires Parties to be able to accurately monitor and verify emissions and removals.

To address the concerns of some countries about the effect of comprehensive greenhouse gas accounting on the first budget period targets, the United States has indicated its willingness to consider a “phase-in” during the first commitment period (2008–2012), under which countries would be allowed to count a portion of the total amount of carbon they sequester.

The United States believes that a comprehensive, broad-based accounting approach that includes sinks provides a critical long-term incentive to protect existing carbon reservoirs, increase carbon sequestration, and reduce greenhouse gas emissions through better land management practices—actions that not only mitigate climate change, but have many other environmental benefits. A comprehensive approach will also be easier to monitor and verify than narrow practice-based accounting and will minimize leakage and double counting.

DEVELOPING COUNTRY ACTION

The final issue that must be addressed is developing country action. In the long-run, in order to combat climate change, key developing countries will need to join in the fight against climate change. Climate change is a global problem that requires a global solution. Industrialized countries must take the lead, but other countries must also contribute in ways that promote their sustainable development. Kyoto’s Clean Development Mechanism—which allows industrialized countries or their authorized private entities to earn emission credits through projects that contribute to the sustainable development of developing countries—is an important step forward.

In the past three years, we have seen some notable progress in the area of developing country participation—both within the context of the Kyoto Protocol and apart from it.

In the Kyoto negotiations, there is now a genuine and enthusiastic support for the Clean Development Mechanism among many developing countries. Nations that were suspicious of the idea at Kyoto now have a further understanding of the economic incentives it will provide for both emission reductions and for investment that can power their economic growth. We are working hard in the negotiations to shape strong, market-based operational rules for the Clean Development Mechanism. This will be high on the agenda at The Hague.

Furthermore, several countries have stepped forward and moved to take on national emissions targets. Argentina has, in fact, announced a target. Kazakhstan and Bolivia have announced a willingness to do the same. The United States has voiced its strong support for these actions. We have urged the Parties to build on these successes and to establish mechanisms that enable developing countries that voluntarily limit their emissions to reap all of the rewards (in terms of technology and investment) that will come from joining in Kyoto's emissions trading system.

Quite apart from the context of Kyoto, many developing countries are making real strides to mitigate their greenhouse gas emissions by improving energy efficiency, expanding the use of renewable energy, slowing deforestation, and otherwise stemming their emissions growth. The United States fully intends to be an active partner in this progress.

The President's Committee of Advisors on Science and Technology projects that the markets for energy technology in developing countries will total \$4 to \$5 trillion over the next 20 years and \$15 to \$25 trillion over the next 50 years. To accelerate the development and deployment of clean energy technologies around the world, President Clinton proposed in his FY 2000 budget an International Clean Energy Initiative—a \$200 million multi-agency effort to encourage open competitive markets and remove market barriers to clean energy technologies in developing and transition countries and to provide new incentives for clean energy technology innovation and export. This initiative will promote U.S. exports and create high-value jobs, and will assist countries to power their economic development while fighting air pollution and climate change.

Internationally, the President has been a forceful advocate of the concept that in today's global environment, countries can have both economic growth and environmental protection. The "Big Idea" of the Industrial Revolution—that for an economy to grow, pollution will also grow, is no longer true. Over the past year, the President's advocacy of the new paradigm has borne fruit.

In March, in connection with the President's visit to India, the United States and India announced a joint statement on cooperation on energy and environment issues. In addition to underscoring both nations' determination to cooperate in completing work on Kyoto, the statement outlined a common agenda on clean energy development. Importantly, India outlined two important goals. First, that 10 percent of its new electric power will come from renewable energy sources by 2012. Second, that it will improve energy efficiency in power production by 15 percent by 2007–08.

In May, the United States and China signed a joint statement on environmental cooperation. In the statement, our two nations committed to further our ongoing cooperation to address global environmental challenges, including climate change. In the past, China has opposed international dialogue regarding the role of developing countries in taking action to address climate change. The statement reflects a new openness to engagement. Furthermore, the statement expresses the view that sustained economic growth can be achieved while still taking action to address climate change.

CONCLUSION

In conclusion, let me state that we all recognize that shaping the rules and procedures of the Kyoto Protocol is a highly complex and difficult process. But it is one at which we must succeed, relying on science to guide our negotiations and taking strength in our common commitment to protect this Earth for future generations.

Two years ago, in Buenos Aires, the Parties agreed to a plan of action for advancing the ambitious agenda outlined in the Protocol. In particular, they agreed to a plan and a process to reach decisions on a number of key outstanding issues, including not only the specific topics I have discussed here today, but also the rules on compliance and the consequences for noncompliance; the development and transfer of cleaner, climate-friendly technologies, and consideration of the adverse impacts of climate change and response measures.

We anticipate that many of these highly complex issues will come to a head at The Hague and that COP-6 will be the most significant conference since Kyoto. As we approach these negotiations I would like to assure both Committees of three things. First, that the United States is committed to making as much progress as possible at COP-6—the stakes demand no less. Second, however, we will not seek progress or agreement at the expense or sacrifice of our core principles in these negotiations. And finally, as we go forward, I pledge to you that we will continue to consult closely with you, the Congress, with the American business community, and with the environmental community.

Thank you very much.

Senator HAGEL. Mr. Secretary, thank you.

If it is acceptable to my colleagues, why do we not take a series of 7-minute rounds; that way all Senators have an opportunity to ask questions, and we will keep at it until we get all our questions asked and answered or until any Senator drops.

Senator CRAIG. What about the Secretary? Does he count?

Senator HAGEL. The Secretary is nuclear powered and goes on and on.

Mr. LOY. I am prepared to stay indefinitely.

Senator HAGEL. Mr. Secretary, let me pick up on your last points about your three assurances you are giving to the Congress. You mentioned one of them being not sacrificing our principles. Would you identify the principles that you are talking about?

Mr. LOY. Senator, we are determined not to sacrifice important principles such as making this a cost effective agreement, making sure that the environmental benefits that are promised and that are contemplated actually happen, and making sure that the burden is shared as fairly as we can do so. Those are the principles that I have in mind.

Senator HAGEL. When you say cost effective, what numbers are you referring to? What baseline numbers do you reach to, or reference?

Mr. LOY. When I say we are determined to make this a cost effective agreement and to negotiate in that respect at The Hague, I have in mind the tools that we want to use to make the agreement as cost effective as possible. Those are the ones that I have mentioned. That is, they include above all the use, the ability to use market mechanisms without limitations and without excessive bureaucratic costs. They include the use of sinks as a means of reducing our carbon concentrations.

Those are some of the key methods that we use in order to reduce costs, and we are focusing on making those as effective tools as possible in order to achieve the lowest cost.

Senator HAGEL. But what costs are you referring to? Is there a baseline? Is there a number? Is there a percentage? What do you attach to the language, what numbers? Where do you start as a base, a reference to “cost effective”? What do you mean by that?

Mr. LOY. Well, as I said—

Senator HAGEL. Do you take the Energy Information Agency’s numbers that Chairman Murkowski recited?

Mr. LOY [continuing]. Well, I noted the reference to those numbers. I will just note in passing that that analysis as far as I know did not include any emissions trading, nor did it include the use of any sinks. So in my opinion those are very key assumptions that were different from assumptions that we are making.

We of course have, Senator, we have had an economic analysis, and you have had that economic analysis also, produced by the administration several years back, and Chairwoman Yellen testified before your very committee on that. That remains a solid analysis and a very good starting point for determining what might be the level of cost, recognizing, Mr. Chairman, that constantly the circumstances change and the facts change and that you have to evaluate the significance of those changes.

Senator HAGEL. On that point, I recall vividly that this committee, and I believe other committees in the House as well, had continually asked for that White House economic analysis; and I am not sure that there was a White House economic analysis in Kyoto in 1997. Ms. Yellen did the best she could, but that was like a 3-year project, the Congress getting it. You might recall that. That was before you had this fortunate assignment.

But I would be a little hesitant if I were you, Mr. Loy, to use that, because this body did not get that analysis; and again, I am not sure that there was an analysis when Kyoto was agreed to in 1997. But that being said, let me move on to a couple of other areas that you mention in your statement.

You said that some developing countries have voluntarily committed to doing something about these emissions. Could you update the committee on any developing countries that have come forward since the signing of the agreement at Kyoto, have agreed to commit themselves in the same way that the United States would be committed to cut greenhouse gas emissions?

Are there any developing nations that have put themselves in that position?

Mr. LOY. Senator, there are several nations that are in the process of doing the work that they would have to undertake in order to eventually take on a commitment, a binding commitment that would be similar to that of the United States. They have not yet completed that work. I think we have to recognize that that actually takes a lot of analysis, for a country to figure out what would be an appropriate commitment level to undertake.

But several of them are doing it. None of them have completed that process and are therefore not in the same legal status as we are.

Senator HAGEL. Does that concern you a little bit, that not one of these nations has stepped up and said, we intend to make a binding commitment, the same as the United States would be bound in this agreement, especially since China and India and most all of the parties to this treaty, are very significant greenhouse gas emitters, and some in fact will be in the top five here shortly. That does not bother you?

Mr. LOY. Senator, we are very aware of the fact that a number of countries are very key factors in the emissions picture. We are very aware of the fact that countries generally, not just the industrialized countries, have to participate in this process of reducing or abating emissions, and there are several things that are actually taking place that are quite hopeful.

One of them is that the interest in the clean development mechanism, which is one of the mechanisms under the Kyoto Protocol, which was very small 2 or 3 years ago, is now very substantial. I

just recently met with a number of Central and South American officials, all of whom expressed an interest in finding ways by which they could use that mechanism to reduce their emissions and get new investment in technology that would be better for the climate than the old one. So that is a very encouraging thing.

Secondly, a lot of countries, a number of key countries included, are taking very real measures domestically to reduce their emissions. That is a step, that is a mind set, that did not exist before and I think that is a very positive step.

Third, there are commitments made, such as the Indian commitment that I mentioned a moment ago, to actually take very specific and quantified steps to reduce their emissions. I think all of those are steps in the right direction and steps that we welcome and that we continually try to pursue.

Senator HAGEL. Thank you.

Senator Bingaman.

Senator BINGAMAN. Thank you very much.

Secretary Loy, you begin by saying that there is indisputable evidence that the Earth is warming, and I agree with that, from all I have been able to read and learn on this subject. But after you reach that conclusion, the next several are the ones that I think are still troublesome. Of course, the main one is what is the cause of that warming.

There are certain assumptions built into the Kyoto Protocol about the cause of that warming and the importance that greenhouse gases play in bringing about that warming, which I am just wondering if there is any concern on your part about the validity of those assumptions. I notice Dr. Hansen has been referred to by the Chairman, specifically his recent statements or recent report where he questions the significance of the various gases and the various environmental factors that might be leading to the warming.

Are these issues relevant to this upcoming Hague negotiation?

Mr. LOY. Senator, we believe that the global warming is taking place and that there is a significant human component in that causation. I say that not because I am a scientist, because I am not, but because by far the most authoritative scientific evidence agrees on that much, and I refer particularly to the IPCC report, including the assessment of the report that came out recently, not too long ago, and there will be a new one next year.

It is my judgment from having talked to some of the people that are involved in that report that it will strengthen, it will strengthen, the scientific consensus that in fact there is a global climate change under way and that human activity is a significant part of that cause.

We use that as an assumption which drives us to address the problem. It is fair to say that new questions arise all the time and new studies are made all the time. There was a reference to Mr. Hansen's recent comment. I think that is an important comment. The way I think we have read Mr. Hansen's comment is that there are several gases that cause global climate change and it may be that we must shift some attention to methane and other gases, gases other than carbon, because there may actually be an opportunity to abate climate concentrations in those gases.

I think that is a very sound piece of advice that we need to examine. But what it tells me, first of all, is that the United States was extremely wise in insisting at Kyoto that all six of the major gases be included and not just carbon. But it also—as I read Mr. Hansen’s statement, he in no way suggests that we can now afford to ignore carbon as a major source of greenhouse gas concentrations or that the entire process ought to in some way be slowed down.

Senator BINGAMAN. Is there anything in what he has said that leads you to believe that this is less of an urgent matter than was originally thought or that the extent of the cost that should be incurred to deal with this is less than we previously thought? I mean, obviously if you think that the problem is overwhelming us at a rapid rate you are willing to pay a very substantial cost to deal with it. If, on the other hand, you believe it is a much more modest problem, presumably the cost you are willing to incur to deal with it would be more modest.

Is there anything in what he said that leads you to reconsider any administration position on that issue?

Mr. LOY. Senator, the problem of climate change we think is huge and real, as I suggested, and it is quite possible that as we go further we will learn that some techniques we have to abate that are successful and that perhaps it will be easier than we thought. I am afraid it may also be possible that the opposite will be true.

In any event, my belief is that the overall effort of the administration is a beginning of that process and the Kyoto Protocol if it were implemented tomorrow would only make a dent in that process, a significant dent, but it would not solve it. So that I think we cannot drop our guard and cease our efforts to reduce these emissions.

Senator BINGAMAN. Well, let me just say, since the light has come on here, I will not ask another question. I agree with you that the issue is real. The connection between human activity and the warming seems to me to be well agreed upon by the scientific community. But I do think there are still a great many questions as to what action we should take and what costs we should incur in order to deal with this in the immediate future. Clearly, there are many actions we can take and should be taking here in this country that we should be taking even if there were not a global warming problem, it would make good sense for us economically to be taking, to improve energy efficiency and reduce emissions, a variety of emissions, for environmental purposes more generally.

But I commend you on what you are doing and I wish you well in the upcoming negotiations.

Mr. LOY. Thank you.

Can I just say one word about the pricing issue that you raise, Senator. Even before the suggestion of Mr. Hansen that maybe it will be easier than we thought, and that is an assumption that obviously needs to be tested, we have been the country that has insisted in every meeting that we have had and will insist in The Hague that we find ways to deal with this at the most reasonable possible cost. That has been part of our approach from day one and will certainly be our approach at The Hague.

Senator HAGEL. Senator, thank you.

Senator Craig.

Senator CRAIG. Mr. Chairman, thank you very much.

Mr. Secretary, I thank you for being here. I have in front of me a letter that was sent to you on July 25th by signatories from the House, four minority members of the House: Congressmen Dingell and Boucher and Hall and Klink. Has there been a response to this letter, to your knowledge? And if there is, could we get a copy of it?

Mr. LOY. Senator, to be honest, I am not quite sure whether there has been. The team that would be necessary to respond to that letter has been on the road until this last weekend and I am not sure I know the answer to the question.

Senator CRAIG. The reason I say that, because while it quotes in here the high expectation of the convention's executive secretary as it relates to the upcoming COP-6 and the hope that signatures can occur and that that will cause the, if you will, success of it by the sufficient entry of forces into it, it also suggests that, wisely, you did not commit the United States to such a timetable when you spoke on that question at the last COP session, and I think that was appreciated.

But beyond that, there are some valuable questions asked in the letter and, instead of re-asking them if they have already been answered, we would simply like a copy of that letter. I think it would be very helpful to us in our files.

Mr. LOY. I will be certain that you get that.

Senator CRAIG. I think all of us are interested in the issue of sinks and what we have available to us in this country. To my right sits the chairman of the Senate Agriculture Committee, and I guess my concern is as it relates to how we credit or how we look at sinks.

Has the administration accepted anything less than full credit for our forests or, should I say, for our soil management practices or our crop or grassland management practices?

Mr. LOY. Senator, what we have said is that we want what we call a full accounting system for our—for any sequestration that takes place either in our forests or in our agricultural lands and we want that a broad-based system. We think that is in some ways the easiest to manage. We have also said, however, that in the first budget period if it were necessary we would consider a phase-in of the actual use of that on our part, and maybe on everybody's part, in order to make that an acceptable solution for the system as a whole.

Senator CRAIG. The reason I suggest that, we not so wisely, a good number of years ago, took away the tax incentives for a reforestation of private lands. When I look at our ability to do that as a country and our ability to turn our country even greener by management practices on our lands, that is a phenomenally inexpensive and tremendously positive way to do things compared to the other kinds of suggestions that are being made out there.

Obviously the Hansen study gets quoted here as an indication that CO₂ is not a problem. Now we have got other studies that indicate that North America appears to be absorbing more of its share of emissions than might otherwise have been thought by not only current practices, but potentially future practices.

Would not phase-in of sinks generally increase the cost of compliance for the U.S. if we were to do that?

Mr. LOY. Senator, we think that use of sinks would decrease the cost of compliance.

Senator CRAIG. I agree, but to phase it in, would that not increase the cost?

Mr. LOY. If we used it fully it would probably in some ways reduce the cost further. This is going to be a tough negotiation. The ability to get the architecture of this agreement right is important. It is important we think for both environmental and cost reasons to include sinks, and therefore we think that sinks ought to be included in a rather broad-based fashion. The notion that we would phase it in is an effort to make that acceptable and achievable.

Senator CRAIG. Is your primary source of science the IPCC and these kinds of determinations?

Mr. LOY. I think the IPCC is perhaps the most authoritative single collection of views. It is like a giant peer review group and we take its reports quite seriously. But our staff studies basically all the new analyses that come out.

Senator CRAIG. The reason I ask that question, as you know, the Energy Committee here has held considerable hearings on this issue. We have brought before us about all the experts we can find, and to sit and say, well, yes, man's participation in this environment is clearly a contributor or a significant contributor to what might be a bit of an evolutionary cycling of our globe, the National Academy of Science would suggest to you in their science that the jury is still clearly out on that issue, and there is a difference of opinion, a relatively well defined difference of opinion, between IPCC and National Academy people as it relates to, yes, emphatically yes, versus possibly yes kind of arguments.

I guess the question is whose science do you come down on if in fact the scientists are not agreeing?

Mr. LOY. Senator, I deal with a number of public policy issues that have scientific uncertainty attached to them in some fashion, and there is considerable scientific uncertainty with respect to the pace and the amount of global warming and the global climate change. But I would say that on the issue of the causation of climate change and on the issue of the fact that it exists, there is more consensus than on most issues that I can think of.

Senator CRAIG. I am not suggesting the lack of agreement on that there is a change going out there. I am suggesting the lack of agreement on what is the primary cause of the change.

Mr. LOY. I understand, but I think there is consensus on that, too, Senator. With all respect, my reading—and this was some time ago—of the National Academy report was not that it differed in any significant fashion with the IPCC, but that they came out quite similarly.

Senator CRAIG. Well, I read them. We all read them. I think we agree that they agreed that there was warming. I think there is an element of disagreement on the why's that still remains out there. At least that has been my observation. I say that not in the sense of trying to suggest that we not continue to do what we are doing, but we have as a Senate spoken pretty clearly about what is acceptable if in fact we can arrive at levels of commonality and un-

derstanding and bringing together of the developing economies along with ours and the ability to move technologies and those types of things. That is why we obviously watch this issue very closely.

My time is up. Thank you very much, Mr. Secretary.

Mr. LOY. Thank you, Senator. May I just say that I just got a note that says that we have replied to the letter.

Senator CRAIG. Oh, good.

Mr. LOY. And that we will provide you with a copy.

Senator CRAIG. Thank you. I think we would very much appreciate that for the record, because it was a thorough letter, well detailed, and it I think would help us all to understand those answers. Thank you.

[The material referred to follows:]

LETTER FROM MEMBERS OF THE COMMERCE COMMITTEE TO SECRETARY LOY

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON COMMERCE,
July 25, 2000.

Hon. Frank E. Loy,
Under Secretary of State for Global Affairs,
Department of State
Washington, DC.

DEAR UNDER SECRETARY LOY, The Conference of the Parties (COP) to the Framework Convention on Climate Change (FCCC) is scheduled to hold its annual session in The Hague, Netherlands next November, preceded by two one-week meetings of its subsidiary bodies in Lyon, France in September and in The Hague. This will be the sixth Convention session and the third since the Kyoto Protocol was negotiated and adopted in 1997.

Expectations are high that the session will produce decisions that would enable many of the Convention Parties to ratify the Protocol. They apparently have been fueled by the Convention's Executive Secretary, who last April released a "Background Note" saying that the sixth session will be judged successful if it triggers such ratification, particularly by Annex I Parties, "sufficient for its entry into force." Also, on June 22, the European Union concluded that a "successful outcome at COP-6" is one that creates "the conditions for the ratification and entry into force of the Kyoto Protocol by 2002 at the latest." Wisely, you did not commit the United States to such a timetable when you spoke on the question at the last COP session. The wisdom of that position is bolstered by the meager results of the most recent session of the Convention's subsidiary bodies session in Bonn, Germany, in June. It shows that much work lies ahead to resolve many extremely difficult and complex issues from the standpoint of the interests of the United States in a manner fully consistent with the Administration's July 1998 economic analysis of the Protocol and the principles of the Byrd-Hagel Resolution, S. Res. 98, passed by the Senate in 1997.

We are writing to express our support for the view inherent in your resistance to such a ratification timetable. If and when the U.S. ratifies the Protocol and it enters into force, the implementing rules, guidelines and procedures should ensure that the costs to the United States of complying are completely in accord with that economic analysis and that the Protocol should be truly global.

As matters stand in the wake of the June session, such assurances are not currently foreseeable insofar as COP-6 is concerned. As we understand the June results, the provisions of Articles 3.3 and 3.4 of the Protocol regarding sinks have only just recently begun to receive serious attention by FCCC Parties. Additionally, the latest negotiation text on the Kyoto mechanisms, particularly Article 17 on emission trading and Article 12 on shared credit for projects abroad, includes so many hurdles and requirements that the usefulness of these mechanisms in reducing mitigation costs of the Kyoto emissions target is in serious doubt. While some of these provisions may have been added for purposes of negotiation, we fear that given the short timeframe remaining for negotiation at Lyon and The Hague, the necessary compromises are likely to be unacceptable to the Administration and Congress. Insofar as sinks are concerned, no text exists to even commence negotiations. Yet, inclusion of sinks provisions pursuant to both Articles 3.3 and 3.4 in the first commit-

ment period of 2008–12 is, like the Kyoto mechanisms, also essential to help offset the costs to our economy of mitigation.

In our view, some of the objectionable proposals put forth in the negotiation text for mechanisms by your negotiating Convention partners include: buyer liability, or a hybrid of buyer and seller liability in emissions trading; the setting of quantitative or qualitative caps or limitations on trading emissions; setting forth lists of projects that would effectively exclude clean coal and other energy sources and sinks for the Clean Development Mechanism (CDM); expansion of the “share of proceeds” provisions of Article 12 of the Protocol to the other mechanisms contrary to the Protocol; expanding additionality consideration for CDM projects beyond environmental additionality so as to include, for example, financial additionality; and proposals to effectively rewrite the Protocol so as to make Article 12 requirements applicable to one or more of the other mechanisms.

For the United States, the November session cannot succeed if decisions on all of the key issues regarding each of the mechanisms and Articles 3.3 and 3.4 are not fully resolved at COP–6 in a way that, when examined in the light of a needed updated economic analysis, will demonstrate that the costs are truly modest. In short, deferral of some issues, such as the methodologies for determining baselines, to another COP session, or delaying the resolution of Article 3.4 issues until some undefined future commitment period, is unacceptable.

In addition to the many unresolved sinks and mechanisms matters, there are also important concerns about proposals for a compliance system with multiple layers of institutions that strongly suggests that the sovereign nations that may ratify the Protocol will not act in good faith and try to game the Protocol. These complex proposals include various concepts concerning financial penalties to be adopted not by amendment as called for in Article 18 of the Protocol, but by COP decision. While we think it important to ensure compliance with the Article 3 commitments by all Parties, when and if the Protocol enters into force (if ever), the establishment of such a complex international compliance system for the laudable objective seems unnecessary, inappropriate, and potentially overly intrusive of the sovereignty of a country by a U.N. body.

Additionally, there are significant Convention implementation issues and related Protocol matters that the developing country Parties are apparently quite insistent about also deciding at COP–6 as anything approaching a final act leading to submission of the Protocol to the Senate for advice and consent to ratification and ultimately to entry into force. Too much needs to be done with care, not haste. Proposals to defer so-called technical and procedural details in order to claim success are, in our view, misleading. Such details are more important than broad agreements on targets, as they address issues of practicality, workability, and acceptability.

We nevertheless would welcome your perspective prior to Lyon on these matters and on what you anticipate will be the likely results of COP–6. Your early reply is appreciated.

Sincerely,

JOHN D. DINGELL,
RANKING MEMBER,
Committee on Commerce.

RON KLINK,
RANKING MEMBER,
Subcommittee on Oversight and Investigations.

RICK BOUCHER
RANKING MEMBER,
Subcommittee on Energy and Power.

RALPH HALL,
MEMBER,
Committee on Commerce.

THE DEPARTMENT OF STATE’S RESPONSE

UNITED STATES DEPARTMENT OF STATE
Washington, DC 20520

DEAR MR. DINGELL (KLINK, BOUCHER, AND HALL): This is in response to your July 25 letter regarding the ongoing international negotiations on climate change.

We agree that there are many challenging and complex issues that remain unresolved as we move toward the sixth Conference of Parties (COP–6) to the U.N.

Framework Convention on Climate Change (FCCC), scheduled for November 2000 in The Hague.

We are committed to making as much progress as possible at COP-6. COP-6 has the potential to arrive at a number of important decisions that advance the interests of the United States, including possibly on such issues as the role of carbon sequestration, the nature of the compliance system and the rules for the Kyoto mechanisms (including emissions trading and the Clean Development Mechanism (CDM)). At the same time, we have made clear to our negotiating partners the importance of: (i) achieving maximum environmental effectiveness at low cost; and (ii) securing meaningful participation by key developing countries in combating global climate change.

A reasonable approach on both the Kyoto mechanisms and sinks will help assure that the fight against global warming proceeds in a manner that is practical, workable and acceptable to the American people. The steps we take now can have far-reaching consequences since addressing the threat of climate change will take several generations. We welcome your views on the climate change negotiations.

Senator HAGEL. Senator, thank you.

Senator Lugar.

Senator LUGAR. Mr. Chairman, Secretary Loy, it appears as I have listened to you that there are at least two large negotiations going on in which you are involved, and maybe more. The first one is the United States with the rest of the world, with our external partners. Much that has been written about those negotiations would imply that many nations believe that we are by far the wealthiest nation, that we have developed our industries and our wealth and we have used energy in wasteful ways, that we continue to do so—that we are a profligate state. It is almost a guilt trip suggestion that we have enjoyed good times and there ought to be sacrifice here in order that others might prosper in due course.

Obviously, when you reflect upon the difficulty of the architecture of the agreement, whether we are talking about the accounting agreement or the overall situation, that is very difficult, because there are a good number of states which have a gut feeling that we ought to be sacrificial, that we ought to give heavily at the office to begin with. So you face that issue.

Now, back here you face hearings like this, in which we are talking about what we are prepared to do in this country and to build a constituency so that you have some credibility when you go to The Hague or wherever you go and everybody is reading about what we are having to say back here.

It appears to me that the first situation maybe works out in time, but obviously the American people are going to find unacceptable the thought that we ought to take a guilt trip, and you understand that and are telling them that, so they will have to get over it. Now, they might not get over it for a while; and it is not really clear in the case of, for instance, China and India and other large states that they are in any mood to agree with our views that they need to participate in the same wholesome way that we do. They will have to decide that some day, but I am not sure what year that will come. That is some ways down the trail.

Meanwhile, there are some things probably we can do that you have suggested and Senator Craig is alluding to. I picked up the thought of the forests and the lands from an agricultural standpoint. Here is an American constituency—American farmers, American foresters. By and large, most of the major farm groups do not

support the Kyoto Protocol; and, as a matter of fact, they have been working avidly against it.

But it is conceivable that this administration or the next one or the one after this may be persuaded that in fact farm income could be substantially enhanced if we were thoughtful about the accounting with regard to tilling of the soil, or even if we were to plant trees in large numbers and in a lot of acreage.

For instance, in a very microeconomic sense, on my farm which is now located inside the city limits of Indianapolis, we have about 205 acres in tree plantations. This came to the fore because our Mayor a while back was under criticism by those who said the very few trees that he was planting up and down major streets of the city were not doing very much with regard to being carbon sinks or anything else. And cheerfully I pointed out that here within this city, 200 acres of trees are absorbing all of this.

This is a meaningful thing with regard to all the walnut growers that came to my farm in a national convention. They are interested as tree growers and environmentalists, farmers, and in what there might be in this situation. It has just not been very well developed and probably needs to be soon, because my sense is that if all of what we are talking about today were to have some currency there would have to be constituencies of Americans who see this in their self-interest, in addition to having a keen sense that there is an environmental problem out there. In fact, I do not see any solution until a large number of Americans see that this is in their self-interest.

Now, the pricing mechanism that you have talked about with regard to trades offers a broad avenue here. But this is going to take a lot of creativity and imagination to fashion for a great number of industries how they are likely to prosper. Unhappily, most of the rhetoric has been how they will not prosper, how they must curtail whatever they were doing, sort of the general bromides about a country of SUV's and a profligate group of wastrels.

But that may be the feeling of an elite group who have strong theological thoughts about this. It is not the view of ordinary Americans, so politically it is dead so long as things are on that track.

But thinking through an accounting system, either with our friends abroad or with ourselves at home, I think offers some promise. You have already thought a lot more about that than I have as I hear the testimony today as to how things might move ahead, as opposed to what I see as a general impasse domestically. It may be that way abroad, but you will have to gauge that when you get to The Hague again.

I just wonder, how much has been written? What is out there? If you were to be a farmer advocate for the carbon sink system or whatever, what would somebody latch onto? I say this as one that has been searching for such materials, for such arguments, or even some outline of such an accounting system that we could discuss over in the Agriculture Committee, for example, with a group of Americans who might be interested in this.

Mr. LOY. Senator, let me comment on both of the battles that you are talking about, first the international one and secondly the effort to build a constituency. Internationally, I think the way you describe the feelings of some of the parties is quite, quite right.

There is a feeling on the part of some that, because we are such a big emitter and because we became rich by using industrial technology and fuels, we ought to in some way or another go on a guilt trip.

We absolutely reject that notion. This is a very practical effort to solve a problem. This is not an effort to atone for some past efforts.

It is also true that there are some, particularly in Europe, who kind of have a feeling that it is important to not make this too expensive because if you make it too inexpensive you do not make enough changes in your system to change the climate. We disagree with that. We think it makes no sense why this problem should not be solved, like every problem we know, in the most inexpensive way we can, as long as we actually get the job done.

But I think your sense of the international discussion is quite accurate. I also agree that we do not have enough of a constituency for climate change in this country. The environmental community obviously focuses on the environmental aspect and it is right to do so and very vocal and frequently very constructive, but it is only a part of America.

One of the encouraging things is that the business community, the business community, has I think in the last couple years considerably changed the way it looks at this problem, not unanimously of course, but in very substantial numbers. There is a feeling that there is a problem here, that they are part of it, and there has to be some sort of action taken to solve it.

That is not saying that they are cheerleaders for Kyoto, because that is a different story. But they are definitely in a fashion that did not exist 2 years ago saying, this is a problem we have to address and we are part of the problem. So that is a very encouraging sign.

There is a third group and that is the group of high tech and environmental technology companies who particularly see a significant export market, a significant market domestically and export market, if in fact there are continuing efforts to reduce greenhouse gas emissions.

That brings us to the agricultural community. I was very intrigued by your story of your 205 acres in the midst of Indianapolis because you are quite right, the reforestation or afforestation is an important way in which we can help address the problem. My hope is that as the American agricultural sector learns how this system might work and what is in it for them they will become supportive, as part of the business community, not only for the climate reasons, but also for the reasons that there are tangible advantages.

Let me just mention two of them. One of them, I can see the possibility that by changing practices, either forest practices or land management practices, and thereby reducing emissions or increasing sequestration, you could actually—that that would be a new source of revenue or cash income.

Secondly, the President has made it very clear that part of the overall solution to this problem in his mind is an increased emphasis on biomass as a source, as a fuel for source of energy, and that is potentially a very sizable business and it would be a business that would have very big climate positive effects.

Senator LUGAR. As you know, Secretary Loy, I have presented legislation in several fora to try to accelerate this. I appreciate the administration's support, and likewise we have made some headway with grants by USDA even in this year. But I think this is a critical problem. But we still need some more of the accounting structure to talk about so there is, with practical farmers, some idea of how revenue might be obtained.

Mr. LOY. Senator, I agree with you that we need a simple piece of paper that explains how the system works. Right now it is not so simple. My hope is that after The Hague we will have some of the uncertainties removed and we will actually be able to produce the kind of document that you could use and others could use to explain to the American farmer how this might work.

Senator LUGAR. Thank you.

Senator HAGEL. Senator, thank you.

Mr. Secretary, you probably have been noting some bells going off around here and it is not feeding time for Senators. It means that we have actually got to do something. I am going to hang on as long as I can and what we will do is submit the remainder of the questions for the record.

In listening to this this afternoon, my colleagues' questions, thoughts, observations, and yours as well, let me take you back to the more general dynamic of what we are dealing with here in the Kyoto Protocol, not the issue of climate change but the Kyoto Protocol. I would like you to respond to Ms. Claussen's recent comments about her feeling that we should renegotiate because what we have got here, what we did in '97, is not going to work. As you know, she still is a believer; and her bottom line is, let us renegotiate, let us make it more workable, use common sense, and let us get at it, rather than this intellectual exercise that Senator Lugar talked about.

I do not mean to say that in a demeaning way, because we are driving towards something and I think we all recognize that. But just listening to some of your comments, things that you said about, well, it would only make a dent in the process and one, two, three, four, five, we all understand that. This is a huge issue and nobody quite understands it all.

Some of the questions I asked you were about the economic dynamics and the cost effectiveness; and one of the responses you had was, well, we are not taking into consideration emissions trading and so on. You are right, but we do not have an emissions trading program here. We have not signed off on one. A long way down the road we might get one. I doubt it because I know a little something about how that works, as you do.

But you see, we are kind of going through this if, but, and, well, maybe, I do not know, and where are we? I understand that is part of science, but I would like you to focus a little bit on Mr. Hansen's response over the last few weeks that now, maybe, the carbon dioxide is not the big problem we once thought, and his comments about black soot and so on.

If in fact Hansen is right on any of this, or maybe he would be right, or maybe he is 20 percent right, then it puts us back to where we were a few years ago, because the developing countries that are not held to any standard in Kyoto are obviously the big-

gest polluters when it comes to the black soot and some of these other emissions. The United States has made good progress on carbon dioxide, as have most developing countries. Imperfect yes, but we are not the problem.

So in light of Ms. Claussen's renegotiation comment, Dr. Hansen's thoughts, and some of the give and take we have had today, I guess the first question is should we think about renegotiating this so that we can get at what you want to get at, what I think we all would like to get at, and that is actually doing something about this rather than, as you noted, just doing the best we can and maybe making a dent?

Mr. LOY. Senator, our mind set is that we are approaching The Hague not with a sense of renegotiating the targets or anything of that sort. We are approaching The Hague with a sense that we have to finish the job and that in fact our hope is that we will make quite a bit of progress in doing that, and that we will then have an agreement that actually will work or that we can look at and determine what still is needed to be done.

At the moment I would say that Ms. Claussen's idea would be a big step backwards. It would certainly mean that we would lose many years of effort and we would sort of start from scratch. We do not think that is the right way to go. And I would say that if Mr. Hansen's analysis is read to say it may be somewhat easier than we thought to deal with this problem, I say hurrah. Of course that would be terrific good news.

But I would also say one of the things that that tells us is that it would be less costly to solve. I cannot see how you can read what he said as saying we do not need to deal with the problem, and I know you are not reading it that way. In our opinion, the problem remains, the problem is major. We have an approach to address it. It is called—Kyoto is part of that approach, and we hope to come back from The Hague with substantial progress.

Senator HAGEL. Well, let me put a sharper definition on the question. She specifically mentions that she believes only two countries could even come close to complying, Germany and Great Britain. Do you agree with that?

Mr. LOY. I think it depends very much on how some of the issues that are open are resolved. I mentioned—I will mention two of them particularly. That is, I mention the way in which sinks are included and whether there is a limitation on trading and whether the CDM is given a full green light to go ahead or whether it is hobbled by bureaucratic or other tools.

I think if the answer to that is one way you have got a very difficult time meeting your targets. If it is the other way, it becomes much easier.

Senator HAGEL. Well, let me see if I can get one more specific question in which relates to the bigger theme of what we are talking about here. I am going to read this so I do not waste any time. You are aware of a September 14th proposal of the Group of 77 and China, of course, which seeks establishment of a developing countries' technology transfer fund. Are you aware of that and the specifics of it?

Mr. LOY. I have heard of that idea, yes.

Senator HAGEL. Well, you obviously need to be very aware of it. My understanding is that it would be funded at a rate of some multiple billions of dollars a year, yet to be determined. The money would come from the United States and other developed countries according to some formula yet to be set, and it would be legally obligated, legally obligated by the United States and developed countries to pay into that fund. The proposal calls for an executive body to administer this fund consisting of equal representation from the five U.N. regional groups.

Obviously, the question I would like to ask you is where will we be on that in our negotiations? I hope we will not be party to that and we will not commit to that. I am a little concerned that you do not know about it.

Mr. LOY. Oh, no, I do know about it. I do know about the proposal of the fund, absolutely.

Senator HAGEL. So where are we?

Mr. LOY. We oppose that concept and have said so. We very much want to facilitate the transfer of technology to a lot of these countries, which is one of the things that they want, but we want to do it through the mechanisms that we have designed, through investments by private enterprise that provide those. We would oppose a fund that is managed in the fashion that you describe or that is described in that paper for that purpose.

Senator HAGEL. I am glad to hear you say that. As you know, we are not limited to just that fund. There are other technology funds and ideas that the Group of 77 and China are talking about, all at the expense of the United States. This gets us right back to Senator Bingaman's comment about what is the cost here and what is the reward.

I know you are going to be very disappointed, Mr. Secretary, but we are going to have to gavel this hearing to an end. As always, sir, you have been generous and direct and we appreciate that. Thank you for what you are doing, and we will talk again, obviously, before November.

But let me ask you, if I could—we will submit questions. I know I have other colleagues that have questions for the record. If you could ask your people to try to get those back to us 2 weeks before The Hague meeting, we would like to take a look at those, see where we are, because one of the points of this business, as you know, is that we would like to get some of these things on the record so that we know where you all are, where the administration is going to be. We will have Senators there and members of the House that we are coordinating with your staff. So it would be very helpful if we could have those answers back at least 2 weeks before The Hague.

We will keep the record open for other Senators who want to submit statements or if you would like to submit anything in addition and questions. We will keep the record open officially until the close of business on Tuesday.

Mr. LOY. Thank you, Senator, and thank you for your courtesy and for the opportunity to share these thoughts with you. I look forward to seeing you and I hope many others at The Hague, and let us see what we can work out.

Senator HAGEL. Well, thank you. We will have some time, I think, with you and Mr. Sandalow and others. Maybe we can all visit a little bit a couple times before we have our happy journey to The Hague.

But with that, thank you, sir.

[Whereupon, at 4:34 p.m., the committees were adjourned.]

APPENDIX

ADDITIONAL QUESTIONS SUBMITTED FOR THE RECORD BY SENATOR MURKOWSKI TO UNDER SECRETARY OF STATE FRANK LOY

MECHANISMS

Question. Is the U.S. delegation committed to opposing limits of any kind (including qualitative) on the mechanisms?

Answer. The United States opposes the EU concrete ceilings proposal, as well as any other limits on the mechanisms not aimed at assuring their environmental integrity.

Question. Will you also oppose any qualitative conditions, such as excluding nuclear, hydro and clean fossil projects from the Clean Development Mechanism?

Answer. The United States opposes rules that exclude categories of projects from the Clean Development Mechanism. The United States believes that a developing country host to a CDM project should have the right to determine whether that project promotes its sustainable development.

DEVELOPING COUNTRY COMMITMENTS

Question. Do you agree that these Articles are not adequate because they do not include developing country commitments?

Answer. Yes. We continue to believe that climate change is a global problem that requires a global solution

Question. Can you assure the Senate that the U.S. delegation will insist that the Parties must take a decision at COP-6 regarding developing country commitments?

Answer. At COP-6, the United States will continue to pursue meaningful participation by key developing countries in the fight against climate change.

Question. If this effort is successful, how does the U.S. delegation plan to respond to ensure that developing country commitments are discussed?

Answer. Any change in the agenda must be agreed by consensus. At COP-5, the United States and other developed country Parties did not agree to the change proposed by the G-77. At COP-6, the United States will continue to press for consideration of developing country actions.

Question. Will you commit to ensuring that the topic of developing country commitments is specifically on the agenda for COP-7?

Answer. As it has at every previous COP, the United States will continue to push for a meaningful discussion of how developing countries can contribute to the global effort to combat climate change.

Question. Is it your view and the view of the Administration that these joint statements fulfill the condition set forth in S. Res. 98?

Answer. The Administration believes that these joint statements reflect a strong political commitment by the governments of China and India to take action that will promote clean energy and address their emissions of greenhouse gases.

Question. Are these voluntary agreements intended to encourage them to take on commitments under the Protocol to reduce emissions?

Answer. These joint statements are distinct from any additional commitments that may be undertaken by China or India under the Framework Convention on Climate Change. Nevertheless, they demonstrate the growing political will in these countries to promote clean energy and address the challenge of climate change.

Question. What signs do you see that these countries will make commitments in the near future?

Answer. See previous response.

Question. Will the Administration continue to decline to submit the Kyoto Protocol to the Senate if requirements of S. Res. 98 are not met?

Answer. No decision has been taken as to when the Kyoto Protocol will be submitted to the Senate for advice and consent.

TECHNOLOGY TRANSFER

Question. Given that this proposal takes technology transfer decisions out of the hands of the U.S., and—by definition—increase the cost of the Protocol to the U.S., will the U.S. position be to oppose this kind of “blank check”?

Answer. The United States and other developed country Parties oppose this proposal.

Question. Similarly, will the U.S. position be to oppose any financial compensation to oil-producing countries to compensate for their loss of revenue if the Protocol is entered into force?

Answer. Yes.

EXPECTATIONS FOR COP-6

Question. Do you believe that the meeting in The Hague can succeed in its goal of completing work on the outstanding issues of the Kyoto Protocol?

Answer. That depends on many factors, including the willingness of all countries to work in good faith toward a successful outcome. Though significant progress has been made at previous negotiating sessions, much work remains to be done. We intend to make as much progress as possible while protecting the interests of the United States.

Question. Which issues are most likely to be resolved and what is the most likely resolution for each?

Answer. There are many complex issues on the agenda at COP-6 and many significant differences remain among the Parties. As all decisions are by consensus, Parties can block a particular decision. Accordingly, it is not possible to predict which are the most likely to be resolved or the resolutions of these issues.

Question. If the differences and obstacles are not resolved this year, what are the prospects for resolving them, and when would you expect that to happen?

Answer. That depends on many factors, including the outcomes at COP-6.

POTENTIAL FOR RATIFICATION

Question. While so many issues are at loose ends, does the Administration expect that any industrialized/developed country will choose to ratify the Kyoto Protocol at COP-6?

Answer. To our knowledge, no country has committed to ratify the Kyoto Protocol at or prior to COP-6. The French Government informs us that they have taken all the political steps necessary for ratification of the Protocol.

Question. Presuming that all rules regarding the Protocol are negotiated to completion at COP-6, when would the Administration expect to send the Protocol to the Senate for its advice and consent?

Answer. No decision has been taken as to when the Protocol might be submitted to the Senate for its advice and consent.

Question. Do you see any potential for ratification by other developed countries, or that the Protocol would enter into force in the next several years?

Answer. Many other developed countries, including Japan and members of the EU, expect that COP-6 will pave the way for ratification and entry into force by 2002.

ALTERNATIVES TO KYOTO

Question. Will the U.S. delegation be able to evaluate the economic, energy supply, and national security aspects of this possible scenario (and others) prior to COP-6?

Answer. As various combinations of proposals emerge at COP-6, the U.S. delegation will carefully consider the implications of these combinations.

Question. Has this analysis already been undertaken—and if so, can you share it with these Committees? If not, wouldn't this be a useful activity to undertake?

Answer. Since the precise outcomes at COP-6 cannot be known at this time, it is not possible to analyze all possible implications. However, the Administration will

carefully consider various issues in the negotiations using a variety of tools, including the 1998 analysis undertaken by the Council of Economic Advisers.

Question. Would there be any set of circumstances that would cause you—as the Chief U.S. negotiator—to get up and walk away from the Protocol negotiations?

Answer. Yes. The Administration will not support an agreement at COP-6 that would not be in the interests of the United States.

Question. Are you and this Administration committed to bringing home a complete resolution of Protocol issues—even if it does not meet the tests set forth in S. Res. 95 (Byrd–Hagel)?

Answer. The United States is committed to working toward a result at COP-6 that will help maintain momentum in the fight against climate change.

Question. If all remaining issues cannot be worked out at COP-6, will the U.S. delegation press to reopen the targets worked out at Kyoto with an eye towards a longer-term commitment that includes developing countries?

Answer. The U.S. does not support renegotiating the Kyoto targets.

LAND USE AND CARBON “SINKS”

Question. What is the status of the U.S. comprehensive proposal on land use and land use change that would allow broad inclusion of land use management practices, including carbon sequestration in soils and vegetation in accounting net greenhouse gas emissions?

Answer. Our proposal was submitted formally on August 1 and discussed widely both during the September subsidiary body meetings in Lyon and the October 9–11 consultations outside of Rome.

Question. Do you anticipate that COP-6 will accept this U.S. proposal?

Answer. That depends on many factors, including ongoing discussions on the elements of the proposal and the resolution of other issues.

Question. If there is widespread objection to the U.S. position, what would you see as the most likely adopted decision on sinks?

Answer. See previous response.

Question. For what reason has the U.S. delegation already agreed to consider a “phase-in” for carbon sinks during the first commitment period? Doesn’t this increase the overall cost of the Protocol relative to a case where full use of carbon “Sinks” to offset emissions is possible?

Answer. The U.S. delegation has agreed to a “phase-in” to enhance the likelihood that the U.S. sinks proposal would be accepted by the international community and to help advance our positions on other key issues in the negotiations. The extent to which sinks will reduce the overall costs of implementing the Protocol will, of course, depend on the marginal cost of sequestration in sink activities in the United States. Acceptance of the U.S. proposal would reduce the cost of U.S. implementation of the Protocol and strengthen the environmental effectiveness of the treaty. In contrast, the sink proposals supported by some governments would severely limit credit for carbon sequestration.

EMISSIONS TRADING

Question. How close are we to a goal of unrestricted trading and what will the Administration do if we don’t get it?

Answer. The United States and its Umbrella Group partners oppose quantitative restrictions on the use of the mechanisms, including emissions trading.

Question. Which countries are objecting now to unrestricted emissions trading? How likely is an accommodation between their positions and that of the United States?

Answer. The EU and most members of the G-77 object to unrestricted emissions trading. The likelihood of reaching a result acceptable to all Parties depends on many factors.

REPORTING AND VERIFICATION

Question. What progress has been made in assuring that adequate and appropriate monitoring and verification systems can be designed and implemented?

Answer. There has been significant progress in elaborating the national systems required for accurate monitoring of net emissions, the manner in which estimates might be adjusted to conform with the guidelines and good practice guidance of the

Intergovernmental Panel on Climate Change, how these emissions and other information should be reported, and the processes for expert review of this data and other information.

Question. What are the major concerns and goals of the United States in this process?

Answer. The United States believes that rigorous, binding monitoring and reporting requirements are necessary to ensure that all Parties meet their commitments under the Protocol and, hence, that the Protocol achieves its stated environmental purpose without compromising the economic interests of the United States.

Question. Does our understanding of the global carbon cycle suggest we can make a rigorous estimate of carbon fluxes to/and in natural systems? How does this impact the use of "Sinks"?

Answer. Yes. Hence, the United States believes that sinks can make a valuable contribution to reducing our net emissions.

Question. Will reporting and verification guidelines be modified as needed to reflect changing scientific or technical inputs? How would this amendment process proceed?

Answer. We anticipate that the IPCC will develop further good practice guidance, elaborating the 1996 IPCC reporting guidelines, to reflect the COP-6 decisions on sinks.

COMPLIANCE

Question. How can an amendment be assured to implement a compliance regime in a Protocol that has not been ratified?

Answer. There are numerous options for incorporating the compliance regime into the Protocol. The COP could recommend that a particular amendment be adopted by the COP/moP. Alternatively, the COP could adopt a supplementary agreement before entry into force of the Protocol that would be part of the Protocol once the latter enters into force.

Question. What sorts of "binding consequences" are anticipated to be part of a compliance regime?

Answer. It is anticipated that the compliance regime will contain legally binding consequences for non-compliance with emissions targets under Article 3.1 of the Protocol. The precise consequences are being negotiated. We support consequences that encourage compliance, and restore the environmental damage, rather than those (such as financial penalties) that are punitive in nature.

Question. Under such an option, would the compliance system enter into force without the advice and consent of the U.S. Senate?

Answer. Legally binding consequences would apply to the United States only with the advice and consent of the U.S. Senate.

Question. How would you seek to safeguard our national sovereignty under such circumstances?

Answer. We would not support a regime, including consequences, that would be at odds with our national sovereignty.

Question. How would you ensure that existing U.S. programs that measure and track greenhouse gas emissions (and reductions) would be consistent with any international compliance regime?

Answer. U.S. programs that measure and track greenhouse gas emissions and removals would need to implement Articles 5 and 7 of the Protocol and requirements thereunder. These Articles, as well as requirements thereunder, are being designed, among other things, so as to enable U.S. compliance.

Question. Would such an amendment be formulated and adopted at COP-6? Is this likely?

Answer. The precise manner in which the compliance regime is to be adopted is still a matter of discussion. There are several options. If the amendment option were chosen, COP-6 could recommend the contents of such an amendment to the COP/moP, which would be the body to actually adopt it.

Question. If an amendment on compliance is sought, will you commit to ensuring that such an amendment also includes emissions reduction commitments on the part of developing countries?

Answer. Securing meaningful participation from key developing countries remains a priority for the United States. However, we do not believe it would be possible

at COP-6 to reach agreement on an amendment that includes emission reduction commitments on the part of developing countries.

SUBSEQUENT COMMITMENTS

Question. Do you anticipate that discussions will begin at COP-6 on the extent of commitments in the second and subsequent budget periods (2013–2018 and beyond)?

Answer. Negotiation of subsequent commitment periods is not on the COP-6 agenda.

Question. If so, what kinds of emissions reduction targets could the U.S. reasonably meet in the second budget period, assuming current policies and practices and continued efficiency improvement?

Answer. The Administration has not determined its goals for subsequent commitment periods.

Question. Will developing countries be asked to take on commitments in the second budget period? If not, why not?

Answer. There is no specific mandate for the negotiations of the second commitment period. The United States will, of course, continue to explore ways in which developing countries can contribute more fully to the effort to combat climate change.

Question. Will you ensure that any discussions of commitments beyond the first budget period consider the long-term emissions trajectory needed on the part of all Parties to achieve stabilization of greenhouse gas concentrations?

Answer. Any discussion of subsequent commitment periods would likely include various long-term emissions paths and alternative means to achieve those paths.

STATEMENT SUBMITTED FOR THE RECORD BY SENATOR LINCOLN CHAFEE

While I am unable to be present at today's hearing, I am pleased to submit my statement on the important issue of the Kyoto Protocol and global climate change for the record. I would also like to thank Mr. Frank Loy, a close friend of my father's, the late Senator John Chafee, for coming before this joint session of the Foreign Relations and Energy and Natural Resources Committees to testify today. I would also like to thank the Chairmen of the Committees, Senator Helms and Senator Murkowski, for holding this hearing.

Despite having the most stringent and effective environmental laws in the world, the United States ranks top among the largest polluters and consumers. With one-twentieth of the world's people, we consume one-fourth of the world's energy. We generate twice as much waste per person each year as a European country and many times more than most third world countries. Clearly a deep worry as we move forward in the 21st century is the possible warming of our globe through the greenhouse effect. By disrupting the balance of carbon dioxide, methane and other gases in the atmosphere, the earth is expected to become either hotter or cooler than it is now. The science overwhelmingly supports the notion that increased levels of greenhouse gases in the atmosphere will make the earth warmer. The world's leading atmospheric scientists are telling us that global warming is already occurring and the hottest 10 years on record have all occurred since 1980, with 1998 recorded as the hottest year ever.

When my father introduced Mr. Loy during his nominations hearing before the Foreign Relations Committee for the position of Undersecretary of State for global affairs, Senator John Chafee mentioned that Mr. Loy had dedicated his life to environmentalism and the vision that no lasting environmental progress can be made unless it has broad bipartisan support; is economically sound; and global in nature. This vision holds true today, and I thank Mr. Loy for his work on the Kyoto negotiations.

I believe we would all be wise to develop this vision of reaching a bipartisan consensus on climate change that regards the issue as global in nature. All countries, regardless of size or developmental state, must come together to solve this problem. While I strongly believe the United States must take a lead role in reducing greenhouse gas emissions, I also believe developing nations must play a role in the reductions. We must find an accord that is economically sound and reduces greenhouse gas emissions while ensuring the economies of industrialized and developing nations are not jeopardized.

While I did not have an opportunity to participate in the Kyoto Protocol negotiations nearly three years ago, I look forward to the upcoming Sixth Conference of the Parties to the United Nations Framework on Climate Change, which will take place this fall in the Netherlands at the Hague. The 1997 Kyoto agreement included a framework for identifying 6 greenhouse gases and committed industrialized nations to specified, legally binding reduction targets. Specifically, the United States is to reduce emissions by 7 percent from 1990 baseline levels by 2012. In order to reach these levels, the US must move quickly to have any effect on long term greenhouse gas emissions.

This is an extraordinary level of reduction that will not be easy to achieve. I am encouraged by the historic Kyoto Protocol, but understand many of my colleagues reservations with the agreement. While the industrialized nations are the primary emitters of greenhouse gases, releasing 75 percent of the world's total carbon dioxide (CO₂) but making up only 22 percent of the world's population, the growth rate in the release of CO₂ by developing nations is extremely rapid, due to the greater burning of coal and the increased use of motor vehicles.

I believe it is important to obtain emission reduction commitments from the developing nations. This is particularly important when looking ahead. Greenhouse gas emissions from these countries, when taken together, are projected to surpass the overall emission levels of the industrialized world by the year 2015. At The Hague in November, the US will have another opportunity to attempt to persuade key developing countries to join in this important effort. As things now stand, there is little prospect for Senate approval of any new climate treaty unless developing countries agree likewise to control the growth of their greenhouse gas emissions.

The Kyoto agreement included the outlines of an international trading program and a cross-border emission reduction project plan. Many believe that emissions trading will reduce dramatically the cost of a legally binding treaty. By creating an emissions trading market for carbon, the Clean Development Mechanism, as it is known, would provide emissions reduction credit to industrialized countries that provide the means of reducing greenhouse gas emissions in developing countries. The types of projects that are envisioned include carbon sequestration projects

through forest preservation and agricultural soil activities, and/or the export and development of clean, efficient power generation technologies. While the administration of such a program would be a real challenge, involving hundreds of thousands of sources across international boundaries, I believe this mechanism offers tremendous promise for cost-effective emissions reductions and international forest preservation.

As we approach the November Conference of the Parties at the Hague, I believe the two key issues that remain regarding the accord are to obtain the active participation of key developing nations and to firm up many of the details regarding the credit trading programs. Climate change is a global problem that deserves a global solution. I am optimistic that the ongoing Kyoto negotiations are a step in the right direction.

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