within our priorities, given all the other needs that we have in national security and otherwise, and even before we determine whether or not it is going to fit into the plans of stability for this Nation and the world.

So I hope that this tonight was a start in a conversation on this. I hope that we can impress upon the Secretary of Defense to allow us to release to the public Mr. Coyle's report from the OT&E office so that we can discuss that and debate it openly. It talks about some serious reservations and some serious concerns about moving forward and deploying before, in fact, we should be.

I thank the gentlewoman from Illinois (Ms. SCHAKOWSKY) for joining us on that and all the other Members who participated tonight and I look forward to an open debate so the American people can really understand what is involved here and what is at stake and the dangers and responsibilities attendant to it.

GLOBAL WARMING

The SPEAKER pro tempore. Under the Speaker's announced policy of January 3, 2001, the gentleman from California (Mr. ROHRABACHER) is recognized for 60 minutes.

Mr. ROHRABACHER. Mr. Speaker, I will be discussing global warming tonight but I would like to just say one or two words and I would hope that my colleagues in the next presentation about the strategic defense initiative will have a debate. I would be very happy, along with others here, to participate on the other side of that issue.

Let me just say I could not disagree with my colleagues more on the issue of missile defense. I am the chairman of the Subcommittee on Space and Aeronautics and we do have the capacity and the capability of knocking down an enemy missile that might have a nuclear warhead that would murder millions of Americans.

Should we have a defense to prevent millions of Americans from being incinerated if the Communist Chinese would launch a rocket at us? I think that it is prudent that we try to develop the system.

The answer to many of the questions that were brought up tonight is that if the system does not work and cannot be made to work, we will not buy the system. It is incumbent upon us, incumbent upon us, to spend the money that is necessary to see if that system can be developed. I believe it not only can be developed but we have already knocked out of the sky several missiles that were launched from other locations without a previous flight plan, I might add.

What we have today, we knew they were coming but not exactly what the flight plan was. Let me just say this, in the future I would hope, especially the young lady with two grandchildren, that she does not face a situation where an American President is told the Chinese have just launched a missile; there is nothing we can do, nothing we can do but let it incinerate a part of the United States. I hope her children are not there or her grandchildren are not there. We have to look at this as a real possibility.

The Communist Chinese have dramatically expanded the capabilities of their missile offense, and mutually assured destruction means nothing to that enemy. Those Americans who are listening to this might think it would be prudent that America in the future would have a system to defend itself in case the Communist Chinese would threaten the United States with an attack that would murder millions of its people unless we give in. I think it is a very prudent course of action.

I will be very happy to debate with my colleagues in the weeks and days ahead if they want to have a debate rather than a presentation here on the floor.

Now I do have my presentation tonight, which I have on global warming, especially considering that President Bush has come under severe attack for his refusal to bow before the pressure of a very well-organized effort that they are trying to pressure him to accept the idea that the world is in peril because it is becoming more and more warm because of industrialization. It is vital that the public understand that what is going on in this attack against President Bush is about a political agenda; that global warming is not a scientific imperative. It is a politically-driven theory.

Those espousing global warming are building on public fear and apprehension. Young people in particular are being lied to about the environment and about global warming. Global warming, of course, is one of the worst falsehoods that they talk about. When I meet with student groups, it is clear they are being told false things about a lot of areas of the environment.

In fact, I meet every student group from my district that comes to Washington, D.C. I always ask them the same question: How many of them believe that the air today in Southern California is cleaner or worse than it was when I went to high school in Southern California 35 years ago? Consistently, 95 percent of these students who live in Southern California who are coming to my office say they believe that the air quality today is so much worse than it was when I went to high school and how lucky I was to live in an era, in the early 1960s, when we had such clean air in Southern California.

This, of course, is 180 degrees wrong. These young people have been systematically lied to about their environment. They are being told they are being poisoned by the air. But, in fact, the air quality in Southern California is better than it has ever been in my lifetime. They cannot believe it when they hear it.

They also cannot believe that the quality of the Potomac River, the water quality around us, is better, even the quality of the soil. Even the number of trees and forests that we have have increased. They have been lied to time and again about the environment, and again the global warming theory is the worst of all.

These lies are being used to justify to Americans of all ages, to justify a centralization of power in Washington, D.C. and a centralization of power in global government through the United Nations and other institutions that are run by unelected and unaccountable authorities.

Let us get into what global warming is all about. Global warming is a theory that carbon fuel, coal, oil, gas, et cetera, that this carbon-based fuel is putting CO_2 into the atmosphere, and CO_2 is causing the temperature to rise, which will cause a drastic change in the weather, the ice flows, animal life, plant life on our planet.

First and foremost, let us recognize this: All of the recent scientific reports agree that there may, or may not, be a minor change in the planet's average temperature over this last 100 years. There is no conclusive proof that man is the cause of that perhaps minor change.

That is not what we are being told. The American public is being told all of these scientific reports are claiming that global warming is absolutely a fact and there is no arguing with it. One reads those reports and they will find that there are weasel words and there are all sorts of caveats in these reports that suggest the scientific community cannot say this.

Climate science seems to be a very recent entry into the pantheon of scientific study. Prior to 1980, there was only a handful of climatologists. Now they seem to be everywhere. Try to find a researcher on global warming who is not in some way tied to some sort of research contract by the Federal Government. Now, could it be that the reason for the increase in the numbers of global warming advocates has something to do with the access to government funding for research?

Eight years ago, when President Clinton took over the executive branch, he saw to it that there would be no one getting scientific research grants from our government unless they furthered the global warming theory.

We were tipped off to this when the lead scientist, and I would say the Director of Energy Research for the Department of Energy, Mr. Will Happer, was precipitously fired from his position because he did not agree with the global warming theory and did not believe that it had been proven. He wrote a little article about it, and Vice President Gore came down on him like an iron fist and he was out of that job.

Dr. Happer, I might add, is now a professor of physics at Princeton University. But his removal as the director of research at the Department of Energy sent a message, clearly heard throughout the scientific community, you do

not agree with global warming; you are not going to get the contract. This has gone on for 8 years.

There does not appear to be much information on global climate change prior to the mid-1980s. What we have been able to find out, prior to that time period, is that generally people in those times, the scientists, were arguing that we were on the edge of a new ice age. It was not global warming. Then it was global cooling.

□ 2215

In fact, in the span of 20 years, climate models have gone from predicting our eminent demise by freezing to death in a new ice age, to being baked in an oven to death in a global furnace. Interestingly enough, some of the leading proponents of global warming used to be the same advocates for global cooling.

Now, historically speaking we know that the globe and its climate have different ebbs and flows, and there have been ice ages in the past and there have been tropical ages in the past, without interference from man. That is even before man came on the scene.

In the last 1,000 years, for example, we have witnessed, even since man has been on the scene, in this last 1,000 years, we have witnessed a huge temperature swing over much of the world. Early in the last millennium, Lief Erickson established a colony on Greenland, and that colony on Greenland was free of snow for over half a year every year. In less than 100 years, 100 years later, that colony had to be abandoned because the climate had grown so much colder and the snow so much thicker that a new ice age appeared and apparently was on the way, a mini-ice age, not making Greenland hospitable to human habitation anymore.

I wonder in the current climate of scientific investigation what would have been predicted had scientists been available then to chart the course of what direction the world was going. We probably would have been told then that the Earth was on its way to an environment in which only the Eskimos would survive, and all of this was due to, who can tell? Certainly humankind had very little influence on the weather and temperatures then. No one could argue that.

Of course, that trend and lower temperatures reversed itself. Yes, it was getting cooler; but it then reversed itself, because at some point the Earth naturally has a way to adapt to cooler or warmer temperatures.

This historical recollection gives us a reason for concern about some of the trend lines. You take a trend line going in one direction and launch it way out into the future to see that that may not be accurate. It may not be accurate because the world can adapt.

If, in fact we have a minuscule trend towards warming, it could be that we are in fact emerging. Right now, instead of having the trend line being ominous, all it could mean is a trend line of minuscule warming, 1 degree in 100 years. It could mean that we are just emerging from a cooling period, from a period that is a little bit cooler.

Now, none of us should forget our lessons that we learned in sixth grade about those huge glaciers. Remember that? The huge glaciers once covered all of North America. In fact, it happened three or four times. The glaciers would come down, go back, and most of North America and Europe were covered. In fact, the Great Lakes were, if I remember what I was taught, were gouged out by these glaciers; and when the glaciers receded, these lakes were filled with water.

Well, when the glaciers moved forward, it represented a major change in the global climate towards global cooling. When the glaciers retreated, and we are now in a time period when the glaciers are retreating, that must mean that the Earth is getting a little bit warmer. Well, to use that as some sort of scientific basis to say that humankind is creating a warming trend on our planet that threatens and puts our planet in peril is nonsense. The one thing that those glaciers going back and forth did not indicate was that human beings had anything to do with the global weather change that was taking place. Nor did human beings have anything to do with the fact that all the dinosaurs were killed off by this global change in weather.

It seems to me that to understand climate change, we need hundreds of thousands of years' worth of observation and far more types of data than are currently available. Instead of serious scientific investigation and debate, most of those currently clamoring about climate change are looking at unbelievably shallow evidence and rushing to the conclusion that human beings are the cause of this change. But human beings were not around when these other traumatic changes happened in weather and temperature, which occurred in our distant past.

Recently, we have been treated to yet another spectacle of media climate-change hype. As I say, our President is under attack. Our new President, George W. Bush, made it clear that the United States will not be bound by the so-called Kyoto Protocol.

The liberal media and academic establishment went berserk. Just think of it, the President of the United States is calling into question the validity of man's impact on the global climate. Again, elitists have arrogantly labeled an American President as some kind of a moron. Well, they did the same thing to Ronald Reagan when he tried to end the Cold War, and they were dramatically wrong then too.

George W. Bush is intelligent, and he has common sense. A few days ago the American people were presented something to make them believe that George W. Bush was not so intelligent. They were presented with a National Academy of Science report on climate change.

Now, if you read your newspaper about a week ago or saw the network news coverage, you would think that the President had been dressed down by the scientific community and that, once again, the experts had solidly, solidly, rallied behind the contention that global warming is here and it is a result of human action and that that determination is irrefutable. Well, that is what you would believe by the news reports.

Dan Rather, let us take a look at Dan Rather's report in particular. Dan Rather on CBS news was perhaps the worst in terms of his bias and inaccuracy of the presentation of that report. His lead to the story stated uncategorically that the report had proved global warming was here and that humans were the cause. How many listeners noted that after 3 minutes of Dan Rather's report, that at the end of that report, Dan Rather's own correspondent stated that the National Academy had not stated that humans were the cause of the temperature increase, and that temperature increase was 1 degree over 100 years?

Now, how many people noticed that? You had Dan Rather leading into his report that the report stated unequivocally that there had been the global warming and that humans were the cause. Yet at the end of the report, his own reporter put a little tag on that that they could not absolutely say that it was caused by human actions and human activity.

The National Academy of Science report is filled with weasel words and caveats. That was true of many of the other scientific investigations. Almost every one of the scientific investigations, the findings about global warming were not conclusive enough to make any solid statement other than words to the effect that further research is necessary.

Just like Dan Rather, it totally misportrayed what that report was all about. Over and over and over again, the American people have heard about reports that global warming is absolutely here, and it has been misportrayed to them. That is not what those reports have said. Sometimes reports have said that, and you go back to who did the reports, just a very small group of radicals who are not respected by the scientific community in those reports. Yet we hear about the reports all the time, and we see these same misquoted reports as being used to justify dramatic headlines and very frightening reports over the broadcast news media.

For the record, I will submitting two documents highlighting some of the caveats and some of the weasel words, you might say, in the NRC report that indicates that the NRC is not making that conclusive and unequivocal decision that global warming is here and that humans caused that, which is what we heard on CBS news and read in the newspapers throughout this country and were used to beat our President

up. Falsehoods. That is what was used to beat our President up. I will submit this for the record.

By the way, the report states that the temperature on Earth, again, let me state this, may or may not be, may or may not be, 1 degree warmer than it was 100 years ago. One degree change over 100 years. Think about that. A 1-degree change? These experts cannot predict the weather one day in advance. How can they predict and calculate and analyze the weather back 100 years ago, when they did not have any of the scientific equipment that was available to them, that is available to them today? How can anyone give credibility and be given credibility claiming a minuscule temperature change that supposedly has taken place across the face of this enormous planet?

Remember, 100 years ago they did not have any satellites; they did not even have telephone communications in most of the world. But across the face of this planet, that it was cooler then by a whole 1 degree? Can anyone listen to that with a straight face? Give me a break. Give the American people a break.

Well, one remembers just a few years ago President Clinton was so committed to proving this theory that he invited hundreds of climatologists who agreed with global warming to the White House. These were people who he thought were sympathetic to the global warming theories. During that time in the White House, I understand a major storm broke out in Washington and was just drenching the entire area; and well, what happened is that of all those hundreds of climatologists that came to the White House to reconfirm global warming, only three of them thought ahead enough to bring umbrellas.

So, what does that tell you? These are the people who are going to decide who can guide us down the path of accepting global warming, which then would lead us to dramatic changes in our lives because we would be giving power and centralization of authority away from what we have it today.

What is essential to the global warming theory, of course, is not just that the temperature is on the rise, but that human beings, especially western civilization, and particularly those of us who live in America, we are at fault; the Americans, the people who live in western civilization and human beings in general, we are the ones at fault for global warming.

Okay, so let us concede before we get into that that the Earth may or may not be 1 degree hotter than it was 100 years ago. That, however, is not necessarily a catastrophe. If the Earth is 1 degree warmer now than it was 100 years ago, that may be a good thing. It may be baloney; it may be a good thing. I do not know. It may be a good thing, especially if that 1 degree warmer is a nighttime temperature in the northern hemisphere in the fall or winter. That would be a very wonderful thing, to have it a little bit warmer during that time.

In fact, some of the people claiming to believe in the global warming theory are in fact saying that is how our temperature increases, it is 1 degree in the northern hemisphere, and I do not think that that is such a big calamity.

Furthermore, let us say that the worst calamity comes true, which is we are being told perhaps over the next 100 years we could face a 5-degree rise in temperature. That is their wildest scenario. Well, that may or may not be a bad thing.

I certainly do not believe that this is happening, but let us just suggest it is not bad enough for us to give away our freedom and lower the standard of living of our people and do many of the other dramatic things that global warming theorists are trying to push off on us.

People in the northern hemisphere, like us Americans, well, you know, we might not be so bad off. Maybe there will be a longer growing period in Canada and places like that. However, do not get your shorts on yet or sell your winter boots. There probably is no global warming.

Having said what I just said, the Earth tends to adjust itself naturally, and even if there is global warming, the Earth may just well adjust for it. It may be some water vapor that is warmed off the ocean, and that tends to cool off the Earth. The scaremongers do not want to tell us that the Earth has an ability to adjust if things get a little warmer; that it is affected by different things and then it gets a little cooler.

□ 2230

What instead the scaremongers want to do is make sure that we believe their global baloney. That is what I consider it, global baloney.

There are a number of reasonable scientific explanations for a situation that would have us a few degrees hotter or a few degrees cooler. It is not that humankind is living too well.

The Earth's orbit is elliptical, and there are times when we are closer and sometimes when we are further from the sun. That small difference of several thousand miles equates to a tremendous difference in the amount of energy that reaches the Earth. So where is the data in terms of the analysis of this in relationship to global warming? Where is that analysis?

The ancient Mayans and Aztecs observed a 208-year solar cycle where solar activities increase for 104 years, followed by 104 years of declining activity. We have all seen these solar storms. Modern science has confirmed their observations. We are now at a halfway point between the cycles of solar activity. Can we expect, and we maybe can expect, 50 more years of solar activity being on the increase, which would mean a moderate warming trend. That is before the temperatures begin to fall. A one-degree increase in the global temperature, even if that is there, might be explained by these solar storms.

We know the ancient Mayans and Aztec observations about this solar phenomenon have been confirmed. But have the global warming alarmists brought this into their calculations?

How about water? Water comprises three-quarters of the world. Given the sheer volume of water on this planet, it surely has a tremendous impact on the temperature of the air. However, there are no accurate global ocean temperature readings that go back more than 10 years, and those that do are primarily based on satellite observations of surface temperatures. Those readings do not include deep water. In fact, we have absolutely zero understanding of deep water temperatures, and almost no understanding of deep water ocean currents. How can we possibly ignore that data when trying to calculate something as overwhelming as global warming?

Global warming studies did not take into consideration the ocean temperature, and sometimes when they did it did not give them the right facts, so they just went on to something else.

It also did not take into consideration the clouds. Much less the oceans, it does not take into consideration the clouds, which are even more important to determining the Earth's temperature. Clouds, of course, have everything to do with cooling things off.

Dr. Richard Lindzen of MIT has proven that as temperatures rise, more clouds are formed. This is part of the natural way the Earth reacts. If there is a little more warming, there would be more clouds, and it would cool the Earth off. More clouds in turn reflect more heat back into space, and thus it cools the Earth.

It is cooler when there are clouds out. If Members do not believe it, I ask them to stand outside on a hot summer day and see what happens when a cloud passes overhead.

Let me tell Members an interesting thing that happened to me. I have been in Congress now 13 years, but a few years ago, a Federal administrator of an agency came into my office. He made me promise not to disclose what my source was. He then went on to tell me that all the global warming studies were flawed because they never took into account how cloud cover affected the temperature readings that they were recording.

How do we determine whether or not it was a cloudy day when the temperature readings were taken in various

parts of the world 100 years ago? Give us a break. They cannot even tell us how those temperatures were taken, who was taking the temperatures. Were they people who were trained? Were the instruments calibrated? Much less they cannot tell us was it a cloudy day that time they took the temperature.

Global temperature records either do not exist or are absolutely flawed, and they are flawed to such a degree for 100 years ago that they might as well be useless in trying to calculate something like global warming. Actually, most of the records do not go back any further than 50 years in our urban areas, which of course the urban areas tend to be much warmer than rural areas because they have all that concrete and cement.

There are few records that extend beyond 100 years, and there is no way of determining those records. Even the 50-year records are in question, because most of them are in the cities and not spread throughout the planet. And these people who are telling us about global warming, we are going to say they have a scientific basis for what they are talking about?

Although we talk about global temperatures rising, that in itself may mean little because the temperature is not the only measure of heat. Humidity is an important measure in terms that are just as important as heat. Southern California is a lot easier to live in at 100 degrees than if we are down in New Orleans in that humid weather.

So even when our local weatherman gives the heat index based on temperature, he also gives us one that is based on temperature and humidity. These things are not being calculated by people talking about global warming.

Finally, let us talk about climate models touted by global warming advocates. They do not take into account the Earth's orbital change, as we have said. They do not take into account solar activity cycles. They do not take into account the temperature of the oceans. They do not take into account the cloud covers. They do not take into account the accuracy of long-term temperature readings, as I just said, for 100 years and 50 years back. They do not take into account humidity.

What they do take into account is a theoretical calculation of manmade CO2 content, and lots of hypothetical data about other manmade pollutants. But most of the sources of CO2, and that is what they are claiming is causing this global warming, that humans are putting CO2 into the atmosphere, well, most of the sources for CO2 and the other so-called greenhouse gases are naturally-occurring and not manmade.

Let us make sure everybody understands that. Global warming is a problem, but mankind is actually one of the smaller contributors of CO2. It is overwhelmingly true that the CO2 being put into our atmosphere comes from natural sources. The contributions made by human beings to these gases that are turned loose in our atmosphere are less than 10 percent of the total.

Volcanic activity, for example, can add more to the atmosphere in a few weeks than all the internal combustion engines on this planet over the last decade. Termites and other insects, for example, are such a large source of CO2, and it is a larger source of CO2 than all of the industrial plants in the civilized world. Rotting wood is another offender that dwarfs any human contribution to this so-called threat.

I do not hear many calls coming from the people talking about global warming to bulldoze the rain forests. If they really believe in global warming, the rain forests, the rotting wood and the insects in those rain forests are the worst contributors. They are the most evil forces in this planet in putting global warming out, so we would want to bulldoze the rain forests. We would also want to clearcut old growth trees and plant new young trees, because the new young trees take the CO2 out of the atmosphere and replace it with oxygen.

Mr. Speaker, we do not hear many people who are global warming activists calling for the bulldozing of our rain forests. We do not hear many of them calling for the cutting down, the clearcutting, of old growth trees, or advocating nuclear energy, which is a tremendous source of energy which puts no CO2 into the atmosphere.

What is most frightening about the public acceptance of the global warming theory is that the solutions are not to clearcut old growth, they are not to tear down these rain forests. Instead, the solutions we are being offered to global warming are policies that would dramatically reduce the standard of living of hundreds of millions of people, especially the people of the United States.

President Bush was 100 percent right in rejecting the Kyoto Protocol and demanding further scientific research for any drastic government policies to be put into place.

The most frightening element of the global warming debate is that intelligent people, backed up by so-called experts, are advocating that we Americans give up our way of life, our standard of living, and yes, our freedom. Global warming advocates would have us give authority to unelected international officials. No one who has ever been elected will ever be the one who will be calling the shots if we give up all of our authority and the power to run our lives and our economies to people in the United Nations or other worldwide authorities that are run by unelected environmental bureaucrats.

These bureaucrats, government officials, will have power over our lives if these global warming fanatics get their way. That is the purpose of the global warming steamroller that is coming down the political road. They are trying to force us to give up our freedoms in the name of some threat that does not exist.

Americans, of course, are the bad guys. We are being portrayed as the bad guys to the whole world. Thank goodness we have a President that is standing up for us, because here in the United States even poor people have a decent standard of living. If the Kyoto Protocol was implemented and is implemented, within a generation we would be living as Chinese peasants, knee deep in sewage and fighting for grains of rice in order to fend off imminent starvation.

What is not mentioned by these global warming advocates is mentioned here, that Americans have maintained a higher standard of living in the world for the last century than any other country in the world. That is what they are trying to bring down. That is the enemy, our high standard of living.

They have based their analysis on global warming based on units of wealth, and when they do, if they base it on units of wealth, the United States is one of the smallest polluters, because in terms of the amount of wealth we are producing for our people to enjoy a good life, we actually produce so much wealth and little pollution per amount of wealth. But the Kyoto Protocol is based on CO2 emissions per capita, not on given units of wealth.

This approach by its very nature is aimed at dooming America's high standard of living by mandating that we give up this high standard of living in order to eliminate the CO2s that are going into the air, when in fact we live in a country that has done more to improve the environment and to bring in cleaner sources of energy than any country of the world, especially third-world countries like China.

By the way, the Kyoto Protocol exempts China and other so-called developing countries from the severe regulatory restraints that will be necessary to sustain and to fulfill the Kyoto Protocol. What we will have is manufacturing companies closing up in droves in the United States to move to the Third World. What it means is our children and our grandchildren will suffer tremendously. They will have a lower standard of living. We will have a world market dominated, of course, by WTO, World Trade Organization regulators who come from third-world countries who do not have free elections, who probably are going to be bribed by countries like China.

So we are going to give up our sovereignty, we are going to give up our authority, to run our lives as is envisioned by the Kyoto Protocol and the WTO and the rest of these folks? We are going to do that?

What will that mean? That will mean the American middle class will be crushed. The working poor in America will see their standard of living go down dramatically. As Ross Perot said, that giant sucking sound is our money, our jobs, and our future going right down the drain.

But that is what global warming is all about. They have not proven it. It has not been proven to us that global warming even exists, much less that mankind has caused it. But they have got to keep us believing that that is what these scientific reports claim so we will go along with this plan to give up our rights and our freedom and to lower the standard of living of the American people.

The Kyoto treaty never went to the Senate because President Clinton knew he could not even get one vote for this monstrously misguided proposal, but thank goodness, President Bush is standing up for us and against that steamroller.

□ 2245

Al Gore, of course, was one of the world's strongest advocates for the Kyoto Protocol and of global warming restrictions being placed on the American people.

Now, this is not the first time the American people, that people have tried to frighten us into accepting some kind of cockamamie idea. I remember when I was a kid, I went to Thanksgiving one day, and what do you know, my mom did not have any cranberries on the table.

She did not have any cranberries on the table. I said, mom, you know, this is Thanksgiving, where is the cranberries? Cranberries cause cancer. And so for 2 years at Thanksgiving, my family, and I might add hundreds of millions of other families, did not have cranberries for Thanksgiving.

Then you know what? We found out that it was all just like global warming, it was all baloney. Those cranberries did not cause cancer at all. But what do those scaremongers manage to do? It lowered this festival. It lowered the festivities and the joyous occasion of having Thanksgiving by taking away cranberries. And, yeah, guess what? It put hundreds of cranberry farmers out of business, drove them out of business. People lost their family farms and their lives were destroyed for many, many years ahead. Oh, sorry, we were wrong.

I also remember Dr. Meryl Streep, remember when she came here to Congress to testify that alar in apples was the threat to people's health. And for one year, the apple industry in our country and other countries was destroyed.

Hundreds of families who owned those apple orchards were put out of work. Their families gone forever. Their family fortune gone forever. They could not make their payments because for a full year the American people were frightened about that and, of course, what did we find out, no, alar does not cause cancer, sorry.

I even remember as a young man when I was told that cyclamates cause cancer. The American soda pop industry had invested hundreds of millions of dollars to develop a new sweetener cyclamates in order to make sure that, number one, we would be able to use it and it would be used in drinks, and we did not have to depend on sugar, it was healthier for you, et cetera, et cetera. But all of a sudden some people began claiming that it was causing cancer. Cyclamates cause cancer.

Well, guess what? Canada never took cyclamates out of their soda pop, and then after about 10 years or 12 years of having the cyclamates forced out at a cost of again hundreds of millions of dollars that just evaporated from our economy, what happened is the Food and Drug Administration quietly moved forward and said, oh, by the way we were mistaken, cyclamates do not cause cancer after all.

This is the type of nonsense our young people are being fed in their schools every day. They are being told that their environment is getting worse and worse and worse, and they might as well give up because they can give up their freedoms, trust in the government, trust in international organizations, trust in people who have all this hoopla on about global warming, and about how the environment is getting worse. They are being lied to in the very same way.

Our young people today, and let me tell my colleagues one other incident that happened to me as a young person. Most people know that I am one of the few surfers in Congress. And, in fact, I am a scuba diver. I am a surfer, and I am an ocean person.

I was scuba diving just a few months ago, and I will tell you that 3 days ago I was in the ocean surfing off of my district off of Huntington Beach. It was in the Bolsa Chica area and I was surfing there for 2 hours. It was a great day of surfing.

When I was a young reporter and that is how I got into this world of politics, I was assigned to cover Jacques Cousteau who happened to be one of my heroes. I mean I was a scuba diver and I loved the ocean and I went to UCLA, and there he was speaking at UCLA.

Jacques Cousteau was speaking to these college students, and he was very pessimistic and I said, gee, I just do not feel right about being so pessimistic about things in the ocean.

So when I came up to him afterwards to do a short radio interview, some other students stood around and listened and I said, Mr. Cousteau, is not there some possibility that perhaps the oceans will be used as a source of food for us in the future beyond just catching fish, like aquaculture and growing oysters and clams and things and lobsters, and is that not a possibility? And he just came right up to my face and he said, Did you not hear me? Within 10 years, the oceans will be black goo, totally dead, destroyed. The oceans will be lifeless. Did not you hear me?

Of course, I never will forget that, because this guy got right in my face and he was screaming in my face and he put on a pretty good show for those kids. And it has been about 30 years since that happened, maybe 25, maybe 25 years since that happened. And guess what? Jacques Cousteau is dead, but the oceans are alive.

I was out surfing a few days ago and I could not help but notice the porpoises swimming by, and when they swim up to you, you can rub the bottom of your surf board and they will come up to you. And it is a wonderful, wonderful experience. The birds were flying and diving into the ocean nearby catching little fish.

I was in the water for 2 hours, and I was not covered with black goo. Now, that person, Jacques Cousteau, was a fine man. He obviously is a hero to many people like he was to me.

Why did he feel he had to lie to such a degree? Was it that he did not know that he was lying, that he did not know that the oceans were not going to be black goo within 20 years or 10 years is what he said. No. Jacques Cousteau was part of a movement, part of a movement that feels they have a right to lie and they have a right to frighten people, because they have a higher calling; their higher calling is to save the environment.

They do not have a right to lie, and they should be honest about it. And there are environmental challenges and the environmental challenges we face can be corrected and could be met with better technology, better machines, better equipment, better energy sources, but, instead, what we have had is people lying to us in order for us to give away our freedom, to agree to things like the Kyoto Protocol, which would have extracted from people of the United States their right to make their own economic decisions.

It would have left us vulnerable to a major assault on the economic well-being of our middle class and our poorer people. Yeah, $5 a gallon of gasoline would not much hurt millionaires or people with limousines. It would hurt some of the people who do not have limousines, but it would be a catastrophe to the lower, middle-class and to the working people of our country.

The Kyoto Protocol, the environmental restrictions that we have heard from many, many corners quite often are not based on truth, and tonight that is what this speech is all about. This speech is nothing more than saying that we, as a Congress, and as a people and the American people should demand, whether we are talking about the environment, whether we are talking about other potential threats to our national security or our economics, that all we demand is let us talk about it frankly and honestly, and that the environmental movement has not done that.

I am out surfing, like I say, a few days ago. There are offshore wells off of my district, and for 25 years, we have had offshore oil drilling in my district. Not once has there been a major spill from those wells. But there has been a tanker, an oil tanker, that split apart and we had a major oil spill in our

area. But yet for years, I have been fighting with environmentalists trying to get them to admit that if we do not have offshore oil wells, which are relatively safe, that means we are going to have to get our oil from tankers which are a hundred times more likely to have a spill.

Yet, these environmental activists continue to try to negate every attempt to exploit our offshore natural resources.

In California today, we have an electric shortage, a horrible electric shortage. It is going to cause a major decline in the standard of living of many of our citizens. It is going to put a lot of our citizens in jeopardy. Our economy in jeopardy. It has already eaten billions of dollars that should have been going into education, our health care, or other places. Instead, what we have is a shortage of energy in our State, even though we have lots of energy, we have not been permitted to utilize it.

Offshore in Santa Barbara there is enough natural gas to provide the energy we need to produce all the electricity we would need to make up for our shortage of electric in California. We could make up for that shortage for 2 decades, but, yet, those people in Santa Barbara who own the offshore oil wells that are already there have not been permitted even to slant drill from existing platforms to tap in to the natural gas that is a huge natural gas deposit right off of Santa Barbara.

This is the kind of nonsense. This is the type of antitruth that brings down economies, but it exemplifies many of the arguments that have been presented to us about global warming and other so-called environmental challenges.

Again, I do not want to end this tonight suggesting that there are no environmental challenges, because there are, and there are ways that we can do it and we can solve these problems and we can make America cleaner.

Today's young people have cleaner water, because today when you look down at the Potomac River, when I was a kid, you could not put your finger in that water. It is clean today, people are fishing out there.

We have soil. We have ways to clean the soil in my own district. I helped a company develop a system and got them permission and I think it ended up about a $300,000 contract to take soil that had been made toxic because it used to be an old oil sludge pit, 10 acres of this land that was unusable to the citizens of our community, and I got this business going.

We went down there, and this new technology, within a 60-day time period, was able to make that soil totally clean and those 10 acres of California real estate perfectly clean and available if they wanted to for houses, instead they are going to use it as a park.

They did not have that technology available 10 years and 20 years ago. This is the best time for young people to be alive. They have more chance of cleaning up the environment as long as we let people do it at a profit. That man who built that machine did not want to do it just because he had a social conscience.

He did it because he wanted his company to make a profit, and the people that will finance it will be financing him, cleaning the soil because they want that land to be used by families for homes, for their children and they will make a profit in building those homes for those families.

This is a wonderful time to be alive. This is not a time for the American people to be frightened by scaremongers and people who are not telling the truth about global warming and other environmental challenges into giving up our freedom and to doing things that will result in a lower standard of living for our people.

Again, every time we do, every time we give into this type of nonsense, it is the people at the bottom rung who are hurt the most. It is the people at the bottom rung. So as we are finding out in California, we need to base our decisions on honesty.

If offshore oil drilling and gas drilling is going to help our State have the energy it needs, we need to move forward with that.

Let me say, I have a new bill that I am proposing and I will be dropping within 2 weeks, a new piece of legislation that will see to it that all new oil and gas reserves, offshore oil and gas reserves that are brought online by offshore oil and gas development, that one half of all the tax revenue from all of this new oil and gas reserves and deposits that are being brought online, half of the tax revenue will be put into a trust fund that will be used just for coastal purposes, for water quality and other coastal projects.

□ 2300

Ten percent of that new revenue will go directly to the counties inland from that development. That way we can develop energy and that way we can have cleaner water.

All up and down California and all throughout our country, people do not know how they are going to take care of urban runoff. Perhaps my legislation will help provide the resources for that.

But let us be realistic. Let us not fight offshore oil drilling because they say, out of some hysterical nonsense, that it is a threat to the ocean, because it is not. I have gone SCUBA diving off the offshore oil wells in my district, and that is where all the fish congregate. Believe me, if there was some problem, those fish would go elsewhere. Their natural instincts would tell them to go.

So we have a chance. But what has been happening is we have been prevented from that because, in the back of the mind of these environmental activists, they want the earth to be free from dependence on carbon-based energy, on CO_2. That is all based on what? That there is a global warming taking place that is in some way going to jeopardize and put in peril the earth.

It is time to quit talking nonsense. Let us talk the truth. I am open-minded. The people here are open-minded. Let us try to find a way to meet the environmental challenges with better technology and in a way that will preserve the freedom of the people of the United States, which is the most important component to developing a better world.

CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS

The following are the key uncertainties highlighted by the report released by the National Research Council on June 6, 2001. All items are taken directly from the report.

SUMMARY

The changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes are also a reflection of natural variability.

Because there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of greenhouse gases and aerosols, current estimates of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward).

Reducing the wide range of uncertainty inherent in current model predictions of global climate change will require advances in understanding and modeling of both (1) the factors that determine atmospheric concentrations of greenhouse gases and aerosols, and (2) the so-called ''feedbacks'' that determine the sensitivity of the climate system to a prescribed increase in greenhouse gases. There also is a pressing need for a global observing system designed for monitoring climate.

Black carbon aerosols are end-products of the incomplete combustion of fossil fuels and biomass burning (forest fires and land clearing). They impact radiation budgets both directly and indirectly; they are believed to contribute to global warming, although their relative importance is difficult to quantify at this point.

The stated degree of confidence in the IPCC assessment is higher today than it was ten, or even five years ago, but uncertainty remains because of (1) the level of natural variability inherent in the climate system on time scales of decades to centuries, (2) the questionable ability to models to accurately simulate natural variability on those long time scales, and (3) the degree of confidence that can be placed on reconstructions of global mean temperature over the past millennium based on proxy evidence.

Climate change simulations for the period of 1990 to 2100 based on the IPCC emissions scenarios yield a globally-averaged surface temperature increase by the end of the century of 1.4 to 5.8°C (2.5 to 10.4°F) relative to 1990. The wide range of uncertainly in these estimates reflects both the different assumptions about future concentrations of greenhouse gases and aerosols in the various scenarios considered by the IPCC and the differing climate sensitivities of the various climate and models used in the simulations.

The increase of global fossil fuel carbon dioxide emissions in the past decade has averaged 0.6% per year, which is somewhat below the range of IPCC scenarios, and the same is true for atmospheric methane concentrations. It is not known whether these slowdowns in growth rate will persist.

In addition, changes in cloud cover, in the relative amounts of high versus low clouds, and in the mean and vertical distribution of relative humidity could either enhance or reduce the amplitude of the warming. Much of the difference in predictions of global warming by various climate models is attributable to the fact that each model represents these processes in its own particular way. These uncertainties will remain until a more fundamental understanding of the processes that control atmospheric relative humidity and clouds is achieved.

The full WG I report and its Technical Summary are not specifically directed at policy. The Summary for Policymakers reflects less emphasis on communicating the basis for uncertainty and a stronger emphasis on areas of major concern associated with human-induced climate change.

Making progress in reducing the large uncertainties in projections of future climate will require addressing a number of fundamental scientific questions relating to the buildup of greenhouses gases in the atmosphere and the behavior of the climate system. Issues that need to be addressed include, (a) the future usage of fossil fuels, (b) the future emissions of methane, (c) the fraction of the future fossil-fuel carbon that will remain in the atmosphere and provide radiative forcing versus exchange with the oceans or net exchange with the land biosphere, (d) the feedbacks in the climate system that determine both the magnitude of the change and the rate of energy uptake by the oceans, which together determine the magnitude and time history of the temperature increases for a given radiative forcing, (e) details of the regional and local climate change consequent to an overall level of global climate change, (f) the nature and causes of the natural variability of climate and its interactions with forced changes, and (g) the direct and indirect effects of the changing distributions of aerosols.

1. Climate, climate forcings, climate sensitivity, and transient climate change

The responses of atmospheric water vapor amount and clouds probably generate the most important global climate feedbacks. The nature and magnitude of these hydrological feedbacks give rise to the largest source of uncertainty about climate sensitivity, and they are in area of continuing research.

However, the true climate sensitivity remains uncertain, in part because it is difficult to model the effect of cloud feedback. In particular, the magnitude and even the sign of the feedback can differ according to the composition, thickness and altitude of the clouds, and some studies have suggested a lesser climate sensitivity.

2. Natural climatic variations

It is more difficult to estimate the natural variability of global mean temperature because large areas of the world are not sampled and because of the large uncertainties inherent in temperatures inferred from proxy evidence.

3. Human caused forcings

How land contributes, by location and processes, to exchanges of carbon with the atmosphere is still highly uncertain, and is the possibility that the substantial net removal will continue to occur very far into the future.

About two-thirds of the current emissions of methane are released by human activities. There is no definitive scientific basis for choosing among several possible explanations for these variations in the rates of change of global methane concentrations, making it very difficult to predict its future atmospheric concentrations.

The study of the role of black carbon in the atmosphere is relatively new. As a result it is characterized poorly as to its composition, emission source strengths, and influence on radiation.

Because of the scientific uncertainties associated with the sources and composition of carbonaceous aerosols, projections of future impacts on climate are difficult.

Figure 1 summarizes climate forcings that have been introduced during the period of industrial development, between 1750 and 2000, as estimated by the IPCC. Some of these forcings, mainly greenhouse gases, are known quite accurately, while others are poorly measured. A range of uncertainty has been estimated for each forcing, represented by an uncertainty bar or ''whisker''. However, these estimates are partly subjective and it is possible that the true forcing falls outside the indicated range in some cases.

These estimates account for the non-linearity caused by partial saturation in some greenhouse gas infrared absorption bands, yet they are only approximate because of uncertainty about how efficiently the ocean and terrestrial biosphere will sequester atmospheric CO_2.

The growth rate of atmospheric methane has slowed by more than half in the past 2 decades for reasons that are not well understood.

Climate forcing by anthropogenic aerosols is a large source of uncertainty about future climate change. On the basis of estimates of past climate forcings, it seems likely that aerosols, on a global average, have caused a negative climate forcing (cooling) that has tended to offset much of the positive forcing by greenhouse gases. Even though aerosol distributions tend to be regional in scale, the forced climate response is expected to occur on larger, even hemispheric and global, scales. The monitoring of aerosol properties has not been adequate to yield accurate knowledge of the aerosol climate influence.

The conclusion is that the black carbon aerosol forcing is uncertain but may be substantial.

The greatest uncertainty about the aerosol climate forcing—indeed, the largest of all the uncertainties about global climate forcings—is probably the indirect effect of aerosols on clouds. . . . The great uncertainty about this indirect aerosol climate forcing presents a severe handicap both for the interpretation of past climate change and for future assessments of climate changes.

It is not implausible that solar irradiance has been a significant driver of climate during part of the industrial era, as suggested by several modeling studies.

4. Climate system models

However, climate models are imperfect. Their simulation skill is limited by uncertainties in their formulation, the limited size of their calculations, and the difficulty of interpreting their answers that exhibit almost as much complexity as in nature.

They also exhibit plausible analogues for the dominant modes of intrinsic variability, such as the El Niño/Southern Oscillation (ENSO), although some important discrepancies still remain.

5. Observed climate change during the industrial era

Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of the various forcing agents (and particularly aerosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century cannot be unequivocally established. The fact that the magnitude of the observed warming is large in comparison to natural variability as simulated in climate models is suggestive of such a linkage, but it does not constitute proof of one because the model simulations could be deficient in natural variability on the decadal to century time scale.

This result is based on several analyses using a variety of proxy indicators, some with annual resolution and others with less resolved time resolution. The data become relatively sparse prior to 1600, and are subject to uncertainties related to spatial completeness and interpretation making the results somewhat equivocal, e.g., less than 90% confidence. Achieving greater certainty as to the magnitude of climate variations before that time will require more extensive data and analysis. Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of the various forcing agents (and particularly aerosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century cannot be unequivocally established. The fact that the magnitude of the observed warming is large in comparison to natural variability as simulated in climate models is suggestive of such a linkage, but it does not constitute proof of one because the model simulations could be deficient in natural variability on the decadal to century time scale.

6. Future climate change

Projecting future climate change first requires projecting the fossil-fuel and land-use sources of CO_2 and other gases and aerosols. How much of the carbon from future use of fossil fuels will be seen as increases in carbon dioxide in the atmosphere will depend on what fractions are taken up by land and the oceans. The exchanges with land occur on various time scales, out to centuries for soil decomposition in high latitudes, and they are sensitive to climate change. Their projection into the future is highly problematic.

IPCC scenarios cover a broad range of assumptions about future economic and technological development, including some that allow greenhouse gas emission reductions. However, there are large uncertainties in underlying assumptions about population growth, economic development, life style choices, technological change, and energy alternatives, so that it is useful to examine scenarios developed from multiple perspectives in considering strategies for dealing with climate change.

Scenarios for future greenhouse gas amounts, especially for CO_2 and CH_4, are a major source of uncertainty for projections of future climate. Successive IPCC assessments over the past decade each have developed a new set of scenarios with little discussion of how well observed trends match with previous scenarios. The period of record is now long enough to make it useful to compare recent trends with the scenarios, and such studies will become all the more fruitful as years pass. The increase of global fossil fuel CO_2 emissions in the past decade, averaging 0.6% per year, has fallen below the IPCC scenarios. The growth of atmospheric CH_4 has fallen well below the IPCC scenarios. These slowdowns in growth rates could be short-term fluctuations that may be reversed. However, they emphasize the need to understand better the factors that influence current and future growth rates.

On the regional scale and in the longer term, there is much more uncertainty.

Changes in storm frequency and intensity are one of the more uncertain elements of future climate change prediction.

Whereas all models project global warming and global increases in precipitation, the

sign of the precipitation projections vary between models for some regions.

7. Assessing progress in climate science

After analysis, the committee finds that the conclusions presented in the SPM and the Technical Summary (TS) are consistent with the main body of the report. There are, however, differences. The primary differences reflect the manner in which uncertainties are communicated in the SPM. The SPM frequently uses terms (e.g. likely, very likely, unlikely) that convey levels of uncertainty; however, the text less frequently includes either their basis or caveats. This difference is perhaps understandable in terms of a process in which the SPM attempts to underline the major areas of concern associated with a human-induced climate change. However, a thorough understanding of the uncertainties is essential to the development of good policy decisions.

Climate projections will always be far from perfect. Confidence limits and probabilistic information, with their basis, should always be considered as an integral part of the information that climate scientists provide to policy- and decision-makers. Without them, the IPCC SPM could give an impression that the science of global warming is ''settled,'' even though many uncertainties still remain. The emission scenarios used by IPCC provide a good example. Human decisions will almost certainly alter emissions over the next century. Because we cannot predict either the course of human populations, technology, or societal transitions with any clarity, the actual greenhouse gas emissions could be either greater or less than the IPCC scenarios. Without an understanding of the sources and degree of uncertainty, decision-makers could fail to define the best ways to deal with the serious issue of global warming.

The most valuable contribution U.S. scientists can make is to continually question basic assumptions and conclusions, promote clear and careful appraisal and presentation of the uncertainties about climate change as well as those areas in which science is leading to robust conclusions, and work toward a significant improvement in the ability to project the future. In the process, we will better define the nature of the problems and ensure that the best possible information is available for policy makers.

Predictions of global climate change will require major advances in understanding and modeling of (1) the factors that determine atmospheric concentrations of greenhouse gases and aerosols and (2) the so called 'feedbacks' that determine the sensitivity of the climate system to a prescribed increase in greenhouse gases. Specifically, this will involve reducing uncertainty regarding: (a) future usage of fossil fuels, (b) future emissions of methane, (c) the fraction of the future fossil fuel carbon that will remain in the atmosphere and provide radiative forcing versus exchange with the oceans or net exchange with the land biosphere, (d) the feedbacks in the climate system that determine both the magnitude of the change and the rate of energy uptake by the oceans, which together determine the magnitude and time history of the temperature increases for a given radiative forcing, (e) the details of the regional and local climate change consequent to an overall level of global climate change, (f) the nature and causes of the natural variability of climate and its interactions with forced changes, and (g) the direct and indirect effects of the changing distributions of aerosol. Because the total change in radiative forcing from other greenhouse gases over the last century has been nearly as large as that of carbon dioxide, their future evolution also must be addressed. A major limitation of these model forecasts for use around the world is the paucity of data available to evaluate the ability of coupled models to simulate important aspects of past climate. In addition, the observing system available today is a composite of observations that neither provide the information nor the continuity in the data needed to support measurements of climate variables.

KEY STATEMENTS ON UNDERSTANDING OF THE CLIMATE SYSTEM AND FORECASTING ABILITY

''Because there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of greenhouse gases and aerosols, current estimates of the magnitude of future warning should be regarded as tentative and subject to future adjustments upward or downward.'' (Page 1 of the NRC Report)

''If a central estimate of climate sensitivity is used, about 40% of the predicted warming is due to the direct effects of greenhouse gases and aerosols. The other 60% is caused by feedbacks. . . . Much of the difference in predictions of global warming by various climate models is attributable to the fact that each model represents these processes in its own particular way.'' (Page 4 of the NRC Report)

''The study of the role of black carbon in the atmosphere is relatively new. As a result, it is characterized poorly as to its composition, emission source strengths, and influence on radiation.'' (Page 13 of the NRC Report)

''Climate forcing by anthropogenic aerosols is a large source of uncertainty about future climate change.'' (Page 13 of the NRC Report)

''There is the possibility that decreasing black carbon emissions in the future could have a cooling effect that would at least partially compensate for the warming that might be caused by a decrease in sulfates.'' (Page 13 of the NRC Report)

''The greatest uncertainty about the aerosol climate forcing—indeed, the largest of all the uncertainties about global climate forcings—is probably the indirect effect of aerosols on clouds.'' (Page 14 of the NRC Report)

''The great uncertainty about this indirect aerosol climate forcing presents a severe handicap both for the interpretation of past climate change and for future assessments of climate change.'' (Page 15 of the NRC Report)

''While climate models have many uses, the NRC observes that ''However, climate models are imperfect. Their simulation skill is limited by uncertainties in their formulation, the limited size of their calculations, and the difficulty of interpreting their answers that exhibit almost as much complexity as in nature.'' (Page 15 of the NRC Report)

''Projecting future climate change first requires projecting the fossil-fuel and land-use sources of CO_2 and other gases and aerosols. . . . However, there are large uncertainties in underlying assumption about population growth, economic development, life style choices, technological change and energy alternatives, so that it is useful to examine scenarios developed from multiple perspectives in considering strategies for dealing with climate change.'' (Page 18 of the NRC Report)

''Scenarios for future greenhouse gas amounts, especially for CO_2 and CH_4 are a major source of uncertainty for projections of future climate. Successive IPCC assessments over the past decade each have developed a new set of scenarios with little discussion of how well observed trends match with previous scenarios.'' (Page 18–19 of the NRC Report)

''The range of model sensitivities and the challenge of projecting the sign of the precipitation changes for some regions represent a substantial limitation in assessing climate impacts.'' (Page 21 of the NRC Report)

KEY STATEMENTS OF HUMAN CAUSATION OF OBSERVED 20TH CENTURY CLIMATE CHANGES

''Despite the uncertainties, there is general agreement that the observed warming is real and particularly strong within the past twenty years. Whether it is consistent with the change that would be expected in response to human activities is dependent upon what assumptions one makes about the time history of atmospheric concentrations of the various forcing agents, particularly aerosols.'' (Page 3 of the NRC Report)

''Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time history of the various forcing agents (and particularly aerosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century cannot be unequivocally established.'' (Page 17 of the NRC Report)

''The fact that the magnitude of the observed warming is large in comparison to natural variability as simulated in climate models is suggestive of such a linkage, but it does not constitute proof of one because the model simulations could be deficient in natural variability on the decadal to century time scale.'' (Page 17 of the NRC Report)

KEY STATEMENTS ON RESEARCH NEEDS

''Reducing the wide range of uncertainty inherent in current model predictions of global climate change will require major advances in understanding and modeling of both (1) the factors that determine atmospheric concentrations of greenhouse gases and aerosols, and (2) the so-called 'feedbacks' that determine the sensitivity of the climate system to a prescribed increase in greenhouse gases. Specifically, this will involve reducing uncertainty regarding: (a) future usage of fossil fuels, (b) future emissions of methane, (c) the fraction of fossil fuel carbon that will remain in the atmosphere and provide radiative forcing versus exchange with the oceans or net exchange with the land biosphere, (d) the feedbacks in the climate system that determine both the magnitude of the change and the rate of energy uptake by the oceans, which together determine the magnitude and time history of the temperature increases for a given radiative forcing, (e) the details of the regional and local climate change consequent to an overall level of global climate change, (f) the nature and causes of the natural variability of climate and its interactions with forced changes, and (g) the direct and indirect effects of the changing distributions of aerosol.'' (Page 23 of the NRC Report)

KEY STATEMENTS ON THE IPCC PROCESS, SCIENTIFIC REPRESENTATION, AND POLITICAL INFLUENCE ON THE SUMMARY FOR POLICYMAKERS

''The committee finds that the full IPCC Working Group 1 (WGI) report is an admirable summary of research activities in climate science, and the full report is adequately summarized in the Technical Summary. . . . The Summary for Policymakers reflects less emphasis on communicating the basis for uncertainty, and a stronger emphasis on areas of major concern associated with human-induced climate change. This change in emphasis appears to be the result of a summary process in which scientists work with policy makers on the document.'' (Page 5 of the NRC Report)

Changes to the Summary for Policymakers are only approved by ''a fraction of the lead and contributing authors,'' not the full body of authors of the WGI report. (Page 5 of the NRC Report)

''The committee's concerns focus primarily on whether the process is likely to become less representative in the future because of the growing voluntary time commitment required to participate as a lead or coordinating author and the potential that the scientific process will be viewed as being too heavily influenced by governments which have specific postures with regard to treaties, emission controls and other policy instruments.'' (Page 5 of the NRC Report)

''The body of the WGI report is scientifically credible and is not unlike what would be produced by a comparable group of only U.S. scientists working with a similar set of emission scenarios, with perhaps some normal differences in scientific tone and emphasis.'' (Page 22 of the NRC Report)

''After analysis, the committee finds that the conclusions presented in the Summary for Policymakers and the Technical Summary are consistent with the main body of the report. There are, however, differences. The primary differences reflect the manner in which uncertainties are communicated in the Summary for Policymakers. The Summary for Policymakers frequently uses terms (e.g., likely, very likely, unlikely) that convey levels of uncertainty; however, the text less frequently includes either their basis or caveats.'' (Page 22 of the NRC Report)

''However, a thorough understanding of the uncertainties is essential to the development of good policy decisions.'' (Page 22 of the NRC Report)

''Confidence limits and probabilistic information, with their basis, should always be considered as an integral part of the information that climate scientists provide to policy- and decision-makers. Without them, the IPCC SPM could give an impression that the science of global warming is 'settled,' even though many uncertainties still remain.'' (Page 22 of the NRC Report)

''Without an understanding of the sources and degree of uncertainty, decision-makers could fail to define the best ways to deal with the serious issue of global warming.'' (Page 23 of the NRC Report)

The NRC exposes the reality that the technical elements of the WG1 report are modified after the fact to make it match up with the Summary for Policymakers. While ''most'' of these changes were acceptable to the chapter authors, the NRC suggests that ''Some scientists may find fault with some of the technical details, especially if they appear to underestimate uncertainty.'' (Page 23 of the NRC Report)

''The IPCC process demands a significant time commitment by members of the scientific community. As a result, many climate scientists in the United States and elsewhere choose not to participate at the level of a lead author even after being invited.'' They go on to point out that ''As the commitment to the assessment process continues to grow, this could create a form of self-selection for the participants. In such a case, the community of world climate scientists may develop cadres with particularly strong feelings about the outcome: some as favorable to the IPCC and its procedures, and others negative about the use of the IPCC as a policy instrument.'' (Page 23 of the NRC Report)

''In addition, the preparation of the SPM involves both scientists and governmental representatives. Governmental representatives are more likely to be tied to specific government postures with regard to treaties, emission controls, and other policy instruments.'' (Page 23 of the NRC Report)

TRAGEDY IN SUDAN

The SPEAKER pro tempore (Mr. GRUCCI). Under the Speaker's announced policy of January 3, 2001, the gentleman from New Jersey (Mr. PAYNE) is recognized for the time remaining before midnight.

Mr. PAYNE. Mr. Speaker, I rise tonight to bring attention to the worst tragedy ongoing and occurring in the world today; and that is the tragedy in the Sudan. As my colleagues well recall and are aware, Sudan is the largest country in Africa, becoming the first independent country in sub-Saharan Africa in 1956.

For almost four decades, the African giant with the population of 32.6 million people have been the scene of intermittent conflict. But how many people have really paid careful attention to these numbers? An estimated 2 million people have died in war-related causes and famine in southern Sudan, and 4 million people have been displaced.

Why did these many people have to die? Could we have done something to prevent the massive loss of life in Sudan? Indeed the answer is a resounding yes. But we chose to ignore or to engage only marginally.

We are the largest provider of humanitarian assistance to the Sudan, yet many continue to die. In 1998 alone, an estimated 100,000 people died due to the government's refusal to allow the United Nations relief aid from going into that country.

Indeed, Mr. Speaker, some have written and others have talked about the tragedy as a religious conflict or a tribal conflict. The Sudanese conflict, Africa's longest running civil war, is deeper and more complicated than the claims of political leaders and some observers. Religion, indeed, is a major factor because of the Islamic fundamentalist agenda of the current government dominated by the northern-based National Islamic Front, the NIF government. Southerners who are Christians and animists reject the Islamization of the country in favor of secular agreement.

Social and economic disparities are major contributing factors to the Sudanese conflict. But the regime is not merely opposed by Christians or southerners. The NIF regime is a minority government led by extremist clique in Khartoum headed by Al Bashir. Muslim leaders have also been victims of the NIF government over the years.

The NIF government is clearly opposed by a majority of notherners inside and outside of the country. The National Democratic Alliance, a coalition of northern or southern opposition groups, have been actively challenging the NIF government's hold on power since it ousted the democratically elected civilian government in June 1989. In fact, the NIF government came to power precisely to abort a peace agreement between Sudanese People's Liberation Movement, the SPLM, and the majority northern parties in 1989.

But the NIF government is just one of the many obstacles of lasting peace in Sudan, and the second phase of the civil war erupted under the military dictatorship of Nimeiri. In fact, the abrogation of the 1972 Addis Ababa agreement in 1983, which ended the first phase of the civil war in the south by former President Nimeiri, is considered a major triggering factor for the current civil war.

Although, the NIF government has persuaded and pursued the war in southern Sudan with vigor, previous governments, both civilian and military, have rejected southern demands for autonomy and equality. This has gone on for the over 40 years that there has been a push for equality, now approaching 50 years.

Mr. Speaker, northern political leaders for decades treated southerners as second-class citizens and did not see the south as an integral part of the country. Southern political leaders argued that, under successive civilian and military governments, political elites in the north have made only superficial attempts to address the grievances of the south without compensating the north's dominant economic political and social issues and status.

In recent years, most political leaders in the north, now in opposition to the current government, say that mistakes were made and that they are prepared to correct them. But the political mood among southerners has sharply shifted in favor of separation from the north.

Mr. Speaker, slavery has reemerged with a vengeance in Sudan. The inhumane practice is directly tied to the civil war in southern Sudan that has raged intermittently for over 40 years. The slaving of innocent southern Sudanese citizens have intensified since the National Islamic Front usurped power in 1989. It is now being condoned, if not orchestrated, by the NIF government and perpetrated by Arab militia allies.

Slavery in this time is wrong, but enough is not being done to stop it. The international community as a matter of fact has done very little, if anything, to prevent this terrible practice. Some organizations have resorted to freeing slaves or buying them back. But buying back freedom of slaves by these groups have raised some other questions, and some have said it has increased the trafficking in slaves.

But no one can question the yearning of families to free their loved ones from bondage almost at any price. If in fact one had a child in slavery, would not one want that child to be bought back? Nor can anyone question the moral impetus to provide assistance to these families by means of buying back their relatives from slavery.

The generous response, for example, by school children in Colorado have raised large sums of money for the purpose; and in many parts of the United States, it dramatizes the compelling case for buying back the freedom.