SESSION I: Addressing the Acid Rain Problem – Twenty Years in Retrospect

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This lead-off session is entitled a 20-year retrospective. I think it is quite amazing that we are here 20 years later doing this. I would like to particularly thank Dr. Thorndike and the Center for Environmental Information for having the vision to bring us back together and discuss this in a timely fashion. Again, the issue, which has long been off the front pages, is getting some attention.

The reason we are choosing 20 years is fairly obvious. That is when National Acid Precipitation Assessment Program (NAPAP) began. It wasn't the beginning of the acid rain issue. It was the beginning of a really focused national effort.

I have been asked to make a few remarks to put the session in context. I am going to do that by saying some things about NAPAP. There are programs that preceded this, such as the National Acid Deposition Program (NADP), for which there is some literature out front, as it still goes on.

NAPAP was not the beginning of studying or understanding the acid rain program. It was the beginning of a nation-wide consciousness to not just do research, but to try to harness that research in service to society, to try to help us make some decisions. Science, in itself, does not do that, unless you harness it in some manner.

To this day, I would argue that NAPAP is the benchmark of such efforts. While there have been a number of other efforts going on – notably climate change, marine pollution, weather modification and national programs of multi-agency participation – none of them have achieved what NAPAP has achieved, for all of its warts and problems, in terms of actually effectively helping us move on to take action.

There were times when the efforts were going on and people said, my God, it was $500 million over 10 years. That was a lot of money.

It took five years to do the first assessment. It could have happened quicker, but it stood the test of time. The climate effort, a major issue that eclipsed acid rain, actually began two years before acid rain. That is not well known, but with turnover on the Hill, memory leaves.

1978 was the year of the National Climate Program Act. The National Climate Program Act in 1978 required that the climate program do assessments every two years. For those of you familiar with the situation, 22 years later, last year, the first climate assessment was done. So, I don't feel bad about five years.

When people talk about $500 million, we have spent $15 billion on climate research so far, are still spending at a rate of about $1.6 billion a year, and I don't see a framework for decision making. I don't see policy from the program.

NAPAP is still the benchmark to beat. There are many reasons, by the way – I won't get into all of them – why that is the case. Part is the issue, part is the politics. Indeed, they have yet to be bested in terms of attacking these problems.

Secondly, I think sometimes we forget how effective the program was, directly and indirectly, in bringing the science to bear on the issue.

Mostly attention was focused on the assessments, the interim assessment and the final assessment. In point of fact, the program was designed to release results throughout.

NAPAP produced annual reports to the President and Congress, dozens of congressional hearings, newspaper articles, and scientific papers. In fact, throughout the effort, it was affecting the policy debate.

Acid rain emerged in the 1980s as a large concern about agriculture but, through research and time this was supplanted with concern about forestry.

The focus was entirely on sulfur, which later expanded to include nitrogen. There were major changes from the science into legislation.

There has been a misconception, propagated by some articles, when people were debating this at the end of the program, that it was ineffective for the following reason, that Congress didn't wait the full 10 years to take action, which is ludicrous.

That is true, that Congress took action before the final report, but Congress did not say that it was creating a 10-year program and was going to wait to take action. It was the opposite.

They said, we should be able to take action within 10 years. So, we will set the program out longer than it will take and we will listen to the results of the program, wait until the political will is there, and act.

In fact, the whole notion that the program had an end that was supposed to be a policy end is fallacious. The reason for the 10 years, (just for historical reasons the act passed in the Carter administration) was that was something then – for those of you old enough to know it – called sunset laws, that you don't just create programs and let them go on forever. They typically chose a 10-year time interval and said, if the program is still needed after 10 years, renew it. If not, we don't have to kill something with an infinite life span.

In fact, another interesting thing about the program is, it still exists twenty years later. Its director is here. That is an amazing feat of foresight on, largely, Senator Moynihan's part.

The typical thing our country does, and most countries do, is we study something, we get upset about it, we pass legislation. We say it is solved. Very, very rarely do we go back and measure whether we got what we thought the nation wants. But that is the reason we are here today.

Finally, I would like to mention something about the important things we learned about the use of assessment and science as the underpinning for control programs.

As you know, and we are going to hear in a minute, that one of the most important things to result from this is a market-based program to address the issue. What is less widely understood is that a market-based program could not be effective if we did not understand the source receptor relationship. Let me explain that.

If the most cost effective sources to control were all on the east coast and if the most sensitive resources were in the Midwest, a market-based system would result in most of the benefit being out in the Atlantic Ocean. It wouldn't have done much good for the sensitive receptors.

It is a happy coincidence that the place with the most bang for the buck controls was in the same place that had the most bang for the buck in terms of results and receptors.

To show why this has sort of just passed us by and we don't think about it, China has recently been developing an acid rain program, and Brian and myself and others have been involved in that.

The Chinese are very interested. They know they have a problem, they are interested in solving it and right away having a market program, which is interesting for a former Communist country. Anyway, they want to use the market approach to get more bang for the buck.

They didn't want to do an assessment. Yet, they really haven't figured out if, where their sources are, they can control most effectively the environmental benefit.

So, these things go hand in hand. I think we have learned a lot and are going to hear a lot. We have three retrospectives today, one from an official in the government who has been through all this, one from the state perspective and one from a private industry perspective.