

Forestry in U.S. Climate Change Action Plans: From the Arch to Kyoto

by
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Abstract

The international community has played a major role in prompting actions to address global climate change. The 1989 *Summit of the Arch* in Paris resulted in President Bush's announcement in his 1990 *State of the Union* message of the *America the Beautiful (ATB)* program, which greatly expanded federal funding for urban forestry and for forest stewardship programs for NIPF ownerships; the 1992 *Rio Earth Summit* set the stage for President Clinton's *Climate Change Action Plan (CCAP)*; and the recent *Kyoto Climate Change Conference* gave major emphasis to forestry. While never publicly announced as such, *ATB* was conceived and designed as the first federal effort to employ forestry activities to offset U.S. CO₂ emissions. This early effort was refined at the 1993 *White House Conference Climate Change Sinks Workshop*, which preceded the *CCAP*. Forestry is in the spotlight, as the world moves toward mandatory targets and timetables following Kyoto.

INTRODUCTION

The June 1992 "Earth Summit," held in Rio de Janeiro, Brazil, is commonly regarded as the origin of national climate change action plans. The Earth Summit did, indeed, mark an important milestone: the adoption of the United Nations Framework Convention on Climate Change, which established a nonbinding goal of returning world emissions of greenhouse gases (GHG) to their 1990 levels by year 2000. And the Earth Summit did prompt President Clinton and Vice President Gore to release their October 1993 Climate Change Action Plan (CCAP) to reduce U.S. GHG emissions to achieve the goal of the Framework Convention.

The CCAP was the first official U.S. plan to address global climate change. It was not, however, the first effort by the U.S. to develop such a plan. That distinction goes to the *America the Beautiful (ATB)* program, authorized in the 1990 Farm Bill. *ATB*, in turn, traces its origin to the Summit of the Arch held in Paris in 1989.

This paper presents a chronology of events beginning with Summit of the Arch and ending with the Kyoto Conference in 1997. It also looks at related future events, and it gives special attention to the evolving role of forests and forestry-related activities in climate change deliberations.

SUMMIT OF THE ARCH

The Summit of the Arch was the 15th Annual Economic Summit of the finance ministers of the G7 nations (United States, Canada, Japan, Britain, Germany, France, and Italy) held in Paris, France in July 1989. In addition to the typical fare of economic summits--international trade, inflation, deficits,

employment, and economic growth--this summit addressed an additional challenge: the urgent need to safeguard the environment for future generations. The concluding Arch Statement included the following declarations related to forests and climate change:

- Deforestation damages the atmosphere and must be reversed. We call for the adoption of sustainable forest management practices.
- We strongly support the work of the Intergovernmental Panel on Climate Change (IPCC). (Author's Note: The IPCC was formed by the United Nations and the World Meteorological Society in 1988.)
- All nations are urged to assess the costs, benefits and resource implications of global climate change and to make a determined and concerted international response.

AMERICA THE BEAUTIFUL (ATB) IS BORN

In August 1989, within a month of the closing of the Arch Summit, President Bush convened his Cabinet and charged its members with developing a plan to reduce U.S. GHG emissions and to enhance the storage of carbon in sinks. Forestry activities were assigned to USDA Forest Service, and your author was designated as the Project Leader.

Fortunately, I had represented the Forest Service as the USDA forestry expert in feasibility studies of tree planting opportunities on marginal agricultural lands (USDA OBPA 1983) and in the design, implementation and operation of the

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Conservation Reserve Program and wetlands provisions of the 1985 Farm Bill. I was able to draw upon other team members within the SCS, ASCS, ERS, ARS, EPA and the Forest Service for assistance in developing estimates of the available supply of economically marginal and environmentally-sensitive crop and pasture lands and associated economic and social impacts, such as effects on the suppliers of agricultural inputs, food supply and prices, and future timber supplies. Since the Forest Service administers the forestry provisions of all USDA forestry programs for private landowners--the Forestry Incentives Program (FIP), the Agricultural Conservation Program (ACP) and the Conservation Reserve Program (CRP)--we had excellent information on program costs and the incentives needed to attract owners to participate in the program. Richard Birdsey (USDA Forest Service, Northeastern Research Station) provided needed information on carbon gains.

The proposed ATB program that emerged had an estimated cost of \$6.3 billion over a 20 year period. Program components included (1) an expanded urban forestry program (30 million trees to be planted per year) and (2) increased tree planting and other forest improvement on 10.5 million acres of existing forest land and 20 million acres of marginal and sensitive pasture and crop land.

In his 1990 State of the Union address, President Bush announced the ATB program with the following statement:

- And something else [for the environment], the money to plant an additional 1.5 billion trees per year.

President Bush called for, and Congress provided, \$175 million for the program's first year operations.

President Bush praised trees for their many environmental, aesthetic and spiritual values, but stopped short of calling ATB a climate change program. Apparently, this was prompted by the need to concurrently address GHG emissions as part of a comprehensive climate change strategy and concerns this generated with respects to impacts to U.S. industry and jobs, questions about the soundness of the science behind the threatening aspects of climate change, and U.S. global competitiveness, a major concern of the late 1980s and early 1990s.

Positive outcomes of ATB were large initial increases in funding that enhanced USDA Forest Service and state forestry agencies capabilities to deliver both urban and rural forestry programs and the publication of the ATB data base by Moulton and Richards (1990) as a USDA Forest Service General

Technical Report entitled Costs of Sequestering Carbon Through Tree Planting and Forest Management in the United States.

EARTH SUMMIT

In June 1992, representatives from 172 countries met in Rio de Janeiro, Brazil for the United Nations Conference on the Environment and Development (UNCED), or as it is commonly called, the Earth Summit, to discuss environmental issues on a global scale. One of the important outcomes of this conference was the adoption of the Framework Convention on Climate Change, wherein the participating nations agreed to stabilize GHG in the atmosphere to prevent "dangerous anthropogenic interference with climate systems." The nonbinding goal of the Framework Convention was to reduce GHG emissions to 1990 levels by year 2000.

President Bush was among the leaders of 161 leaders of countries who initially signed the Framework Conventions (171 countries have now signed), and the U.S. Senate ratified the agreement, giving it treaty status.

U.S. CLIMATE CHANGE ACTION PLAN (CCAP)

The Climate Change Action Plan, announced by President Clinton and Vice President Gore in October 1993, features 46 individual actions designed to reduce U.S. emissions to 1990 levels by year 2000, in accordance with the Framework Convention for Climate Change developed in Rio. For the most part, the plan is based on voluntary actions to be carried out through public and private sector cooperation.

Five of the CCAP actions involve forestry activities, which collectively, were designed to offset 10 million metric tons of carbon (9 percent of the total for the Plan) in year 2000. Forestry activities in the Plan are--

- Increased tree planting on nonindustrial private ownerships
- Reduced depletion of nonindustrial private forest lands through better timber harvesting practices
- Increased research efforts on the recycling of wood and paper products
- Increased use of wood and wood waste products as fuel
- Increased urban tree planting through the Cool Communities program

The two rural forest actions--increased tree planting and reduced stand depletion--were presented by Moulton (Moulton 1993, Moulton and Richards, 1993) at the White House Conference Sinks Workshop held in Washington, DC in July 1993. For additional information on forestry in the CCAP, please see Moulton (1996).

BERLIN MANDATE (CONFERENCE OF THE PARTIES, FIRST SESSION)

In March 1995 representatives of the countries who had signed the Framework Convention on Climate Change met in Berlin, Germany to document progress on achieving the Framework Convention goal of reducing world GHG emission to 1990 levels by year 2000.

By this time it was apparent that emissions in many countries, including the U.S., were increasing, not decreasing as hoped, due to the combination of lower fossil fuel prices, which increased energy consumption and were a disincentive for adopting more fuel efficient but costly technologies; strong economic growth in many countries; and insufficient funding to carry out actions in national climate change plans.

The Conference of Parties reached agreement on the following key points, issued in the Berlin Mandate:

- The nonbinding goal agreed to in Rio is insufficient; countries need to strengthen their commitment
- Nations must look beyond year 2000 to 2005, 2010 and 2020
- Recognition needs to be given to the common, but differential, responsibilities and capabilities of nations

GENEVA DECLARATION (CONFERENCE OF THE PARTIES, SECOND SESSION)

The Parties to the Framework Convention on Climate Change assembled in Geneva, Switzerland in July 1997 for their second meeting following the Rio Earth Summit. This meeting served to set the stage for the large scale international conference to be held in Kyoto, Japan in December 1997. In the Geneva Declaration the Parties--

- Strongly endorsed recent IPCC findings of "a discernable human influence on global climate"
- Cautioned that increases in GHG would lead to "dangerous interference with the climate system."
- Called for legally binding emission-reduction targets and timetables

Negotiations at Geneva were extremely difficult, and the Declaration was passed only after the U.S. delegation agreed to its terms late in the session. Ultimately, only Australia, New Zealand, OPEC and Russia dissented.

KYOTO PROTOCOL (CONFERENCE OF THE PARTIES, THIRD SESSION)

In the fall of 1997, and prior to the Kyoto, Japan Climate Change Conference in December, President Clinton launched a campaign to increase public awareness about global climate change. As part of this effort, the President invited television news program weather reporters and meteorologists from across the country to Washington, DC where they heard the President, other high ranking officials and a panel of scientists talk about GHGs, the IPCC findings on climate change and its probable consequences, and how they might help to relay this information to their huge viewing audience.

The Administration also arranged for a White House Conference on Climate Change, which was linked by satellite so that audiences at more than 40 colleges and universities could watch the President's panel and hear and interact with a live local panel of experts. (I attended the panel at North Carolina State University, where I was the invited speaker on forestry. The session was well attended, and included some interesting and lively counter views from U.S. industry representatives on the real vs. perceived threats of climate change and the hidden costs of mitigation.)

The Kyoto Conference was, by far, the largest and most publicized event related to climate change since the Rio Earth Summit. Some of the key points of agreement in the Kyoto Protocol are--

- Nations are to conduct annual inventories of anthropogenic emissions of GHGs and their removal by sinks
- Nations are to make "demonstrable progress" by 2005, and collectively, reduce GHG emissions by at least 5 percent from 1990 levels during 2008-2012.
- GHG emission reduction goals from 1990 levels vary by country. The U.S. agreed to reduce its emissions by 7 percent; most European nations agreed to a reduction of 8 percent; Japan and Canada, -6 percent. Countries that have contributed little to world GHG emissions were allowed to maintain their 1990 levels; and some countries whose economies and populations are expected to grow (Australia, Iceland and Norway) were allowed increases of from 1 to 10 percent

over their 1990 levels.

- Forestry is prominently featured in the Protocol, especially with regard to the adverse effects of land use changes on the extent of the world's forests and the opportunity to enhance forests as carbon sinks through afforestation and reforestation.

The IPCC has been assigned the difficult task of developing further protocols on how carbon in sinks and from mitigation actions is to be measured. To this end the IPCC met in Senegal in early May 1998 on carbon storage in forest products and in landfills and on net emission saving from the substitution of wood energy for fossil fuels.

WHAT NEXT?

Although the U.S. delegation agreed to the Kyoto Protocol, it must be ratified by the U.S. Senate before it achieves treaty status and becomes a national commitment. Even before the Kyoto Conference was held, the Senate let it be known through a resolution that it would not approve any such agreement unless it included responsibilities for developing nations, and this was not accomplished at Kyoto. The Senate also has concerns about the cost to U.S. industry and possible adverse impacts on U.S. employment. President Clinton has responded to the Senate by stating that he shares these concerns, and will not submit the Protocol to the Senate for consideration until these concerns and some other matters, such as agreement on how an international market for carbon credits could be established, are resolved.

Two follow up meetings to Kyoto have been scheduled. The first, to be held in June 1998 in Bonn, Germany, appears to be primarily for pre-negotiations to set the agenda for the next major meeting to be held in Buenos Aires in November 1998.

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