



# THE WOODS HOLE RESEARCH CENTER

149 Woods Hole Road · Falmouth, MA 02540-1644 USA  
Telephone 508.540.9900 · Fax: 508.540-9700 · [www.wbrc.org](http://www.wbrc.org)

## Combatting Climatic Disruption

**George M. Woodwell and Kilaparti Ramakrishna**

**November 17th, 2000**

The Sixth Conference of the Parties to the Framework Convention on Climate Change began its deliberations today and will continue until November 24th in The Hague. The central issue is whether and how the more than 180 nations that have ratified the Convention can come to agreement on a system for implementing it under the Kyoto Protocol. The discussion will focus heavily on forests because of their importance, both as a cause of the climatic disruption through deforestation, and as a potential cure through the preservation of existing forests or the re-establishment of forests on deforested lands. The fact remains, however, that the core of the problem lies in the release of heat-trapping gasses, especially carbon dioxide, through the combustion of fossil fuels, and progress under the Convention requires of the industrialized nations (Annex I countries) a clearly effective program for reducing releases from that source. This responsibility for action falls most heavily on the United States because it contributes about 25% of the total release globally, and 39% among the Annex I countries, and has great versatility in taking a constructive approach.

The discussion is occurring as the scientific community belatedly, through the slow and ponderous, but careful, methods of the Intergovernmental Panel on Climate Change, comes to the conclusion that the threats to the earth from climatic disruption are far greater than the IPCC has been willing to assert previously. The steps set forth so far under the Convention are appropriate but small in proportion to the threat.

The Kyoto Protocol raises two somewhat confusing possibilities: first, that trading of responsibilities among nations be allowed and, second, that industrialized nations might gain credit for reductions by joining with developing nations in an economic development scheme that reduces or avoids emissions of heat trapping gasses that might otherwise occur, a "Clean Development Mechanism" (CDM). The arrangements have been attractive in the U.S. as potentially opening ways for meeting the very modest requirements for reductions under the Kyoto agreements without taking any direct action in curtailing or deflecting use of fossil fuels. They have drawn attention in the less developed world as a way of capitalizing their forests. The difficulty is that the efforts suggested so far appear to be focussed less on a conscientious interest in reducing emissions than on avoiding real reductions in use of fossil fuels. The proposals have more of the aspect of an international shell game with the world as the loser than as serious international diplomacy aimed at effective action. All of those interests and efforts are in focus as some 20,000 people congregate in The Hague.

The important objective is to keep the focus on the objectives of the Convention: stabilizing the heat-trapping gas content of the atmosphere at levels that will protect human interests and nature. That purpose, shared by all countries, requires reductions in emissions globally. It requires both reductions in emissions from use of fossil fuels and from deforestation. Neither, addressed alone, is adequate. Reforestation has the potential for removing carbon from the atmosphere and storing it, at least temporarily. If credit is to be given in any accounting for reforestation, discredit must also accrue from deforestation, and the accounting becomes immediately complex and inherently controversial. Restraint in deforestation, while desirable and commendable for many reasons, is advanced as an appropriate topic for an international subsidy to those nations that practice it and retain their forests. (Would we also offer a similar subsidy to oil producing nations that voluntarily limit their output of oil?) Reforestation is commonly practiced with long-term profits



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from timber or fiber in mind. Perhaps that process should be the object of an annual subsidy with the caveat that the subsidy depend on a positive balance in the carbon budget between deforestation and reforestation and is reduced or denied as the balance shifts toward a net release.

The issue is the more complex in that as the earth warms, organic decay is accelerated in regions where sufficient moisture is available, and carbon storage in forests can be expected to decline. The increased carbon storage has additional volatility as a result. Elaborate methods of accounting for carbon in forests will be required to justify any claims of additional storage in forests.

Simplicity and clarity and credibility are essential. The appraisal of the balance between storage and release is inherently difficult and potentially controversial. Finally, any efforts at reducing the buildup of carbon dioxide in the atmosphere by adjusting the management of forests or land should not be allowed to reduce in any way efforts at controlling emissions from combustion of fossil fuels. They should be limited to the single purpose of reducing the net emissions from deforestation, about 25% of the rate from burning fossil fuels, to zero.

There are many suggestions for more complicated systems that would feed other allied interests such as conservation as well. Our perspective is that effectiveness will require the simplicity and transparency offered here.