The talk first presented background information on the nature of the climate change issue, the international setting in which the issue must be considered, the state of play of the Kyoto Protocol, the policy process in the US, and finally the role of scientific evidence in the climate change debate. The last portion considered some of the specifics of the carbon sequestration (C. seq. hereafter) option in the light of these general observations.

Nature of the issue: The overwhelming characteristic of the climate change issue is that it necessarily involves directly so many varied issue-areas: environment, science, technological development, foreign policy, economic growth, inter-generational equity, regulatory policy, population growth, among others. This means, in effect, that interests of many kinds are engaged in the process of developing policy to cope with the issues raised both inside and outside the government.

International setting: Contrary to some assertions, even at this AGCI conference, the nation-state system is very much alive, and will continue to be. Nations are more constrained in their freedom of action than in the past as a result of evolving relationships, globalization, organizations, and industrialization, but are still dominant players on the international scene. In fact, they must continue to be as they will be essential to meet future needs to mobilize resources and policies to meet global-scale problems.

Intergovernmental organizations have grown in number, some with considerable autonomy (e.g. WTO), but also characteristically with large, unwieldy bureaucracies. NGOs are a “new” force on the scene, potentially of great importance as intermediaries between publics and both national governments and international organizations. There are also, however, many questions about their role and status.

Developing countries are a critical part of the overall system and equally critical to the future economy and security of the US. US policy toward LDCs does not reflect this dependence today (“scandalous” was the adjective used.)

Kyoto Protocol: The Kyoto Protocol will not be ratified by the US in its present form, but it is not “dead.” In fact, it is unlikely that the Protocol will come into force without the US (it would take ratification by 55 countries representing 55% of total emissions), but it represents an essential start in the building of the international machinery that will be necessary to meet the climate change issues in the future. An international staff has been assembled, various essential mechanisms are being developed (CDM, JI, emissions trading), and nations are increasingly having to come to grips with establishing positions on the myriad of issues under consideration at international negotiating sessions.

US policy process: The US policy process was presented in schematic form, showing the implications of the unique (among industrial countries) divided policy structure. Competition between the Branches of government, the adversarial process within the Executive and between the Executive and the Congress, the decentralized (and too often dysfunctional) organization of the Congress, the power of the large Congressional staffs, the many levers for intervening in the policy process, plus other disparate aspects make it exceedingly difficult to formulate coherent, rational policies in response to complex, interest-laden, issues.

Role of scientific evidence: Scientific evidence was central to moving climate change on the political agenda and, in the long run, will set the framework for policy. But, in the short run, various aspects of the evidence (e.g. uncertainty, manipulation for partisan or interest purposes, media behavior, and others) allow scientific analysis to become a controversial and not definitive aspect of the issue. In effect, this means that at any given time policy will be determined more by politics than by scientific analysis. Or,
policy may be determined more by the vagaries of the weather than by agreement among the scientific analysts.

**Comments on C. seq.:** In the light of these observations, several aspects of the C. seq. issue were discussed. In particular, the need to stimulate public and private R/D, set appropriate standards, develop regulatory machinery, and institute some form of “industrial policy,” was outlined in the context of a complex policy and budgetary process in the US. The critical importance of achieving public and political acceptance was laid out, emphasizing public engagement (not a panacea), the role and difficulty of obtaining adequate (and credible) risk assessments, and the importance of avoiding the impression that C. seq. on its own is a magic bullet. Study of the many issues the technology will raise is important, but need not be fully understood before action is taken (or else there would never be action). The value of developing interest and allies among the “right” members of Congress and their staffs was emphasized.

Finally, various interactions between C. seq. and the Kyoto Protocol were spelled out. Would resorting to the technology be seen as avoiding emissions reductions? How will credits be handled? Will new agreements on risk and monitoring be required? And, of great importance, what will be the effects on LDCs? A diversion? A bad example? Stimulus to action? Lead to or discourage later LDC adherence to the Protocol? In any case, the relations and performance of LDCs on this issue (and others) will be, in fact, essential to the US.