

**FINAL TECHNICAL REPORT FOR PARSON DOE GRANT****Title:** Integrated Assessment in International Policy-Making**Principal Investigator:**

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**Period of time covered by report:** 09/15/1994 - 09/14/1996**Recipient Organization:**President and Fellows of Harvard College  
1350 Massachusetts Avenue  
Cambridge, MA 02138**DOE award number:** DE-FG02-94ER61941**SUBSTANTIVE PROGRESS REPORT:****Project Aims**

This project undertook a preliminary investigation of the conduct and use of assessments, particularly integrated assessments, in international negotiation and policy-making. The research involved review of existing secondary literatures including related theoretical literatures of negotiation analysis and multi-party bargaining; review of archival and documentary material on a few international assessment cases; and interviews in North America and Europe with assessment managers and users.

The project sought to identify empirical regularities in the relationships between assessment characteristics and the manner and extent of their contribution to policy-making; to specify and critically assess a set of candidate mechanisms through which assessments influence and assist international policy-making; and to derive from these investigations preliminary practical guidance for assessment design.

Two revisions of these aims were made during the project. First, as detailed below in the summary of the fall 1995 seminar series, we discovered that the literatures on effectiveness of policies and institutions, and associated normative criteria, are too immature and contested to permit adopting any simple set of indicators of effectiveness off the shelf, or developing any that will pass muster even for heuristic purposes, within the limited scope and duration of this project. Consequently, we have changed the dependent variable of the study to refer to a set of specific, identifiable effects of assessment activity on the policy process, with no explicitly normative component.

Second, through our initial empirical investigations of assessments, we realized that both the characteristics of assessments that are undertaken, and the potential effects of assessments on the policy process, are strongly conditioned by the state of the policy issue. While this project did not treat assessment characteristics as a dependent variable -- i.e., did not seek to explain why assessments on a particular issue are done when and how they are done -- we have made our hypotheses about the consequences of particular assessment strategies explicitly conditional on the state of issue development, in terms of both the state of knowledge and the place of the issue on the policy agenda.

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### Work Completed Under the Project

With the support of this grant, we have completed the following work.

1. In fall 1995, we convened a seminar series at the Center for Science and International Affairs (CSIA), on "Effectiveness of Scientific and Technical Assessments". Through the seminar we engaged colleagues from several fields and institutions with relevant expertise, to help inform our development of hypotheses about effectiveness. The seminar also sought to identify and critically examine a variety of theoretical literatures potentially relevant to the effectiveness of assessments, drawn from international relations, policy analysis, learning and policy change, and science studies.

As a result of these discussions, we decided to retreat from the conceptually contested ground of "effectiveness", and instead seek to identify specific modes of assessment "effects", which can be examined without having to define robust normative criteria. During the final seminar, we developed an illustrative list of modes of assessment effect, which were critiqued by seminar participants and have formed the basis for further work developing a research protocol and hypotheses.

2. Through 1995, we conducted approximately forty interviews with managers, participants, and users of assessments on climate change and ozone depletion, in the United States and Europe, including approximately fifteen interviews conducted with national delegates, representatives of industry and environmental groups, and members of Assessment Panels at the Meeting of the Parties to the Montreal Protocol in Vienna in December, 1995.

3. We developed a conceptual scheme for relating assessment characteristics to effects, and a research protocol. The protocol consists of approximately sixty specific, concrete questions to pose of each assessment studied, which span our concerns about assessment design, management, mandate, process, methods, and effects.

4. We conducted a preliminary review of approximately thirty assessments for climate change, and thirty for stratospheric ozone, to identify salient clusterings of assessment design and management. From this preliminary review, we identified five common "Assessment Strategies" -- linked choices of design, scope, management, participation, and assessment methods that recur repeatedly among assessments that attain at least moderate prominence.

5. We applied the research protocol to a sample of twenty assessments of stratospheric ozone depletion and eighteen assessments of global climate change. In order to control for stages in the scientific and policy development of the issue, the sample includes clusters of multiple assessments done by different institutions at roughly the same time. To investigate potential influence of cumulative learning over time, the sample includes sets of repeated assessments over time, by the same institutions or involving the same individuals.

6. We developed a preliminary set of hypotheses linking issue context, assessment strategy, and particular modes of assessment effect.

7. We presented the protocol and hypotheses, plus provisional results of their application to one major assessment (the WMO/NASA report, "Atmospheric Ozone: 1985") at the meeting of the AAAS, March 1996, in Washington, DC.

8. We drafted a paper, now being revised for submission, summarizing characteristic strategies of assessment design and how they advance the interests of assessors and assessments' outside stakeholders.

9. We extensively revised and extended a critical review of the Integrated Assessment literature, which had been earlier presented at a conference, for publication. The paper is now in final revision to appear in the 1997 Annual Review of Energy and the Environment.

#### **INSTITUTIONAL:**

During the period of this grant, Harvard received support for related work on global environmental assessment and management from the National Science Foundation and from NIGEC, as well as additional support from the Department of Energy. Beginning in 1996-97, we are undertaking an integrated program of work with support from these three sources, with a horizon of five years. The first year is concentrating on assessments of global climate change, the second year on assessments of long-range air pollution and acidification.

This five-year project is structured around a network of ten core faculty, at Harvard and elsewhere (institutional or individual collaborations have been established with Carnegie-Mellon, Colby, Cornell, Duke, IIASA, and Tufts), working closely with six to ten fellows (pre and post-doctoral) in residence at Harvard for most of each year, and other interested students and fellows. Each year's results will first be reported out at a week-long workshop each summer, which will bring together senior practitioners, users, and scholars of assessment to refine, extend, and critique the provisional results of the year's research. This workshop will follow the format of the Dahlem conferences: parallel working-groups will work intensively over several days, each beginning from a prepared background paper. The syntheses of these background papers, extended and refined by workshop discussion, will be published in a monograph addressing dual scholarly and policy audiences. The first workshop will take place June 22-28, 1997.

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