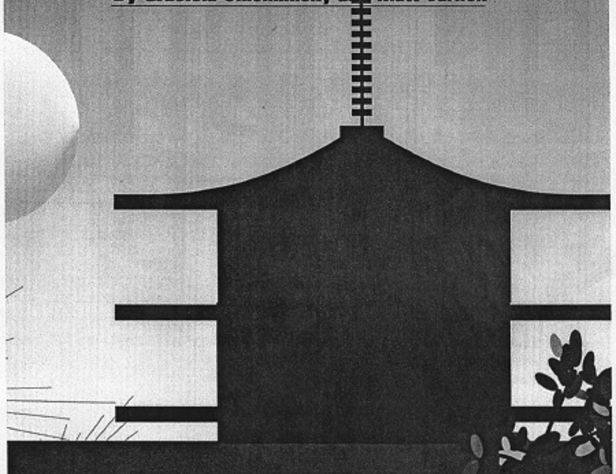
By Graciela Chichilnisky and Matt Varilek



KYOTO PROTOCOL: THE WAY AHEAD

earth matters

News from The Columbia Earth Institute: Spring 1998

A group of speakers was convened by the Earth Institute and the Italian Academy at a conference entitled "From Kyoto to Buenos Aires: Technology Transfer and Emissions Trading." Over 140 participants, met April 24-26 to hear David Sandalow of the White House Council on Environmental Quality, Raul Estrada Oyuela, Chair of the Kyoto Negotiating Committee of the COP-3, Richard Stewart, former Assistant US Attorney General, Tahar Hadj-Sadok of the Secretariat of the UN Framework Convention on Climate Change, Graciela Chichilnisky, UNESCO Chair and Director of the Program for Information and Resources, and others. The conference was a follow-up to the Third Conference of the Parties in Kyoto and met in preparation for the Fourth Conference of the Parties to be held in Buenos Aires, Argentina, this November. The conference also followed a 1994 meeting at the Columbia University School of Business at which Program on Information and Resources scientists proposed emissions trading as a means to address climate change. This proposal, embodied now in Article 17 of the 1997 Kyoto Protocol, has received official US endorsement.

A notable event was the announcement by Larry Harrington, U.S. Executive Director for the Inter-American Development Bank, that the Bank's President Enrique Iglesias has decided to carry out a Pilot Project that would start from the Clean Development Mechanism (CDM) of the Kyoto Protocol (Article 12) and "advance towards the creation of a global financial mechanism that provides the most efficient and fair regime possible for all nations," along the lines of a proposal by the PIR in 1995.

The conference was co-sponsored by the United Nations Development Program, the United Nations Educational, Scientific, and Cultural Organization, the United Nations Industrial Development Organization, and the United Nations Environment Program. It advanced ideas on how to coordinate diverse scientific and political institutions within the framework provided by the Kyoto Protocol. Widely hailed as an historic achievement in the international effort to avert potentially catastrophic impacts of global climate change, the Kyoto Protocol leaves many questions unanswered. Signatories agreed to an emissions reduction of 5.2% below 1990 levels for industrialized nations, and approved in principle certain "flexibility mechanisms" including Joint Implementation, the CDM, and emissions trading to help achieve this goal. However, many details of their implementation were left to be determined in Buenos Aires or beyond.

David Sandalow of the White House delivered the keynote address on the evening of Friday the 24th. He commented that his presence at the conference evidences the U.S. commitment to address climate change, and he expressed optimism that the Protocol's inclusion of flexibility mechanisms will enable governments to address the problem in an effective and efficient way. He detailed four anticipated benefits from well-designed flexibility mechanisms: (1) Economic incentives provided by an emissions trading market will encourage broad compliance; (2) Efficiency of emissions market transactions will minimize compliance costs; (3) Market signals will speed the international climate change response by spurring technological development and encouraging efficiency; (4) Equitable market outcomes will attract the participation of developing countries who face the highest vulnerability to climate change and whose full participation is essential to the success of the Protocol. Sandalow added that these benefits will be realized only if institutions can find a way to break the traditional link between economic growth and emissions growth.

Raul Estrada Oyuela initiated a panel discussion on Saturday the 25th to identify specific issues to be addressed during the course of the conference. Hadj-Sadok detailed the scope and nature of provisions in the Protocol. He also presented a timetable for future meetings and developments. Chichilnisky echoed Sandalow's comment on the need to dissociate economic growth and emissions growth, and she summarized her 1995 proposal to the World Bank for the creation of a new international institution to achieve this dissociation by the coordination and oversight of the Kyoto flexibility mechanisms. Chichilnisky's International Bank for Environmental Settlements (IBES) would securitize investments in clean technologies and oversee a market for trade of emissions permits in order garner the essential participation of the private sector and developing countries. Carlos Sersale di Cerisano, Special Representative of the Director General to the UN System and Multilateral Organizations, UNIDO, commented that the UN's extensive experience with development assistance and the private sector enabled it to assist the coordination of flexibility mechanisms. Sersale added that the IBES proposal would likely resolve the financial aspect of coordination.

In order to focus the discussion, conference participants then split into three "break-out" sessions, each addressing one aspect of the broader conference objective. Session I on "Methodological Issues" chaired by John Cuddy, Deputy Director, International Trade and Commodities Division, and Coordinator for Sustainable Development of UNCTAD, advanced the discussion on uniform emissions monitoring and verification. Session II on "The Carbon Cycle" chaired by John Mutter, Deputy Director of the Lamont-Doherty Earth Observatory, discussed the feasibility of terrestrial and marine CO2 sink enhancement by artificial and natural means. Steven Pacala of Princeton University raised questions on the role of the North American continent as a net sink of emissions. Session III on "Economic Issues and Market Mechanisms" chaired by Walter Heller, Professor of Economics, University of California at San Diego, examined evidence suggesting that industrialized nations can both meet their emissions reductions obligations and achieve net economic growth.

Following the break-out sessions, the plenary reconvened to hear perspectives on technology transfer from developing countries and the private sector. Jyoti Parikh, Acting Director of the Indira Ghandi Institute for Development Research, sought to dispel misconceptions about the term "technology transfer," arguing that to ensure the success of the Protocol, transfers must exchange not only physical products, but also knowledge of which technologies are appropriate to particular places, how to utilize technologies, and how to advance technologies by adaptation and innovation. James Anderson, Cooperative Technology Programs Advisor of Ford Motor Company, cautioned that the successful execution of technology transfers must account for conditions in recipient countries in order to ensure the technology's compatibility with local infrastructures and practices.

Geoffrey Heal, Paul Garrett Professor of Public Policy and Corporate Responsibility at the Columbia Graduate School of Business, assumed the chair on Sunday the 26th to initiate a discussion on the structure of equitable and efficient trading mechanisms. Richard Stewart identified some features of effective market incentives from US experience with the phaseout of unleaded gasoline and its SO_2 emissions permit market. He urged close but not excessive oversight so as not to stifle technology transfer projects. Jake Werksman, Managing Director of FIELD and SOAS at the University of London, examined the way in which climate change negotiation developments up to Kyoto will determine the course of future developments. Experience indicates that the attractiveness of efficient markets and economic benefits will have to overcome the reluctance of industrialized nations to meet their obligations, and that those economic benefits must offer enough equity to garner active participation by developing countries which have so far rejected all emissions reduction obligations. Larry Harrington, Executive Director for the United States at the Inter-American Development Bank (IDB), commented that regional development banks like the IDB have region-specific experience to carry out flexibility mechanism implementation. He also highlighted IDB's announcement of an emissions trading Pilot Project based on the CDM in support of Chichilnisky's IBES proposal.

Chichilnisky closed the conference with a presentation on "The Way Ahead" in which she emphasized the relationship between equity and efficiency in markets. She explained that contrary to classical economic models, the trading of environmental public goods creates economic efficiency only under certain initial permit allocation arrangements. Two trading market models by the OECD and the PIR demonstrate that allocating more permits to developing nations can favor developing and industrial nations alike. She expressed optimism that the IBES or an institution like it could provide the coordination and oversight to achieve such a win-win solution.

The conference's conclusions included (1) the need for a global institutional framework to provide effective coordination and oversight of market mechanisms and (2) the need for global mechanisms that foster equitable and efficient outcomes. These conclusions will assist negotiators in Buenos Aires as they attempt to complete the unfinished business of the Kyoto Protocol. The conference will be followed by an Inter-American Development Bank workshop to be convened in June in Washington, D.C. in preparation for its CDM Pilot Program.

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