

**Papers on International Environmental Negotiation
Volume XIV**

Lawrence E. Susskind and William R. Moomaw, Editors

Program on Negotiation at Harvard Law School
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Lawrence E. Suskind and William R. Moomaw

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Introduction

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The nine papers in Volume XIV of the Papers on International Environmental Negotiation represent new ways of looking at the multilateral negotiations crucial to ensuring sustainable development and effective management of shared (or what is known as “common pool”) resources.

Shauna J. Sadowski begins with the fact that of the more than 500 existing international treaties on environmental matters, over half have been enacted in the last 25 years. Despite the increasing rate of treaty-making, the condition of the biosphere continues to decline as measured in terms of the number of threatened species, the volume of greenhouse-gas emissions and the increasing production of hazardous waste. Given the growing power of multinational corporations in the world’s economy, she argues that they can and should play a more important role in environmental treaty-making. Indeed, she develops a model wherein corporations might be involved more formally through the existing UN Global Compact. Her plan includes a “cascading” scheme in which international level players (led by the relevant UN treaty secretariat) would interact with industry-level players (through the UN Global Compact) who, in turn, would seek feedback from (and attempt to represent) individual companies.

Noting the positive impacts of the 1979 Long-Range Transboundary Air Pollution (LRTAP) regime, *Megan V. Brachtl* considers how an extension of its principles to other transboundary air pollution problems (in other parts of the world) might be effective. Many nations not party to the original agreement are now becoming more developed and as such are greater contributors to transboundary air pollution. Brachtl develops three options for a more extensive, effective control regime. She argues that the strongest of these is a program comparable to UNEP’s Regional Seas Programme in which the LTRAP convention and protocols would remain intact, other nations and regions not currently participating could negotiate their involvement, and under which all international atmospheric agreements could be coordinated.

Patricia Lee Devaney reports on the effectiveness of Regional Fisheries Management Organizations (RFMOs) as a method of managing fishing on the high seas in a more sustainable fashion. Fish that are highly migratory, or which live in areas that cross national boundaries, are protected by a 1995 Agreement pursuant to the 1982 Law of the Sea Convention. Devaney concludes that regional management efforts can achieve the desired conservation and resource management goals if they are further developed with special attention to factors leading to over-exploitation. RFMOs should be revised to incorporate ecosystems analysis; the use of advanced monitoring technology, compliance enforcement, and market-based incentives to sustainable fishing. While the appropriate mechanisms are now in place, all participating parties need to increase their coordination efforts.

As the world looks with increasing concern for alternatives to traditional fossil fuels, some have looked to the potentially vast potential of methane (the primary component of natural

gas) locked in methane hydrates in the deep oceans and polar regions. *Jose Luis Sanchez Pina* discusses the pros and cons of relying more heavily on energy derived from methane hydrates. Recovering the gas is dangerous and environmentally hazardous if not managed with extreme care. Furthermore, it is a potent greenhouse gas in its own right in addition to being a source of carbon dioxide when it is burned. However, methane could be used to produce large amounts of inexpensive hydrogen. The author posits a World Methane Hydrate Advisory Board (WMHAB) that would take on the relevant policy making activities and aim to reach consensus among WTO member countries on global regulations concerning extraction of methane hydrate from the terrestrial or marine subsoil; property rights for hydrate deposits in international waters; and the regulation of power systems design. He also outlines a system of incentives aimed at getting corporations and member countries to abide by Board recommendations.

Public awareness is a key factor in robust policy making. *Masako Konishi Otsuka* discusses the ways in which the press can bring public opinion to bear on international environmental treaty negotiations. She discusses the role of the independent press in making environmental news compelling to readers and listeners who, in turn, can pressure public officials to become more active in environmental policy negotiation and implementation. Otsuka proposes a way to thinking about press coverage of global environmental matters called the “Strategic Public Relations” method. She suggests placing science coordinators in existing public relations offices in strategic UN organizations. They would funnel material to the press in a scientifically credible and timely manner. A second network would link public relations in relevant national agencies to broadcast meteorologists and NGOs. Such an approach might stimulate public concern and encourage more intelligent environmental choices at personal and political levels.

One of the most pressing global environmental issues is the preservation of biodiversity. *Becky Chacko* proposes organizing a series of protocols under the Convention on Biological Diversity into an Ecosystem Program for Biodiversity. This would enable independent negotiation of agreements for individual ecosystems and enable the treaties to work together more effectively to protect biodiversity. Keys to the success of such a system would be the narrowing of each ecological discussion so that meaningful conclusions could be drawn, linkage to other conventions, and participation of a much wider range of stakeholders. Critics of the existing Convention on Biological Diversity believe it is so flawed that it should be replaced. Chacko, however, believes that the biodiversity problem is too dire to wait for results from the time-consuming process of generating an entirely new convention. A series of focused protocols based on “ecosystem type” would be a quicker way to proceed. The prime movers, in her scheme, should be NGOs and development organizations.

The most all-enveloping transboundary environmental issue is, of course, climate change. *Shotaro Sasaki* proposes a mechanism for building international consensus on a long-term CO₂ control strategy. This would move well beyond the relatively short-term requirements of (and disagreements about) the Kyoto Protocol to a permanent international commitment to address the problem (through long-term targets and timetables). By lengthening the time horizon, countries would have much greater flexibility, enabling on-going revision of emission reduction techniques and strategies as better science and technology become available. While the targets Sasaki would set are ambitious (and he is specific about what they would be), they would accommodate the different developmental realities in each nation.

This should encourage participation. Sasaki details the requirements for hypothetical high-, medium-, and low-income countries, offering specific time lines. He then analyzes the likely negotiation positions of the key parties.

Zero impact initiatives attempt to emulate natural processes in which emissions from one industry becomes inputs to others. In Rudolfo Lacy's view, zero emissions ought to be the next evolutionary phase in the management of technological, urban, and production systems. He analyzes several strategies including Cleaner Production, Factor 4/10, life cycle assessment, Natural Step, and pollution prevention in an effort to understand how these might support a zero emission orientation. He proposes a Zero Emissions Treaty that would create a global, market-oriented, voluntary mechanism to encourage zero environmental impact (ZEI). It would be initiated by the UN in coordination with the World Bank Group and the International Monetary Fund and seek to engage all industrialized countries and those currently financing unsustainable projects with international loans. Financial expertise would be key to crafting an effective approach through appropriate oversight and compensation.

Outlining the dangerous short-comings of industrial food production, *Hilde Petersen* looks to the potential of sustainable agriculture as a better model in terms of health, economics, environment, and community. This holistic system has three goals, economic profitability, environmental stewardship, and improved quality of life. Because world-wide conversion to such a system is an extraordinarily ambitious goal, Petersen suggests a first step – the inclusion of a commitment to sustainable agriculture in an amendment to a variety of existing treaties. She outlines such an amendment that could easily be added to a great many international agreements. UN agencies would contribute to the support of a coordinating group of agency representatives who would bring the text and options for further recommendations to the attention of groups involved in the implementation of existing treaties.

This set of papers points to the fact that while new treaties may be needed from time-to-time to address emerging environmental concerns, there are a great many ways in which existing treaty making systems could be modified that would yield improved results.

The Contributors

Co-editor **Lawrence E. Susskind** is Ford Professor of Urban and Environmental Planning at the Massachusetts Institute of Technology. He is a past Executive Director and current member of the Steering Committee of the Program on Negotiation at Harvard Law School and Director of the MIT-Harvard Public Disputes Program. He is principal of the Consensus Building Institute in Cambridge, MA.

Co-editor **William R. Moomaw** is Professor of International Environmental Policy at the Fletcher School of Law and Diplomacy at Tufts University where he directs the International Environmental and Resource Program. He is also director of the Global Development and Environment Institute. He is a PhD in physical chemistry. His research interests include: the greenhouse effect; stratospheric ozone depletion; air pollution; the role of science and technology in national and international policy; and wetlands, forests, and energy policy

Megan V. Bracht, author of “Capitalizing on the success of the LRTAP regime to address global transboundary air pollution” works at the US Environmental Protection Agency headquarters in the Office of Air and Radiation. She holds an MS in environmental and water resources engineering from Tufts University, an MA in Law and Diplomacy from The Fletcher School at Tufts with a certificate in sustainable development, and a BS in civil and environmental engineering from Northeastern University. Bracht served in the US Peace Corps in Côte d’Ivoire (1998-2000) and is currently a Presidential Management Fellow. Her interests include sustainable development and technology transfer, environmental justice, and the role of the US in international environmental policy making.

Becky Chacko, author of “An Ecosystem program for biodiversity: Advancing the convention on biodiversity,” recently received Master of Public Policy degree from the John F. Kennedy School of Government at Harvard University. Her current research on a live case study in the Peruvian Amazon focuses on the co-production of information and how scientific research can have a more positive impact on policy. Becky spent two years with the Peace Corps in Cameroon teaching English and engaged in environmental and HIV education projects. She has interned with the West/Central Africa coordination unit for the Global Environment Facility with UNDP in Dakar, Senegal. She holds a BA in English and Spanish literature from the University of Iowa.

Patricia Lee Devany is the author of “Regional fisheries management organizations: Bringing order to disorder.” Prior to receiving a Master in Public Administration degree at Harvard’s Kennedy School of Government, she was Director of Policy and Research at ACCION International. While her professional focus has been on microfinance and economic development, she has had a long-term interest in environmental policy, working as a guest researcher at the Marine Policy Center at Woods Hole Oceanographic Institution during and after college, and volunteering with the New England Aquarium. Devany received her BA in International Studies with concentrations in Latin American and Environmental Studies from Colby College.

Masako Konishi Otsuka, author of “The role of the press in creating effective environmental treaty negotiations,” completed the MPA program at Harvard’s Kennedy

School of Government in 2005, focusing on environmental policy. She is a Japanese journalist and certified broadcast meteorologist with more than 15 years of experience. She received the Grand Prize as the best weather presenter in the world at the 12th International Weather Festival in 2002 in Paris.

Hilde Petersen, author of “A sustainable agriculture amendment: Incorporating sustainable agriculture into international environmental negotiations,” received her Master of Science degree from the Friedman School of Nutrition Science and Policy in the Agriculture, Food and Environment program at Tufts University, and holds a BA in Environmental Studies and Anthropology from Bowdoin College in Brunswick, Maine. She recently completed a policy guide on sustaining small meatpackers that will be distributed by the Sustainable Agriculture Coalition in Washington DC to sustainable agriculture advocates across the country. Petersen plans to continue her work promoting local food systems and sustainability both in the United States and abroad.

Rodolfo Lacy, author of “A “Zero Environmental Impact” treaty: A full environmental compensation mechanism,” is an environmental engineer who graduated in 1981 from the Metropolitan Autonomous University in Mexico City. He coordinated and edited the first State of the Environment Report in Mexico and is author of the book *Air Quality in the Valley of Mexico*. In 1994 he was awarded a fellowship from the Rockefeller Foundation in the Leadership for the Environment and Sustainable Development program (LEAD). He is the founding president of the Environmental Engineers Association of Mexico, the former executive director of Environment Pollution Prevention and Control in the Mexico City Government, and the former head of advisors to the Minister of the Environment and Natural Resources in Mexico. He received his MS in environmental planning from the Massachusetts Institute of Technology in 2005.

Shauna J. Sadowski, author of “Bringing multinational corporations into the environmental treaty-making process,” received the Master of Science degree in Agriculture, Food, and Environment in 2005 from the Friedman School of Nutrition Science and Policy at Tufts University. She completed her Bachelor of Science in Economics with a concentration in Management from the University of Pennsylvania Wharton School in 1999. During the time between her two degrees programs she worked at the Corporate Executive Board and Arthur Andersen in Washington, DC as a researcher and consultant in corporate strategic planning. Her research interests include agricultural policy and the environment, corporate sustainable development, and agribusiness and trade.

José Luis Sánchez Piña is the author of “Proposal for a treaty on rational use of methane hydrate reserves.” A native of Mexico, he began his career as a technician apprentice in a Chrysler dealership. He received undergraduate degrees in mechanical engineering and agricultural science degrees from Monterrey Technological Institute (ITESM) in 1997; a MSc in environmental health from the Harvard School of Public Health in June 2005. Sanchez Pina co- founded ITESM’s Biodiesel Program, and worked in Delphi Automotive Systems as a Structural Analyst and Product Engineer in the Sensors and Actuators Competency Group. He is currently working as director of product development in charge of reducing the environmental footprint of the products of a furniture corporation in Southern California.

Shotaro Sasaki is the author “Setting a post-Kyoto target for CO₂ emissions: A mechanism and process for international consensus building.” He worked at a power company for over 11 years after graduating from Sophia University in Japan with a master’s degree in engineering. He has operated coal thermal power stations, managed waste-to-energy projects, and constructed biomass power plants. In 2005, Sasaki graduated from the dual master’s degree program of The Fletcher School and the Department of Urban and Environmental Policy and Planning at Tufts University where he studied international environmental policy. He currently works for the Asian Development Bank, integrating his skills as an engineer with his recent professional interests in environmental policy making. His goal is to contribute to society through climate change mitigation; he expects to pursue a PhD program in related studies in the future.