

SCIENCE

EDITORIAL

Publisher: Richard S. Nicholson
Editor: Daniel E. Koshland, Jr.
Deputy Editor: Ellis Rubinstein
Managing Editor: Monica M. Bradford
International Editor: Alun Anderson
Deputy Editors: Philip H. Abelson (*Engineering and Applied Sciences*); John I. Brauman (*Physical Sciences*); Thomas R. Cech (*Biological Sciences*)

Editorial Staff

Assistant Managing Editor: Dawn Bennett
Senior Editors: Eleanore Butz, Martha Coleman, R. Brooks Hanson, Barbara Jasny, Katrina L. Keiner, Linda J. Miller, Phillip D. Szuromi, David F. Voss
Associate Editors: Pamela J. Hines, Kelly LaMarco, L. Bryan Ray
Letters: Christine Gilbert, *Editor*; Steven S. Lapham
Book Reviews: Katherine Livingston, *Editor*; Claire Wilson
Contributing Editor: Lawrence I. Grossman
Chief Production Editor: Ellen E. Murphy
Editing Department: Lois Schmitt, *Senior Copy Editor*; Julie W. Albers, Valerie Jablow, Harry Jach, Steven Powell
Copy Desk: Douglas B. Casey, Joi S. Granger, Beverly Shields, Kirsten L. Wall
Editorial Support: Sherry Farmer, *Supervisor*; Carolyn Kyle, Diane Long, Patricia M. Moore, Michele Westfall, Kameaka Williams
Administrative Support: Sylvia Kihara, Jeanette Prastein

News Staff

Managing News Editor: Colin Norman
Deputy News Editors: Tim Appenzeller, John M. Benditt, Jean Marx
News and Comment/Research News: Ivan Amato, Faye Flam, Troy Gately (copy), Ann Gibbons, David P. Hamilton, Constance Holden, Richard A. Kerr, Elliot Marshall, Joseph Palca, Leslie Roberts, Richard Stone, John Travis (intern)
Bureaus: Peter Aldhous (London), Marcia Barinaga (West Coast), Michelle Hoffman (Northeast), Anne Simon Moffat (Midwest)
Contributing Correspondents: Joseph Alper, Barry A. Cipra, Robert Crease, Elizabeth Culotta, Robert Pool, M. Mitchell Waldrop
Administrative Support: Fannie Groom

Art & Production Staff

Production: James Landry, *Director*; Wendy K. Shank, *Manager*; Catherine S. Siskos, *Assistant Manager*; Scherraine Mack, *Associate*; Linda C. Owens, *Macintosh Operator*
Art: Amy Decker Henry, *Director*; Julie Cherry, *Assistant Director*; Diana DeFrancesco, *Associate*; Holly Bishop, *Graphics Assistant*
Administrative Support: Leslie Blizard

Associate Publisher: Beth Rosner

Circulation Director: Michael Spinella
See page 1113 for additional Advertising and Circulation Staff

Science Editorial Board

Charles J. Arntzen	John J. Hopfield
Elizabeth E. Bailey	F. Clark Howell
David Baltimore	Paul A. Marks
William F. Brinkman	Yasutomi Nishizuka
E. Margaret Burbidge	Helen M. Ranney
Pierre-Gilles de Gennes	Robert M. Solow
Joseph L. Goldstein	Edward C. Stone
Mary L. Good	James D. Watson
Harry B. Gray	

Failure at the Earth Summit

Six months ago close observers of the preparations for the June "Earth Summit" in Rio de Janeiro—officially the United Nations Conference on Environment and Development or UNCED—were asking which outcome was more preferable, a major failure or an absolute disaster. The most likely outcome is a major failure. UNCED will draw heads of state, including President Bush, from more than 100 countries, and the chief output will be the Rio Declaration. In place of the original hope for global unity on a firm plan of specific actions to address various global ills, this Declaration will be high on expressions of the urgent need for actions and devoid of commitments for individual countries actually to do something. The path will remain open for continuation of all of the national policies that have led to these concerns.

UNCED is the successor to the highly successful Stockholm meeting of 1972 in which the nations of the world first stated their mutual concern about the emerging problems with the environment and which led to the founding of UNEP, the United Nations Environment Program. During the last 20 years, these global problems have become increasingly evident—stratospheric ozone depletion, loss of tropical forests and biodiversity, the steady accumulation of greenhouse gases, continuing widespread poverty, and the accelerating total world population. Yet little progress has been made in their amelioration, except for the precedent-setting 1987 Montreal Protocol, which now calls for the elimination of chlorofluorocarbon (CFC) emissions by the year 2000. When UNCED was first conceived, the hope was for a plan for worldwide action on climate, forest preservation, biodiversity, and sustainable development.

However, the hoped-for coalescence of mutual global concerns quickly degenerated into separate wrangling over development and the environment. The delegates no longer were discussing a broad framework for action but rather a declaration that would represent very little advance over the Stockholm words of 1972. Throughout these negotiations, the United States has consistently played a determinedly negative role toward any actual commitment. During the final pre-Rio preparatory conference this spring, the instructions for the United States were widely known within the delegation as the Ten Commandments: don't make any commitments; don't accept the transfer of technology, the need for new institutions, requests for new financial resources, the need for environmental impact assessments, U.S. liability for the environmental problems of developing nations, the precautionary principle, the need for dispute resolution, and the need for new financial assessments; and don't mention the military.

Nongovernmental observers have rightly judged the United States as almost wholly obstructionist but have not been particularly impressed with the attitudes of the European Community countries and the Group of 77, which speaks for the less-industrialized world. Only the Nordic countries have received any praise for proposing creative solutions.

Progress on separate agreements on managing sustainable development, biodiversity, forest management, and climate has also moved glacially forward. The primary climate concern has been the undoubted growth in the atmospheric concentrations of several "greenhouse" gases—methane, nitrous oxide, several CFCs, and most importantly carbon dioxide from the combustion of fossil fuels and tropical forests. The assessment of the U.S. technical agencies indicates that the United States could achieve significant reductions in greenhouse gas emissions with little economic dislocation. Nevertheless, the United States has been standing alone on the climate convention as unwilling to make any commitments, while the European Community and particularly the Nordic countries have been pressing for specific goals and timetables for cutbacks in emissions. Reluctantly, the other countries have surrendered by agreeing that controls are necessary but that policies to implement them remain unspecified.

Meanwhile, the global environmental problems continue to accumulate, and the need for progress toward solutions grows rapidly. The success of the Montreal Protocol demonstrates that global commitments can be negotiated: measurements of the atmospheric concentrations of CFCs demonstrate that their yearly rate of increase has slowed down markedly.

Words do have the power to persuade, especially for those willing to read them and ponder their meaning. Hopefully, when President Bush reads the Rio Declaration he is about to sign next month, he will realize that those words urgently call for a change from his current commitment to inaction and the status quo.

F. Sherwood Rowland
*President, AAAS, and Professor of Chemistry,
University of California Irvine, Irvine, CA 92717*