

## *Preface*

This report first appeared as a background paper for the Workshop on Comparative Risk Assessment of Environmental Hazards in an International Context, held at Woods Hole, Massachusetts (U.S.A.) March 31–April 4, 1975. It was made possible by funds from the United Nations Environment Programme and the Electric Power Research Institute. At the Workshop it received the thoughtful consideration of the attendees: Gyula Bora, Gilbert Bresson, Ian Burton, William Clark, Daniel Dworkin, Ward Edwards, José Guisard Ferraz, Kenneth Guy, S. Waqar Husaini, William Ittelson, Raphael Kasper, Ashok Khosla, Alexandre-Charles Kiss, Edward Lawless, Lennart Lundqvist, Thomas Malone, Olli Miettinen, Ezra Mishan, Harry Otway, Philip Pahner, Richard Rudman, Paul Slovic, Chauncey Starr, Larry Tombaugh, Christopher Whipple, Gilbert White, and Anne Whyte. Subsequently it received further review from Kenneth Boulding, William Clark, Daniel Dworkin, Don Friedman, Colin Green, Thomas Malone, Paul Slovic, Gilbert White, and Anne Whyte. And it has been further reviewed on behalf of SCOPE by Gordon C. Butler, Gordon T. Goodman, R. E. Munn, and J. S. Weiner. They are collectively responsible for the many improvements in the report since the Workshop; its inaccuracies and inadequacies are solely my own.

Prior to its preparation I undertook a variety of consultations, including visits in London with F. E. Guaschi, J. F. Hutchen, David Lowenthal, Ron Pollard, and H. R. Rokeby-Johnson; in Milan with Craig Sinclair; in Vienna with Wolf Häfele, Harry Otway, Harry Swain, and the staff of the joint project of IIASA-IAEA on risk assessment; and in Warsaw with Adolf Ciborowski, Stanislaw Leszczycki, and Dariusz Stanislawski. By phone and correspondence I received help from David Bradley, Lloyd Free, Harold Green, Karl-Göran Möler, Keshavan Nair, Willi Schürpf, and Erwin Straub. Dorothy Noyes Kane, in the course of initiating me into the attitudes of the public health profession, introduced me to the ideologies of risk assessment, and I was then fortunate to explore these and other notions in the course of a week spent with the participants in the Engineering Foundation's Workshop on Risk-Benefit Methodology and Application at Asilomar, California, at the invitation of David Okrent.

The final section of this work, which is related to needed improvements in theory, method and practice, draws on the recommendations of a series of research workshops held in January and February, 1977 on hazard identification, risk estimation and evaluation, and communication and decision-making. Jointly sponsored by the U.S. National Committees for SCOPE and the Man and the Biosphere Program (MAB) and funded by the U.S. National Science Foundation, the workshops added to this review the thoughtful considerations of the participants. These were: Maya Bar-Hillel, Katrin Borchering, Marilyn Bracken, William Clark, Dennis Ducsik, Ward Edwards, Baruch Fischhoff, Charles Fritz, Eugene Haas, Robert Harriss, Christoph Hohenemser, Gordon Jacobs, Daniel Kahneman, Roger Kasperson, Henry Kissman, Gary Kreps, Howard Kunreuther,

Sarah Lichtenstein, Lennart Lundqvist, Allan Mazur, William Rowe, Susan Sherman, Lennart Sjöberg, Paul Slovic, Amos Tversky, Andrew Whinston, Gilbert White, and Anne Whyte.

Finally, in preparing the manuscript I should like to acknowledge Mimi Berberian for patient efforts as researcher, bibliographer, and editorial assistant.

Undertaking an international report exceeds the capacity of the solitary scholar; the foregoing list testifies to the degree of collective effort. The list of acknowledgements is long and my gratitude is deep; most of all it is to those whom I may have inadvertently overlooked.

*Worcester, Massachusetts*  
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R.W.K.