

BOOK REVIEWS

Robert W. Kates (ed.). *Managing Technological Hazards: Research Needs and Opportunities*. Denver, Colorado: Institute of Behavioral Science, University of Colorado, 1977, 169 pp.

This comparatively short book is for the most part readily readable by the non-technical layman and deals with the broad problem of managing technological hazards in an industrialized society. It is well worth reading by those in industries, utilities and activities which give rise to public or employee hazards and by persons involved with the regulatory agencies. Additionally, the interested citizen should find the contents of value in arriving at a sensible level of concern.

The book consists of three selected papers from three NSF-supported interdisciplinary workshops dealing with the identification of hazards, the evaluation of risks and the communication of assessments and solutions to the public.

The reader should not anticipate finding answers to all the problems and precise recommended courses of action. The main value of the treatise is that it places the problems in perspective and indicates where and how some of the answers might be obtained.

Robert Kates has provided a general summary which as might be expected duplicates some of the remaining content. Kates' editing for easy reading is evident in all but the final chapter by William C. Clark, an ecologist from the Institute of Resource Ecology (UBC, Canada) whose technical terminology is sometimes unexplained. Kates' summary of the broad topic is excellent. He concludes with suggestions for practical programs of research.

The second paper "Societal Management of Technical Hazards", by Roger E. Kasperson certainly raises a lot of questions concerning the roles of government and technologists. Most of Kasperson's sentences end with (?). He considers 45 case histories of technological hazards ranging from dental fluorides to the Amchitka underground nuclear test and concludes that there is great variability in public concern and hazard controlling response.

Kasperson's best thoughts deal with the problem surrounding the "regulatory society". The ideal situation is outlined where regulation is based upon informed public opinion. Over-regulation is always a possibility.

The next subject paper is Risk Assessment – Basic Issues by Slovic, Fischhoff and Lichtenstein. Following a brief review of hazard identification procedures and preferred methods of assessing the related risks, twenty questions are set down. Some of these are obvious targets for research, but others would seem to be answerable by having a better informed public and fewer extremists.

The final paper by W.C. Clark looks at the process of solving hazard and risk problems by the time-tested methods of "trial and error" and considers how recent major changes in some of the societal parameters may just possibly have changed the inherent stability of some social systems.

Not one of the authors comes to grips with the dilemma of the regulator. To whom does he owe his main obligation – the individual citizen or the population as a whole? Should a risk be tolerated where it is of minute significance to the individual but in the whole population may result in a single (unnecessary)

death? Since the authors suggest that regulation should be in step with public acceptance and discuss methods of measuring acceptance which involve determining individual concern it would seem that they assume that the regulator's responsibility is to the individual. But this is contrary to some expressed views from the medical profession and the environmental "mavericks" – mentioned by Kaspersen.

The list of references is extensive and useful to interested layreaders as well as researchers.

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