

## Book Reviews

### Environmental Disasters: Anthropogenic and Natural

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Email: [bookman@praxis-publishing.co.uk](mailto:bookman@praxis-publishing.co.uk); Hardback, 528 pp., £ 90.50, ISBN 3-54043-303-1

The authors present an interesting overview of environmental disasters, both anthropogenic and natural. The main purpose seems to be a revising of the erroneous perception that current disasters are a result of man's activity. This concurs to the assumption that many chemical products (e.g. the approximately 2000 compounds of chlorine) are solely man-made. In this sense, the closure of chlorine industry would not achieve the elimination of the chlorinated compounds from the environment. In fact, this should drive to the elimination of many life-forms – fish, algae, insects, worms, vegetables, fungi and even human beings – whose natural production and emission of chlorinated compounds is of important quantity.

The work is focused on an overview of three categories of catastrophes: 1. Those provoked by technological causes (industrial accidents, transport, etc.), 2. those caused by dangerous natural phenomena (earthquake, volcanic eruptions, floods, etc.), and 3. those engendered by interrelated human-nature induced factors (desertification, global climate change, etc.). The book is divided in six chapters.

**Chapter 1** is focused on risks due to natural and human-induced environmental disasters. An interesting classification of environmental disasters as well as their consequences is proposed; it is supported by extensive statistical data. An interesting analysis of risk is also heeded. Basic topics such as the genesis of disasters, their temporal variability, the vulnerability of population, and risk perception are outwardly examined.

**Chapter 2** submits a historical survey of natural and anthropogenic disasters of the past; the aim is to take advantage of the antecedent experience to overcome the effects of actual ecological disasters.

**Chapter 3 and 4** are devoted to present natural and anthropogenic disasters and their consequences. Particular attention is paid to the satellite monitoring as an interesting and modern approach that enables the identification of the risky events and their outgrowth.

**Chapter 5** is focused on slowly developing disasters both at regional and global scale: stratospheric and tropospheric ozone changes, global climate change, desertification, deforestation, droughts. Images are an important component in forecasting the consequences for some of these events, due to a simultaneous observation of significant changes.

**Chapter 6** comes to an overview of the up-to-date situation and the perspectives of satellite monitoring of environmental disasters. Interesting to stress the consideration of the role of information on the nature and the features of dangerous events; and this not only in terms of reducing environmental risks but also in terms of identifying specific actions in case of accident evolution.

**Conclusion.** The advantage of this work is the aim to be an exhaustive informative and descriptive project thanks to a rich contribution of data shown in 53 tables and more than 60 pictures. On the other side, the book presents only a limited number of attempts to explain the complete processes involved in main disasters as well as non-complete considerations in respect to the anthropogenic environmental disasters of chemical origin.

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## Book Announcements

### Bioindicators and Biomonitors

Included in series 'Trace Metals and Other Contaminants in the Environment, 6'

**Editors:** B.A. Markert<sup>1</sup>, A.M. Breure<sup>2</sup>, H.G. Zechmeister<sup>3</sup>

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**Description:** This book provides comprehensive single source coverage of bioindication/biomonitoring in the fields of ecology, ecotoxicology and environmental sciences; from the ecological basics to the effects of chemicals on the environment and the latest test strategies. Contributions by leading figures in ecology from around the world reflect the broad scope of current thinking and research, making this volume essential reading for informed professionals and students.

**Audience:** For professionals and students working in environmental sciences, chemistry, ecology, medicine, engineering and other related disciplines.

**Contents:** Preface (B.A. Markert, A.M. Breure, H.G. Zechmeister). • **General aspects and integrative approaches:** 1. Definitions, strategies and principles for bioindication/biomonitoring of the environment (B.A. Markert, A.M. Breure, H.G. Zechmeister). 2. Bioindicators and environmental stress assessment (O. Fränzele). 3. Bioindicators and biomonitors for policy, legislation and administration (K. Kienzl,

A. Riss et al.). 4. Bioindicators for ecosystem management (C.M. Lorenz). 5. Predicting toxic effects of contaminants in ecosystems using single species investigations (R. Altenburger, M. Schmitt-Jansen). • **Bioindicators in use:** 6. Standard tests. 7. Microbial indicators. 8. Lower plants. 9. Higher plants. 10. Invertebrates. 11. Vertebrates. • **International Programmes for biomonitoring purposes:** 12. Environmental specimen banking (A.A.F. Kettrup). 13. Some concepts and future developments: developing agri-biodiversity indicators as a tool for policy makers (K. Parris). 14. USEPA biomonitoring and bioindicator concepts needed to evaluate the biological integrity of aquatic systems (J.M. Lazorchak et al.). 15. IAEA approaches to assessment of chemical elements in atmosphere (B. Smodis). 16. Bioindicators and the indicator approach of the European Environment Agency (P. Bosch, U. Pinborg). 17. Critical assessment of international marine monitoring programmes for biological effects of contaminants in the north-east Atlantic area (P. Matthiessen).