Mackenzie, F.T.: **Our Changing Planet.** An Introduction to Earth System Science and Global Environmental Change. 2nd Ed. – Prentice Hall, Upper Saddle River 1998. ISBN 0-13-271321-7. 486 pp., USD 30.95.

One actual aspect of globalization, rather its darker side, are the human-induced global environmental changes. It is a subject of increasing interest and quite often of fierce contraversy. Perhaps the most difficult aspect is where to draw the line between what one considers a result of man's activity and what is the development of natural systems. The author deals with both areas. Sourcing his own scientific experience and extensive knowledge of relevant literature he provides a comprehensive introduction to the subject. On one hand he describes the physico-chemical and biological nature of the change and on the other lists its effects and consequences for global ecosystems and different aspect of the existence of human society. The Earth-Gaia is viewed here as a complex and very dynamic system characterized by dense web of interactions of physical, chemical, and biological changes over a wide span of time and space. This crucial point, *i.e.*, time and space scale of changes, is well presented and highly focused.

The book is divided in two parts: The first part deals with natural systems, the other part describes the system changes connected to the human population and includes the population trends themselves. Thus, we get acquinted in the first part with earth lithosphere and its development over geologic time, along with its atmosphere and hydrosphere including main water cycles and air-sea interactions. One chapter is devoted to ecosphere and provides the reader with information on terrestrial and aquatic ecosystems, their composition, interactions, and development. The following chapters list conditions essential for life with their biological and geochemical cycles. They also explain historical framework, both geochemical and biological, for beginning and further development of life forms. The author dedicates six chapters in the second part of the book to highlighting the main aspects of changes which present a danger to *Homo sapiens*: demographic trends of human population, the problems of energy and food resources, the decline of forest ecosystems, the trends in employment of fertilizers and pesticides, water pollution, acid deposition, photo-chemical smog, and the whole cluster of global climatic changes with greenhouse effect and ozone depletion as the most important ones. The final chapter touches on the delicate question of global environmental policy and shows samples of actions beneficial to the environment, such as the treaties limiting the overexploitation of natural environment. The author seeks to answer the crucial question of human existence on a changing planet: whether it is possible to reconcile the idea of sustainable life with the creed of permanent growth. However, one of the topics and possibly the most important one, *i.e.*, the development and cultivation of ecoethic, has been rather neglected. The book's greatest strength is that it presents the envi-ronmental problems in an analytical way and within a broad framework of different approaches. Thus, rather than providing clear answers to the various problems it helps to understand why such answers do not exist. The book in general is clearly written and includes a number of well chosen illustrations. Each chapter is accompa-nied with study questions (sometime rather academic) and selected readings. The book also contains an appen-dix on minerals for less well informed readers and a use-ful glossary and index. It should appeal to a broad range of readers: not only scientists and university students but also economists, policy makers, journalists, and members of the general public who are aware of problems that mankind shall face in the near future. It provides a fairly competent guide to the labyrinth. It is a book to be re-commended, its only major drawback perhaps being that some of the data date too quickly and a new edition will be needed soon.

J. KREKULE (*Praha*)