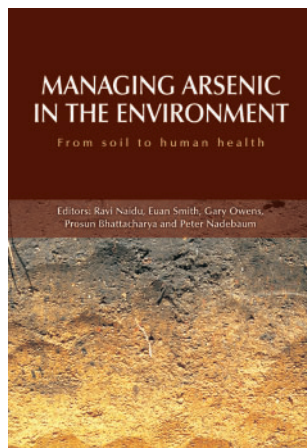


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**Managing Arsenic in
the Environment:
From Soil to Human
Health**

edited by R. Naidu,
E. Smith, G. Owens,
P. Bhattacharya, and
P. Nadebaum
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Inorganic arsenic poses interesting scientific problems on scales ranging from molecular to global. This metalloid is a carcinogen in humans, yet the molecular processes underlying its carcinogenicity are not well understood. A complex geochemical cycle of transport, oxidation, and reduction accounts for the mobilization of arsenic from sediments and results in widespread exposure of humans to drinking water that contains high levels of this toxic agent. Dealing with the scientific and social issues posed by continuing exposure to inorganic arsenic is an important public health problem for the new century.

Discussions of these issues will be greatly assisted by the information contained in *Managing Arsenic in the Environment: From Soil to Human Health*. This multiauthor volume brings together a number of well-written articles that give succinct overviews of topics that must be considered as scientists and policy-makers work together to solve this public health problem. A particular strength of this book is its broad overview of the worldwide extent of exposure to inorganic arsenic. From an introductory article by M. M. Rahman and coauthors on incidents of arsenic exposure around the world to several chapters describing the extent of arsenic exposure in specific countries, this book is a comprehensive source of information. Notably, the focus on exposures in

Bangladeshi and Indian populations is extended with information on exposed populations in China, Nepal, Vietnam, and Cambodia. These chapters leave the reader wondering whether the experiences of Bangladesh and India will be repeated in these localities.

This book also contains useful chapters on issues related to the chemistry of arsenic that are critical to understanding the metalloid's behaviour in the environment and to the design of strategies for its removal from drinking water supplies and soils. In particular, the chapter by Gräfe and Sparks on the solid phase speciation of arsenic is a valuable primer on the chemistry of arsenic. The application of these chemical principles in mitigation of arsenic in water supplies is admirably discussed in a chapter by A. H. Milton and coauthors and is central to the issues covered by R. Naidu and coauthors in a chapter on management of arsenic-contaminated soils. The chapter by A. Meharg (whose recent book *Venomous Earth* told some of the story of arsenic exposure in Bangladesh) shows how incorporation of waterborne arsenic into the food supply can affect overall exposure to this metalloid and may pose new difficulties in exposure mitigation in Bangladesh.

This volume is a valuable compendium of information that provides a broad perspective on arsenic as a public health problem. The editors and contributors are to be commended for their efforts, which will help shape the future research agenda for arsenic.

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