The book, *Trace Elements in Waterlogged Soils and Sediments*, provides comprehensive coverage of the latest knowledge of trace element biogeochemistry in aquatic and semiaquatic environments. It is intended for use by professionals across disciplines working on the bioavailability, fate and transport, risk assessment, and remediation of trace element contaminants in aquatic and semiaquatic systems. The book contains 18 chapters and is organized into 3 sections with a total of approximately 380 pages. The contributors of the chapters are some of the most accomplished scientists in the world.

Section I contains 10 chapters focusing primarily on fundamental processes of trace elements in soils and sediments that govern the speciation and release of different trace elements in the environment. The section begins with the overall process description of trace element release dynamics at various scales (Chapter 1) and physicochemical factors controlling stability of toxic heavy metals and metalloids in wetland soils and sediments (Chapter 2). This is followed by more detailed description of redox reaction-controlled metal(loid) bioavailability (Chapter 3) and sorption-desorption of trace elements influenced by kinetic process (Chapter 4). The section is further devoted to specific elements and scenarios including speciation and release kinetics of cadmium and zinc in paddy soils (Chapter 5), analysis and fate of metal- and engineered nanoparticles in aquatic environments, wetlands, and floodplain soils (Chapter 6), rare earth elements in wetlands (Chapter 7) as well as subsoil contaminant chromium fate and transport (Chapter 8). In addition, the section pays special attention to uranium with detailed treatments of biogeochemical processes regulating its mobility in sediments (Chapter 9) as well as uranium interactions with soil minerals in the presence of co-contaminants (Chapter 10). I found reading these chapters very enlightening. While the first four chapters emphasize fundamental understanding of general behaviors of trace elements and influencing factors, the last six section chapters help the readers broaden the scope of specific trace element issues with in-depth discussions of their occurrences, forms, and mechanisms of interactions with soil and sediment constituents. I found reading Chapter 6 on the characterization and fate of metal-based engineered nanoparticles especially rewarding as this emerging environmental concern particularly to aquatic and semiaquatic systems, which act as the sinks for metal-based engineered nanoparticles, has not been covered before. The chapter articulates the current risks that aquatic systems face and the knowledge gaps and challenges that future research opportunities may need focus on.

Section II has 6 chapters and addresses the bioavailability of trace elements under different environmental conditions and management scenarios as well as associated risk assessment. The section includes topics on metal bioavailability in land-disposed dredged sediments (Chapter 11), metal bioavailability and its role in risk assessment (Chapter 12), metal plant uptake in temporary flooded soils (Chapter 13), and the fate of trace elements in rice paddies (Chapter 14). In addition, it shed light on reduction induced immobilization of chromium and its bioavailability in soil sand sediments (Chapter 15) as well as a special case of metal bioavailability in phoomdi-compost that intends to be used as fertilizer (Chapter 16). In general, these chapters offer in-depth and insightful coverage of the bioavailability of trace elements under special scenarios. Authors have made a conscious effort to establish the potential risks of trace elements to biota in these situations. They are rewarding treating for readers with a general interest in risk assessment and managing aquatic systems and wetland soils and sediments. I found Section II very readable and interesting.

Section III has two chapters and deals with remediation of sediments contaminated with toxic trace elements. The first chapter gives an overview of different remediation technologies and strategies currently in use and considerations for choosing (Chapter 17). The second chapter offers an in-depth discussion of in-situ remediation approaches and underlying principles, particularly on active capping of sediments using various media (Chapter 18). I found the latter chapter especially useful for those who work on managing remediation of contaminants in wetland sediments. Overall, and without a doubt, this timely book should serve as an excellent reference book for academics and professionals working in the areas of trace element biogeochemistry in aquatic and semiaquatic systems and related environmental sciences. It could also be used as a beneficial reference book to advanced undergraduate and graduate students in wetland biogeochemistry and environmental management of soils and sediments.