

## **FATE OF ARSENIC IN THE ENVIRONMENT**

A compilation of papers presented at the International Symposium on **Fate of Arsenic in the Environment** organized by Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh and The United Nations University, Tokyo, Japan with assistance from ITN Centre, Bangladesh.

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A compilation of papers presented at the International Symposium on **Fate of Arsenic in the Environment**. The workshop is jointly organized by International Training Network (ITN) - Bangladesh University of Engineering and Technology (BUET), and Environment and Sustainable Development (ESD) Programme -The United Nations University (UNU), Tokyo, Japan.

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## Preface

Groundwater is extensively used for domestic, agricultural and industrial purposes, but presence of high concentration of arsenic in alluvial aquifer in many countries is a matter of great concern. Millions of people are exposed to high levels of arsenic from drinking tubewell water and thousands are suffering from arsenic poisoning but little is known about the fate and transport of arsenic in the environment. The widespread use of groundwater for irrigation suggests that ingestion of irrigated crops could be another major exposure route for arsenic. Besides, phyto-toxicity due to increased arsenic in soil/water and its long-term impact on agricultural yield is another major concern. Besides naturally occurring arsenic, arsenic-rich wastes generated from a wide range of arsenic removal systems are another cause of concern. In the absence of any clear guideline for safe disposal, such wastes are often disposed in the open environment. The leaching and pollution potential of these wastes need to be clearly understood in order to devise safe disposal options. The BUET-UNU Symposium is organized to discuss some of these issues.

This publication is a compilation of papers presented at the BUET-UNU International symposium on *Fate of Arsenic in the Environment*. The papers broadly described the fate of arsenic extracted through tubewell water and transported with surface water, its presence in water-soil-plant environment and food chain. The leaching characteristics of arsenic from arsenic-rich sludges were also discussed in the papers. We hope that this publication of BUET-UNU symposium will be useful to the scientists, engineers, researchers, policy planners and decision-maker working for arsenic mitigation in the arsenic affected countries.

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