

About the Book

Our environment is undergoing drastic changes owing to multitude of human interventions. Such intervention. Create varying magnitude of pollution and environmental issues. Understanding dynamics of environmental charges is critical to halting and reversing such environmental and human vulnerability. It is imperative to sustainability manage these situations for better livelihood conditions. The book is a reviewed edited volume that explore some of these issues. The contributors of this book share their exposure to the environmental problems especially those related to environmental pollution and remediation in different ecosystems. Bio-remediation for resource enrichments, strategies for mitigating environmental pollution issues and challenges in sustainable management of water resources are the main focus themes in this book.

In the bio-remediation section different methods of physic-chemical and biological removal of the pollutants and recovery of the resources have been discussed. These studies are based on laboratory as well as field experiments in different ecosystems. The environmental pollution section discusses the different pathways of pollutant movement environmental hazards including the loss of biodiversity. These studies suggest strategies to overcome these environmental issues. The section on management of water resources explores different hydrological conditions emanating from misuse and mismanagement of surface and underground water resources. Thus section also showcases various technologies including modeling, geospatial and other tools to assess such conditions. The book presents numerous field based research studies in different geo-environmental settings. The emphasis is on highlighting the methodological approaches to tackle different environmental problems. The book is a reference base for researchers, academicians, environmentalists and planners in particular who are interested in finding sustainable solutions to the challenging environmental issues and problems.

Contents:

Section I: management of water resources: challenges for sustainability

- 1. Hydro-geochemical investigation and quality assessment of groundwater for drinking and agriculture use in Jawaharlal Nehru university, new delhi India*
- 2. Comparison of relationship between the concentrations of water isotopes in precipitation in the cities of Tehran and new delhi India*
- 3. Geophysical expression for groundwater quality in part of chittoor District, Andhra Pradesh, India*
- 4. Geospatial analysis of fluoride contamination in groundwater of southeastern part of anantapur District, Andhra Pradesh*
- 5. Identification of surface water harvesting sites for water stressed area using GIS: A case study of ausgram block, burdwan district, west Bengal, India*
- 6. Forecasting groundwater level using hybrid modeling technique*

Section II: Bio- remediation for resources enrichment

- 7. Effective removal of heavy metals and dyes from drinking water utilizing bio-compatible magnetic nanoparticle*
- 8. UASBR: An effective wastewater treatment option to curb greenhouse gas emissions*
- 9. Biogas upgrading and bottling technology for vehicular and cooking applications*
- 10. Use of indigenous bacteria from arsenic contaminated soil for arsenic*
- 11. Adsorption of arsenite and fluoride on untreated and treated bamboo dust*

Section III: Environmental pollution: Issues and strategies

- 12. Human health risk assessment of heavy metals from bhalswa landfill, new delhi, India*
- 13. Transport of trace metals by the rainwater runoff in the Urban catchment of Guwahati, India*
- 14. Analysis of leachate characteristics to study coal ash usability*
- 15. Air pollution mapping and quality assessment study at an Urban area Tirupati using GIS*
- 16. Environmental hazards and conservation approach to the biodiversity and ecosystem of the st. martina' s Island in Bangladesh*

