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Nota di contenuto	Chapter 1. The comparison concept of bioremediation, nanomaterials and history background -- Chapter 2. Phytoremediation of Different Types of Domestic Wastewater Using Constructed Wetlands – Case Studies in Egypt -- Chapter 3. Soil-poor Challenges and Its Measures for Bioremediation -- Chapter 4. Integrating Mine Rehabilitation Practices in the Context of Climate Change: A Sustainable Approach -- Chapter 5. Mine remediation and climate changes -- Chapter 6. Mine Policy and Regulation -- Chapter 7. Strategic Conservation Plan -- Chapter 8. Coastal and Marine Management -- Chapter 9. Landscape - Safe Environment and Remediation -- Chapter 10. New Cities Based on Safe Climate and Remediation -- Chapter 11. Phycoremediation using freshwater algae and safe ecology -- Chapter 12. Phycoremidation

algae marine and its role in climate changes -- Chapter 13. Mobilizing microbes for bioremediation strategies in the context of climate change -- Chapter 14. Ecological importance of bacteria in bioremediation of contaminated sites -- Chapter 15. Viral Remediation in a Healthy Environment -- Chapter 16. The Role of Fungi Remediation in the Circular Economy -- Chapter 17. Rhizosphere and remediation soil and water and air pollution -- Chapter 18. Bio-control and Remediation Help in A safe Environment Production -- Chapter 19. The role of insect and insect enzymes in environment with references to plastic waste management -- Chapter 20. Biofertilizer and remediation of soil and other environments -- Chapter 21. Cement factories serve the environment and reduce pollution -- Chapter 22. The role of woody trees in climate changes through treatments -- Chapter 23. The role of ornamental plants and remediation -- Chapter 24. The Role of Groundwater in Preserving the Environment through Treatments -- Chapter 25. Decorative plants and their role in remediation.

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### Sommario/riassunto

This book offers a comprehensive exploration of strategies to combat pressing environmental challenges, focusing on pollution remediation and climate change mitigation. It presents innovative recycling models and advanced tertiary water treatment methods as viable solutions to these global issues. As humanity faces the consequences of pollution, from plastic waste to industrial contamination, this book highlights the need for sustainable practices that ensure environmental and biological continuity. It addresses the critical question of how to remediate plastic pollution, a major environmental crisis affecting marine life, terrestrial ecosystems, and human health. The chapters cover a wide range of topics, including the comparison of bioremediation and nanomaterials, phytoremediation of domestic wastewater, and the integration of mine rehabilitation practices in the context of climate change. Readers will discover the ecological importance of bacteria and fungi in bioremediation, the role of microbes in environmental restoration, and the potential of phycoremediation algae in mitigating climate change. The book also examines the impact of viral and fungal remediation in creating a healthy environment and the role of biofertilizers in soil remediation. This volume is essential for researchers, environmental scientists, and policymakers seeking to understand and implement effective pollution remediation strategies. It offers valuable insights into the intersection of technology and ecology, making it a must-read for anyone committed to preserving our planet for future generations.

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