

1. Record Nr.	UNINA9910913787403321
Autore	Adhikary Partha Pratim
Titolo	Soil, Water Pollution and Mitigation Strategies : A Spatial Approach // edited by Partha Pratim Adhikary, Pravat Kumar Shit, Jayasree Laha
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031632969 3031632966
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (502 pages)
Collana	Environmental Science and Engineering, , 1863-5539
Altri autori (Persone)	ShitPravat Kumar LahaJayasree
Disciplina	363.739
Soggetti	Soil science Water Hydrology Pollution Geographic information systems Physical geography Agriculture Soil Science Geographical Information System Physical Geography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Soil nutrients and health status -- Digital carbon stock modeling -- Nitrogenous Wastes and Its Efficient Treatment in Wastewater -- Microbial contamination of drinking water -- Wastewater pollution in agriculture field and its mitigation strategies -- Groundwater nitrate contamination and its mitigation -- Novel molecular tracers for the assessment of groundwater pollution -- Remediation of groundwater contaminated with dye using carbon dots technology.
Sommario/riassunto	Dive into the dynamic world of environmental stewardship with "Soil, Water Pollution, and Mitigation Strategies: A Spatial Approach." This meticulously crafted volume offers a comprehensive journey through the measurement, monitoring, mapping, and modelling of soil and

water pollution, coupled with innovative mitigation strategies. Discover cutting-edge techniques rooted in modern geospatial methodologies, with a sharp focus on the latest trends in data mining and robust modelling. As our planet grapples with the consequences of anthropogenic activities, such as indiscriminate chemical usage in agriculture, the need for precise quantification and risk assessment has never been more urgent. This book serves as a beacon, illuminating the path toward sustainable management of soil and water resources through the lens of geospatial technology. Explore a myriad of critical topics, including soil microbiology, salinity, pollution from industrial sources, heavy metals, and the pervasive impact of agricultural practices. Delve into environmental risk assessment, sustainable land use, and innovative remediation techniques, such as harnessing the power of Plant Growth-Promoting Rhizobacteria (PGPR) and embracing organic fertilizers. Written for researchers, professionals, and policymakers alike, this book offers invaluable insights into the complex interplay between human activity and environmental health. Organized into two parts (I) Soil Contaminants, Risk Assessment, and Mitigation, and (II) Water Contaminants, Risk Assessment, and Mitigation—it provides a structured approach to understanding and addressing environmental challenges. Each chapter serves as a portal to a deeper understanding of the issues at hand, presenting a synthesis of current research, identifying future directions, and offering pragmatic solutions. This book promises to enrich the understanding of environmental science and empower the reader with the knowledge and skills needed to effect positive change. Designed to cater to a diverse audience—from students and researchers in environmental sciences to policymakers, NGOs, and corporate stakeholders—this book is a testament to the collaborative effort required to safeguard our planet's precious resources. This is a transformative journey toward a more sustainable future—one informed by science, guided by innovation, and driven by a shared commitment to environmental stewardship. .
