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Nota di contenuto	Chapter1. Introduction -- Chapter2. Properties of groundwater and its importance -- Chapter3. Groundwater and Health in Semi-arid and Arid Regions -- Chapter4. Groundwater Quality Status of Semi-Arid and Arid Regions -- Chapter5. Assessment of Groundwater Quality mapping for drinking purpose in semi-arid and arid regions of India -- Chapter6. Elimination of Fluoride from Drinking groundwater water Supplies -- Chapter7. Remote Sensing and GIS for groundwater geochemistry -- Chapter8. Groundwater and Artificial Recharge Planning -- Chapter9. Assessment of the appropriateness of drinking and irrigation groundwater -- Chapter10. Hydrological process in arid and semi-arid region -- Chapter11. Factors influencing hydrological

process -- Chapter12. Human Health risk assessment -- Chapter13. Climate change Impact of nitrate contamination on human health -- Chapter14. Climate change Impact of fluoride contamination on human health -- Chapter15. Heavy metals influencing factors -- Chapter16. Mitigation Measures of Fluoride and Nitrate Contaminated Regions -- Chapter17. Hydrologic modelling for ungauged basins: An overview of past, present and future directions -- Chapter18 -- Appraising the groundwater potential of Liddar sub-basin (western Himalayas) using geospatial techniques -- Chapter19. Groundwater Potential Zones (GPZ) delineation in Dhamani river basin in Kolhapur district, Maharashtra, India, using Remote Sensing (RS), Geographical Information System (GIS) and Multi-Criteria Decision Analysis (MCDA) techniques -- Chapter20. Assessment of groundwater potential zone mapping for development of semi-arid region through AHP and GIS techniques -- Chapter21/ Assessment of Groundwater Prospective zone in Adigrat Town and its surrounding area using Geospatial Technology -- Chapter22. Computation of rainfall infiltrates into Coastal soil of Andhra pradesh, India -- Chapter23. Feasibility assessment of low-cost filter to adopt in roof top rain water harvesting (RWH) -- Chapter24. Prioritization of sub-watershed through Morphometric Analysis of Amaravathi Watershed using Geoinformatic Techniques -- Chapter25. Conclusion – Climate Change Impact on Groundwater Resources.

Sommario/riassunto

This volume discusses climate change impacts on groundwater quality in arid and semi-arid regions, and provides human health risk assessments due to pollution of surface and groundwater. The book presents recent trends in monitoring groundwater management and implementing pollution mitigation strategies, including practices involving remote sensing and GIS techniques, entropy water quality index, weighted arithmetic water quality index, fuzzy logic applications, and improved irrigation methods. The book also outlines hydrological processes in arid and semi-arid regions and hydrochemical properties of surface and groundwater as a necessary background for understanding how pollution impacts groundwater quality and resources, and how geographical modeling of hydrological processes can aid in human health risk assessments. The book is intended for academics, administrators, policymakers, social scientists, and professionals involved in the various aspects of climate change impact on groundwater quality, hydrological process, pollution mitigation strategies, sustainable development, and environmental planning and management. .