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Titolo	Integrated Water Resource Management [[electronic resource]] : An Interdisciplinary Approach / / by Neil S. Grigg
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ISBN	1-137-57615-4
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (513 pages) : illustrations, charts, tables
Disciplina	333.91
Soggetti	Environmental geography Environmental management Hydrology Environmental Geography Water Policy/Water Governance/Water Management Hydrology/Water Resources Case studies.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Chapter 1: Water as a connector among societal needs -- Chapter 2: Framework and scenarios of IWRM -- Chapter 3: Purposes and systems of water management -- Chapter 4: Planning for integrative problem-solving -- Chapter 5: IWRM and water governance -- Chapter 6: Systems thinking as an IWRM tool -- Chapter 7: Watersheds as social-ecological systems -- Chapter 8: Integrated urban water systems -- Chapter 9: Water conflicts, compacts, and treaties -- Chapter 10: Hydrology of water supply and natural systems -- Chapter 11: Demand for water, water services, and ecosystem services -- Chapter 12: Water infrastructure and equipment -- Chapter 13: Water infrastructure planning process -- Chapter 14: Models, data and monitoring in IWRM -- Chapter 15: Water laws and regulations -- Chapter 16: Economic and decision tools for IWRM -- Chapter 17: Social aspects of water management -- Chapter 18: Water resources and environmental assessment -- Chapter 19: Finance in water management -- Chapter

20: Water security, disasters and risk assessment -- Chapter 21: Capacity-building for IWRM: education, training and research -- Chapter 22: Case studies of IWRM archetypes -- Appendix to Chapter: Case presentations -- Presentation of case summaries.

Sommario/riassunto

This book addresses the enormous global challenge of providing balanced and sustainable solutions to urgent water problems. The author explores our dependence on access to safe water and other water-related services and how driving forces of the human and natural worlds are degrading this access. The greatest challenges involve conflicts between people and interest groups across all countries, as well as the economic and political difficulties in finding solutions through infrastructure development. The book takes an interdisciplinary approach to Integrated Water Resources Management or IWRM, which provides a set of tools for policy development, planning and organization, assessment, systems analysis, finance, and regulation. The author suggests that IWRM is challenging because of the human element, but that no other process can reconcile the conflicting agendas involved with water management. The broad range of topics covered here, as well as 25 case summaries, will be of interest to scientists, engineers, practitioners, and advanced level students interested in the integrated management of water as a resource. Neil S. Grigg is a Professor of Civil and Environmental Engineering at Colorado State University, USA, where he teaches a course on water resources management. He has also held positions as a department head, government environmental official, and consulting engineer, as well as military officer in the U.S. Army Corps of Engineers.
