

1. Record Nr.	UNINA9910818816403321
Titolo	Climate change effects on groundwater resources : a global synthesis of findings and recommendations // editors: Holger Treidel, Jose Luis Martin-Bordes, Jason Gurdak
Pubbl/distr/stampa	Leiden, Netherlands ; ; Boca Raton [Fla.] : , : CRC Press/Balkema, , 2012
ISBN	0-429-21714-5 1-136-32336-8 0-203-12076-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (419 p.)
Collana	International contributions to hydrogeology ; ; 27
Altri autori (Persone)	TreidelHolger Martin-BordesJose Luis GurdakJason J
Disciplina	553.7/9
Soggetti	Groundwater Climatic changes - Environmental aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; TABLE OF CONTENTS; ABOUT THE EDITORS; ACKNOWLEDGEMENTS; Chapter 1. Introduction; Tropical Climates; Chapter 2. The impacts of climate change and rapid development on weathered crystalline rock aquifer systems in the humid tropics of sub-Saharan Africa: evidence from south-western Uganda; Chapter 3. Groundwater recharge and storage variability in southern Mali; Chapter 4. Groundwater discharge as affected by land use change in small catchments: A hydrologic and economic case study in Central Brazil Chapter 5. Effects of storm surges on groundwater resources, North Andros Island, BahamasChapter 6. Reducing groundwater vulnerability in Carbonate Island countries in the Pacific; Dry (Arid and Semiarid) Climates; Chapter 7. Groundwater resources increase in the Iullemeden Basin, West Africa; Chapter 8. Climate change and its impacts on groundwater resources in Morocco: the case of the Souss-Massa basin; Chapter 9. Vulnerability of groundwater quality to human activity and climate change and variability, High Plains aquifer, USA Chapter 10. Groundwater change in the Murray basin from long-term

in-situ monitoring and GRACE estimates  
Temperate Climates; Chapter 11. Impact assessment of combined climate and management scenarios on groundwater resources. The Inca-Sa Poble hydrogeological unit (Majorca, Spain); Chapter 12. The effect of climate and anthropogenic sea level changes on Israeli coastal aquifers; Chapter 13. Land subsidence and sea-level rise threaten fresh water resources in the coastal groundwater system of the Rijnland water board, The Netherlands  
Chapter 14. Climate change impacts on valley-bottom aquifers in mountain regions: case studies from British Columbia, Canada  
Chapter 15. Possible effects of climate change on groundwater resources in the central region of Santa Fe Province, Argentina; Continental Climates; Chapter 16. Impacts of drought on groundwater depletion in the Beijing Plain, China; Chapter 17. Possible effects of climate change on hydrogeological systems: results from research on Esker aquifers in northern Finland; Polar Climates  
Chapter 18. Impacts of climate change on groundwater in permafrost areas: case study from Svalbard, Norway  
Various Climates; Chapter 19. Groundwater management in Asian cities under the pressures of human impacts and climate change; Chapter 20. Evaluation of future climate change impacts on European groundwater resources; Chapter 21. Sustainable groundwater management for large aquifer systems: tracking depletion rates from space; Chapter 22. Major science findings, policy recommendations, and future work; Contributing authors and contact information; Back Cover

---

### Sommario/riassunto

Climate change is expected to modify the hydrological cycle and affect freshwater resources. Groundwater is a critical source of fresh drinking water for almost half of the world's population and it also supplies irrigated agriculture. Groundwater is also important in sustaining streams, lakes, wetlands, and associated ecosystems. But despite this, knowledge about the impact of climate change on groundwater quantity and quality is limited. Direct impacts of climate change on natural processes (groundwater recharge, discharge, storage, saltwater intrusion, biogeochemical reactions, chemical fate

---