

1. Record Nr.	UNINA9910139004703321
Titolo	Transboundary water resources management : a multidisciplinary approach / / edited by Jacques Ganoulis, Alice Aureli, and Jean Fried
Pubbl/distr/stampa	Weinheim : , : Wiley-VCH, , [2011] ©2011
ISBN	3-527-63666-8 3-527-63665-X 3-527-63667-6
Descrizione fisica	1 online resource (420 p.)
Altri autori (Persone)	GanoulisJ AureliAlice FriedJean J
Disciplina	363.61068
Soggetti	Water-supply - Management Water-supply - Management - International cooperation
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	Note continued: 5.6.Climate Change Impacts on Dams Projects in Transboundary River Basins. The Case of the Mesta/Nestos River Basin, Greece / Jacques Ganoulis -- 5.6.1.Introduction -- 5.6.2.Numerical Models and Tools -- 5.6.2.1.Modsur-Neige Runoff Model -- 5.6.2.2. Dams Simulation Model -- 5.6.2.3.CLM Climate Model -- 5.6.3. Simulation Results -- 5.6.3.1.Reference Climate (RF) -- 5.6.3.2.Climate Scenario A1B -- 5.6.3.3.Climate Scenario B1 -- 5.6.4.Conclusions -- References -- Further Reading -- 5.7.Assessment of Climate Change Impacts on Water Resources in the Vjosa Basin / Eglantina Demiraj -- 5.7.1.Introduction -- 5.7.2.Surface Water Assessment -- 5.7.3. Vulnerability Assessment of Surface Water -- 5.7.3.1.Evaluation of Impact of Climate Change on the Mean Annual River Runoff -- 5.7.3.2. Evaluation of Impact of Climate Change on the Seasonal River Runoff -- 5.7.4.Conclusions -- References -- 5.8.Identification and Typology of River Water Bodies in the Hellenic Part of the Strymonas River Basin, as a Transboundary Case Study / Nikolaos Tsotsolis -- 5.8.1.Introduction -- 5.8.1.1.Study Area -- 5.8.2.Methodology -- 5.8.3.Results -- 5.8.4.

Conclusions and Discussion -- References -- Further Reading -- 5.9. Calculation of Sediment Reduction at the Outlet of the Mesta/Nestos River Basin caused by the Dams / Nikolaos Kotsovinos -- 5.9.1. Introduction -- 5.9.2. Description of the Simulation Model -- 5.9.3. Application of the Simulation Model -- 5.9.4. Model Testing -- 5.9.5. Main Computations -- 5.9.6. Conclusion -- References -- 5.10. Methodologies of Estimation of Periodicities of River Flow and its Long-Range Forecast: The Case of the Transboundary Danube River / Alexey V. Babkin -- 5.10.1. Introduction -- 5.10.2. Methodology for Presenting Periodicities in Time Series of River Runoff -- 5.10.3. Long-Range Forecast of Runoff from the Danube River -- 5.10.4. Conclusion -- References -- pt. Three Legal, Socio-Economic and Institutional Approaches -- 6. Legal Approaches -- 6.1. The Law of Transboundary Aquifers: Scope and Rippling Effects / Lilian Del Castillo-Laborde -- 6.1.1. Introduction -- 6.1.2. Legal Principles for Transboundary Aquifers -- 6.1.3. The Scope of the Draft Adopted by the UN General Assembly -- 6.1.4. Provisions Concerning Access -- 6.1.5. Provisions Concerning Utilization -- 6.1.6. Provisions Concerning Protection, Preservation and Management -- 6.1.6.1. Provisions on Duties -- 6.1.6.2. Provisions on Implementation Mechanisms -- 6.1.7. Provisions Concerning Technical Cooperation, Emergency Situations and Armed Conflict -- 6.1.8. Other Rules Applicable to Transboundary Shared Resources -- 6.1.9. Case study: The Guarani Aquifer System -- 6.1.10. Conclusions -- References -- Further Reading -- 6.2. Water Management Policies to Reduce over Allocation of Water Rights in the Rio Grande/Bravo Basin / Rebecca L. Teasley -- 6.2.1. Introduction -- 6.2.2. Buying Back of Water Rights -- 6.2.3. Scenarios -- 6.2.4. Simulation Model -- 6.2.5. Performance Criteria -- 6.2.6. Results -- 6.2.7. Conclusions -- References -- Further Reading -- 6.3. Interstate Collaboration in the Aral Sea Basin -- Successes and Problems / Galina Stulina -- 6.3.1. Introduction -- 6.3.2. Achievement of Collaboration -- 6.3.3. Future of the Region -- 6.4. Kidron Valley/Wadi Nar International Master Plan / Richard Lester -- 6.4.1. Introduction -- 6.4.2. Development of the Master Plan -- 6.4.3. Descriptions of the Master Plan and its Effectiveness -- 6.4.4. Conclusions -- Further Reading -- 6.5. The Development of Transboundary Cooperation in the Prespa Lakes Basin / Miltos Gletsos -- 6.5.1. Introduction -- 6.5.2. Prespa Park: The Early Years of Transboundary Cooperation -- 6.5.3. Advances on Integrated Water Management -- 6.5.4. The Prespa Park International Agreement -- 6.5.5. Supporting Trilateral Cooperation: Other Actors -- 6.5.6. Conclusion -- References -- 6.6. International Relations and Environmental Security: Conflict or Cooperation? Contrasting the Cases of the Maritza-Evros-Meric and Mekong Transboundary Rivers / Anastasios Valvis -- 6.6.1. Introduction -- Conflict or Cooperation in Transboundary River Basins? -- 6.6.2. The Maritza-Evros-Meric Case -- 6.6.2.1. The Evros River and its Importance -- 6.6.2.2. International Management of the Evros River -- 6.6.2.3. Main Issues in Managing the Evros River -- 6.6.3. The Mekong-Lancang River Case -- 6.6.3.1. The Mekong River and its Importance -- 6.6.3.2. International Management of the Mekong River -- 6.6.3.3. Main Issues on Managing the Mekong River -- 6.6.4. Comparing the two Regions -- 6.6.5. Conclusion -- References -- Further Reading -- 6.7. Delineation of Water Resources Regions to Promote Integrated Water Resources Management and Facilitate Transboundary Water Conflicts Resolution / Rodrigo Maia -- 6.7.1. Introduction -- 6.7.2. IWRM and Water Resources Regions -- 6.7.3. Comparative Analysis: Water Resources Regions in Europe and America -- 6.7.4. Recognition of More Comprehensive Aspects -- 6.7.5. Conclusion -- References -- 6.8. Transboundary Water Resources and

Determination of Hydrologic Prefectures in Greece / Evangelos A. Baltas -- 6.8.1.Introduction -- 6.8.2.Difficulties in Implementing the Directive -- 6.8.3.Determination of the Hydrologic Prefectures -- 6.8.4.

Conclusions -- References -- 7.Socio-Economic and Institutional Approaches -- 7.1.Social-Ecological Resilience of Transboundary Watershed Management: Institutional Design and Social Learning / Barbara J. Morehouse -- 7.1.1.Introduction -- 7.1.2.Issues for Transboundary Institutional Mechanisms -- 7.1.3.Social Learning -- 7.1.4.Conclusion: Potential for Transboundary Collaboration -- References -- Further Reading -- 7.2.How Stakeholder Participation and Partnerships Could Reduce Water Insecurities in Shared River Basins / Bach Tan Sinh -- 7.2.1.Introduction -- 7.2.2.Stakeholder Engagement -- 7.2.3.Stakeholder Roles and Participation -- 7.2.4. Stakeholder Coordination and Partnerships -- 7.2.5.International-Domestic Linkages -- 7.2.6.Conclusion -- References -- Further Reading -- 7.3.Transboundary Stakeholder Analysis to Develop the Navigational Sector of the Parana River / Andre Hernandes -- 7.3.1. Introduction -- 7.3.2.Objectives -- 7.3.2.1.Home Organization -- 7.3.2.2.The Transboundary Context -- 7.3.3.Key Stakeholder Analysis -- 7.3.3.1.Methodology -- 7.3.3.2.Results -- 7.3.4.The Way Forward: Suggested Actions for Improvements -- References -- 7.4.Cooperation in the Navigable Course of the Sava River / Milana Pantelic -- 7.4.1. Introduction -- 7.4.2.Navigable Course and Cooperation -- 7.4.3. Proposal for Further Actions -- 7.4.4.Conclusion -- References -- 7.5. Transboundary Cooperation through the Management of Shared Natural Resources: The Case of the Shkoder/Skadar Lake / Brilanda Bushati -- 7.5.1.Introduction -- 7.5.1.1.Ecological Values of the Lake Shkodra/Skadar -- 7.5.2.Working Method -- 7.5.3.Conclusions -- References -- 7.6.How Far is the Current Status of the Transboundary Shkodra Lake from Requirements for Integrated River Basin Management? / Sotir Mali -- 7.6.1.Introduction -- 7.6.2.Survey Methods -- 7.6.3.Results and Discussion -- 7.6.4.Conclusions -- References -- Further Reading -- 7.7.Economic Governance and Common Pool Management of Transboundary Water Resources / Bo Appelgren -- 7.7.1.Introduction -- 7.7.2.Economic Governance of Transboundary Water Management Systems -- 7.7.3.Economic Governance Approaches to Transboundary Water Management -- 7.7.4. Conclusions -- References -- Further Reading -- 7.8.Water Resources Management in the Rio Grande/Bravo Basin Using Cooperative Game Theory / Daene C. McKinney -- 7.8.1.Introduction -- 7.8.2.The Water Demand Reduction Cooperative Game -- 7.8.3.Results -- 7.8.4.Conclusions -- References -- 7.9.Conflict Resolution in Transboundary Waters: Incorporating Water Quality in Negotiations / Yannis Mylopoulos -- 7.9.1. Introduction -- 7.9.2.Game Theory in Water Resources -- 7.9.3. Methodology -- 7.9.4.Results -- 7.9.5.Conclusions -- References -- 7.10.The Johnston Plan in a Negotiated Solution for the Jordan Basin / Julio Sanchez Choliz -- 7.10.1.Introduction -- 7.10.2.Key Elements of the Negotiation Game and Fairness Criteria -- 7.10.2.1.Utility or Payment Functions for Arabs and Israelis -- 7.10.2.2.Negotiation Set -- 7.10.2.3.Fairness Criteria -- 7.10.2.4.Johnston Plan (1953-1955) -- 7.10.3.Three Significant Game Solutions between Israel and the Arabs -- 7.10.3.1.Regular Nash Solution without Lateral Payments and Break-off at (0;0) -- 7.10.3.2.Nash Solution with Lateral Payments and Break-off at (0;0) -- 7.10.3.3.Raiffa-Kalai-Smorodinsky Solution with Break-off at (0;0) -- 7.10.3.4.Other Solutions -- 7.10.4.Conclusions -- References -- Further Reading -- pt. Four Bridging the Gaps -- 8. Capacity Building and Sharing the Risks/Benefits for Conflict Resolution

-- 8.1.Capacity Building and Training for Transboundary Groundwater Management: The Contribution of UNESCO / Jean Fried -- 8.1.1.Field Experience or Specific Training? -- 8.1.1.1.Training Objectives -- 8.1.2.Training Target Groups -- 8.1.3.Communication as a Basis of a Transboundary Groundwater Curriculum -- 8.1.4.Experimenting Transboundary Groundwater Curricula and Pedagogy: Two Pilot Courses -- 8.1.5.An Instrument for Training: a Manual Gathering the Contributions to the Pilot Courses -- 8.2.A Risk-Based Integrated Framework for Conflict Resolution in Transboundary Water Resources Management / Lena Salame -- 8.2.1.Managing Transboundary Water Resources: Quantity and Quality -- 8.2.2.The Risk Analysis Framework in TWRM -- 8.2.2.1.Aleatory Uncertainties or Randomnes -- 8.2.2.2.Epistemic or Man-Induced Uncertainties -- 8.2.2.3.Risk Assessment and Management -- 8.2.2.4.Institutional and Social Issues -- 8.2.3.Towards an Integrated Risk-Based Sustainable TWRM Approach -- 8.2.4.Modelling Transboundary Water-Related Conflicts -- 8.2.5.Hydro-Politics for Conflict Resolution: The UNESCO PC-CP Initiative -- 8.2.5.1.Examples of Track II Initiatives -- 8.2.6.Conclusions -- Note continued: References -- 9.The Thessaloniki Statement.

Sommario/riassunto

Based on an international symposium addressing a key issue in global development, this reference includes both the latest methodologies for and practical examples of effective management of transboundary water resources. Its multidisciplinary approach combines hydrology and environmental science with economic and political approaches, in line with new UNESCO and EU recommendations, which have been formulated and implemented with the active involvement of all three editors. By providing a theoretical framework as well as abundant case studies from southern Europe, Africa, Asia and South Amer
