Record Nr. UNINA9910451536403321 Autore Newson Malcolm David Titolo Land, water and development: sustainable management of river basin systems / / Malcolm Newson London;; New York:,: Routledge,, 1997 Pubbl/distr/stampa **ISBN** 1-134-73230-9 1-134-73231-7 1-280-31831-7 0-203-44352-7 9786610318315 Edizione [2nd ed.] Descrizione fisica 1 online resource (460 p.) Disciplina 333.91/15 Soggetti Watershed management Water resources development Sustainable development Electronic books. Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Cover; Title; Copyright Page; Contents; List of plates; List of figures; List of tables; Preface to the first edition; Preface to the second edition; Acknowledgements; Prologue; 1 History of river basin management; 1.1 Hydraulic cultures and religious codes: management in advance of science; 1.2 The rise of hydraulics and hydrology; 1.3 Monks, mills and mines: origins of river coordination in England: 1.4 The rise of environment; 1.5 The lessons of history and the challenges of the future; 2 Natural river basins: transfer systems; 2.1 Flow of water and transport of sediment 2.2 Channel morphology2.3 Floodplains; 2.4 Basin sediment systems; 2.5 Summary: key elements of the natural system, a sensitivity assessment: 3 Land and water: interactions: 3.1 Vegetation, soils and hydrology; 3.2 Groundwater exploitation and protection; 3.3 Runoff modifications in developed river basins; 3.4 Vegetation, soils and water quality; 3.5 Conclusions; 4 Managing land and water in the developed

world: an international survey; 4.1 Development and the river basin; 4.2

River basin management in the USA; 4.3 Canadian river basin management; 4.4 Australia: a lesson learned late 4.5 New Zealand: wise management determined by hazard4.6 Conclusions: national priorities in the developed world; 5 River basins and development; 5.1 General characteristics and new philosophies; 5.2 Problems of food, power and trade in drylands; 5.3 River basin management in Iran: the Zayandeh Rud example; 5.4 The Nile: a definitive case of hydropolitics; 5.5 River basin development authorities: experience elsewhere in Africa; 5.6 The land-use dimension: Himalayan headwaters and the Indian subcontinent; 5.7 Dams, alternatives and the need for a new international order 5.8 Development and rivers: broad trends6 Technical issues in river basin management; 6.1 Soil erosion; 6.2 Dams: problems of sedimentation and river regulation; 6.3 Irrigation; land, water and people; 6.4 Conservation and restoration of river channels and wetlands; 6.5 Climatic change and river basin management; 6.6 Conclusions; 7 Institutional issues in river basin management; 7.1 Basin authorities: the influence of the TVA; 7.2 Does an ideal river basin management institution exist?; 7.3 Case study: sustainable basin management and UK water institutions 7.4 River basin units: land drainage leads the way7.5 Issues of resources and pollution; 7.6 Private or public? Economics and environment as institutional forces; 7.7 River basin institutions and developing nations: 7.8 Environmental assessment and management of water projects: worldwide panacea?; 7.9 International river basin management; 7.10 Conclusions: sustainability and subsidiarityinstitutions which can plan basin development; 8 Sustainable river basin management: issues of the knowledge base; 8.1 Science in the 'New Environmental Age'; 8.2 The environmental sciences

Sommario/riassunto

This is a fully revised and expanded second edition of Malcolm Newson's acclaimed book. Exploring in greater depth the meaning of sustainability in river basin development this new edition:* highlights the rapid evolution of practical concepts since the Rio Earth Summit* features new illustrations and case studies from Australia, South Africa and Israel* makes the ecosystem model more explicit throughout* strengthens coverage of the linkages between land and water management.

8.3 'Science speaks to power'