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Sommario/riassunto	River catchments and reservoirs play a central role in water security, food supply, flood risk management, hydropower generation, and ecosystem services; however, they are now under increasing pressure from population growth, economic activities, and changing climate means and extremes in many parts of the world. Adaptive management of river catchments and reservoirs requires an in-depth understanding of the impacts of future uncertainties and thus the development of robust, sustainable solutions to meet the needs of various stakeholders and the environment. To tackle the huge challenges in moving towards adaptive catchment management, this book presents the latest developments in cutting-edge knowledge, novel methodologies, innovative management strategies, and case studies, focusing on the following themes: reservoir dynamics and impact analysis of dam construction, optimal reservoir operation, climate change impacts on hydrological processes and water management, and integrated catchment management.