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Nota di contenuto	Part I. Introduction -- Using the Concepts and Tools of Social Ecological Systems and Ecosystem Services to Advance the Practice of Ecosystem-Based Management -- Part II. Foundational Concepts -- Advancing Aquatic Ecosystem-Based Management with Full Consideration of the Social-Ecological System -- Ecosystem-Based Management: Moving from Concept to Practice -- From DPSIR the DAPSI(W)R(M) Emerges... a Butterfly – 'protecting the natural stuff and delivering the human stuff' -- The Promise and Pitfalls of Ecosystem Services Classification and Valuation -- Approaches for Estimating the Supply of Ecosystem Services: Concepts for Ecosystem-Based Management in Coastal and Marine Environments -- The Final Ecosystem Goods & Services (FEGS)

Approach: A Beneficiary-Centric Method to Support Ecosystem-Based Management -- Part III. Tools and Techniques -- Ecosystem-Based Management and Natural Capital Accounting -- Establishing a Common Framework for Strategic Communications in Ecosystem-Based Management and the Natural Science -- Prioritizing Stakeholders, Beneficiaries, and Environmental Attributes: A Tool for Ecosystem-Based Management -- Linkage Frameworks: An Exploration Tool for Complex Systems in Ecosystem-Based Management -- Projecting Changes to Coastal and Estuarine Ecosystem Goods and Services -- Models and Tools -- An Integrated Multi-Model Decision Support Framework for Evaluating Ecosystem-Based Management Options for Coupled Human-Natural Systems -- Mathematical Modeling for Ecosystem-Based Management (EBM) and Ecosystem Goods and Services (EGS) Assessment -- The Ecosystem Services Gradient: A Descriptive Model for Identifying Levels of Meaningful Change -- Rapid Benefit Indicator Tools -- Part IV. Governance -- The Ecosystem Approach in International Marine Environmental Law and Governance -- Ecosystem-Based Management (EBM) and Ecosystem Services in EU Law, Policy and Governance -- Ecosystem Services in U.S. Environmental Law and Governance for the Ecosystem-Based Management Practitioner -- Unravelling the Relationship between Ecosystem-Based Management, Integrated Coastal Zone Management And Marine Spatial Planning -- Part V. Case Studies -- Models and Mapping Tools to Inform Resilience Planning After Disasters: A Case Study of Hurricane Sandy and Long Island Ecosystem Services -- Ecosystem-Based Management to Support Conservation and Restoration Efforts in the Danube Basin -- Combining Methods to Establish Potential Management Measures for Invasive Species *Elodea nuttallii* in Lough Erne Northern Ireland -- Mitigating Negative Unintended Impacts on Biodiversity in the Natura 2000 Vouga Estuary (Ria de Aveiro, Portugal) -- Ecosystem-Based Management for More Effective and Equitable Marine Protected Areas: A Case Study on the Faial-Pico Channel Marine Protected Area, Azores -- Using Stakeholder Engagement, Translational Science and Decision Support Tools for Ecosystem-Based Management in the Florida Everglades -- Remediation to Restoration to Revitalization: Engaging Communities to Support Ecosystem-Based Management and Improve Human Wellbeing at Clean-up Sites -- Predicting Future Vegetated Landscapes Under Climate Change: Application of the Environmental Stratification Methodology to Protected Areas in the Lower Mekong Basin.

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#### Sommario/riassunto

Aquatic ecosystems are rich in biodiversity and home to a diverse array of species and habitats, providing a wide variety of benefits to human beings. Many of these valuable ecosystems are at risk of being irreversibly damaged by human activities and pressures, including pollution, contamination, invasive species, overfishing and climate change. Such pressures threaten the sustainability of these ecosystems, their provision of ecosystem services and ultimately human well-being. Ecosystem-based management (EBM) is now widely considered the most promising paradigm for balancing sustainable development and biodiversity protection, and various international strategies and conventions have championed the EBM cause and the inclusion of ecosystem services in decision-making. This open access book introduces the essential concepts and principles required to implement ecosystem-based management, detailing tools and techniques, and describing the application of these concepts and tools to a broad range of aquatic ecosystems, from the shores of Lough Erne in Northern Ireland to the estuaries of the US Pacific Northwest and the tropical Mekong Delta.

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