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Nota di contenuto	Preface -- Section 1 Natural Hazard Risks and Eco-DRR in the Alpine Space -- Chapter 1 The Concept of Risk and Natural Hazards by Cristian Accastello, Silvia Cocuccioni and Michaela Teich -- Chapter 2 Protective Forests for Ecosystem-based Disaster Risk Reduction (Eco-DRR) in the Alpine Space by Michaela Teich, Cristian Accastello, Frank Perzl and Frederic Berger -- Chapter 3 Protective Effects of Forests against Gravitational Natural Hazards by Frank Perzl, Alessia Bono, Matteo Garbarino and Renzo Motta -- Chapter 4 Flood Protection by Forests in Alpine Watersheds: Lessons Learned from Austrian Case Studies by Gerhard Markart, Michaela Teich, Christian Scheidl and Bernhard Kohl -- Section 2 Supporting Integrated Natural Hazard Risk Management by Eco-DRR -- Chapter 5 Geodata Requirements for Mapping Protective Functions and Effects of Forests by Frank Perzl and Michaela Teich -- Chapter 6 Natural Disturbances and Protection Forests: At the Cutting Edge of Remote Sensing Technologies for the Rapid Assessment of Protective Effects against Rockfall by Emanuele Lingua, Niccolo Marchi, Francesco Bettella, Maximiliano Costa, Francesco Pirotti, Marco Piras, Matteo Garbarino, Donato Morresi and Raffaella Marzan -- Chapter 7 Modeling Protective Forests for Gravitational Natural Hazards and How It Relates to Risk-Based Decision Support Tools by Christopher James Laplante D'Amboise, Michaela Teich, Anne Hormes, Stefan Steger and Frederic Berger -- Chapter 8 141 Influence of Canopy Disturbances on Runoff and

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Sommario/riassunto

Protective forests are a key component to reduce natural hazard risks in mountain areas by preventing or decreasing the frequency, magnitude and/or intensity of snow avalanches, rockfall, landslides, floods, and debris flows. This book summarizes the state-of-the-art knowledge and introduces methods and decision support tools to facilitate the use of protective forests for Ecosystem-based Disaster Risk Reduction (Eco-DRR) as part of an integrated risk management in the Alpine Space. Moreover, it highlights how translating scientific knowledge into practical solutions can only be achieved by an active and iterative exchange with practitioners and policy makers, and a common understanding of applied concepts and definitions. Only then can protective forests be managed sustainably under constantly changing climate and socio-economic conditions.
