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Nota di contenuto	Agriculture -- Importance of Whole-Farm Risk Management in Agriculture -- Dealing with Multiple Objectives in Agriculture -- Modeling Multifunctional Agroforestry Systems with Environmental Values: Dehesa in Spain and Woodland Ranches in California -- Environmental Criteria in Pig Diet Formulation with Multi-Objective Fractional Programming -- Modeling the Interactions Between Agriculture and the Environment -- MCDM Farm System Analysis for Public Management of Irrigated Agriculture -- Water Public Agencies Agreeing to A Covenant for Water Transfers: How to Arbitrate Price–Quantity Clauses -- Positive Mathematical Programming for Agricultural and Environmental Policy Analysis: Review and Practice -- Fisheries -- Fisheries Management -- Shared Fish Stocks and High Seas Issues -- Game Theoretic Applications to Fisheries -- Uncertainty in Bioeconomic Modelling -- Planning in Fisheries-Related Systems -- Capacity and Technical Efficiency Estimation in Fisheries: Parametric and Non-Parametric Techniques -- Studies in the Demand Structure for Fish and Seafood Products -- Forestry -- Models for Strategic Forest Management -- Tactical-Level Forest Management Models -- Harvest Operational Models in Forestry -- Log Merchandizing Model Used in

Mechanical Harvesting -- Forest Transportation -- Optimization of Forest Wildlife Objectives -- Spatial Environmental Concerns -- Heuristics in Forest Planning -- Forestry Economics: Historical Background and Current Issues -- Multiple Criteria Decision-Making in Forest Planning: Recent Results and Current Challenges -- Forest Fire Management -- A Model for the Space–Time Spread of Pine Shoot Moth -- Adaptive Optimization of Forest Management in A Stochastic World -- Mining -- Application of Optimisation Techniques in Open Pit Mining -- Optimisation in Underground Mining -- Long- and Short-Term Production Scheduling at Lkab's Kiruna Mine -- An Integrated Approach to the Long-Term Planning Process in the Copper Mining Industry.

Sommario/riassunto

Handbook of Operations Research in Natural Resources will be the first systematic handbook treatment of quantitative modeling natural resource problems, their allocated efficient use, and societal and economic impact. Andrés Weintraub is the very top person in Natural Resource research. Moreover, he has an international reputation in OR and a former president of the International Federation of Operational Research Societies (IFORS). He has selected co-editors who are at the top of the sub-fields in natural resources: agriculture, fisheries, forestry, and mining. The book will cover these areas in terms with contributions from researchers on modeling natural research problems, quantifying data, developing algorithms, and discussing the benefits of research implementations. The handbook will include tutorial contributions when necessary. Throughout the book, technological advances and algorithmic developments that have been driven by natural resource problems will be called out and discussed.