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Titolo	Spatial modeling in forest resources management : rural livelihood and sustainable development / / Pravat Kumar Shit [and three others]
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ISBN	3-030-56542-4
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIX, 675 p. 215 illus., 188 illus. in color.)
Collana	Environmental Science and Engineering, , 1863-5520
Disciplina	333.7509792
Soggetti	Forest management - Statistical methods Spatial analysis (Statistics) Forest management - Remote sensing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Forest Resources Measurement, Monitoring and Mapping -- Application of RS-GIS-R for forest resources assessment, monitoring, and modeling -- Assessment and measurement of forest resources for sustainable land use planning -- Species diversity mapping and modeling -- Afforestation -- Soil-Water-Vegetation Relationship -- Modeling, Risk Assessment, and Vulnerability -- Forest biomass and carbon stock modeling -- Remote sensing based deforestation analysis -- Forest and habitats suitability analysis -- Habitats and species modeling -- Google Earth Engine and its application in forest sciences -- Rural livelihood and Sustainable Management -- The role of timber and non-timber forest products in poverty reduction -- The role of communities in sustainable land and forest management -- Politics of co-optation: community forest management versus joint forest management -- Open source satellite data and GIS for forest resources mapping and monitoring -- Recent trends in forest resources management and land use planning. .
Sommario/riassunto	This book demonstrates the measurement, monitoring, mapping, and modeling of forest resources. It explores state-of-the-art techniques based on open-source software & R statistical programming and modeling specifically, with a focus on the recent trends in data

mining/machine learning techniques and robust modeling in forest resources. Discusses major topics such as forest health assessment, estimating forest biomass & carbon stock, land use forest cover (LUFC), dynamic vegetation modeling (DVM) approaches, forest-based rural livelihood, habitat suitability analysis, biodiversity and ecology, and biodiversity, the book presents novel advances and applications of RS-GIS and R in a precise and clear manner. By offering insights into various concepts and their importance for real-world applications, it equips researchers, professionals, and policy-makers with the knowledge and skills to tackle a wide range of issues related to geographic data, including those with scientific, societal, and environmental implications. .