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Land Use and Land Cover Mapping in Europe

Practices & Trends

Land use and land cover (LULC), as well as its changes (LUCC), are an interplay between bio-geophysical characteristics of the landscape and climate, as well as the complex human interaction, including its different patterns of utilization, superimposed on the landscape. LULC and its change over time are core information layers for a variety of scientific and administrative tasks (e.g. hydrological modeling, climate models, land use planning). In particular, in the context of climate change with its impacts on socio-economic, socio-ecologic systems, as well as ecosystem services, precise information on LULC and LUCC are mandatory baseline datasets required over large areas. Remote sensing can provide such information on different levels of detail and in a homogeneous and reliable way. Hence, LULC mapping can be regarded as a prototype for integrated approaches based on spaceborne and airborne remote sensing techniques combined with field observations. The book provides for the first time a comprehensive compilation and view of various activities in this field focusing on European and national initiatives. The book covers the operational approaches, specific case studies, but also reviews current state-of-the-art scientific methodologies and knowledge in the specific field of LULC science. It opens the perspective with best-practice examples that lead to a view that exceeds pure mapping, but to investigate into drivers and causes, as well as future projections.

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