

Preface

Land use and land cover (LULC) is a core information layer for a variety of scientific activities and administrative tasks (e.g. hydrological modeling, climate models, land use planning). In the last two decades, land use cover change (LUCC) became an additional irreplaceable observation feature not only within Europe but on a global context. LULC mapping products constitute mandatory baseline datasets, which are required over large areas in different levels of detail and shall be provided in a homogeneous and reliable way. To this end, space- and air-borne remote sensing techniques coupled with field information are gaining ground against large-scale statistical surveys based on in situ observations.

Europe has a long heritage on land use cover mapping activities. CORINE land cover currently experiences its fourth update, as part of the GIO land (GMES/Copernicus Initial Operations Land) project, with an intended update every 5 years. Under the umbrella of the Copernicus Program of the European Space Agency and the European Commission, a Fast-Track-Service on Land with regular European-wide coverage and updates is anticipated. It forms the base for subsequent so-called nationally funded downstream services.

The aim of the proposed book is to synthesize recent and current activities on land cover mapping in Europe and from Europe. It shall provide an overview on activities and projects covering large-scale mapping from an operational point of view (state-of-the-practice) and state-of-the-art analysis techniques from the scientific point of view. It is complemented by additional review papers and best-practice examples covering various specific aspects of LULC as e.g. degradation, deforestation or nature conservation, but also gives perspectives of data use and integration such as the integration into LULC modeling.

The editors are aware that due to the multitude of LULC and LUCC studies on local, national and European level – performed and initiated from science, industry, and public administration – this book can only cover a subset of contemporary observations and activities, as an indication of the pulse of science, applications,

and perspectives in its era. An equivalent multifold thematic compilation on Remote Sensing advancements in LULC and LUCC mapping is not yet available for Europe. The editors wish to raise awareness, discussion points, and set challenges, indicating the pace of progress along with dead-ends and bottlenecks. Please, enjoy reading.

Thessaloniki, Greece
Erlangen, Germany

Ioannis Manakos
Matthias Braun

Land Use and Land Cover Mapping in Europe
Practices & Trends

Manakos, I.; Braun, M. (Eds.)

2014, XI, 441 p. 112 illus., 79 illus. in color., Hardcover

ISBN: 978-94-007-7968-6