

Land Use/Cover Changes in Selected Regions in the World

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Land Use and Land Cover Changes represent important elements at the center of the geographical and cartographical analysis, as they allow understanding the effects of human – and natural – actions on the Earth, observing patterns and processes occurring in space and time. Such studies are therefore at the heart of the research carried on by geographers and cartographers, not only by those scholars that are more involved in the technical and operational aspects of remote sensing and image processing.

The International Geographical Union (IGU) hosts within its commissions one particularly dedicated to the topic of Land Use and Cover Changes (IGU-LUCC), chaired by Professor Ivan Bičik, from Charles University (Prague, Czech Republic). The Commission started in 2001 the production of a series of "Atlases of Land Use/Cover Changes in Selected Regions in the World", which is continuing and after 15 years managed to present more than 50 chapters concerning the dynamics of land use and land cover in different parts of the World. The Volume IX of the Atlas has its roots in 2013 after a meeting of the LUCC Congress in Cologne and takes the form of a monograph in which landscape changes are analyzed using different methods and covering different time frames. The Atlas consists of 11 chapters covering case studies from seven countries (Bulgaria, Czech Republic, Italy, Nigeria, Norway, Slovakia and Slovenia).

The Atlas hosts a chapter concerning Italy by some Italian Cartographic Association members. Particularly,

"The impact of anthropogenic land use changes on the ecological quality of (selected) areas in Northern Italy" was written by Luca Simone Rizzo¹, Raffaella Gabriella Rizzo, Paolo Tizzani (pp. 19-32). The chapter, as it can be understood from the title, is mainly focused on a study area of Italy located in the North of the country, is introduced by an overview concerning the main trends in land use and cover changes intervened in Italy in the past 50 years, a useful insight to understand the framework in which the local analysis is performed. The chapter is therefore also characterized by a good set of references concerning the general situation of the country as of land changes.

After that, the chapter focuses on the characteristics of the study area and on the method used. In particular authors analyze the trends of land use affecting the study region of the provinces of Verona and Vicenza, particularly characterized by anthropization phenomena as soil impermeabilization, fragmentation, and consumption. The authors highlight the effects of anthropization on the region, characterized by high land consumption rates due to the persistent urban and anthropic sprawl, and that therefore is more at risk to impact on the equilibrium of the ecosystem.

The authors base their analysis on a comparison of the Corine Land Cover (CLD) data referred to two years,

¹ Member of the Steering Committee (C12.26) of the International Geographical Union Commission on Land Use/Land Cover Change.

as 1990 and 2006 and compare the effects in terms of land cover changes. Also, they analyze the urban planning instruments as programmed by the Veneto Region and the actions considered important in order to limit the effect of artificial land cover expansion by means of anthropic factors.

The chapter is interesting in providing readers with an insight into the Italian situation related to land use and cover change dynamics and their impact on ecological services. It does this particularly in attention to a part of the country that in more recent years has experimented a dramatic increase in the surfaces occupied by artificial elements, with negative effects in terms of fragmentation, impermeabilization and sprawl that,

coupled with the changes occurred, above all, in climate in the most recent times, caused disasters to occur. The chapter is also interesting in observing how research and cartographic representation can help in supporting policy and planning to better understand the effects of certain political and economic decisions on territories. As a general comment, the Atlas is a valuable tool for providing, in different times and within its different editions, an insight into the 'state of the art' of the geographical representation of phenomena concerning spatial changes in different parts of the world, focusing both on local cases but providing also a more general framework on the situation of the different countries involved.

