

Elena-Ana Popovici, *Piemontul Cotmeana. Dinamica utilizării terenurilor și calitatea mediului* (Cotmeana Piedmont. Land-use dynamics and environmental quality), Romanian Academy Publishing House, Bucharest, 2010, 9 chapters, 90 figures, 19 tables, 208 pages, 10 plates annexed.

This nine-chapter interdisciplinary approach represents a first study in the specialist literature of land cover/land-use changes, against the background of global environmental change. The volume presents this sector of the Getic Piedmont with highlight on the connection between land cover/land-use change and human activity.

The first part of the work expounds on major activities, impacting land-use change in other countries, also discussing distinct land-uses in terms of land-cover, the main types of change and the factors involved in it.

The methodology used relies on remote-sensing, a huge volume of statistical data, modern technique of geographical representation and on the interpretation of satellite images. Analysis and mapping resorts primarily to remote sensing, a major spatial data-source, and to Geographical Information Systems, respectively. Two land-cover/land-use classification programs are also included (*Land Cover Classification System – LCCS*, *Corine Land Cover – CLC*), as are the phases of spatial data-base elaboration.

The physical-geographical characterization of the Cotmeana Piedmont suggests that land-uses are dependent on specific material factors (relief, soil, climate, waters and vegetation). Land-use dynamics has been identified from old cartographic documents for a period spanning more than 200 years and mapped out with the help of GIS techniques. Changes of use and the factors triggering them, especially in the post-1990 period of transition, are considered in greater detail.

Furthermore, the consequences of these changes, basically the degradation of the soil, of waters and of biodiversity, and as important their impact on the environmental factors of the study area are issues of particular concern. Four areas have been singled out in which the soil is severely degraded through industrial pollution and domestic waste-dumps.

The environmental impact of farming works on the landscape, largely in the southern half of the Piedmont, is assessed by means of synthetic indicators and indexes.

The subject broached in this study has become a very topical one over the past few decades, gaining priority in the international geographical research. Finally, the possible influence of the Common Agricultural Policies (CAP) on sustainable land use is a matter of consideration.

Clear phrasing, adequate terminology, remarkable graphical material and a comprehensive bibliography qualify this volume to becoming a source of information for future approaches to land use and environmental quality.

*Alina-Mihaela Corbu*

Ines Grigorescu, *Modificările mediului în Aria Metropolitană a Municipiului București* (Environmental changes in Bucharest Metropolitan Area), Romanian Academy Publishing House, București, 2010, 228 pp., 112 figures, 28 tables.

The volume represents the Ph.D. thesis held in 2007 at the Institute of Geography, Romanian Academy under the coordination of Prof. Dan Bălțeanu. The author makes an important contribution to the identification of the main environmental changes in the Bucharest Metropolitan Area, as a result of human-environment relationships, assessing their consequences in the light of global change. The spatial and temporal projection of these interactions, as well as the categories of the human-induced impact are externalised as environmental types and their physiognomy.

The work is structured into four chapters to which one might add the introduction, the conclusions (in Romanian and in English) and the bibliography.

The first chapter deals with the international and national context of the establishment and development of the *metropolitan area* concept by analysing well-known patterns in terms of metropolitan development from the point of view of the human impact as a consequence of a disequilibrium in the human-environment relations. Special attention is paid to the development of metropolitan areas in Romania based on a favourable legal framework and on their role on a local and regional level in terms of optimizing territorial development, limiting urban sprawl and protecting the environment.

The second chapter focuses on the natural capital and its relation to the state of the environment.

The third chapter aims at a complex analysis of environmental change in the metropolitan area, starting with a spatial and temporal evolution of these changes related to the main stages of human intercession into this territory. Four steps have been identified since the late eighteenth century until the present-day, considered to be the most important ones in terms of human impact upon the environment: *late eighteenth century – late nineteenth century*, *the twentieth century*, *the transition period (1990–2000)* and *the post-transition period (2000–2007)*. Subsequently the main categories of change experienced by the metropolitan environment have been reviewed and analyzed, identifying the main directions of the human impact: *demographic dynamics*, *industrialization*, *farming and urban (suburban) sprawl*. *Waste management* has been detailed out in

a separate subchapter, having an important role in assessing the human-induced changes in relation with the urban sprawl phenomenon. A special attention is attributed to *natural hazards* (geological, geomorphological and soil, climatic and hydrological) and *technological hazards* (related to radioactive substances, related to accidental pollution by oil and other hazardous substances, biological, pollution induced by damaged hydrotechnical constructions).

The last chapter of the book addresses the two sub-principles of sustainable development that can be applied in order to diminish environmental change, human impact, uncontrolled urban sprawl and to support environmental protection. *Transport and environmental infrastructure*, as well as *sustainable agriculture* have also been included in this category. In this regard, emphasis was placed on the development trends of metropolitan transport at European, national and regional level. In addition, the EU pre-accession programs that concurred to the modernization of the Bucharest Metropolitan Area have been considered. Other possible actions designed to use, in a sustainable manner, the area under analysis (organic farming, environmental rehabilitation, etc.) have been added.

The main requirement in assessing human impact upon the environment is to combine all the outcomes with respect to each environmental element into a joint and coherent assemblage in order to emphasize with accuracy the causal relationships between geographical processes and phenomena. Additionally, these complex interactions should comprise the spatial and temporal hierarchy, the main features, the evolution trends on a short, medium and long term, the vulnerability degree to different natural hazards and the favourability to different activities which could increase the use of resources without causing related imbalances. In this volume, Ines Grigorescu succeeds in integrating all these aspects, delineating the critical environmental areas as a major result of this assessment which highlights the synergic effects of the interrelationships between the environmental components, thus having a direct projection upon the city's spatial and socio-economic dynamics.

The author proves good GIS skills which allowed her to introduce relevant graphical representations. Therefore, several unique maps were produced applicable not only to the Bucharest Metropolitan Area, also to other geographical units. The work elaborated by Ines Grigorescu stands for a model of approach to any metropolitan area or geographical unit.

*Monica Dumitrașcu*