

Land Use/Cover Changes in Selected Regions in the World – Volume XI
(IGU-LUCC Research Reports)
ISBN 978-4-907651-12-1

First Published in Japan in August 2015 (v2)
by International Geographical Union Commission
on Land Use and Land Cover Change (IGU-LUCC)

Commission Head Office:
Charles University in Prague, Faculty of Science,
Department of Social Geography and Regional Development
Albertov 6, 128 43 Prague 2, Czechia
ivan.bicik@natur.cuni.cz

Publication Unit:
Institute of Geography, Hokkaido University of Education, Asahikawa 070-8621, Japan
himiyama.yukio@a.hokkyodai.ac.jp

Volume XI was produced by Charles University in Prague, Faculty of Science, Czechia.
Supported by the Grant Agency of the Czech Republic: Project GA ČR GA13-16084S
“Social and economic driving forces of agricultural land losses in Czechia since 1990
from a regional perspective” and Project GA ČR GBP410/12/G113 “Historical Geography
Research Centre” (Faculty of Science, Charles University in Prague and The Institute of
History, Academy of Sciences of the Czech Republic, v. v. i.).

CONTENTS

Preface	5
I. Land use/cover changes along the Romanian Danube Valley	7
Gheorghe Kucsicsa, Dan Bălteanu, Elena-Ana Popovici, Nicoleta Damian	
II. Assessing spatio-temporal dynamics of urban sprawl in the Bucharest Metropolitan Area over the last century	19
Ines Grigorescu, Gheorghe Kucsicsa, Bianca Mitrică	
III. Impact of transitional dynamics induced by socio-economic changes in post-communist Romania on land cover and use	29
Alexandru-Ionuț Petrișor	
IV. Changes of artificial surfaces of Bratislava in 2006–2012 identified by the Urban Atlas data	37
Róbert Pazúr, Monika Kopecká, Ján Feranec	
V. Land use/cover changes related to transition from communist system to free market economy in the Gorce Mts., Polish Carpathians, Poland	43
Anna Bucała	
VI. Land use/cover changes in the Prague metropolis in years 1989, 1999 and 2006	49
Přemysl Štych, Ondřej Míček, Jan Kříž	
VII. Changes of agricultural land use in Czechia 1990–2010	59
Ivan Bičík, Lucie Kupková, Jan Kabrda	

PREFACE

Dear colleagues interested in the activities associated with changes in land use or in a dynamic land use,

the IGU Commission on Land Use and Cover Change has prepared Atlas of Land Use changes in selected regions in the world – Volume XI. This Volume was drafted with a focus on Europe, while a substantial space was given to several contributions of our colleagues from the Institute of Geography of the Romanian Academy of Sciences in Bucharest that organized IGU Commission on LUCC regional meeting in Bucharest in June 2014. Their contributions were presented in a shortened way on the meeting.

As for our future plans, we want to continue with the publication of further studies of dynamic land use in Europe and other regions in the world in cooperation with Professor Himiyama in the years to come, too. We believe that in this way, we make it possible not only to compare the dynamic land use/cover in various parts of the world assessed by specific methods and techniques, but that we also contribute to a better understanding of the constantly growing problems of the nature–society interactions.

We are of the view that for the success of this our effort in future years, it is necessary to intensify the work of the IGU/LUCC Commission. This intensification should pursue the following objectives:

1. To intensify the cooperation and activities of researchers from universities and research institutions dealing with dynamic land use/cover by means of regular seminars (approximately once a year, apart from the main and regional congresses of the IGU). We welcome the proposals to organize such a seminar for 25–40 persons.
2. Evaluation of dominant trends of human impact on land use/cover (LUC) changes. In the whole world LUC is strongly affected by political and economic conditions with particularly visible outcomes in urban, agricultural and forestry landscapes. Presentations from different parts of the world may help to detect the relevant human impacts on LUC changes.
3. Use of LC databases (e.g. CORINE Land Cover – CLC, National Land Cover Dataset – NLCD, etc.) derived from satellite images for identification, analysis and assessment of LUC changes. The data derived from satellite images provide information on LUC and its changes for substantial parts of

the world. Availability of these data may contribute to new approaches for the assessment of the landscape, for instance in the context of environmental and economic accounting, diversity, modelling of its properties, etc. The presentation may provide an overview of examples with used databases obtained by application of satellite images.

4. Map presentation of LUC changes. The effort of LUC change mapping in different regions of the world and different scales has been also documented by the atlases published under the umbrella of the IGU/LUCC. In particular, this initiative aims to promote studies on LUC changes all over the world as a geographical research focus; to stimulate the production and the use of LUC information acquired from data sets with temporal resolution; and to coordinate the comparative studies of LUC and their driving forces in different regions. Contributions may show map presentations of LUC changes in different parts of the world.
5. To prepare and publish further Volumes of Atlas of IGU/LUCC Commission in the current paperback form. With their volume of about 200 copies, these atlases have enabled the publication of about 50 contributions dealing with dynamic land use/cover from various parts of the world. At the same time, one has to look for sources for their publication and distribution across the world.
6. We will try to gain consent from the individual authors to post the published Atlases on a special email address of the IGU/LUCC Commission. On the one hand, this will increase the availability of the results of the research for readers from the whole world. We believe that this will also enhance the researchers' interest in publishing the results of their work in this publication.

To some extent, one can consider the six objectives a topic for a discussion on further activities of the commission of IGU/LUCC in the years to come both at the Regional Congress in Moscow 2015 and the World Congress 2016 in China.

*Ivan Bičík, Chair of the IGU-LUCC Commission
Ján Feranec, Vice-chair of the IGU-LUCC Commission*

The Volume XI was prepared in cooperation with the P3K Publishing House (www.p3k.cz) to which we thank for wonderful cooperation and an excellent result as in the case of previous atlases published in Prague (V, VII, IX).