

## Periurban landscape transformation around Central Europe's middle-sized cities

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### Abstract

One of the most important territorial processes in the highly urbanized continent of Europe is suburbanization, urban sprawl which occurs in a gradual manner over long periods and is not perceived as dramatic. Nevertheless, the built-up urban areas and the urban lifestyle occupy step by step the periurban territories. Urban sprawl affects the essential environmental, economic, and social functions of the impacted settlements. In the last decades, these processes reached the less urbanized Central European region, leading to very fast and less planned changes in our settlement system. Our research deals with these processes in four Central European (Slovak, Hungarian and Romanian) non-metropolitan areas, around economically growing regional centers, and with its environmental impacts: in the case of Nitra (SK), Győr, Kecskemét (HU), and Cluj-Napoca (RO) Functional Urban Area. These cities and their area feature high enlargement dynamics looking at the past decades, compared to other FUAs in Central Europe. The areas surrounding these cities have become a rapidly changing periurban area from traditional rural life.

The aim of this presentation is to point out spatial patterns of urban sprawl and suburbanization in these functional urban areas (FUA) and to characterize the differences among countries. We can detect suburbanization from the core city to the periurban areas in each country and at the same time a very dynamic inflow of migrants from the other parts of these countries. These processes provoke a relatively fast real estate market growth with some typical regional features. The research is based on standard geographical methods including field research. Desktop and field empirical researches were conducted, with different methods such as GIS analysis of land-use change. Our analysis shows to what extent cities and urban areas grow, from which one can conclude how the landscape surrounding the urban residential areas has changed. Our data demonstrate, moreover, how artificial patches and barriers fragment landscape more and more, endangering thereby biodiversity and decreasing green surfaces. Our examination covers the 2000-2018 period, using the CORINE CLC 2000, 2006, 2012, and 2018 databases. Thereby we are able to examine changes in a longer period of almost two decades and three internal periods. All this is compared to the economic and social changes of these countries as well, in order to see to what extent the change in these features contributes to the transformation of the periurban landscape and thereby to its environmental and social sustainability.

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