

The impact of land use policy on urban fringe dynamics; evidence from the Netherlands

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Land-use policy is an important tool to steer urban fringe dynamics. Such policy generally aims to preserve open space in an increasingly urban environment. Apart from providing opportunity for agricultural production, open space offers a wide range of landscape services such as: water regulation and storage, air quality improvement and recreational opportunities. This chapter explores the potential of geospatial analysis to characterise land-use dynamics in the urban fringe and in particular focuses on the impact of land-use policies in steering these developments.

Our analysis concerns recent land-use changes in the Dutch metropolitan region of the Randstad; the conurbation of the four biggest cities of the country surrounding a large, mainly agricultural central green space. Policies have been in place to preserve this and other smaller open green spaces between the cities and towns that comprise the Randstad. In our analysis we will describe the major land-use transitions in the past decade in the area based on a variety of highly detailed spatial data sources. Specific attention is paid to the impact of restrictive zoning policies in limiting urban development in specific areas.

The Netherlands offers an interesting case since it has a longstanding tradition in open space preservation and thus allows for an assessment of its effectiveness over a relatively long time period. Interestingly enough National Government has recently introduced new types of restrictive policies and is currently considering to abolish others. We assess the relative effectiveness of these different policies and demonstrate how this knowledge can be used to assess the potential impact of proposed policy changes. The presented results are of particular interest to other countries that consider the introduction of similar land-use policies.