

Governing peri-urban forestry: filling the regulation gap with Swiss 'Nature-discovery-parks'?

Jerylee Wilkes-Allemann¹, Eva Lieberherr¹, Bianca Baerlocher²

¹Natural Resource Policy Group (ETH Zurich), Switzerland

²Berne University of Applied Sciences, School of Agricultural, Forest and Food Sciences, HAFL, Switzerland

Abstract

Urban areas increasingly rely on goods and services provided by surrounding forests (MANN & ABSHER, 2008). However, there is often a misfit between regulations and current uses, as the laws and ordinances have often been developed historically and not adequately adapted with actors' changing behavior. E.g. in Switzerland forests are regulated by institutions dedicated to rural areas rather than by laws designed for the specific use and protection issues of peri-urban contexts. Potential ways to steer the use of urban forest areas is establishing new regulations tailored toward regulating flora and fauna in densely populated areas. In Switzerland one such potential means is the Nature-discovery-park, which is geared toward addressing the populations' needs and the potential to foster sustainable resource use in peri-urban areas. However, while other Swiss park categories (e.g. Regional-nature-parks) have grown rapidly, the Nature-discovery-parks seem to be lagging. We pose the question whether and to what extent Nature-discovery-parks may serve as a viable vehicle for regulating peri-urban forests. To conceptually address our questions we employ the Social-Ecological System (SES) framework, developed by OSTROM (2009) to analyze the sustainability of complex social-ecological systems. We aim to: (1) assess what the forest-city interdependencies and the peri-urban forestry specificities (including goods and services provided by forests) are and how they are regulated, and (2) evaluate the pros and cons of Nature-discovery-parks for regulating forest-city interdependencies in contrast to other options. To achieve these aims we study the agglomerations of Aargau, Zurich, Vaud and Berne. To analyze the viability of Nature-discovery-parks we draw on the SES framework to develop multiple assessment criteria, with such indicators as effectiveness, political legitimacy and public acceptance, which we apply in the four agglomerations. The research draws on several empirical sources including analysis of legal documents at the national and regional level, as well as semi-structured expert interviews, a survey of the population in the regions and focus groups with local stakeholders (MORGAN, 1998; MAY, 2001). We conclude that by identifying the elements of the SES it is possible to explain the misfit between regulations and uses. So far, current research has identified the features characterizing parks governance regimes in Switzerland (WILLI et al., 2016). However, other governance characteristics such as interdependencies are not considered. Thus, we fill the gap by investigating the forest-city interdependencies, the peri-urban forestry specificities and regulations. Finally, we provide recommendations for new regulatory means for peri-urban forests and improve the development and management of existing and new Nature-discovery-parks.

Keywords

Park governance, regulation, misfit, Switzerland

Introduction

Forests in Europe are expected to provide several ecosystem services. Urban areas increasingly rely on goods and services provided by surrounding forests (MANN & ABSHER, 2008). Exploratory interviews show, that there is often a misfit between regulations and current uses, as the laws and ordinances have often been developed historically and not adequately adapted with actors' changing behavior. In Switzerland forests are regulated by institutions dedicated to rural areas rather than by laws designed for the specific use and protection issues of peri-urban contexts. Potential ways to steer the use of urban forest areas is establishing new regulations tailored toward regulating flora and fauna in densely populated areas. In Switzerland one such potential means is the Nature-discovery-park, which is geared toward addressing the populations' needs and the potential to foster sustainable resource use in peri-urban areas. However, while other Swiss park categories (e.g. Regional-nature-parks) have grown rapidly, the Nature-discovery-parks seem to be lagging. One reason could be that urban forests are regulated by institutions dedicated to rural areas rather than by laws designed for the specific use and protection issues of peri-urban contexts. Subsequently, a misfit between regulations and uses can be seen. With this working paper, we aim to (1) assess what the forest-city interdependencies and the peri-urban forestry specificities are, (2) identify how forest-city interdependencies and the peri-urban forestry specificities are regulated, and (3) evaluate the pros and cons of Nature-discovery-parks for regulating forest-city interdependencies. By doing so we want to explain why Nature-discovery-parks have been lagging in their implementation and pose the question **whether and to what extent Nature-discovery-parks may serve as a viable vehicle for regulating peri-urban forests**. Our findings are of interest for planning and management of protected areas in Europe facing similar developments and challenges.

Material and Methods

For the analysis, mainly qualitative data were collected based on official documents at the national and case study level and peer-reviewed papers. Additionally, a comparative case study analysis based on exploratory semi-structured expert interviews is used (MAY, 2001). The peri-urban areas of the cantons of Aargau, Zurich, Vaud and Bern are used as the unit of analysis. The Social-Ecological System (SES) is used as the conceptual framework (OSTROM, 2009). Finally, a multi-criteria framework is used, with such indicators as effectiveness and political legitimacy, to assess the viability of differing regulations.

Results

The findings suggest that the resources and their users interplay with each other. Subsequently, the interplay between resource users constrains the development of further nature-discovery parks and leads to a misfit between regulation and uses. Finally, the misfit can vary depending on the case study, the resource (e.g. forest) of analysis and the governance system considered.

Conclusion

Current research has identified the features characterizing parks governance regimes in Switzerland. However, other governance characteristics such as interdependencies are not considered. Subsequently, with our research we address other governance characteristics by investigating the forest-city interdependencies and the (peri-) urban forestry specificities as well as regulation. We conclude that by identifying the forest-city interdependencies and the (peri-) urban forestry specificities as well as regulation it is possible to support the sustainable management of urban forest and to address the regulation misfit.

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Contact

Jerylee Wilkes-Allemann
jwilkes@ethz.ch
Natural Resource Policy Group (ETH Zurich)
Switzerland