

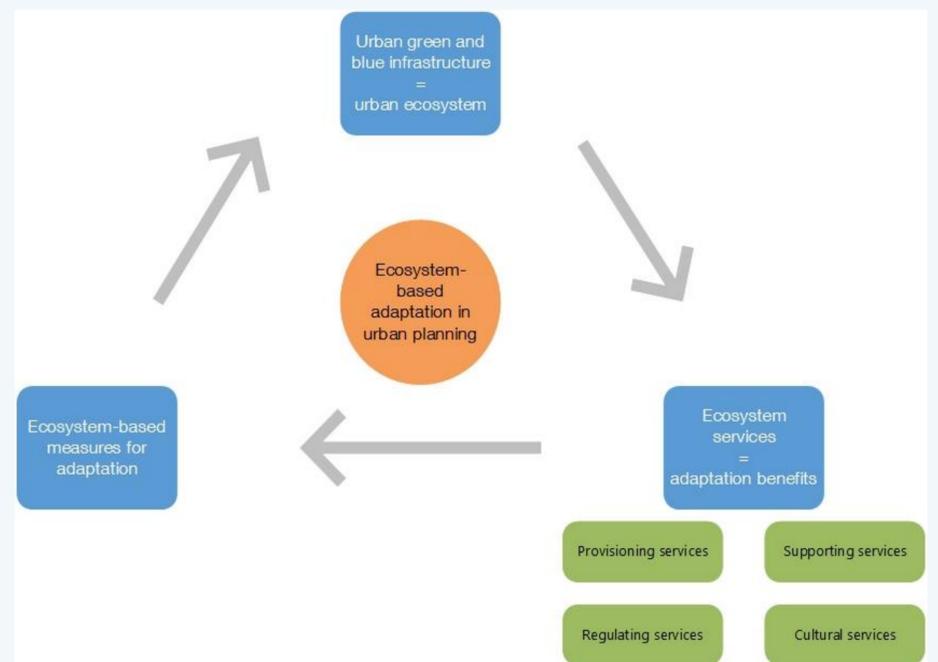
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# Advances and gaps in the integration of ecosystem-based approaches in municipal adaptation strategies: the case of Germany

## Introduction

Local action for climate change adaptation is strongly needed to tackle climate change impacts on urban areas. Ecosystem-based adaptation, i.e., the use of biodiversity and its ecosystem services, is increasingly considered as an alternative or complement to traditional, engineering-based approaches. Nevertheless, research on its effectiveness and uptake in urban adaptation planning is still in its infancies. Against this background, this study aims at increasing knowledge on current advances and gaps in the integration of ecosystem-based approaches in urban adaptation planning.



The ecosystem-based adaptation concept in urban planning

## Results and Conclusion

Based on a cross case analysis of all German municipalities with more than 100,000 inhabitants, we examine the mainstreaming of ecosystem-based adaptation in municipal adaptation strategies. The results show that the ecosystem-based adaptation concept is not explicitly applied in current strategies. Nevertheless, 76% of the assessed strategies propose measures for ecosystem-based adaptation that enhance either the conservation, restoration, creation or sustainable management of ecosystems. The fact that multiple benefits can be delivered is highlighted for 25% of the proposed measures. It is concluded that ecosystem-based adaptation lacks a comprehensive uptake in municipal adaptation strategies. Promoting the concept by top down policies as well as conducting activities based on local evidence is found to be considerably beneficial for enhancing its integration.

