



## **SURE Research Publication Service**

### **1) Reference of your publication:**

Pauleit, S., Hansen, R., Rall, E.L., Zölch, T., Andersson, E., Luz, A., Santos, A., Szaraz, L,

Tosics, I., & Vierikko, K. (2017): Urban Landscapes and Green Infrastructure. In: Shugart, H.

(Ed.) *Oxford Research Encyclopedia of Environmental Science*. Online Publication Date: Jun

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### **2) Hyperlink to the publication:**

<http://environmentalscience.oxfordre.com/view/10.1093/acrefore/9780199389414.001.0>

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### **3) Abstract:**

Urban green infrastructure (GI) has been promoted as an approach to respond to major urban environmental and social challenges such as reducing the ecological footprint, improving human health and well-being, and adapting to climate change. Various definitions of GI have been proposed since its emergence more than two decades ago. This article aims to provide an overview of the concept of GI as a strategic planning approach that is based on certain principles.

A variety of green space types exist in urban areas, including remnants of natural areas, farmland on the fringe, designed green spaces, and derelict land where successional vegetation has established itself. These green spaces, and especially components such as trees, can cover significant proportions of urban areas. However, their uneven distribution raises issues of social and environmental justice. Moreover, the diverse range of public, institutional, and private landowners of urban green spaces poses particular challenges to GI planning. Urban GI planning must consider processes of urban change, especially pressures on green spaces from urban sprawl and infill development, while derelict land may offer opportunities for creating new, biodiverse green spaces within densely built areas.

Based on ample evidence from the research literature, it is suggested that urban GI planning can make a major contribution to conserving and enhancing biodiversity, improving environmental quality and reducing the ecological footprint, adapting cities to climate change, and promoting social cohesion. In addition, GI planning may support the shift toward a green economy.

The benefits derived from urban green spaces via the provision of ecosystem services are key to meeting these challenges. The text argues that urban GI planning should build on seven principles to unlock its full potential. Four of these are treated in more detail: green-gray integration, multifunctionality, connectivity, and socially inclusive planning. Considering



these principles in concert is what makes GI planning a distinct planning approach. Results from a major European research project indicate that the principles of urban GI planning have been applied to different degrees. In particular, green-gray integration and approaches to socially inclusive planning offer scope for further improvement

In conclusion, urban GI is considered to hold much potential for the transition toward more sustainable and resilient pathways of urban development. While the approach has developed in the context of the Western world, its application to the rapidly developing cities of the Global South should be a priority.

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