Greening Cities Shaping Cities: Sustainability journal
Special issue (APC 1800 CHF– open access)
https://www.mdpi.com/journal/sustainability/special_issues/greening_cities

The topic of pinpointing Nature-Based Solutions (NBS) in the urban context has been lately cultivating interests from different scholars, urban planning practitioners and policymakers. This special issue originates from the Greening Cities Shaping Cities Symposium held at the Politecnico di Milano (12-13 October 2020), aiming at bridging the gap between science and practice of getting NBS implemented in the built environment. In particular, we invite scholars to investigate how NBS and urban greening strategies are re-shaping the built environment and the whole imagery of cities, both from a spatial and a governance perspective. In this special issue we welcome scientific articles that cover novel insights to urban debates on design and planning theory, policy and practice around NBS. Currently, cities are making use of nature as a solution to many challenges, without radically and critically address the full potential of interpreting green as a powerful urban design and governance feature. For instance, how will vegetation infilling strategies affect planners’ toolkit and decision-making procedures? How can we get citizens involved in the design and management process around NBS?

We invite authors to address the procedural gaps of greening cities strategies that are currently fore fronting the re-shaping of many urban fabrics nowadays. In specific, we aim to investigate the following aspects:

**Governance**: A strong emphasis on NBS viability for implementation often encounters hindrances on the governance scale and lacks a strong functional governance model in order to “make it work”. A big tranche of this pitfall is due to the lack of capacities and communication between municipality departments and each other’s, as well as the need to raise awareness on how the NBS operate on a day-to-day activity. Hence, the capacity building and awareness activities result as one major need in cities decision-making processes to make NBS implementation more inclusive and managerially shared.

**Citizen participation**: NBS are living and dynamic systems and require specific attention in design and maintenance. Hence, the engagement and the active role of citizens is crucial. One important aspect of innovation in NBS implementation nowadays is its inclusivity and its relatedness to citizen-centered approaches for implementation in Urban Living Labs (ULL). The notion is that ULLs allow a flexible structural pathway and include a variety of sleeve tools to bring everyone on board. Lessons in this section would mainly address the successful case studies from physical or digital ULLs experiences of implementing NBS in urban regeneration processes.

Hence, the major question we posed is if whether the embeddedness of NBS in cities tangibly affects urban morphologies and radically impacts on our approach to urban planning and design strategies and urban governance. Integrating nature and NBS seems happening more and more frequently in city strategic planning and visions; however, a deep recognition of the role of greening in shaping the overall imagery of cities and renovating the role of green as a quintessential element of design and planning seems lacking of a deeper and conscious debate. In sum, in this special issue we aim to touch base on many aspects related to NBS conceptualization, implementation and upscaling in cities. The finality of our exploration is to find clues helping us to critically understand and interpret how greening cities is affecting urban shaping, both from a morphological and governance point of view.

**Keywords**: Nature-Based Solutions, Greening Cities, Shaping Cities, Co-creation, Shared Governance
## Proposed Authors for the Sustainability journal

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Greening Cities, Shaping Cities: Case studies on Nature-based Solutions for sustainable urban planning. Springer Edited Book – closed call – greeningcities@polimi.it

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This edited book originates from the fruitful discussions during the Greening Cities Shaping Cities International Research Symposium held in Milan, Italy, on October 12 and 13, 2020. In this collection of chapters, we deal with two important aspects on Nature-based Solutions assessment and implementation in urban planning policies, as follows:

PART I
Methods for assessing planning policies of NBS in cities: Insights on spatial challenges

In this part we tackle the spatial challenges related to NBS impact analysis and methods related to assessment on potential in cities on different spatial scales. Since NBS have different typologies and spatial scales of implementation, this part addresses the questions of NBS types, physical and land-use change related to NBS implementation in practice. How are the greening cities strategies tangibly affecting urban morphologies and shaping our cities today? How consciously are cities addressing and envisioning the outcomes of greening measures?

The first section, we look at case studies that have proven a possibility to assess performance-based planning approaches to integrate NBS into planning policies (by using quantitative performance criteria, impact assessment, authorization into building codes, etc.); moreover, we dive into the relationship between NBS impact on human comfort and climate resilience through analytical tools and softwares.

The second section looks in specific to how we tackle the urban greening strategies related to physical and urban design of NBS, land use cover and land use availability. Those greening strategies when put in place are strongly tied to urban and regional (macro and micro) spatial scales of implementation; nonetheless, the practice hand side emphasizes the lack of coordination between land use planning and pressuring environmental planning strategies. This gap is often addressed in climate risk planning adaptation and mitigation measures for future scenarios but deficient on the urban planning resilience planning measures due to authorities’ silos and mismatching urban governance mechanisms.

PART II
Implementing NBS in cities: Case-study applications

In this part we aim to look at case studies from different urban settings that deal with local regeneration processes that changed the cities’ physical organization and enhancement of biodiversity, meanwhile looking at implementing NBS through performance-based planning instead of policy-based planning on the long term.

In the first section we look on answering the following questions: What are the hindrances and bottlenecks in implementing, maintaining and up-scaling NBS in real life cases implementation? Are the current decision-making mechanisms helping NBS getting in route to shape cities? Is there any binding policy in practice that encourages the NBS in place?

In the second section, we look on how the pressuring climate change challenges led cities local governments and urban alliances to work cooperatively to reduce the environmental risk and downscale the temperature increase effects; however, NBS still lack a binding policy to be majorly advanced in urban contexts mainstreaming. Furthermore, experimental decision-making mechanisms in cities paved the way to think on multi-layered-stakeholder types and levels, we investigate whether this multiplicity helped the implementation pathway to spread out from small NBS actions towards to wider-urban scale interventions in cities.

Keywords: Nature-based Solutions, Urban greening, Co-creation, Shared governance, Spatial planning,
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### PART 2 – Implementing NBS in cities: case-study applications

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