



Adaptive Governance for Successful Urban Nature-based Solutions

This factsheet explores the Adaptive Governance of Nature-based Solutions (NbS) in European and Latin American cities. It aims to address the challenges that hinder this governance approach—an alternative to the traditional top-down, unilateral governance—and brings forward key common and context-specific enablers for more successful NbS in these regions.

Background

NbS has rapidly emerged as a promising approach to counteract climate change and biodiversity loss in cities, simultaneously providing numerous benefits to nature and society. Despite their potential, NbS face many challenges to implementation. They require a multi-disciplinary actor collaboration specific to local contexts, which conflicts with prevailing governance practices. Compared to conventional solutions, NbS face high competition for

space, limited knowledge in siloed governments, timeline conflicts, and uncertainties that hinder their acceptance and political support. Achieving a successful NbS highly depends on a more flexible, collaborative, and socially inclusive governance, which Adaptive Governance can bring. However, the operationalization of such governance approach has not yet been clear in practice.

Key challenges



1. Despite its potential, NbS implementation still needs to catch up in practice.
2. Adaptive Governance can contribute to a more successful NbS uptake and implementation in the short and long term.
3. Effective ways of operationalizing Adaptive Governance in practice need to be clarified.

To overcome the many barriers of NbS implementation, Adaptive Governance has been highlighted in the literature. Adaptive Governance is an alternative governance approach that is flexible, more collaborative, and socially inclusive and can align with the diversity and needs of NbS. In this factsheet, the main factors influencing the Adaptive Governance of urban NbS in Europe and Latin America, as well as possible pathways for their implementation, are identified and presented. This knowledge can support cities and practitioners in better understanding and enabling a transition to Adaptive Governance for more successful NbS implementation.

Adaptive Governance

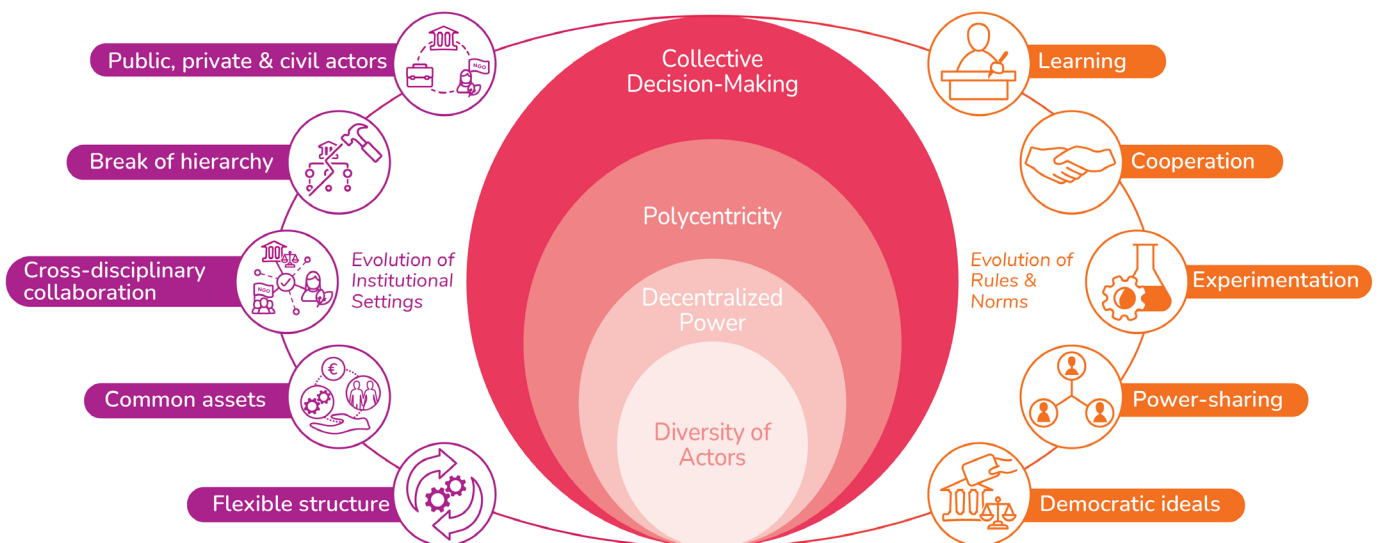
Adaptive Governance refers to 1) the recognition of the diversity of institutions and stakeholder—public, private, academia, and civil society—which influences the governance of common goods, and 2) the transformation of governance processes to include this new constellation of actors,

fostering power sharing and collective actions towards learning, cooperation, and decision-making. In practice, this means breaking from traditional hierarchies; bringing all actors and knowledge to a common level of discussion; promoting communication across departments, sectors, actors, and government levels; generating knowledge; and creating synergies, as commonly seen in Living Lab projects. Through such an approach, Adaptive Governance can facilitate the understanding and contextualization of NbS and contribute to their local knowledge, dissemination, awareness-raising, and appropriation in a socially inclusive and just manner. However, knowledge about strategies to effectively implement Adaptive Governance in practice remains limited.

Identification of Factors for an Effective NbS Adaptive Governance

Through workshops and expert online interviews with 43 actors from six cities in Europe (Barcelona, Lisbon, and Turin) and

Adaptive Governance



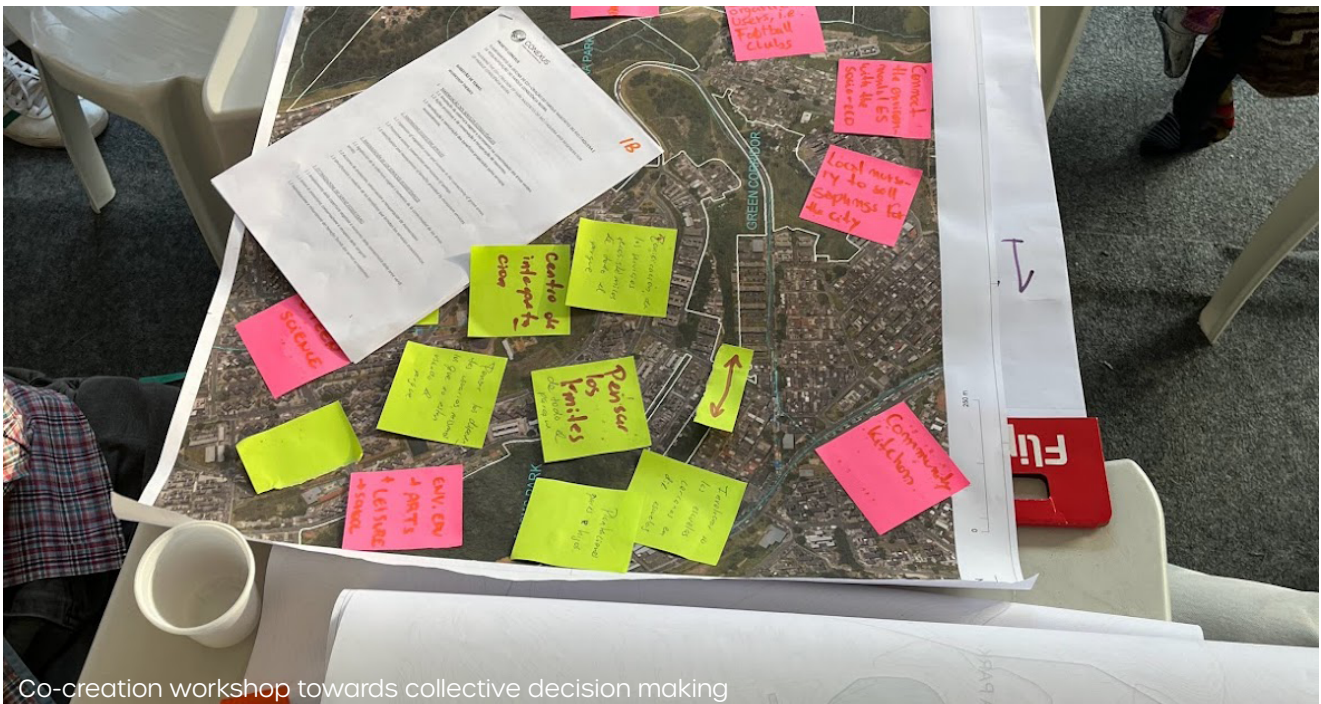
Latin America (Bogotá, Buenos Aires, and Santiago), 16 influencing factors of NbS Adaptive Governance were found. Eight factors were common to both regions, while each region had eight unique factors.

Analyzing the Strengths, Weaknesses, Opportunities, and Threats of the identified factors enabled the understanding of the current state of NbS Adaptive Governance. Further analysis helped to understand the driving and dependency power of each factor, determining the current relationships between them. These analyses identified the most pressing emerging issues and pathways forward.

Bridging Regions: Shared Pathway for Europe and Latin America

A transition towards more flexible and shared governance can start with the holistic incorporation of the NbS concept in political agendas.

Despite the many differences between Europe and Latin America, eight common factors influencing NbS Adaptive Governance were identified. In both Europe and Latin America, the common factors highlight the importance of inclusion and participation, inter-sectoral collaborations, knowledge creation and sharing, as well as long-term vision, suggesting a shared understanding of NbS governance. These eight common factors were identified as a set of initial steps that can be taken in both regions to advance this governance mode. The results revealed that incorporating NbS in the goals of policymakers, public institutions, and public policies is vital for unlocking NbS Adaptive Governance in both regions and can be seen as a first step. Formal acknowledgment of the concept and its requirements are also essential to promote inter-institutional collaborations, more and deeper levels of participation, and appropriate funding instruments for alternative modes



Co-creation workshop towards collective decision making

of governance, which are, in turn, crucial for NbS Adaptive Governance in both regions.

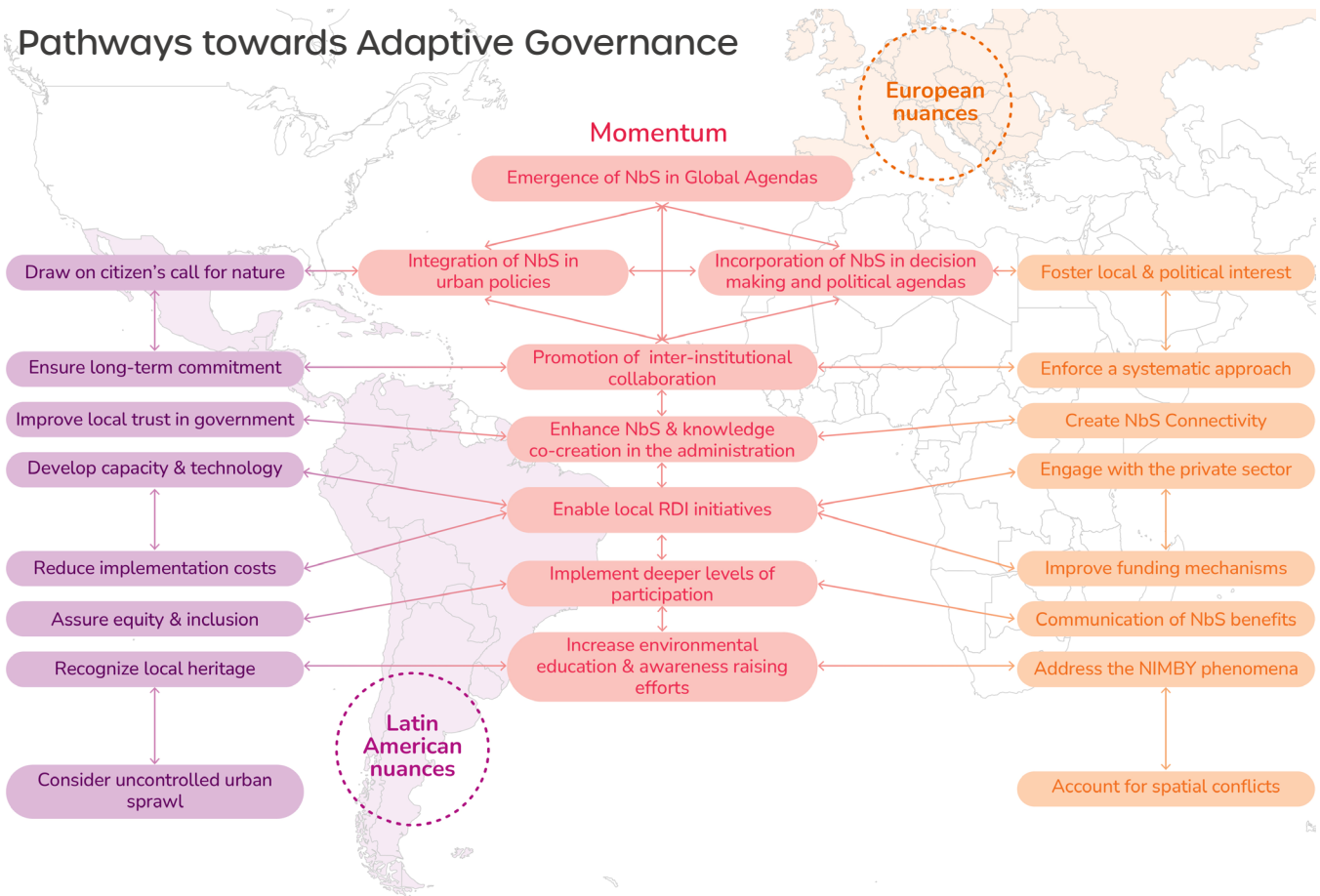
Urban policies and legal frameworks should be updated to integrate NbS, enabling more learning and experimentation with local participation.

There is a high public demand and favorable global agenda for NbS to spark political interest, which creates momentum for NbS Adaptive Governance and their integration into political agendas. Such efforts should continue to ensure commitments beyond political terms. There is a need to further enable Research, Development, and Innovation (RDI) initiatives in municipalities to promote local NbS experimentation with various

actor constellations and power dynamics. Such initiatives will help develop a shared understanding of NbS and reveal the most effective ways to operationalize Adaptive Governance in different contexts. The results also showed that broader and inclusive processes of environmental education and awareness-raising are needed in Europe and Latin America to ensure diverse participation in NbS governance, foster better acceptance, and promote more public-private partnerships.

Acknowledging Regional Nuances

While recognizing similarities, there is a crucial need to leave room for local needs. Both regions have different urban environments that face various challenges and



bring pre-existing conflicts and dynamics into play that cannot be ignored when establishing NbS Adaptive Governance.

For Adaptive Governance to thrive in Latin America, municipalities and practitioners should draw from the emerging public call for closer relationships with nature to develop long-term commitments beyond political terms. There is a need to implement measures to improve trust in local government and develop NbS capacity building and technology locally. In comparison with Europe, these have been highlighted as an urgent need for NbS and Adaptive Governance in Latin America, to reduce costs. Additionally, municipalities and practitioners need to consider local equity issues, socio-environmental justice, and local heritage, ensuring inclusion and local appropriation. Otherwise, they may risk exacerbating and repeating pre-existing inequalities, which is against what Adaptive Governance and NbS stand for. Issues of equity should also be considered across contexts, especially when working

with experiences of the Global North, not to repeat historical injustices and biases. Lastly, the findings show that the region's rapid urban sprawl should be considered, as it might present an opportunity to implement NbS, but pre-existing areas should not be neglected. All the factors mentioned above are crucial to assist the region in enabling long-term and continuous efforts toward a sustainable future with NbS, and no factor should be taken lightly or disregarded.

In contrast, European municipalities have shown that establishing the Adaptive Governance of NbS requires enhancing local and political interest in NbS and implementing a more holistic approach. Systematic thinking fosters connectivity among NbS and other traditional infrastructures (e.g. transportation, housing, energy, etc.), and among sectors, actors, and jurisdictions, with the engagement of sectors not usually involved with NbS, such as the private sector, factors crucial for developing Adaptive Governance. In



Participatory co-learning activity for NbS development in the Bogotá Living Lab

support, more communication and dissemination campaigns on the NbS concept are needed to enhance NbS acceptance amongst local populations and the private sector. NbS acceptance can assist in recognizing NbS benefits and their need for an alternative governance mode. It also encourages further collaborations and deeper levels of participation. In this region, there is a strong presence of the “not in my backyard” phenomenon, where citizens appreciate the solution given but do not want to alter their lifestyles to accommodate any necessary changes. This phenomenon hinders NbS implementation and their Adaptive Governance.

The results further show that European municipalities need to account for spatial conflicts and understand trade-offs and benefits when integrating NbS in the already dense built environment.

Overall, the challenges linked to enabling Adaptive Governance are intrinsically connected with those of NbS (i.e., breaking silos, fostering more profound levels of participation, and environmental education), highlighting their interconnectedness.

By pursuing Adaptive Governance for NbS, city administrations actively contribute to more effective and sustainable NbS initiatives, which underscore the significance of these efforts.

Lessons learned



1. Adaptive Governance challenges are interrelated with those of NbS.
2. NbS Adaptive Governance requires learning, experimentation, cross-sectoral collaborations, and public participation.
3. Europe and Latin America share potential pathways for Adaptive Governance, but local nuances matter.
4. The momentum for NbS integration and their Adaptive Governance is now.

Main reference:

KAUARK-FONTES, B. et al. (2023) Towards Adaptive Governance of Urban Nature-Based Solutions in Europe and Latin America—A Qualitative Exploratory Study. *Sustainability* 2023, 15, 4479. <https://www.mdpi.com/2071-1050/15/5/4479>

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This project has received funding from the Europeans Union’s Horizon 2020 research and innovation programme under grant agreement no. 867564

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