



## NATURE-BASED SOLUTIONS FOR URBAN INNOVATION: FOSTERING CITY ACTION THROUGH INCREASED NATIONAL SUPPORT



### KEY FINDINGS

- National governments have an important role to play in creating framework conditions to support subnational governments in mainstreaming nature-based solutions
- Knowledge, skills and governance gaps are hindering the uptake of nature-based solutions in cities
- National level government support is needed to:
  - o Increase awareness and knowledge about the multiple benefits of nature-based solutions
  - o Make targeted resources available for creating capacities, supporting innovation and demonstration projects, and fostering exchange
  - o Adapt existing or create new policies to foster wider implementation and uptake

### THE NATURVATION PROJECT

NATure-based URban inNOVATION is a 4-year project involving 14 institutions across Europe in the fields of urban development, geography, innovation studies and economics. We are creating a step-change in how we understand and use nature-based solutions for sustainable urbanisation.



This project has been funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No. 730243

## Protecting urban nature: The role of national, subnational and local governments

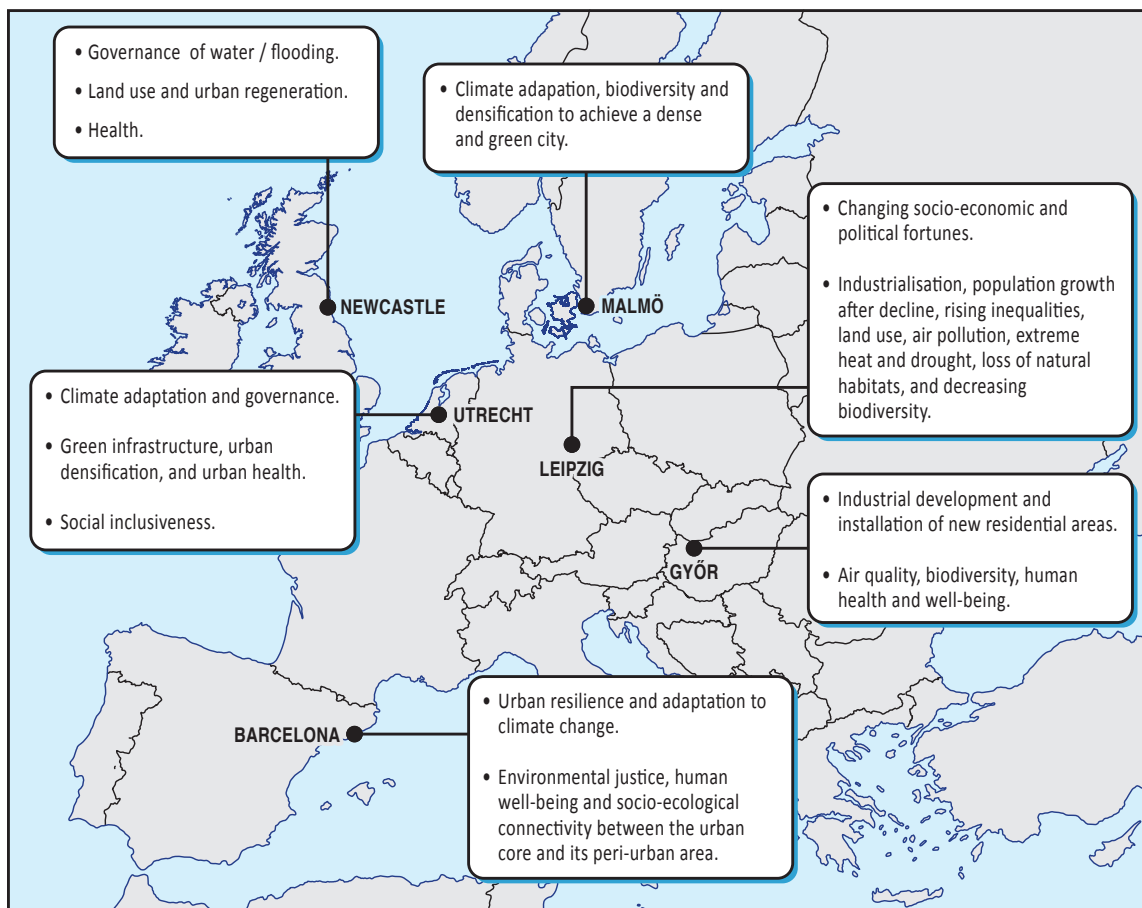


Governments are increasingly recognised for their central role in protecting and restoring nature for sustainable urbanisation, both in terms of creating an enabling policy framework as well as supporting the generation and exchange of knowledge and building of capacities. Nature-based solutions are at the forefront of such discussions, boasting a multifunctional character, which can simultaneously contribute to social, environmental and economic goals. Nature-based solutions can, for example, improve public health and wellbeing, reduce pollution, conserve biodiversity, decrease flood risk, increase resilience, and regenerate urban spaces in a cost-effective way. Yet the potential of nature-based solutions to deliver these and wider benefits has not yet been realised.

Wider implementation of nature-based solutions requires, amongst other factors, increasing awareness of their benefits as an alternative or complement to traditional grey infrastructure, leveraging resources and finances for implementation, capacity building and pilot projects, and developing standards for urban nature (e.g. quality, quantity and access). National governments have an important role to play in creating these conditions and developing regulatory frameworks that support local and subnational governments in mainstreaming nature-based solutions across planning and policy.

This brief highlights opportunities for increasing national level support to encourage a wider implementation of nature-based solutions in cities across Europe and worldwide. The recommendations represent insights from city-level experiences in trying to increase the consideration, mainstreaming and uptake of such solutions and aim to help urban decision-makers overcome common challenges and embrace opportunities. The activities upon which the brief is based were conducted within the NATURVATION project and its six partner cities over the last four years.

### Gathering evidence through city partnerships



Main topics around nature-based solutions addressed in each city partnership



The Naturvation project has worked to create a step-change in how nature-based solutions are understood and used for sustainable urbanisation in six European partner cities (Barcelona, ES; Utrecht, NL; Leipzig, DE; Malmö, SE; Győr, HU; and Newcastle, UK). These collaborative processes were convened by local authorities and researchers and bring together strategic urban governance actors to share knowledge and experiences between research, policy and practice. Each city has engaged with the topics most befitting of the local circumstances (see figure 1) and have grown into a vibrant community of practice to explore and co-create nature-based solutions across Europe.

The city partnerships feature different urban characteristics and planning conditions, revealing the variety of ways in which nature-based solutions are being used in different city contexts. By combining their context-specific knowledge and expertise with the knowledge and tools being developed for their needs by NATURVATION (e.g. Urban Nature Atlas and the Urban Nature Navigator Tool), the city partnerships increase the potential of nature-based solutions for addressing local sustainability challenges in their particular settings. In parallel, the city partnerships create shared visions for how nature-based solutions can address critical sustainability challenges in their singular urban conditions, and develop roadmaps to put these strategic visions into practice.

### Opportunities for national governments to respond to city implementation gaps

In order to foster a widespread implementation and mainstreaming of nature-based solutions at city and subnational level, it is critical to understand what factors are acting as hindrances and highlight opportunities for overcoming these. In the context of NATURVATION and on the basis of the six city partnerships' experiences within the project, a series of national policy briefs have been written in the local languages of each involved city to increase national level support across these countries. This section first outlines common implementation gaps at city level and then highlights recommendations targeting national policy and decision-makers to help overcome these. Country-specific examples are presented from the NATURVATION city partnerships, illustrating where national action can foster a more effective uptake of nature-based solutions on the local or subnational levels.

#### **IMPLEMENTATION GAPS**

As outlined by Frantzeskaki et al (2020)<sup>1</sup>, the main types of implementation gaps hindering a wider mainstreaming and uptake of nature-based solutions in cities are: knowledge gaps, skills gaps and governance gaps:

- **Knowledge gaps** refer to lacking data on or standardised approaches to measuring the effectiveness of nature-based solutions in terms of delivering its primary goals as well as wider co-benefits, including economic benefits. Knowledge which does exist is largely scattered, not long-term, or following different methodologies which makes comparisons challenging. This also fosters a lack of trust in nature-based solutions as a complement or alternative to grey infrastructure and limits political buy-in.
- **Skill gaps** refer to the ability of urban planners and decision-makers to design and adapt nature-based solutions to their needs and the local contexts. This challenge also extends to a lack of experience in urban planning departments on how to integrate nature-based solutions into their policies and decision-making processes.
- **Governance gaps** refer to insufficient collaboration between different urban actors (both within and outside of the government) to design and implement nature-based solutions. This also results in the persistence of sector-silos where different departments, ministries and government actors do not collaborate in terms of budgets, joint nature-based solution development and tools, and the creation of overarching cross-sectoral sustainable development or nature-based solution-related policies.

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<sup>1</sup> Frantzeskaki et al, 2020. Examining the policy needs for implementing nature-based solutions in cities: Findings from city-wide transdisciplinary experiences in Glasgow (UK), Genk (Belgium) and Poznań (Poland). Land use policy 96: 104688.



## **OPPORTUNITIES FOR GOVERNMENT SUPPORT**

But what role can national governments play in helping cities to overcome these challenges? According to the experiences of the city partnerships, there is a critical need for national governments to: **Increase awareness and knowledge** about nature-based solutions and their potential benefits for multiple stakeholders and sectors:

- Support the dissemination of targeted information about and tools for nature-based solutions planning, design etc. as well as about available financing schemes to specific stakeholder groups and sectoral actors (e.g. newsletters, conferences, educational events, guidelines about nature-based solutions);
- Centrally collect and disseminate information about good practices from across the given country, the range of potential benefits that nature-based solutions can deliver towards environmental and socio-economic objectives (including to social injustice), and investment and maintenance costs and concrete implementation settings;
- Encourage increased knowledge generation on how nature-based solutions can be systematically mainstreamed in sectoral work, policy and funding streams as well as in the associated governance mechanisms, structures and tools underlying these activities;
- Encourage the urban pursuit of nature-based solutions as one tool within a bundle for increased impact (e.g. Barcelona Super Blocks).





### **Make targeted resources available for:**

- Supporting the emergence of innovative ideas, pilot projects, living labs, etc. at the local or subnational levels, such as through the sponsoring of national competitions by the Ministries and national agencies responsible for promoting sustainable development and healthy living across the country;
- Supporting the provision of inclusive and transparent engagement platforms that may secure the active involvement of potential participants in the conception and realisation of nature-based solutions, for example by means of user-friendly and age-friendly online portals and social events;
- Creating capacities at local level for maintaining the nature-based solutions realised throughout their lifecycle, fostering a sense of responsibility in local populations that may in turn ignite collaboration and inclusiveness among different cultural and age groups.

### **Adapt existing or create new policies** to foster wider implementation and uptake:

- Introduce a national nature-based solutions or greening strategy to guide cities in developing these solutions as well as their own greening or adaptation strategies (which strongly feature nature-based solutions);
- Improve coordination and collaboration across departments and organisations in designing and carrying out policy frameworks directly or indirectly targeting nature-based solutions;
- Strengthen a systemic nature-based solutions integration in established and emerging policy discourses, such as climate adaptation and social cohesion, and support more transformative change by creating new or adjusting existing planning tools that support nature-based solutions with compensation tools;
- Promote a better understanding of how nature-based solutions can contribute to urban policy objectives as an alternative or complement to grey, hard-engineering measures through, e.g.:
  - o Develop product or building certification that includes (more) nature-based indicators and using this as part of procurement/tendering processes; introduce nature-based solutions as an obligatory element of larger infrastructural development projects;
  - o Create a standard minimum of accessible green space;
  - o Requirement that a permit must be obtained and compensation created for the removal of green areas in a city;
  - o Make the consideration of nature-based solutions obligatory in all public infrastructure works (from road reconstruction to housing or other types of development) through incentives or compensation mechanisms (subsidies, tax reductions, etc.).
- Secure land use rights for communities that work for social inclusion and the protection of natural resources.

Thus, while cities are already charging ahead with the mainstreaming and implementation of nature-based solutions, there is significant room remaining for increased national level support to further augment these efforts. Through the outlined recommendations, the national government and its policy and decision-makers can play an important role in creating enabling conditions and realise the development of regulatory frameworks that support local and regional governments in mainstreaming nature-based solutions across planning and policy.