CLEVER Cities

Factsheet **1**

# KEY BARRIERS TO AND FACTORS FOR IMPROVING THE SUCCESSFUL IMPLEMENTATION OF NATURE-BASED SOLUTIONS

| Barriers | Success factors |
|---|---|
| **Knowledge Gaps:** The successful implementation of NBS depends on a sound knowledge and understanding of NBS, the complex processes of natural systems and NBS design features and options. | • Integrate local stakeholders and experts<br>• Use the existing knowledge base<br>• Promote successful pioneer projects |
| **Governance of multifunctional green infrastructure:** NBS are relevant for various departments in parallel, which requires appropriate governance structures and clear responsibilities and coordination across departments. | • Collaborate on cross-sectoral planning and decision making<br>• Create new cross-sectoral positions<br>• Use external experts as mediators |
| **Balancing trade-offs while delivering multiple goals:** Planning and implementing NBS requires navigating conflicting stakeholder priorities and interests. | • Apply spatial mapping and assessment tools to identify different green infrastructure services |
| **Citizen involvement:** The interests of the public must be fully incorporated into planning, which requires Inclusive and active public participation. | • Communicate benefits of NBS<br>• Engage volunteers<br>• Combine private and collective action |
| **Social inclusion:** An active civic role in NBS planning does not alone guarantee socially inclusive outcomes. Some citizens might not be given equal consideration and might not have access to standard participation tools. | • Apply targeted participation programmes to engage less powerful residents<br>• Encourage involvement of people with different socioeconomic backgrounds |

CLEVER Cities

## Barriers

**Public acceptance:** Public resistance motivated by, for example, a fear of gentrification, can impede the provision of potential benefits and can risk vandalism to the NBS.

**Political support:** Many of the positive effects of NBS are only fully realized over a long time span, which is often incompatible with short-term political decision-making cycles. Also, the economic benefits are 'public goods' and are therefore underappreciated.

**Financial support:** NBS require long-term plans to finance implementation, maintenance, monitoring and evaluation. When maintenance costs are considered discretionary services, they are especially vulnerable to budget cuts.

**Challenges for evaluation:** Although efforts have and continue to be made to generate a standardised NBS evaluation framework, there is not yet one which is currently widely accepted and easily implemented.

**Challenges for upscaling:** Upscaling is hampered by the aforementioned barriers, as well as by: a lack of quantitative evidence of upscaling successes, ill-equipped governance structures, and conflicting interests over potential land uses.

## Success factors

- Be aware of the social dynamics of greening strategies
- Foster environmental education
- Involve landscape architects to create aesthetically pleasing solutions

- Integrate NBS in planning tools
- Adopt planning laws for NBS proliferation

- Make NBS resilient to budget cuts
- Impose regulatory instruments
- Apply public-private-partnerships
- Rely on citizen-led initiatives

- Engage with the ThinkNature taskforce "NBS Impact Evaluation Framework version 2.0"
- Combine geographic and land-use data with preference data for a robust evaluation

- Adapt and/or compile guidance documents for specific NBS
- Institutionalize the NBS process in urban policy making
- Consider regulatory measures and financial incentives
- Support start-ups

### USEFUL RESOURCES*

**URBAN GreenUP NBS catalogue**
**Urban Green Infrastructure Planning Guide**
**Oppla website**
**ThinkNature platform**
**EKLIPSE** and **ThinkNature Task Force on impact evaluation**
**Methodological guide for identification and mapping of NBS**
*http://clevercities.eu/resources/useful-links

**AUTHOR:** Andreas Schmalzbauer (Hamburg Institute of International Economics);
**EDITORS:** Clara Grimes (ICLEI), McKenna Davis (Ecologic); **PHOTO CREDITS:** Jinyoung Lee, dreamstime



This document has been prepared in the framework of the European project Clever Cities. This project has received funding from the European Union's Horizon 2020 innovation action programme under grant agreement no. 776604.