Gaps and opportunities to sustainable urban development through nature-based solutions

The multifunctional character of nature-based solutions (NBS) enables them to provide responses to both social and environmental challenges. Analysis has shown that there is significant potential for NBS to help achieve sustainable urban development objectives. Nonetheless, challenges for mainstreaming NBS remain. While some of these can be addressed at the local level, others need to be addressed at the national and/or EU level with strong support from the international level.

**GAPS: LOCAL AND NATIONAL LEVELS**

- Lack of cooperation across different administrative levels, agencies and sectoral departments
- Time-consuming and bureaucratic administrative processes due to public tenders, anti-corruption controls, etc.
- Institutional inertia, inflexibility to implement new ideas due to path dependencies, lock-ins
- Lack of trust in the performance of NBS and their potential to deliver benefits
- Lack of awareness amongst citizens about NBS initiatives and their multiple benefits
- Lack of (innovative) financing mechanisms and investments from the private sector (e.g. construction sector or property owners)
- Insufficient revenue funding and municipal resources to maintain NBS interventions after their construction has been finalised

**OPPORTUNITIES: LOCAL AND NATIONAL LEVELS**

- Foster exchange of knowledge and experiences across cities to develop and increase trust in NBS performance and benefits
- Conduct cost-benefit analyses of pilot cases to better inform decision-making and planning processes
- Create demand for NBS by encouraging public engagement and raising awareness among citizens directly and indirectly impacted by the planned NBS
- Secure funding and resources for NBS and their maintenance through planning obligations and requirements for developers
- Strengthen NBS in sustainable urban development as a response to growing societal challenges, e.g. for climate change adaptation (linked to stormwater management and flooding etc.) or in upcoming urban resilience strategies, sustainable urban mobility plans, and strategies for viable and liveable cities

**GAPS: EU AND INTERNATIONAL LEVELS**

- No accepted standardisation of the NBS concept to date, instead differing use of terms and related concepts
- Sustainable urban development and NBS are not yet priorities on the political agenda; lack of mainstreaming and integration of sustainable urban development and NBS across policies
- Lack of capacities and capabilities of local authorities to access EU funding to implement local NBS supporting sustainable urban development
- Lack of EU funding for research on the cost-effectiveness of NBS and evidence backing up their implementation; narrow scope of activities that are eligible for EU funding at the local level
- Communication gap regarding NBS benefits and their relevance for different stakeholders

**OPPORTUNITIES: EU AND INTERNATIONAL LEVELS**

- Policy reviews and revisions can function as entry points through which the integration of sustainable urban development and NBS can be enhanced, particularly when NBS are framed as a tool to help achieve multiple cross-sectoral policy targets (e.g. SDGs)
- Alternative funding instruments such as public-private-partnerships or bottom-up financing could create opportunities to further strengthening sustainable urban development and NBS
- Increased funding for research on NBS evidence and cost-effectiveness via case studies and pilot projects could generate evidence and raise awareness about NBS
- Financing pilot projects which include local stakeholders in the co-creation of knowledge and empowering involved populations in order to increase the acceptance of NBS
Local needs from the European and international levels

NBS is still a relatively new concept, which lacks the experience and evidence that is already established in technical standards for more traditional grey infrastructure solutions. As an example, there are no clear requirements for NBS in the procurement process in Malmö and cities state a lack of specific knowledge and evidence on NBS to support wider uptake (Madrid). Additionally, some cities find it hard to measure and predict the benefits (Malmö) or doubt that there is actually a business case for NBS.

Further research, sufficient best practice examples and the promotion of the relevance of NBS are thus crucial for cities in order to increase the acceptance of NBS among involved stakeholders such as decision-makers, practitioners, the private sector and civil society. In this regard, Hamburg has pointed out that improvements generated by NBS implementation foster further uptake of the concept. Sfântu Gheorghe explained: it is very important that a number of European projects exemplify the importance and potential of NBS in order to increase the interest of local stakeholders to duplicate these measures.

While the funding provided by research EU funding programmes, such as H2020, LIFE or BiodivERsA, already plays an important role in the creation of a knowledge evidence base and a narrative of NBS, more case studies in different contexts and with a streamlined approach to monitoring impact, cost-effectiveness, etc. are still needed. Furthermore, Sfântu Gheorghe identified the need for EU funding to support the set up of multi-stakeholder partnerships.

Local authorities often lack the capacities to access funding in order to implement NBS. In this regard, Larissa and Belgrade highlight that the lack of common terminology can be a hindrance when applying for funding in different programmes and Milan emphasizes the relevance of EU structural funds for implementing NBS in urban areas. Here, the objective to consider NBS and sustainable urban development as tools to support adaptation to climate change should be inserted. Furthermore, city representatives call for stronger support of municipalities in navigating the complex funding landscape, as well as for the alignment of different funding programmes to reduce the complexity of applications. In parallel, cities should continue to be provided with guidance to support awareness of and access to available funds.

Another issue in terms of financing that is criticized by city representatives is the fact that EU funds often focus on NBS implementation and individual projects, but do not include funding to develop city-wide management strategies or plans for NBS. In addition, London and Hamburg criticize insufficient funding possibilities to maintain the quality of an initial investment in NBS after the termination of a project.

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