

Supporting Nature-based Solutions via Nature-Based Thinking

In response to critiques of Nature-based Solutions (NbS), we propose a holistic and systemic approach: Nature-Based Thinking (NBT). NBT emphasizes the inspiration from nature to foster sustainable urban development and conceives nature to be intertwined with people. NBT will engage local actors, generate novel governance approaches, and promote long-term thinking, according to nature's own cycles.

Background

Ecological, social and economic crises have intensified in scale and urgency. Overcoming these crises requires long-sighted processes and cooperation across different boundaries and scales. To address these challenges, NbS have increasingly become a central alternative approach. Between 2011 and 2017, annual funding for NbS projects in European programs increased significantly. However, the potential benefits of NbS are not always realized,

when they are implemented. This is due to dominant forms of economic development, lack of political will, and/or weak planning and governance regimes in cities. Moreover, NbS have been criticized for their instrumentalist and solution-oriented approach. It is argued also that their aim to 'solve' urban development problems by capitalizing on the capabilities of nature is problematic. In response, we developed an approach going beyond NbS.

Highlights



1. The earth's temperature has risen by 1.1°C since the 1800s, challenging to meet the 1.5°C Paris Agreement target, risking severe climate consequences (United Nations, 2023).
2. Funding for NbS projects in European programs increased from under 25 million euros in 2012 to over 100 million euros a year in 2020 (NetworkNature, 2023).
3. NbS are perceived to facilitate corporate greenwashing (FEI, 2023).

The potential benefits of Nature-based Solutions are often not realized in practice, often due to dominant forms of economic development, lack of political will, and/or weak planning and governance regimes in cities.

Nature-based Thinking

Nature-Based Thinking (NBT) brings a novel approach to addressing urban challenges. It proposes a shift from a solutionist approach to a systemic one, suggesting that the extent of changes that cities need could be defined by the inter-relations between:

Nature itself: Its ecological processes, ecosystems and species hold intrinsic values that have inherent worth and the right to exist, regardless of their usefulness to humans.

Institutions and organizations: Formal or informal entities owning, governing, and/or managing a natural space.

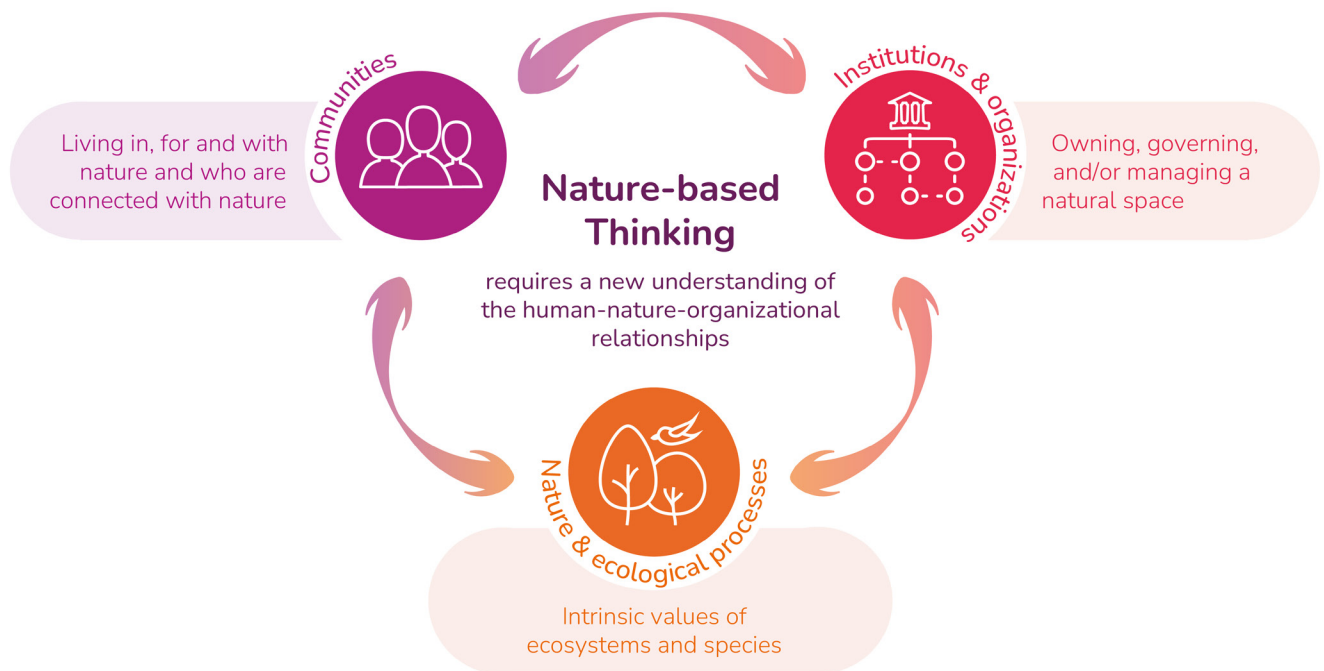
Communities: Communities living in, for and with nature and who are connected with nature, both physically and emotionally.

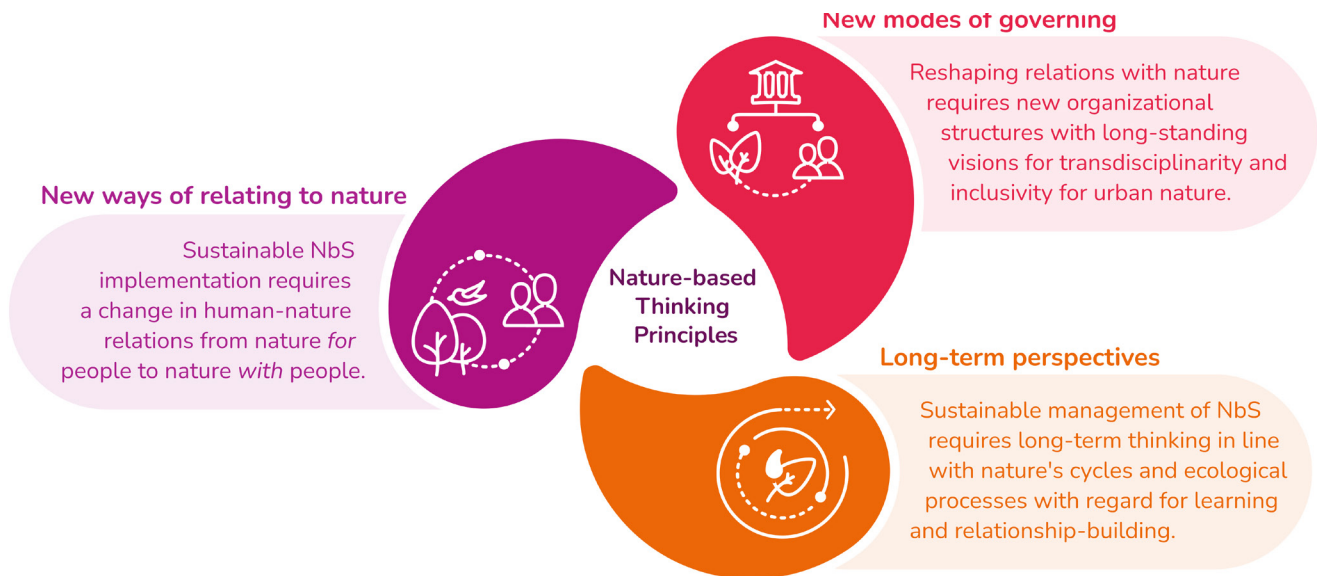
The relations between these dimensions are reciprocal and interdependent, all being of the same weight and importance.

Key principles for developing NBT in NbS

By engaging in a broad reflective process with cities across Europe and South America, we have defined three key principles for developing a NBT mindset for implementing NbS:

New ways of relating to nature: For sustainable NbS implementation, a change is needed in the relation between humans and nature. New human-nature relations require broader socio-economic changes and embracing of equity. Key considerations in this process are local embedding of NbS, understanding power dynamics, enabling diverse voices,





fostering social learning, driving inclusivity, and empowering diverse local knowledge to challenge the status quo.

New modes of governing: Novel governance structures will be needed to reconceive new human-nature relations. NBT has the potential to facilitate the development of more adequate institutional structures that have long-standing visions of transdisciplinarity and inclusivity in planning and managing urban nature. This can help sustain desired changes. Development of NbS in urban planning, their management, and governance need to have a clear socio-ecological perspective. This places interactions with nature at the center and looks beyond solutionism, thus, resisting narrow technological fixes, and the monetization of nature. Through inclusive governance structures, marginalized worldviews can influence decision-making and build a holistic mindset that allows us to depart from anthropocentric, simplistic, and reductionist views to urban planning.

Long-term perspectives: Thinking long-term in line with nature's cycles and ecological processes is crucial for the sustainable management of NbS. This way of thinking challenges standard investment practices that, too often, neglect the importance of place-keeping. Moreover, such practices often ignore the scope for learning and equally disregard social relations that can emerge through more collaborative governance of urban space. At the same time, the sheer scale of required transformations demands that NbS are seen as part of wider agendas and political struggles, particularly if they need to work for people facing deprivation.

Nature-Based Thinking is a mindset to overcome the challenges that impede realizing the potential of NbS, embracing new relationships with nature, instilling better ways of cooperating, and thinking long-term, to make cities more harmonious places for everyone.

Conclusion

NBT offers a mindset for overcoming challenges to realizing the potential of NbS. By embracing new relationships with nature, creating better ways of working together, and thinking long-term, we can make cities more sustainable and harmonious places for everyone. Although an NBT perspective could be applied in

any context, it should be measured by its diversity. NBT argues for the inclusion of local, and diverse knowledge that pushes beyond technocratic solutionism in various ways, including connecting nature with people, promoting broader social learning, and engaging more creatively in participatory thinking.

Key messages



1. NBT introduces a fresh perspective for addressing urban challenges, advocating for a transition from a solution-oriented approach to a systemic one.
2. NBT emphasizes the importance of the relationships among three key dimensions: nature itself, institutions and organizations managing natural spaces, and the communities living with and for nature.
3. The NBT mindset underscores the importance of fostering new relationships with nature, reimagining governance, and adopting long-term perspectives to create sustainable and inclusive cities.

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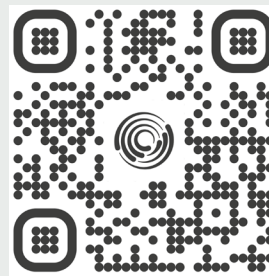
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