



## Mainstreaming Urban Nature-Based Solutions

# Grow practitioner expertise

Practitioner expertise is integral to the inclusion of nature-based solutions in development processes. This expertise needs to be integrated at the outset of projects, and thus collaborative design processes that convene diverse partners can be conducive for integrating nature-based solutions. Guidance documents that communicate the knowledge of practitioners and scientists can also be impactful. The German government produced 'Green Spaces in the City' to compile all available expert knowledge on how nature-based solutions function in cities, and a local government network in Spain developed a guide for municipalities on how to manage and finance green infrastructure. Expertise is also strengthened through ongoing investment in research and tools, for example research conducted by Germany's federal green roof association and the Natural Capital Protocol, a tool that enables knowledge development among businesses.



Building Information Modelling (BIM) software has helped build practitioner expertise in Germany and the Netherlands by enabling lifecycle assessment of a building and demonstrating where nature-based solutions could be plugged in. Used in project design processes, the platform enables collaboration between design and construction project partners, shows overlaps and synergies among various aspects of design and implementation, and improves project efficiency by integrating the plans of all partners. The platform could become more widely used to integrate nature-based solutions because it is under consideration in EU regulation as a mandatory part of public building design and also integrated into architectural education.



# Mainstreaming Nature Based Solutions

Promising Pathways for Sustainability Goals



## Climate Change

With the race to reach 'net zero' targets and build back resilience, nature-based solutions are increasingly seen as a critical tool for responding to climate change. Whether by cooling cities and reducing energy demand or providing new ways of managing flooding, nature-based solutions are gaining support globally. We identify four pathways through which mainstreaming is taking place: recognising their potential as a climate solution; investing to reduce climate risk; integrating climate action with other sustainability goals; and learning through practical experience on the ground.

## Biodiversity

As the world seeks to develop a transformative agenda for biodiversity over the next decade, we explore how mainstreaming nature-based solutions can enable cities to conserve, restore and thrive with nature. Four pathways are identified based on regulating for 'no net loss' of biodiversity, developing co-governance arrangements for public-private finance, integrating biodiversity with existing sustainability priorities, and integrating biodiversity into urban development and the built environment.

## Social Inclusion

Nature-based solutions such as new parks, rooftop gardens, and tree-lined streets play an important role in improving wellbeing and enhancing community spaces. However, the potential for gentrification and displacement of lower income groups means that these solutions must actively foster social inclusion and tackle inequalities. We identify three pathways that strengthen social inclusion: broadening community participation, securing genuine political commitment and policies that support social inclusion, and pursuing social inclusion measures as a way of achieving health and wellbeing.

## Economic Regeneration

Nature-based solutions can create economic regeneration through increasing economic activity and employment and by improving the quality of life. Nature-based solutions both directly contribute to economic vitality and well-being, and leverage new forms of economic activity in cities that generate opportunities. Mainstreaming for economic regeneration takes place through developing partnerships for investment, increasing our knowledge of their economic value, seizing opportunities emerging from other sustainability initiatives, and stimulating market demand for nature-based solutions.

## Sustainable Development Goals

To achieve the SDGs, urban development must prepare for growing populations while also creating sustainable and inclusive cities. Nature-based solutions can address a range of sustainability goals from climate resilience to health to economic development. For example, green space provides cooling, reduces pollutants, and encourages physical activity. Pathways that engage urban nature-based solutions to address SDGs include: involving diverse actors, strengthening local engagement, addressing multiple sustainability objectives simultaneously, establishing institutional arrangements that integrate sustainable development, and monitoring and assessing sustainable urban transformation.