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REALISING THE URBAN OPPORTUNITY: CITIES AND POST-2020 BIODIVERSITY GOVERNANCE

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Policy Brief

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Realising the Urban Opportunity: Cities and Post-2020 Biodiversity Governance

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Contents

Summary

When it comes to ensuring a new deal for nature and people, cities have much to offer. Urban development and urban life are crucial in determining the nature and extent of biodiversity loss as well as shaping how the majority of the world's population lives with nature. By restoring, conserving and thriving with nature, cities also have much to gain — from addressing climate change to improving the health and well-being of their communities. As negotiations continue on biodiversity action over the next decade, now is the critical moment to seize the opportunity for embedding an urban perspective throughout the post-2020 Global Biodiversity Framework (GBF) under the UN Convention of Biological Diversity (CBD).

Cities are crucial for realising global goals for nature

Whether or not the global community is able to achieve its goals for biodiversity over the next three decades will critically depend on how both the threats and opportunities of living on an urban planet are addressed. Home to the majority of the world's population, cities play an important role not only in *conserving and restoring* nature, but also in ensuring that society can *thrive* with nature. Advancing transformative change for biodiversity will require municipal authorities and a range of other urban actors to mainstream action on both the direct and indirect drivers of biodiversity loss — from land-use change to sustainable production and consumption — while ensuring that the value of nature and its contribution to people and society is widely recognised across urban communities.

Despite increasing the momentum for urban action, the current CBD agenda is too narrow

There has been increasing momentum behind calls from representatives of cities and subnational authorities to recognise their crucial role in meeting the ambitions of the post-2020 Global Biodiversity Framework (GBF). Led by ICLEI, a coalition of organisations representing cities and subnational authorities have developed the Edinburgh Declaration that asks that Parties to the CBD recognise their role in implementing any new international agreement. The CitiesWithNature platform, a collaboration between ICLEI, IUCN and The Nature Conservancy, is now beginning galvanising commitments at the city scale. Yet, despite the rhetoric of including 'all levels of government' in the implementation of the GBF, we find that the envisaged role of cities is too narrowly drawn. As a result, the range of urban capacities across multiple actors needed for *transformative* action — from procurement to investment, partnership to experimentation — has yet to be harnessed. Furthermore, growing calls for a 'whole of society' approach to the next decade of biodiversity action masks a continued dependence on the machinery of existing approaches and implementation mechanisms in the CBD, further limiting the degree to which urban actors are likely to engage in the transformative change required to realise global ambitions.

Post-2020 Global Biodiversity Framework needs to harness the urban opportunity

Moving forward will require that we shift the dial away from regarding cities primarily as a threat to biodiversity to viewing them as also offering significant opportunities for action. Cities already demonstrate that taking action for nature can generate significant benefits for cities with respect to climate change adaptation, health and urban regeneration. It will be vital that cities are given a prominent position in the post-2020 global biodiversity framework and its underlying theory of change. This position needs to reflect the potential and responsibilities that cities have for both addressing the loss of nature and enhancing nature's contribution to people and society in line with the urban agenda. Realising the urban opportunity for post-2020 biodiversity governance requires that we understand the contribution that cities can make, the capacities they bring to the table, and the kinds of co-benefits that are likely to be generated as a result.

Greater recognition of urban capacities and alignment with the broader urban agenda are needed

There are concrete actions that can be taken to start to shift the dial. First, for Parties and other non-state actors, it will be vital that the full scope of the contributions that cities can make is recognised and that cities can track their progress through appropriate forms of reporting, monitoring and verification. To be both effective and pragmatic, the GBF needs to include targets that resonate with key urban agendas as well as an enabling approach to monitoring and evaluation. Second, it will be crucial to build on and leverage the whole spectrum of capacities that cities can bring to the table to address the goals of the post-2020 GBF. Past capacity building efforts have tended to focus on the planning and regulatory powers of local authorities. Moving forward requires building capacity for a range of actions from public engagement to partnerships, equipping urban actors with the tools and resources to develop their understanding of how nature contributes to their community and wider urban agendas. This ties into a third key area for action — namely that of ensuring that any biodiversity-related actions also generate outcomes that are transformative for people and places. Given that biodiversity-related actions are likely to be driven primarily by other pressing challenges facing cities, including climate change and urban regeneration, ensuring alignment with other Sustainable Development Goals is critical. Here, we find key lessons from existing experience in the urban governance of sustainability, where transnational municipal networks, peer support, and access to dedicated finances have all proven to be effective in ratcheting up ambition levels and implementation.

Towards a transformative agenda for cities in the post-2020 Global Biodiversity Framework

The GBF has a vital role to play in shifting the dial so that cities are seen not as a threat but as an opportunity for biodiversity and a crucial actor in the achievement of the post-2020 goals and targets. There is now a crucial window of opportunity to embed urban perspectives, actions and ambitions within the GBF in order to ensure that cities can play their full role and that the GBF lives up to its promise of creating a 'whole-of-government' and 'whole-of-society' approach for addressing biodiversity loss and realising nature's contributions to people.

First, an urban perspective must be integrated *throughout* the GBF — from the theory of change to the reporting, monitoring and verification process and beyond. Including a renewed Decision that recognises the importance of municipal authorities as actors in the implementation of the GBF is a necessary, although by itself insufficient, step to enabling cities to participate in transformative action for biodiversity.

Second, embedding urban action requires a Target & Indicator framework that is fit for purpose, recognising that many of the Targets cannot be achieved without urban action and allowing cities to demonstrate their contributions to global goals in line with urban practice. The vast majority of urban monitoring is conducted intermittently and on the basis of self-reporting mechanisms that combine global goals with locally relevant targets. In addition, schemes that reward excellence and ambitions to encourage a 'race to the top' usually accompany such measures. At the same time as opening the door for urban action, it is vital that capacity building measures and financing are provided to support cities in this endeavour.

Third, it is vital that the post-2020 GBF drives urban ambition for biodiversity over the next decade to ensure their continued buy-in and commitment. Society cannot afford for cities to make one-off commitments to address biodiversity loss and ensure their communities benefit from nature. The Action Agenda for Nature and People provides an important potential platform where cities can both report and be recognised for the steps they are taking. The development of CitiesWithNature as a means through which this can be achieved is a vital step on this path.

Further work to build on existing urban action and to recognise the diverse array of new initiatives being established globally to support cities together with clear and verifiable reporting systems will be needed if urban ambitions are going to be sustained and realised over the next 10 years.

1 Introduction

Urbanisation, and its consequences, has risen rapidly on the biodiversity agenda over the past five years. If in 1992 when the Convention on Biodiversity was first adopted the world's urban population stood at approximately 2.3 billion (or 43% of the global total), in 2015 this had risen to approximately 4 billion. In 2018 the proportion of the global population living in cities was estimated to be 55%, and set to rise to 70% by 2050 (UN, 2018). Whether or not the global community is able to achieve its goals for biodiversity over the next three decades will critically depend on how both the threats and the opportunities of living on an urban planet are addressed.

The IPBES Global Assessment report shows that urbanisation is amongst the most important direct drivers of biodiversity loss, globally (Díaz et al., 2019). Evidence suggests that urbanisation has significant direct impacts on a variety of terrestrial, aquatic and marine environments (Garrard et al., 2017). Of most concern is the impact that urbanisation is predicted to have on habitat loss. The *Nature in the Urban Century* report, led by The Nature Conservancy, suggests that urbanisation may have been responsible for around 16% of habitat loss in the 1992–2000 period (McDonald et al., 2018: 3) and that the expansion of urban areas could threaten 290,000 km^2 of global natural habitat by 2030. The effects of such urban growth are particularly significant where cities are located in globally important biodiversity hotspots: it is predicted that 40% of strictly protected areas will be within 50 km of an urban area by 2030 (McDonald et al., 2018). Equally, it is clear that urbanisation is central to the indirect drivers of the global loss of nature. With urbanisation come changes in diets and patterns of consumption that generate pressures on agricultural land (Díaz et al., 2019) and produce high levels of greenhouse gas emissions, plastic and water pollution. At the same time, it is clear that nature's contributions to people are also critical to urban life. From parks to community gardens, nature has long been seen as an important part of the urban landscape. There is now a growing interest in the potential of nature-based solutions in cities globally to enable resilience to climate change and meet sustainable development goals (Bulkeley and Davis, 2020; Kabisch et al., 2016; Frantzeskaki et al., 2019; Wild et al., 2020), while the benefits of urban nature to human health and well-being are increasingly acknowledged (Cohen-Shacham et al., 2016; Van den Bosch and Sang, 2017; Vujcic et al., 2017). Cities can therefore play an important role not only in *conserving* and *restoring* nature, but also in ensuring that society can *thrive* with nature (Xie and Bulkeley, 2020).

Addressing the direct and indirect drivers of biodiversity loss while realising the benefits of nature's contribution to people is central to the post-2020 Global Biodiversity Framework (GBF), the next landmark agreement of the Convention on Biodiversity (CBD) due to be finalised by the global community in 2021. Since the advent of the post-2020 GBF process in 2020, representatives of cities and subnational authorities as one of the recognised UN

Major Parties to the CBD have drawn attention to the critical role of this constituency in meeting the stated biodiversity ambitions of the international community for biodiversity.[1] CBD's designation of CitiesWithNature, a partnership between ICLEI, IUCN and The Nature Conservancy, as an official platform for cities to report on their actions provided additional momentum to the efforts of this constituency to have the position of cities and subnational authorities recognised. This momentum has been continued through the Edinburgh Process — a consultation mandated by the Secretariat of the CBD to involve cities and subnational authorities in establishing their role in the post-2020 GBF. As successive versions of the Zero Draft of the GBF demonstrate, these calls have gained increasing traction (CBD, 2020a; CBD, 2020b). Yet, we suggest that, despite the growing rhetoric of including 'all levels of government' in the GBF, the nature and envisaged potential scope of the role of cities is currently too narrowly drawn, such that it may fail to harness urban capacities for a *transformative* approach to biodiversity governance. At the same time, we find that the growing rhetoric for a 'whole-of-society' approach to the next decade of biodiversity action masks a continued dependence on the machinery of existing approaches. This, in turn, further limits the degree to which cities can be included as part of the transformative change required to realise global ambitions.

There are multiple, and contested, approaches offered for understanding what transformative change entails. However, if global goals are to be achieved, this should involve recognising the need for a step change in both the extent and nature of actions undertaken (Bulkeley et al., 2020). Fundamentally, a call for transformative biodiversity governance requires addressing structural or system-wide dynamics that affect biodiversity — it is a recognition that transformative outcomes for biodiversity will not be achieved without tackling these underlying indirect drivers. At the same time, a transformative agenda calls for far-reaching shifts in how governance is conducted; recognising the various actors whose knowledge, values and capacities need to be harnessed to govern biodiversity across a range of arenas. Through their roles in conserving, restoring and thriving with nature, cities can play a key role in advancing transformative change. Cities are home to the majority of the world's population. Therefore, actions within cities by a range of stakeholders will be critical to mainstream biodiversity concerns within sustainable production and consumption, alongside engaging urban societies in nature and ongoing efforts to mitigate climate change, to make sufficient progress on addressing the indirect drivers of biodiversity loss.

This paper first sets out the important role that cities can and must play in a transformative agenda for the GBF. It subsequently turns to considering the specific ways in which cities are already contributing to global goals for biodiversity, followed by a consideration of the ways in which the GBF needs to embed and enable urban action. We suggest that more effort is

[1] This coalition is convened by ICLEI Cities Biodiversity Centre and includes ICLEI the European Committee of the Regions, Regions4 Sustainable Development, the Group of Leading Subnational Governments toward Aichi Biodiversity Targets and the Advisory Committee on Subnational Governments & Biodiversity.

required on the part of Parties to the CBD to ensure that an urban perspective is integrated throughout the GBF, and that the potential for urban action is recognised and rewarded, and platforms are put in place to drive ambition over the next decade.

Conserve: Teutoburg Forest Nature Park — Bielefeld, Germany

The Teutoburg Nature Park project aims at creating local natural identity by maintaining and increasing biodiversity; protecting and developing the breeding of species in the protected areas; encouraging understanding for the importance of the nature conservation and protection; and increasing the recreation possibilities for local residents. Besides producing several social-cultural and economic values (such as health, well-being, tourism and recreation), the goals of this intervention also include the inclusion of selected territories of the Teutoburg forest to the pan-European Natura 2000 network of protected natural sites for rare and threatened species, as well as rare biotopes and landscapes and the reduction of negative impacts on nature. (See more details of this nature-based solutions (NBS) project: https://naturvation.eu/nbs/bielefeld/teutoburg-forest-nature-park)

Teutoburg Forest Nature Park (Picture credit: Shutterstock/Edda Dupree)

2 Transformative Biodiversity Governance on an Urban Planet

2.1 Why is Biodiversity Loss an Urban Problem?

The significance of the urban challenge to biodiversity is usually assessed in relation to the role of urbanisation as a *direct* driver of biodiversity loss. Recent assessments suggest that urbanisation, in terms of urban expansion and growth in urban populations, represents a critical threat to biodiversity (IPBES, 2019; McDonald et al., 2018). Reviewing the existing evidence base, McDonald et al. (2019) conclude that the growth in urban areas has been responsible for 16% of the total loss of natural habitat over the 1992—2000 period. Drawing on this review and existing models of future land-use change, they forecast that 290,000 km2 of natural habitat will be urbanised between 2000 and 2030, with significant regional variations and consequences for various habitats. For example, they estimate that the highest levels of land conversion will occur in four countries — the United Sates, Brazil, Nigeria and China — and that the temperate broadleaf forest biome and the tropical moist forest biome will experience the highest total land conversion, while both mangrove (2.9%) and Mediterranean (0.6%) biomes will experience the highest degree of impact (McDonald et al., 2019). The effects of urbanisation are also found to be particularly significant where cities are located in globally important biodiversity hotspots: it is predicted that 40% of strictly protected areas will be within 50 km of an urban area by 2030 (McDonald et al., 2018). This is significant, as research suggests that the negative impacts on biodiversity increase where this level of proximity is reached, and can include 'poaching, illegal logging and harvesting trampling or other damage to vegetation, alterations in disturbance regimes like fire frequency, and alterations in abiotic conditions such as increased temperature and higher concentrations of air pollutants' (McDonald et al., 2018: 5).

Despite the scale of these impacts, **it is likely that the importance of urbanisation in driving biodiversity loss is *significantly underestimated and underreported***. For the most part, the impact of urbanisation on biodiversity has been considered in terms of the *in-situ* processes of land conversion and population growth and their local impacts on habitat and

species diversity with the majority of studies conducted in urban areas of the global North (McDonald et al., 2019). As a result, our understanding of the dynamics of urbanisation in some of the most rapidly expanding cities and areas of biodiversity risk is currently limited.

At the same time, the critical role that cities play in shaping the underlying drivers of biodiversity loss remain relatively hidden from view. As the IPBES Global Assessment makes clear, without addressing these underlying or indirect drivers, we will be unable to 'bend the curve' of biodiversity loss. Cities are particularly significant when it comes to sustainable production and consumption as indirect drivers, as identified by the IPBES report. Approximately 70% of all energy-related greenhouse gas emissions are generated in urban centres, as a result of the concentrations of people and economic activity. If climate action is key to addressing biodiversity goals, it is clear that urban action needs to be part of that solution. More than 80% of global GDP is generated in cities (World Bank, 2020) and one of the root causes of biodiversity loss is the increase in resource consumption and polluting emissions as a result of economic growth. Therefore, the shift towards sustainable urban development and economic production that are compatible with biodiversity conservation can contribute significantly to the realisation of global biodiversity goals.

Beyond understanding the impacts of urbanisation on the loss of nature around the globe, it is also important to consider the challenges this poses to cities themselves. Particularly under conditions of a changing climate, cities and their communities are dependent on a range of services or benefits that nature provides — or what the IPBES Global Assessment refers to as Nature's Contributions to People (NCP). For example, there is increasing evidence that coastal ecosystems can attenuate the effect of storm surges on coastal cities, and that wetlands can support cities in managing flood events (Hasse, 2017; Depietri and McPhearson, 2017; Van Coppenolle et al., 2018; Zari et al., 2019). Equally, urban nature is seen to provide a range of benefits to human health and well-being and can significantly reduce urban heat and ameliorate pollution (Aram et al., 2019; Bowler et al., 2010; Elmqvist et al., 2016; Van den Bosch and Sang, 2017). Other beneficial contributions provided by urban nature include food provision, carbon sequestration, water purification, artistic inspiration, aesthetic enjoyment, religious and spiritual fulfilment, as well as the promotion of social cohesion, a sense of identity and the support to the local economy (e.g. nature-based tourism) (da Rocha et al., 2017; Díaz et al., 2018; IPBES, 2018; Naumann et al., 2018). The attrition of nature and biodiversity in cities, therefore, reduces the contributions that benefit society, both in functional terms and in relation to the type of ethical and spiritual nourishment that nature can provide. In short, if the call by the IPBES Global Assessment (Díaz et al., 2019) and wider global community (CBD, 2018) is to ensure that the next decade of action is one for nature and people, it will be necessary to engage the urban places where the majority of the world's population now lives.

2.2 The Need to Transform Urban Biodiversity Governance

Cities are not only the critical areas where direct and indirect drivers of biodiversity loss take place and where the benefits of NCP can be realised, but are also important governance arenas with respect to a range of important global challenges — from climate change and waste reduction to addressing the inequalities raised by the Black Lives Matter movement and the challenges of managing COVID-19. Over the past three decades, research has shown that cities play a significant role in the *multilevel* governance of global environmental challenges, bringing both mandatory and voluntary capacities to bear through *multiple modes of governing*. These include those that involve regulation and planning, as well as those that entail forms of partnership and enabling through which the collective governance capacities of urban actors are mobilised (Bulkeley and Betsill, 2013; Castán Broto, 2017; Führ et al., 2018; Kern, 2019). While the governance capacity that cities can deploy may vary in nature and level due to national context and their involvement in transnational municipal networks and partnerships with various non-state actors, cities are increasingly recognised as a critical arena through which global governance is accomplished.

Existing policies and measures for the urban governance of biodiversity have been built on the evidence base that stresses the critical impact of *in-situ* urbanisation dynamics in driving land conversion and putting critical areas of biodiversity at risk. In response, efforts have been directed to creating Local Biodiversity Action Plans that recognise areas of biodiversity value and which seek to use the *regulatory* and *planning* capacities of municipal authorities to manage and enhance biodiversity protection. Such capacities are deemed necessary if the direct impacts of urbanisation on land-use change are to be controlled and areas of particular significance for biodiversity are to be conserved. As McDonald et al. (2018: 51) argue, 'urban plans (such as comprehensive, sustainability, zoning and transportation plans) formulated through a 'greenprinting' approach can allow urban growth in certain appropriate places, while avoiding urban expansion on to habitat that is crucial for biodiversity or ecosystem services', with the intention not to prevent growth per se, but rather to channel it to more appropriate locations. This focus on building planning and regulatory capacities which has dominated how urban action has been conceived, to date, is primarily concerned with how cities can be enrolled to address the direct threat they pose to biodiversity.

Yet, as we come to understand that the urban biodiversity challenge stretches beyond this narrow framing, the extent to which such an approach for governing biodiversity through the urban arena is fit for purpose is called into question (Xie and Bulkeley, 2020). First, most such analyses have been based on research conducted in the global North where urban regulatory and planning capacities may be more institutionalised than in cities in the global South where the challenges are most acute. Second, given the focus of this research on how cities can address their direct impacts on biodiversity, there is limited discussion as to whether such forms of governance can be used to address the direct and indirect *drivers* of

biodiversity loss. Finally, such analyses have focused on how cities can contain the threat that they pose to biodiversity, rather than how they might seek to enhance their role in ensuring nature's contributions to people are protected and enriched. Engaging urban action on each of these issues is essential to any *transformative approach* for biodiversity governance.

Furthermore, a continued focus on urban governance as primarily a matter of land use or strategic planning coupled with regulatory capacities for command and control misses the fundamental shifts that have taken place in environmental governance over the past three decades. Over the quarter of a century since the CBD was first established, the nature of environmental governance has changed substantially. Rather than being organised hierarchically — such that agreements reached internationally are cascaded down through national and subnational levels of authority to be implemented on the ground — research shows that governing global environmental challenges is now fundamentally *multilevel* with the authority and capacity to govern distributed vertically *and* horizontally (Bulkeley and Betsill, 2013; Kern, 2019). Governing now takes place in a dispersed manner, not only across vertical tiers of government, but also horizontally across divisions of government bureaucracy, neighbouring authorities, state and non-state actors, communities and so forth. These conditions have led to calls for a whole-of-society approach for biodiversity governance and an increasing emphasis on the importance of *mainstreaming* biodiversity action across a variety of actors and government agencies. It is also this phenomenon that is giving rise to a plethora of initiatives established outside the formal remit of the Biodiversity Convention through which to meet this societal challenge (Pattberg et al., 2019).

However, despite the growing acknowledgement of the fragmented nature of governance capacity and authority, the implications for the design and implementation of the GBF have yet to be fully embraced. Efforts to mobilise cities to govern biodiversity tend to remain focused on a relatively narrow range of their capacities and are positioned largely with a vertical system of multilevel governance in mind. They thus seek to promote greater integration and alignment rather than harnessing the diverse forms of capacity and authority that urban governance can generate. For example, promoting greater urban action tends to generate calls to 'synchronise efforts within and across levels of government' and to ensure that 'local governments are required to develop a strategy, implementation plan, and regular monitoring and reporting' (Oulahen et al., 2018: 412). If such calls lead to the institutionalisation of policy processes and measures for subnational participation in the GBF that fail to resonate with the ways in which 'actually existing' urban governance now takes place, there is a danger that we will miss the opportunity to harness urban action for transformative biodiversity governance.

2.3 Shifting the Dial: From Threat to Opportunity?

When positioned as a direct threat to biodiversity, the emphasis on urban action has understandably been placed on how municipal capacities to *control* urbanisation can be realised and aligned with national strategies and global goals. Rather than regarding cities either simply as implementing national policies or as deploying a limited capacity to regulate and control land-use change, transformative biodiversity governance will require that we fully harness the potential for urban action. Cities and subnational authorities are recognised as one of the UN Major Groups and hence have been afforded a seat at the table in the development of the GBF and have successfully raised the profile of urban action. However, the view of what urban actors can do as governors of biodiversity in their own right remains tightly constrained. In particular, we suggest that there are three, currently underdeveloped, aspects of urban action that will be required to realise the goals of the post-2020 Biodiversity Governance Framework.

First, it will be essential that the GBF addresses the role of cities in relation to the drivers of biodiversity loss, to contribute to *conserving* and *restoring* biodiversity. As set out above, urban expansion has been identified as a crucial driver of land-use change which is leading to a loss of biodiversity globally. Strengthening and deepening urban approaches to conservation within and at the urban frontier will be critical for addressing this challenge. At the same time, as the work of cities globally shows, cities are already engaged in multiple different interventions to enhance conservation across urban landscapes and to initiate the restoration of valued ecosystems — from coastal mangroves to wetlands, rivers to urban parks, and the creation of new urban habitats in private gardens, city roofs and new urban developments (Almassy et al., 2018; Frantzeskaki et al., 2019).

Second, cities provide a crucial arena where the benefits of seeking to protect and restore nature and biodiversity can be realised. Evidence suggests that cities are already recognising that they can *thrive* with nature (Xie and Bulkeley, 2020). Urban nature is a crucial source not only of tangible benefits, such as those that can be delivered through nature-based solutions, for example in terms of water management or urban cooling, but also (as the COVID-19 crisis has shown) a vital resource for human health, well-being and spirituality (Samuelsson et al., 2020; Shanahan et al., 2015). Policies and measures that enable biodiversity action to be mainstreamed within the sustainable development goals of cities cannot only benefit cities but also provide concrete means to realise the broader ambitions for the GBF to mainstream biodiversity action across different policy fields.

Third, as centres of production and consumption, cities provide arenas where we can start to seek traction on key indirect drivers of biodiversity loss such as climate change, dietary habits, the consumption resource intensive materials, as well as issues of waste and pollution. Many cities are already taking action on these issues, but to date may not have recognised the potential for such policies and measures to also address biodiversity. Addressing such issues is often driven by public concerns and new economic opportunities,

suggesting that new forms of urban partnership between business, communities and municipalities will be essential if global goals are to be met. Equally crucial, as home to the majority of the world's population, cities will have a central role to play in maintaining and generating the connections between nature and society needed to instil the values which the IPBES Global Assessment finds will be crucial to bending the curve on biodiversity loss over the next decade. Failing to engage municipal authorities, urban stakeholders and local communities in mainstreaming biodiversity action and values could prove to be a crucial missed opportunity for the GBF.

Restore: Ticino Park: Enhancing Biodiversity by Restoring Source Areas, Milan, Italy

The Ticino park acted as a source of biodiversity for the whole Padana Plain.
This project aimed to restore the natural habitat and reintroduce the original plant and animal species, while controlling invasive alien species. Key implementation actions include the: reintroduction of European sturgeon (Huso huso) in the River Ticino (and therefore in the Po basin); ecological restoration of springs and small streams for the conservation of fish species; restoration and creation of wetland habitats for breeding, migratory and wintering birds at Motta Visconti and Bernate Ticino; and the establishment of rafts with marsh vegetation to create new sites for birds.
(See more details of this NBS project: https://naturvation.eu/nbs/milano/ticino-park-enhancing-biodiversity-restoring-source-areas).

Pond in the Ticino Park (Picture credit: Shutterstock/Zocchi Roberto)

3 Realising the Urban Opportunity

While the Convention on Biodiversity has historically recognised local authorities as crucial actors in managing protected areas, regulating urbanisation through land-use planning, and implementing national biodiversity policies, their role is primarily cast in terms of addressing the direct threats posed by urban growth. To date, there has been limited consideration of the various ways in which municipal authorities, urban stakeholders and local communities need to be engaged in conserving, restoring and thriving with nature, whilst also tackling the underlying drivers of biodiversity loss.

Moving forward requires that we shift the dial away from regarding cities primarily as a threat to biodiversity to also viewing them as offering significant opportunities for action, while also demonstrating that taking action for biodiversity can generate significant benefits for cities. In short, it is vital that cities are given a prominent position in the theory of change being advanced as the basis for the post-2020 global biodiversity framework and that this reflects the potential and responsibilities that cities have for addressing biodiversity loss and enhancing nature's contribution to people. Realising the urban opportunity for post-2020 biodiversity governance requires understanding the contribution that cities can make, the capacities that they bring to the table, and the kinds of co-benefits that are likely to be generated as a result. This chapter sets out why these three dimensions are critical in ensuring that cities move from being a threat to biodiversity to a critical means for generating the transformative change needed to achieve the goals of the post-2020 GBF.

3.1 Recognise potential contribution

One key dimension of realising the urban opportunity for transformative biodiversity governance is that of **ensuring full recognition of cities' potential contribution to this goal**. This must go beyond existing approaches that focus on the role of cities in developing policies and measures that protect habitats from urban growth pressures to encompass their wider role in conservation and restoration. This includes the ways in which cities are seeking to realise Nature's Contribution to People through nature-based solutions and other measures. It should also address their potential for addressing key underlying drivers of biodiversity loss such as responding to climate change, reducing pollution and consumption, and generating connections with nature for urban local communities that can instil values for action to prevent the loss of biodiversity globally.

Establishing *what* kind of contributions cities can make is relatively straightforward. Determining *how* those can be made, the form that urban goals and targets should take and which actions this would require is more complex. As noted by the IPBES Global Assessment, current approaches to setting and monitoring targets for biodiversity action have been hampered by a lack of data and the failure to use approaches for target-setting that can be clearly quantified, monitored and evaluated. A great deal of focus in the development of the post-2020 GBF is now being directed towards ensuring that the goals and targets adopted are not only science-based — i.e. that they focus on the key dynamics that are shaping the loss of biodiversity — but are also 'SMART'. Viewed from a 'whole of society' perspective, it will be critical that such targets are not only Measurable, Attainable and Relevant at the level of the international community or national governments, but also within a variety of urban arenas, specific and relevant in urban planning horizons (Timebound). In short, if the global biodiversity framework is intended to mobilise action across society, the **targets adopted should not only be science-based and SMART, but above all also relevant to cities and the multiple ways they can contribute to their delivery.**

Our research suggests that significant efforts are already underway in cities across Europe to support the three main goals of global biodiversity governance — to conserve or restore habitats and species, and to generate benefits from nature for society (Table 1; Xie and Bulkeley, 2020).

Research in European cities, framed in terms of how actions to *conserve, restore or thrive with nature,* shows that explicit, quantitative and measurable targets are being used within the urban arena (Xie and Bulkeley, 2020). The commitments and actions being undertaken can provide a basis for identifying the types of targets and indicators that are likely to be SMART at the urban level. Because of the need to allow for a diversity of urban conditions, and the varying relevance of different kinds of action, this analysis suggests that rather than having 'one size fits all' targets, creating the capacity for cities to make diverse commitments towards common objectives is likely to be a more successful means of mobilising action. At the same time, to ensure that such targets are measurable, it will be critically important to devise targets for which existing indicators or data can be readily used, both by municipal governments and their partners across the whole of society who are involved in the delivery of action on the ground, or where there is clear capacity-building and support for the generation of new data gathering or monitoring requirements. As Bridgewater (2011) has argued, in a public policy setting, targets need not only to be SMART but also CUTE — Comprehensive, Understandable, Time-bound and Enabling. In short, targets will need to be designed so as to tackle related issues in an integrated manner, be readily translated and understood in an urban context, and enable and support urban decision-making and action on the ground.

Table 1

Quantitative Biodiversity Targets used in European Cities

Goals	Intervention	Quantitative target	Project	Location
Conservation	Planting	Adding 135,000 plants	Green Park on Highway Tunnel	Utrecht, Netherlands
		Planting 18,000 trees and bushes	Kupp Park project	Essen Germany
	Create green or blue areas	Afforesting 320ha of new forests within four years	Afforestation project	City of Århus, Denmark
		Creating 10 diversified gardens in 33 different plots	Community Garden project	City of Lille, France
	Protect or reinforce species	Protecting 80 species of nesting birds and 134 types of insects	Teutoburg Forest Nature Park	Bielefeld, Germany
		Preserving more than 12,000 endemic plant species	Diomidous Botanical Garden	Athens, Greece
Restoration	Restore green or blue areas and habitats	Reconstruction of 5 water habitats	Moson Danube Complex Project	Győr, Hungary
		Recover and reforest an area of 108 ha	Restoration of Zabalgarbi Waste Disposal Site	Bilbao, Spain
		Restore the natural flood plains of the Rhine on 7.665 ha with a budget of 7 million euro	Living 'Rhineauen' wetlands	Karlsruhe, Germany
	Restore species	Restore 18 native species of Mediterranean Flora	Asomadilla Park	Córdoba, Spain
Thrive	Create jobs	Boost regeneration and creating 500 jobs	Nine Lakes Project	Wakefield, UK
	Increase people's access to nature	Facilitating access to riverside sites for 630 people from disadvantaged communities	Sowe Valley Project	Coventry, UK
	Reduce flood risk	Creating an estimated 4,000 cubic meters of extra storage space	Inspiring Water Action in Torne (IWAIT)	Doncaster, UK
	Reduce carbon emissions	Reduce CO_2 emissions by some 32% through the transition to organic farming	Life Gardens	Zaragoza, Spain
	Increase carbon storage	About 125 tons of carbon dioxide are stored per hectare planted per year	Birkenhead park restoration	Wirral, UK

Establishing the relevant roles and responsibilities for cities in the GBF is of course only half the battle — ensuring that these commitments are followed through with action constitutes the other half. **As with Parties and other non-state actors, it will be vital that cities can track their progress through appropriate forms of reporting, monitoring and verification.** To be both effective and pragmatic, targets will need to be selected that resonate with key urban agendas and an enabling approach to monitoring and evaluation needs to be adopted. Here, we find key lessons from existing experience in the urban governance of sustainability, where **the vast majority of monitoring activities is conducted intermittently and on the basis of self-reporting mechanisms that combine global goals with locally relevant specific targets. In addition, schemes that reward excellence and ambition to encourage a 'race to the top' usually accompany such measures.** Here, transnational municipal networks, peer support, and access to dedicated finances have all proven to be effective in ratcheting up the levels of ambition and the extent of action being undertaken. It is likely that similar schemes will be needed in order to ensure that urban contributions for biodiversity goals are fully realised.

3.2 Building and leveraging capacity

Building and leveraging the capacity of urban action for biodiversity governance is the second key dimension needed to ensure that cities can play their role in contributing to the goals of the post-2020 biodiversity governance framework. To date, efforts have focused on a narrow range of municipal capacities, which have served to both limit the extent to which cities engage in biodiversity governance and the degree to which urban action has been mobilised towards biodiversity goals.

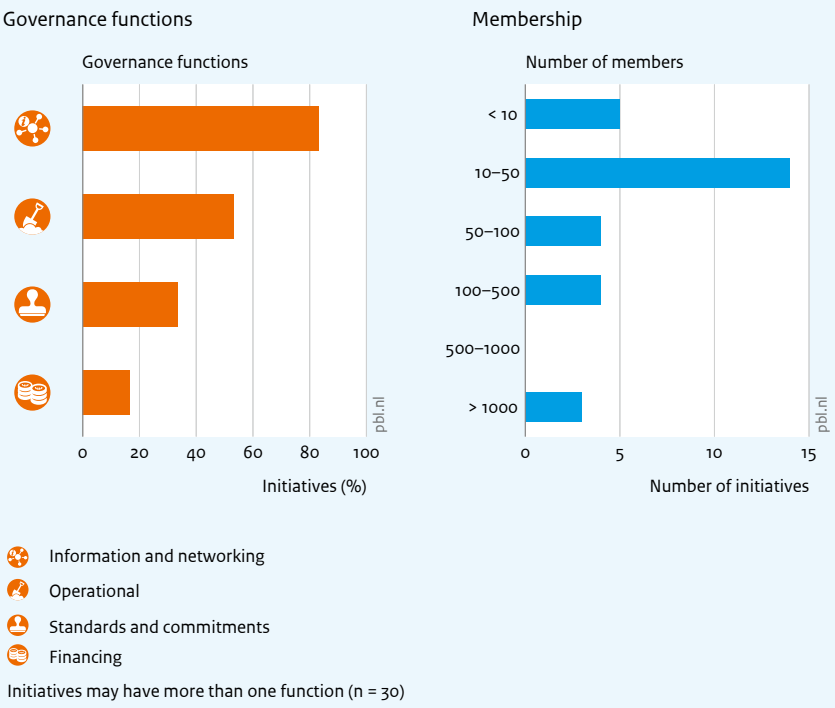
Over the past decade, cities have come to play an increasing role in the governance frameworks that seek to support global action on biodiversity. While neither the *Strategic Plan for Biodiversity 2011–2020* nor the 20 *Aichi Biodiversity Targets* make direct references to cities or urban areas, a specific additional clause, Decision X/22 of the Convention on Biodiversity, lays out explicit **terms on which the Parties to the convention were to be encouraged to recognise and facilitate the work of subnational and local authorities.** As negotiations proceed on the design and implementation of a new Global Biodiversity Framework (GBF), the global community is once again confronted with how to realise and enable urban capacity for global goals.

Textbox 1 City networks for biodiversity

Over the last year, international city networks for biodiversity have been emerging and have started to play a role in shaping global biodiversity governance. Analysis of a database of international cooperative initiatives (Negacz et al., 2020) has identified 30 such city networks, some of which are very prominent in the negotiations for the post-2020 global biodiversity framework (Figure 1). The evidence suggests that these networks play an important role in providing information and facilitating networking between cities, as well in shaping the operational activities necessary for implementation. So far, these networks, to lesser extent, have been involved in setting standards, creating commitments or providing direct financing. Their membership varies considerably, with only a few networks having very large numbers of members.

Figure 1

International city networks' membership and governance functions



Initiatives may have more than one function (n = 30)

Source: Bio* star 2.0 (under construction), IVM/PBL

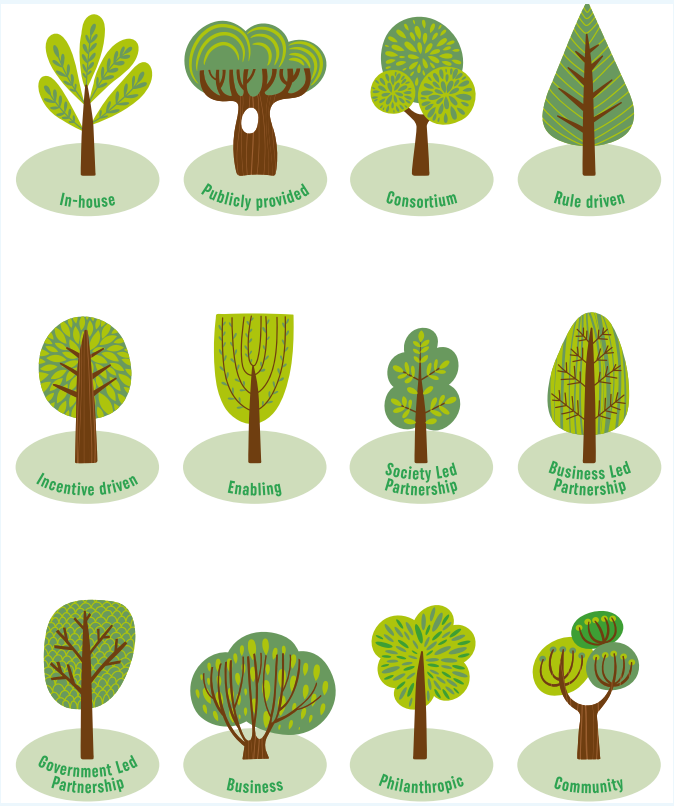
Historically, as established in Decision X/22, cities have been primarily positioned as having the capacity to develop and implement Local Biodiversity Strategies and Action Plans (LBSAPs) directed towards the Aichi targets and in line with National Biodiversity Strategies and Action Plans (NBSAPs) (Puppim de Oliveira et al., 2014). In this approach, it is primarily the regulatory and planning capacities of local authorities that are in focus. Cities are cemented as having a clear role in a framework through which international goals are cascaded first to national and then to local authorities to be implemented through their own version of a national policy instrument. However, evidence suggests that this approach has not received widespread support at the urban level. Analysis in the *Nature in the Urban Century* report finds that, over the decade since LBSAPs were institutionalised, 'at least 123 cities from 31 countries have produced a biodiversity report and/or a biodiversity plan' (McDonald et al., 2018: 53) with a pronounced concentration of efforts in the United Kingdom, North America and Japan. This compares rather unfavourably with the several thousand climate change and energy action plans that have been recorded by the Global Covenant of Mayors, for example, suggesting that, to date, the approach has not been taken up widely. Research also suggests that the LBSAP approach has been found to be overly technical, requiring specialist knowledge and resources, in turn, leading to the exclusion of different forms of knowledge and more broadly being found to lack relevance to many diverse urban contexts (Elander et al., 2005; Evans, 2004; Harrison and Davis, 2002).
In short, while some of the targets included in LBSAPs may have been SMART, they were perhaps insufficiently CUTE to be readily understood or to adequately support existing decision-making processes. This is not to suggest that the LBSAP, or similar strategic planning and policy instrument may not have a role to play in mobilising urban capacity for biodiversity governance, but it is unlikely to attract widespread support from a diverse range of cities and to leverage the kind of action needed to reach global goals.

Learning the lessons from this experience, it seems that an essential criterion for engaging cities towards the post-2020 goals for biodiversity must be that it resonates with and is seen to have value for those urban actors who will be implementing it on the ground. Evidence points to a multiplicity of alternative means through which cities are seeking to govern biodiversity are now taking outside the framework of national and local biodiversity action plans (Xie and Bulkeley, 2020). Analysis of the European Urban Nature Atlas suggests that 44% of the almost 1000 initiatives included in the database were jointly implemented by governmental and non-government actors, while 30% were managed solely by governmental actors and 26.5% by non-governmental bodies (Almassy et al., 2018). Moreover, this body of evidence suggests that the role of partnerships has been growing, over time. Nature-based solutions are then not being implemented through long-term planning frameworks or as a result of local regulation concerning the use and management of urban nature. Instead, they are a form of governance by experimentation in which urban sustainability is pursued through a patchwork of initiatives and projects which bring together diverse actors and seek to generate forms of innovation capable of reconfiguring urban regimes towards sustainability transitions (Bulkeley et al., 2015; Evans et al., 2016; Dorst et al., 2019).

Textbox 2 Building & Leveraging Capacity for Urban Responses

Analysis conducted by the NATURVATION project shows that there are multiple effective governance approaches currently being used to design and implement nature-based solutions in cities (Figure 2; Almassy et al., 2018; Xie and Bulkeley, 2020). The results from 54 case studies in 18 cities, globally, show that there are 12 different forms of governance used to deliver nature-based solutions, each of which relies on leveraging different kinds of governance capacities (Bulkeley, 2019). Partnerships between various actors dominate, but municipal governments are critical in both directly providing nature-based solutions and creating the enabling conditions in which others can take action. The private sector, civil society and community actors are also all playing their part. All of these approaches will need to be harnessed in order to generate and implement interventions that can contribute to biodiversity goals (Bulkeley, 2019).

Figure 2 Different forms of governance to deliver nature-based solutions



The growing importance of urban experimentation as the means through which sustainability is governed at the urban level points to a shift in the kinds of capacities that cities need to generate if they are to govern effectively. Traditionally, governance capacity has been thought of in terms of building the knowledge and processes needed to develop plans, targets, regulation and monitoring. These continue to be important. Yet, the centrality of experimentation points to new kinds of capacity requirements — for innovation, partnership, enabling, network building, peer to peer learning and so on — which it will be vital to harness and strengthen if cities are to play their role in reaching biodiversity goals. This is especially the case when it comes to considering how cities can govern the underlying drivers of biodiversity loss — such as the day-to-day consumption by businesses and households in the urban arena, or the values for biodiversity held by organisations and individuals. While municipalities can use regulatory and planning powers to govern waste streams, reaching into the realm of consumption requires different kinds of powers and actions based on educating and enabling new kinds of choices to be made. Equally, engaging businesses, organisations and individuals in order to develop positive values for biodiversity is not something that can readily be done through conventional regulatory and planning capacities, but requires collaboration, partnership, and the provision of immersive experiences of nature in our everyday lives. Municipal governments are already engaged in action of this kind, both independently and through joint initiatives with transnational municipal networks, non-governmental organisations and community groups. It will be essential for the success of any post-2020 governance framework that it ensures that these capacities are both harnessed and further developed in order to realise global goals for biodiversity.

3.3 Generate co-benefits for urban transformation

As detailed above, the dominant framing of cities in the biodiversity governance domain is as one of threat. In contrast, over the past 30 years in the climate arena cities have come to be considered as a space of opportunity — where important action to address climate change can take place whilst also generating co-benefits for cities and their communities. Realising the urban opportunity for biodiversity governance will require not only understanding the contribution they can make and their capacity to do so, but also how such actions can support urban goals for sustainable development. In short, **a transformative agenda for biodiversity governance will also have to offer opportunities for urban transformation if it is to be successful.**

That nature should support social and economic goals is not new — at the heart of the Convention on Biodiversity since its inception in 1992 have been goals to ensure the sustainable use of biodiversity and to enable the fair and equitable sharing of the benefits of genetic diversity. In 2019, the IPBES Global Assessment called for a wider acknowledgement of the importance not only of conserving and restoring biodiversity, but sustaining and enhancing Nature's Contributions to People (NCP) (Díaz et al., 2019). This explicit recognition that what is at stake in biodiversity governance is not only biodiversity itself

— the very matter of life — but also the contribution that nature makes to society clearly establishes a basis for recognising that action to support biodiversity can generate important co-benefits. It will be critical that these are not only regarded in instrumental terms — for example in relation to the importance of natural ecosystems in supporting climate resilience or contributing to disaster risk reduction — but also that the ways in which nature contributes to other aspects of social and cultural life, including those which are emotional and spiritual. Indeed, the capacity for nature to foster connections between individuals and wider societal challenges and within communities is a key contribution that nature provides, and one which can generate benefits of social cohesion, community and stewardship at the urban level. In this manner, and through its direct and indirect benefits for health and well-being, there is increasing evidence that nature provides key co-benefits for urban societies. Importantly, this evidence suggests that the quality of urban nature is vital for realising these benefits — while urban greenspace can provide direct and indirect benefits for individuals and communities, increasing biodiversity in the city through including 'wild' areas of parks, creating habitats that are rich in biodiversity, and enabling communities to become educated about and engaged in stewarding biodiversity in the city have all been proven to increase the contributions that nature can make to people (de Oliveira et al., 2010; Filazzola et al., 2019).

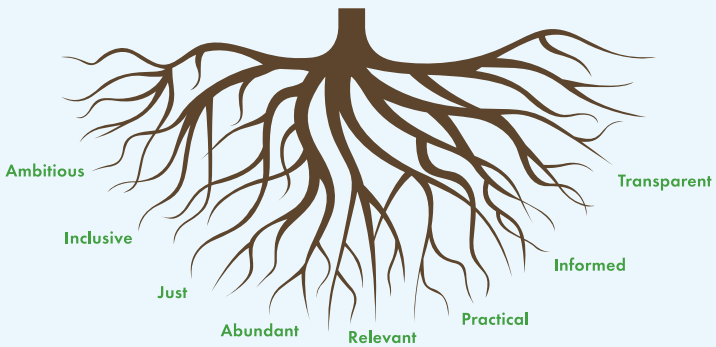
Alongside this emphasis on ensuring and enhancing NCP, there is growing interest in the potential of *nature-based solutions* as a means through which cities can address their sustainability goals. As an umbrella term that captures the multiple ways in which nature has been bought into the city — such as green and blue infrastructure, nature-based adaptation and the provision of green space — the notion of nature-based solutions has an explicit and core concern on how such interventions can generate multiple social, economic and environmental benefits and hence contribute to various sustainable development goals simultaneously. Nature-based solutions therefore represent an important means through which biodiversity concerns can be *mainstreamed* into wider urban agendas. Ensuring that the urban potential for nature-based solutions is clearly articulated within the post-2020 biodiversity governance framework will be crucial to generating the support and engagement of cities and their communities.

Text box 3 Strong Roots Needed to Enable Urban Nature-Based Solutions

Research undertaken by the NATURVATION project shows that effective urban governance for nature-based solutions depends on strong roots — core principles that underpin their development and implementation. Analysis of 54 projects in 18 cities, globally, identified eight principles that successful projects have in common (Figure 3; Bulkeley, 2019). The development of the post-2020 Global Biodiversity Framework offers the potential to develop urban capacity in accordance with these principles, to ensure that urban responses endure and will be effective in contributing to goals for 2030 and beyond.

Principle	*Definition*
Ambitious	Setting goals and implementing actions, explicitly, for an ambitious vision of how nature-based solutions (NBS) can contribute to urban sustainability; they are integrated into strategic goals/policy for sustainability.
Inclusive	Enabling the participation of stakeholders and communities in the design, implementation and monitoring of nature-based solutions; explicitly recognising marginal groups and supporting their inclusion.
Just	Developing nature-based solutions (NBS) in such a way that their benefits and risks are shared equitably between different actors and groups; explicitly seeking to address issues of existing inequity through the design and implementation of NBS; addressing ecological and environmental justice through ensuring that NBS do no harm to valued and intrinsically valued forms of nature.
Abundant	Nature-based solutions (NBS) are designed and implemented to be comprehensive; addressing multiple sustainability goals and/or to enable multiple benefits/contributions of NBS for various communities and stakeholders.
Relevant	Nature-based solutions are socially and ecologically relevant when they deliver local benefits and supporting local development priorities; enable the restoration/conservation of valued forms of nature at the local scale and across landscapes/seascapes; contribute to ecological connectivity and ecosystem integrity.
Practical	Nature-based solutions are designed to be realistically implemented by the actors involved, given local mandates, finances and capacities.
Informed	Scientific, civic and traditional knowledge is used to inform the design and development of nature-based solutions either in a traditional 'evidence-based' model of policy/project design or through a learning-by-doing mode through the iterative development of knowledge and mechanisms for learning throughout the project.
Transparent	Determining what constitutes the success of nature-based solutions through appropriate forms of consultation and establishing a set of indicators that can be measured, reported, independently verified and evaluated.

Figure 3 Core principles that underpin development and implementation of nature-based solutions



One possible challenge for fully realising the potential of nature-based solutions — in cities and elsewhere — consists of the growing concerns that such interventions are largely driven by the climate agenda in ways that may be detrimental to biodiversity outcomes (Seddon et al., 2020). In order to safeguard against this possibility, conservation organisations and many national governments are increasingly seeking to create standards or guidelines that require all nature-based solutions to have direct benefits for biodiversity (IUCN, 2020). While clearly well intentioned, such an approach risks undermining urban engagement with nature-based solutions where, aside from initiatives that will directly contribute to biodiversity conservation and restoration, other forms of nature-based solutions have a vital role in addressing the *indirect drivers* of biodiversity loss. Such examples include those nature-based solutions that reduce urban greenhouse gas emissions or generate the potential for fostering new kinds of values for nature amongst the public. It is critical that such co-benefits of nature-based solutions are not overlooked while standards and safeguards for biodiversity are implemented. At the same time, if cities are required to establish how nature-based solutions both directly and indirectly contribute to biodiversity goals as a condition of their implementation or financing, further support will be required for urban actors in evaluating nature-based solutions and considering the trade-offs between multiple benefits. It will also be critical that any such standards or requirements for direct biodiversity benefits take account of what might reasonably be expected of nature-based solutions in the urban realm and do not serve as a barrier to encouraging cities and their partners to work with nature in the city.

In seeking to identify the co-benefits of biodiversity for cities, it is also important to recognise that, for the most part, biodiversity goals are likely to be achieved as a result of action taken on other strategic issues. In some ways, this is the ultimate goal of the mainstreaming agenda. Much of the urban action on biodiversity conservation and restoration takes place in pursuit of multiple other objectives. Furthermore, the business models and financial mechanisms that support biodiversity usually require other forms of benefit to be generated in order to ensure that there is an economic case for biodiversity outcomes. In short, detaching biodiversity outcomes from wider goals for climate and sustainability would be detrimental to achieving outcomes for nature and for people in the city. At the same time, it is evident that addressing the indirect drivers of biodiversity loss will likely require actions in which biodiversity outcomes are achieved as a co-benefit of making progress with other agendas. For example, reducing plastic pollution will have a positive effect on biodiversity loss, but action to prevent the consumption and disposal of plastic in the urban environment is unlikely to be pursued primarily for biodiversity reasons. This raises two particular challenges. First, it is apparent that, at the urban level (as elsewhere), initiatives to govern the indirect drivers of biodiversity are limited. Over the past year, new initiatives have been established that are seeking to recognise this connection — such as the Cities4Forests programme led by WRI, or initiatives within the C40 to address the consumption-based greenhouse gas emissions of cities through food and construction policies. Yet, in each case, the impact of urban action on the 'faraway' forest or ecosystem is relatively marginal and there is no platform on which these actions can be aggregated and their overall impact evaluated. Second, if action to address biodiversity goals is needed

throughout various urban policy arenas and economic sectors, the focus on developing specific local biodiversity action plans may be of only limited value. It may be that mainstreaming biodiversity such that both the direct and indirect urban contributions to addressing this issue requires a different approach, mandated and facilitated through the multilevel governance generated by the post-2020 framework.

Thrive: Medway Green Grid — Medway, United Kingdom

This project was part of 'Greening the Gateway Kent & Medway' that focused on connecting a high quality, functional green space network. Goals specified in this intervention included: 1) create safer routes to work and schools; 2) provide access to nature; 3) support habitat for biodiversity; 4) provide outdoor classrooms and gyms, 5) provide a space for outdoor cultural events; 6) adapt to climate change (e.g. flood regulation); 7) attract investments; 8) attract visitors and tourists; and 9) provide a space for relaxation. Major implementation activities outlined in this project included: mapping the existing green spaces and their access points, including all types of ecological domains outlined in the action plan; and creating green infrastructure to generate and connect seven 'green routes' throughout the city. (See more details this NBS project: https://naturvation.eu/nbs/medway/medway-green-grid)

The River Medway and Millennium bridge at Maidstone, Kent (Picture credit: Shutterstock/Sue Martin)

4 Embedding a Transformative Agenda for Cities in the Global Biodiversity Framework

Addressing the urban direct and indirect drivers of biodiversity loss will be crucial for meeting goals for 2030 and beyond. Doing so will require that we recognise that cities provide important opportunities for action, recognising the contribution that cities can make, their capacities for action and the importance of realising co-benefits for cities, nature and society as a whole through the steps that are taken. Ensuring that cities are part of a transformative agenda for biodiversity action post-2020 will mean embedding urban perspectives, action and ambition within the Global Biodiversity Framework as it goes forward. So far, local governments are recognised for their *planning* competencies, but not for their roles as innovators, investors, consumers or partners with the private sector. From an urban perspective, the GBF needs to reflect the multiple benefits that biodiversity action can have for a broad set of urban issues. Explicit attention to 'nature's contribution to people' and 'nature-based solutions' may help to ensure that the GBF becomes a 'whole of government' and 'whole of society' approach.

4.1 Embed an Urban Perspective

To date, drafts of the Global Biodiversity Framework have primarily positioned cities in terms of the role of local authorities as part of 'all levels of government' that need to be involved in implementation, with specific activities identified in terms of implementing measures requiring spatial planning. As with the governance framework agreed in 2010, those advocating for more recognition of the potential for urban action are seeking 'new dedicated Decision for the greater inclusion of subnational governments, cities and local

authorities within the post-2020 global biodiversity framework; that builds upon and renews the Plan of Action on Subnational Governments, Cities and Other Local Authorities for Biodiversity (2011–2020) as endorsed under Decision X/22; and that significantly raises ambition for subnational, city and local implementation of the post-2020 global biodiversity framework throughout the next decade' (Scottish Government, 2020). However, as the Edinburgh Declaration notes, to make the most of any such follow-up Decision, it will be critical that space is made for an urban perspective to be embedded throughout the GBF. Otherwise, there is a risk that the slow momentum for urban action on biodiversity accumulated over the past decade, which is now rapidly gathering traction through initiatives such as CitiesWithNature, IUCN Urban Alliance, The Nature Conservancy and others, will dissipate.

Yet, by only including the importance of urban action in a Decision annexed to the global biodiversity framework, the risk is that developing and supporting urban action for biodiversity will be seen as a 'nice to have' option when the evidence suggests that the innovative role cities can play is, in fact, central to achieving a transformative agreement. Placing urban action as a key component of the post-2020 Global Biodiversity Framework will depend upon including an explicit urban component in efforts to mainstream the 'whole of society' and 'all levels of government' approach that many Parties seek to develop. This, in turn, means ensuring that these approaches are embedded within the theory of change that underpins the framework and written through the targets to be pursued and the capacity building, implementation and review mechanisms through which the framework will be delivered. This also requires that the urban perspective is included in other relevant COP-15 decisions and follow up frameworks that will further operationalise the global biodiversity framework, such as the Long-term Approach to Mainstreaming, Capacity Building and Finance.

4.2 Embed Urban Action

The updated Zero Draft of the Global Biodiversity Framework developed a set of 20 targets through which its high-level goals are to be met. These targets provide the core action agenda for the post-2020 framework, and will be the means through which its ambitions are mobilised and action needs to be taken on the ground to achieve them. At present,[2] cities are explicitly included in only two of these targets and the proposed monitoring framework — in terms of the provision of urban green space for public use (Target 11) and in terms of mandating the integration of biodiversity values into planning for conservation objectives at all levels (Target 13), though it is worth noting that no indicators so far have been identified for monitoring local government action for this last target. Yet achieving many of the targets — from reducing emissions of greenhouse gases and climate change

[2] See https://www.cbd.int/sbstta/sbstta-24/post2020-monitoring-en.pdf and https://www.cbd.int/doc/c/3064/749a/0f65ac7f9def86707f4eaefa/post2020-prep-02-01-en.pdf (updated Zero draft).

adaptation (Target 7) or reducing pollution (Target 6), to changing production and consumption (Targets 14 and 15), delivering environmental education (Target 19) or generating new values for nature (Target 15) — rely on urban action. This is only explicitly recognised with an indicator on the role of local governments in disaster risk reduction (Target 7) and water and sanitation management (Target 10). While other targets have the potential to spur action that will generate benefits for cities from nature — including in terms of climate adaptation, water provision, nature-based solutions and so on — there is no recognition of the urban dimension of these opportunities.

As currently framed, cities are therefore largely excluded from the targets through which the CBD hopes to achieve its ambitions. Creating more enabling language that recognises how cities' vital role for biodiversity and how working with nature can benefit cities will be crucial if they are to become engaged. This could be achieved either by including specific mention of cities within the language used in each target, or by demonstrating through the selection of indicators for monitoring progress that urban action is either required or legitimately part of the action that needs to be taken.

At the same time as creating an open door for urban action, it will be vital to recognise that municipal authorities will also need support and capacity-building in order to realise their potential. While much of the capacity-building effort is focused on the development and delivery of national action plans for biodiversity, resources are also needed at the urban level. Perhaps more critically, capacity-building is needed to enable cities to start addressing the direct drivers of biodiversity loss in terms of consumption and to generate knowledge and values that support biodiversity action at all levels of government and through individual behavioural change. Capacity-building approaches that emphasise demonstration projects, living laboratories and partnerships across diverse sectors will align with the emerging practices of urban governance that goes beyond their role as implementers of national and international policies. Ensuring that mainstreaming, capacity-building and finance mechanisms include an urban component will therefore be a critical part of embedding urban action for the post-2020 GBF. It will be important that the international community clearly specifies that these kinds of capacity-building are both a legitimate and necessary part of any national level efforts for implementing the GBF, while working with relevant partners at the urban level to make the resources needed to build capacity directly available to cities.

4.3 Embed Urban Ambition

The post-2020 framework has a potentially crucial role in raising the bar for urban action to address the biodiversity challenge. As we have seen in the climate domain, cities respond positively to calls to increase their commitment and ambition as part of a collective response to global challenges (Hsu et al., 2018). The Global Biodiversity Framework has the same potential to mobilise cities and to ratchet up their levels of engagement and impact over time, but this will require novel mechanisms for reporting and recognition alongside the standard architecture of the Convention. The Action Agenda for Nature and People

established at COP-14 in 2018 to collect pledges to contribute to global goals for people and nature provided an initial impetus in the run up to COP-15 for recognising and accounting for non-state action, including those taken at the urban level, and the ways in which they could contribute to global biodiversity goals (Kok et al., 2019). Subsequently, CitiesWithNature has been endorsed by the Secretariat of the CBD as the mechanism through which cities can signal their ambitions for biodiversity. The platform will provide a reporting mechanism through which cities can make commitments and through which monitoring and reporting can take place, as well as a means to develop local action plans and enable learning. As such, it is an important first step in embedding urban ambitions within the Action Agenda. Yet, in order to drive ambition at the urban level, not only will this commitment — and the resources required to realise it — need to be sustained over time, additional measures will also be needed.

First, alongside CitiesWithNature, a number of other peer groups of cities are emerging with an interest in contributing to biodiversity goals, including the IUCN Urban Alliance, the Science Based Targets Network initiative for cities and biodiversity, initiatives within the C40 Climate Leadership Group focused on the underlying drivers of urban carbon (and biodiversity) footprints, WWF Cities, and WRI Cities4Forests, as well as the EU-funded Green City Accord, which will complement the Covenant of Mayors for Climate and Energy, by addressing issues not covered by the Covenant. While there is an understandable urge to seek integration and cohesion amongst these networks, it may be more appropriate to enable multiple networks to flourish as each includes diverse cities, focuses on different aspects of the urban/biodiversity challenge and generates different kinds of capacity. Rather than seeking to fully integrate the different networks and initiatives through which climate action is pursued, we can see that an alternative approach has been taken where the Global Covenant of Mayors has been formed to bring together diverse transnational municipal networks that have traditionally operated in isolation from one another, and the NAZCA has gained traction as a platform that has aggregated the global efforts of thousands of non-state actors, including multiple city networks, in relation to the goals of the UNFCCC Paris Agreement (Hsu et al., 2018). To date, efforts to establish a similar platform for biodiversity governance have not received similar momentum with potentially important implications for the extent to which urban capacity to govern biodiversity can be harnessed, an issue to which we return below. Providing the means through which the commitments and actions being undertaken by cities through this diverse ecology of networks can be recognised, may therefore be crucial if the global biodiversity framework is to deliver the required level of ambition at the urban level needed to meet global goals. This is likely to require some level of political and financial commitment that provides certainty over the next decade as to how city commitments will be recognised and reported globally as part the emerging accountability framework for the global biodiversity framework.

Second, the commitments being made by cities need to become legible at the global level, such that cities can rightly claim to be playing their part in global efforts and become explicitly recognised for this role. Regular periodic reporting and updating of commitments, accompanied by plans that set out how transformative action for biodiversity is being

undertaken by cities could be accompanied by independent processes of peer review and reward (e.g. as is routinely undertaken in other city networks or by the European Commission in their Green Capital and Green Leaf awards). This will encourage cities to engage in positive competition with one another to drive ambition forwards. Such processes have the advantage of not only ratcheting up the commitments and levels of ambition at the city level, but also function as a means through which cities can be held accountable for their promised actions and through which learning both within and between cities can be generated.

Conserve, restore and thrive: The Green and Blue Urban Network Project, Montpellier, France

The Green and Blue Urban Network project aims to strengthen the place of nature in the city of Montpellier by protecting and sustainably managing high-potential sites. It also aims to raise public awareness, as well as to restore ecological continuity in order to promote species movement and the resilience of ecosystems to address habitat threats and climate change.
(See more details of this NBS project:
https://naturvation.eu/nbs/montpellier/parc-marianne-ecodistrict

Port Marianne in Montpellier (Picture credit: Shutterstock/Lana Endermar)

5 Realising the Urban Opportunity?

When it comes to ensuring a new deal for nature and people, cities have much to offer. Urban development and urban living are crucial in determining the nature and extent of biodiversity loss as well as shaping how the majority of the world's population comes to live with nature. By restoring, conserving and thriving with nature, cities also have much to gain — from addressing climate change to improving the health and well-being of their communities. As negotiations continue for the next decade of biodiversity action, now is the critical moment to seize the opportunity for embedding an urban perspective throughout the framework which will guide state and non-state actors in their quest for transformative change, to enable urban action through developing targets and implementation mechanisms that speak directly to the needs and capacities of cities, and by ensuring that urban ambitions are recognised and rewarded by the global community.

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