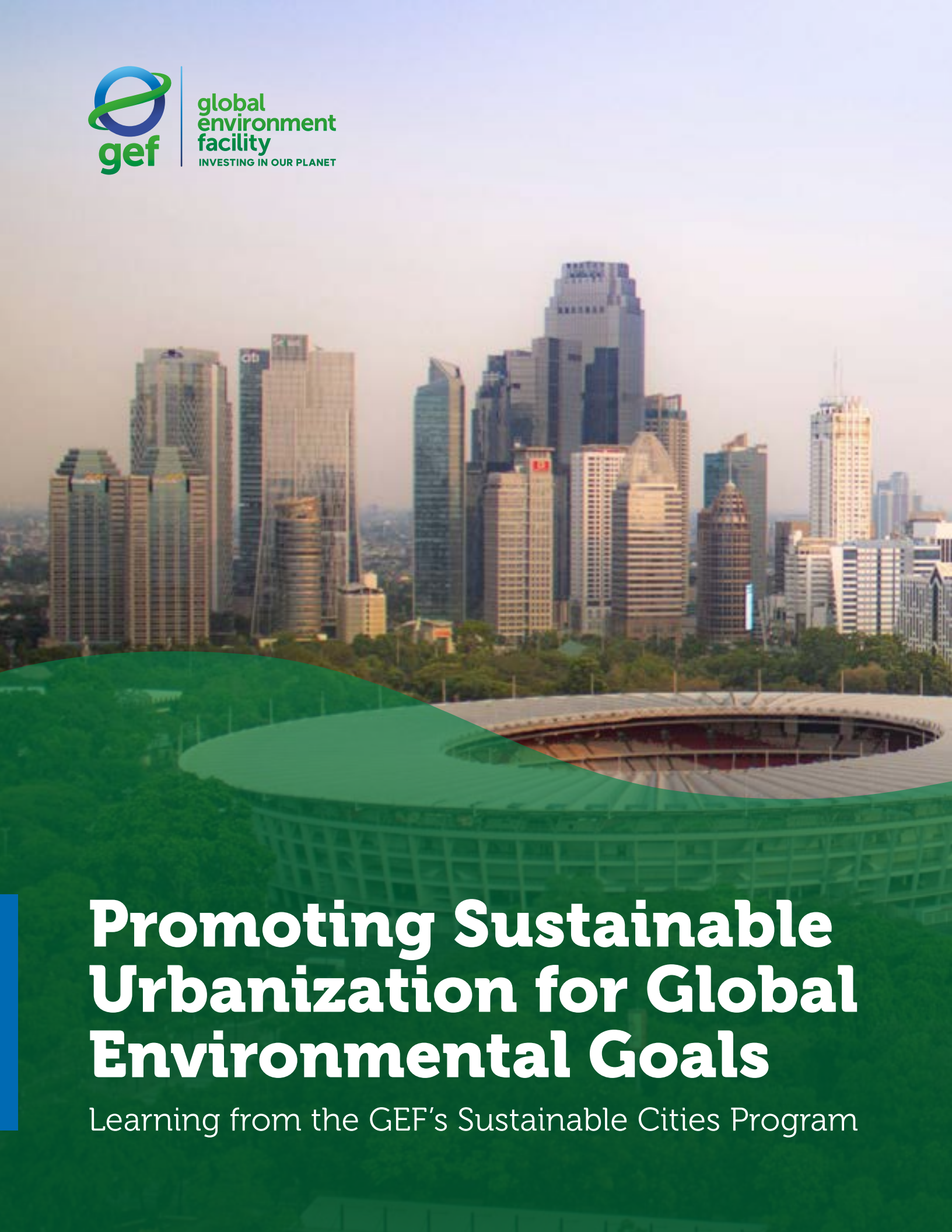




global
environment
facility
INVESTING IN OUR PLANET

The background of the slide is a photograph of a city skyline with numerous skyscrapers, likely in Asia. In the foreground, there is a large, modern stadium with a distinctive, curved, metallic-looking roof. A semi-transparent green circular graphic is overlaid on the lower half of the image, partially covering the stadium and the text.

Promoting Sustainable Urbanization for Global Environmental Goals

Learning from the GEF's Sustainable Cities Program

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Introduction

To achieve higher impact and long-term sustainability of its investments, the Global Environment Facility (GEF) is increasingly focusing on integrated approach programming that targets the sustainable transformation of key systems for a healthy planet and healthy people. The Sustainable Cities Program (SCP), initially launched as a pilot during the sixth GEF replenishment cycle (GEF-6, 2014-2018), is one of these integrated approach programs. The SCP focuses on the drivers of environmental degradation in the urban system

and thereby advances integrated solutions to generate global environmental benefits as well as economic and social benefits. From an initial focus on tackling drivers of greenhouse gas emissions and involving 28 cities in 11 countries during the GEF-6 pilot phase, the program was expanded in GEF-7 to address multiple environmental challenges through integrated urban planning with an additional 23 cities in 9 countries. The GEF-8 phase was further expanded with 48 cities in 20 countries, with full implementation in 2025.



Building on nearly a decade of investments in the Sustainable Cities Program, the GEF Secretariat in collaboration with the program lead agencies—the United Nations Environment Programme (UNEP) and the World Bank—convened a technical learning workshop in April 2025 to synthesize initial lessons on advancing the integrated approach. The workshop took place in UNEP’s office in Paris, with over 40 participants from the GEF Secretariat, GEF Agencies, core program implementation partners, the GEF Scientific and Technical Advisory Panel (STAP), the GEF Independent Evaluation Office (IEO), and external experts from academia and research organizations.

The workshop aimed to:

- Discuss global urbanization trends and their relation to climate, nature loss, and pollution
- Synthesize knowledge and lessons from the GEF’s Sustainable Cities Program across its three phases
- Identify key learnings, gaps, barriers, and opportunities for advancing integrated approaches for sustainable urban transformation.

This report summarizes the findings, offers concrete examples, and presents recommendations and key takeaways from the workshop.

Overview of the GEF's work on sustainable cities

Urbanization is a fundamental driver of economic growth and societal progress. More than half of the world's population now lives in urban areas—a figure projected to rise to 68 percent by 2050. This unprecedented growth has significant influence on the wellbeing and health of people and the planet.

Rapid urbanization offers opportunities for improved employment, infrastructure, and access to essential services such as healthcare and education. However, it also presents significant challenges. The influx of people into cities often results in overcrowded living conditions and inadequate housing, vulnerability to climate risks, and heightened demand for basic services, exacerbating social inequalities and marginalizing vulnerable groups.

The environmental implications of urban expansion are severe. Large-scale urban development necessitates substantial land use changes, which often is unplanned and leads to encroachment of surrounding ecosystems. This, in turn, can cause loss of biodiversity and land degradation, affecting key ecosystem services such as clean air, clean water, and productive land. Unsustainable development of urban infrastructure locks in carbon intensive structures. Such inefficient buildings, transportation systems, and industries contribute to increased greenhouse gas emissions, heat island effects, and air and water pollution.

Therefore, a sustainable transformation of urban systems presents a significant opportunity to shape a future that builds on the GEF's vision of a healthy planet and healthy people. In cities, people, nature, and the built environment are closely connected, enabling decision makers to develop solutions which can deliver multiple and synergistic benefits. Sustainable cities can support a transformation that delivers global environmental benefits along with social and economic gains, making it a relevant investment area for the GEF.

As a response to this opportunity, through investment of nearly \$480 million in grant funding, the GEF's Sustainable Cities Program has to-date supported over 90 cities in 33 countries to implement integrated approaches for urban planning and implementation, and a move towards a net-zero carbon, nature-positive, inclusive, and resilient urban future. The SCP prioritizes improved land use planning, enabling policies, accelerated investments in nature, decarbonization and circularity, capacity building of urban institutions, decision-making tools, and knowledge exchange and generation.

Figure 1. Countries and cities in the GEF Sustainable Cities Program

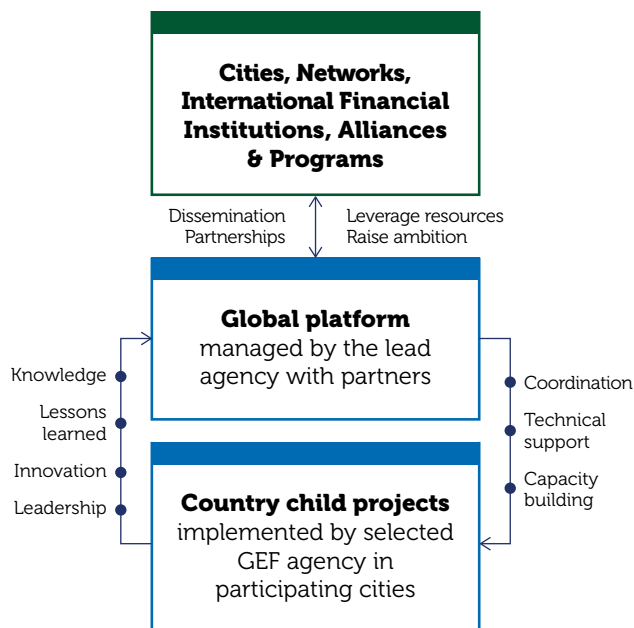


The program is structured around two interlinked components (Figure 2):

1. Countries with on-the-ground projects in participating cities, engaging urban actors at different levels to create innovative models and integrated sustainability solutions
2. A dedicated global platform and coordination project to connect participating cities with global expertise and cutting-edge research for integrated urban planning, and facilitate city-to-city knowledge exchange, learning, and sharing of best practices.

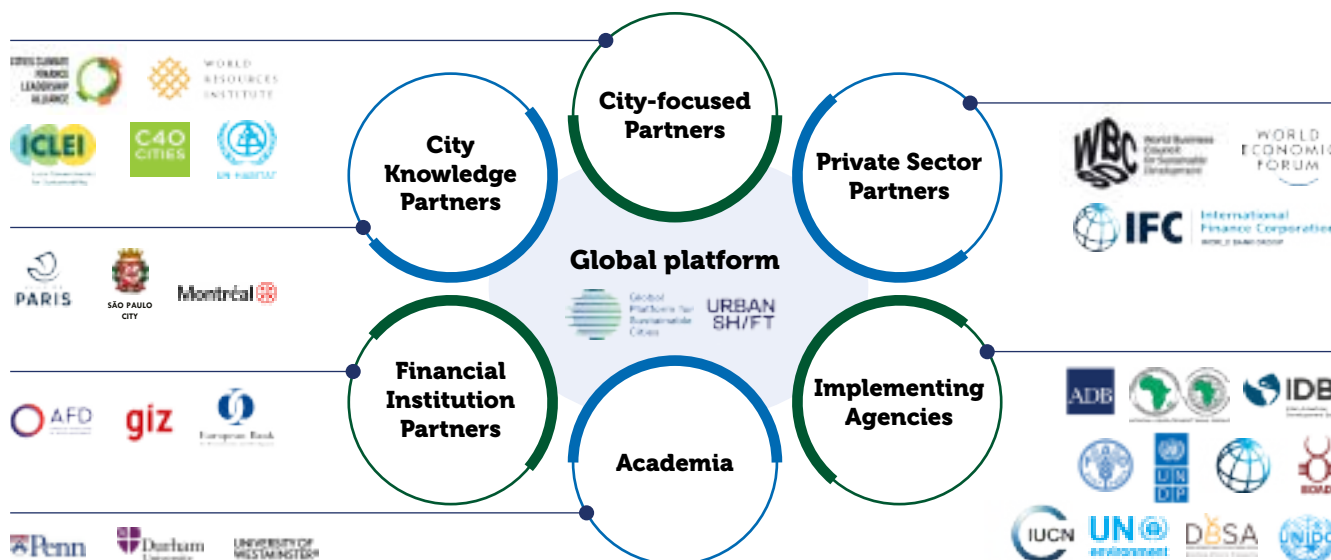
The World Bank in GEF-6 and GEF-8, and UNEP in GEF-7, serve as Lead Agencies for the program, through implementation of the dedicated global coordination project that supports the global platform during each phase. Three global city networks, the World Resources Institute (WRI), C40 Cities, and ICLEI, are involved as primary executing partners for the global platform. The country projects involved additional GEF Agencies, including the African Development Bank (AfDB), Asian Development Bank (ADB), Development Bank of Southern Africa (DBSA), Food and Agriculture Organization of the United Nations (FAO), Inter-American Development Bank (IDB), International Union for Conservation of Nature (IUCN), UN Development Programme (UNDP), United Nations Industrial Development Organization (UNIDO),

Figure 2. Implementation model for the Sustainable Cities Program



and West African Development Bank (BOAD) (Figure 3). The projects are executed by national partners, such as country ministries, local municipalities, civil society organizations, universities, and private sector entities.

Figure 3. Key partners involved in the Sustainable Cities Program

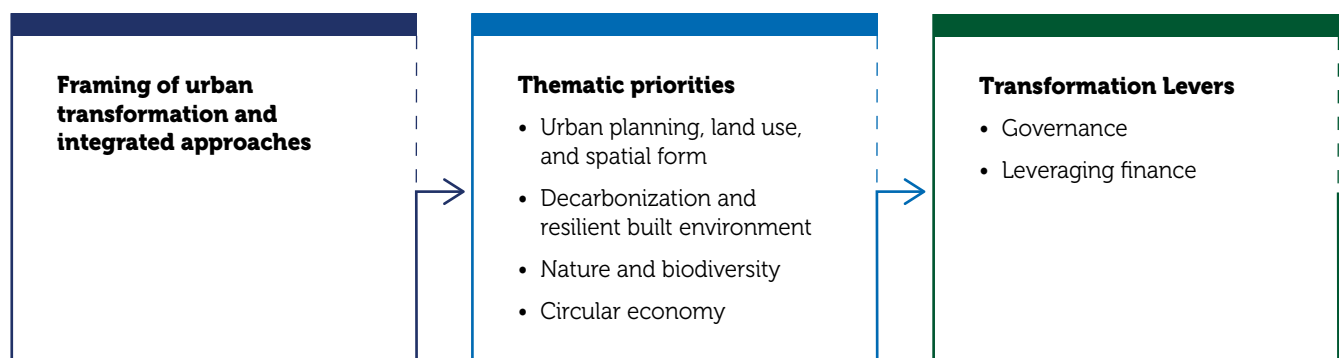


Learning topics and their relevance

The SCP's theory of change puts a significant emphasis on integration across several dimensions for sustainable urban transformation, including vertical (encompassing local, national, and regional policies); horizontal (across different sectors); natural and human systems (leveraging ecosystems and linking business with nature); and social systems (considering equity and inclusion). These interlinked dimensions have the potential to influence the ways cities are planned, developed, managed, and financed for their sustainable transformation. They shaped the thematic priorities of the SCP which the participating cities and global projects adopted, producing valuable lessons and insights for global uptake (Figure 4).

Considering that the integration and urban transformation agenda has been followed, analyzed, and adopted in diverse contexts from research to practice, the workshop began with a framing discussion on this topic followed by the thematic areas where specific evidence is available from the SCP for learning. Finally, the discussions focused on two key transformation levers as identified in SCP – urban governance and mobilization of finance – to provide actionable insights.

Figure 4. The workshop learning agenda



Framing the urban transformation and integrated approaches context

Urbanization is rapidly accelerating worldwide, drawing significant attention to its implication for achieving global environment and sustainable development goals. There is a consensus among practitioners and researchers that sustainable transformation within cities and urban systems is crucial for a healthy and resilient planet. This transformation is necessary to accommodate the more than one billion people projected to move into urban areas by 2050 while managing finite resources and promoting inclusive and resilient growth. Urban functions are dynamically evolving to meet people's needs with new technologies, governance and business models, infrastructure, and policies.

At the same time, evidence suggests that urban sprawl, inefficient resource consumption, siloed governance, and lack of funds could lead to a broken urban system affecting people and the planet. The SCP operates within the context of various global initiatives, research, and advancing scientific knowledge to support pathways for sustainable transformation through the integrated approach. The concepts of transformation and integration guided the initial deliberations of the workshop to understand the ongoing efforts and the SCP's contributions.

Defining and operationalizing urban transformation

Transformational change can be defined as fundamental, system-wide shifts in views, structures and practices.¹ Cities, as complex interwoven systems, are locations where many systems function together with synergies and trade-offs evident in their integration. Nudging the existing regimes and infrastructure for transformation will require long-term systems thinking that factors in benefits but also considers potential losers and how they will be compensated. So, while transformation is urgent, not all transformational change is fast, and not all efforts address entire systems in a coherent manner. Both small- and large-scale changes can contribute to overall transformation if they address underlying root causes.

With the global policy architecture shifting towards integration, actions that harness synergies and bring multiple benefits are at the core of national efforts. Addressing environmental degradation and climate vulnerability has become central to the urban transformation agenda in recent years along with addressing basic urban services, infrastructure, and poverty challenges. Cities are increasingly recognized as vital to global environmental efforts, evidenced by the heightened acknowledgment of their role in multiple global multilateral environmental agreements. The agenda of transformation and integration driven by actors like the GEF is widely acknowledged among scholars, planners,

and policy makers. Despite emerging leadership, however, tensions remain across all levels of government regarding the integration of policies for climate and biodiversity. Concerns such as high cost, limited capacity, double counting benefits, and the belief that with interventions such as nature-based solutions are quick fixes to problems, highlight the need for a more holistic and adaptive approach and productive dialogues, driving forward the agenda of sustainable urban transformation.

Many shifts for urban transformation are needed, and robust indicators are critical to monitor progress. Data platforms such as the [Systems Change Lab](#) are making efforts to identify and track key shifts in global systems, including the urban systems, that can contribute to transformational change. The platform not only tracks indicators related to shifts around land use planning, access to urban infrastructure and waste management, but also looks at enablers and barriers to provide a more holistic tracking of outcomes. Data from the lab indicates that the transition to well-planned, low-carbon, resilient, and resource-efficient hubs offer cleaner and healthier living

environments while delivering climate and biodiversity benefits. In this context, indicators to track sustainable transformation must consider progress in basic urban services such as access to transport, energy, livelihoods, etc., along with tracking reduction on greenhouse gas emissions and other environmental benefits.

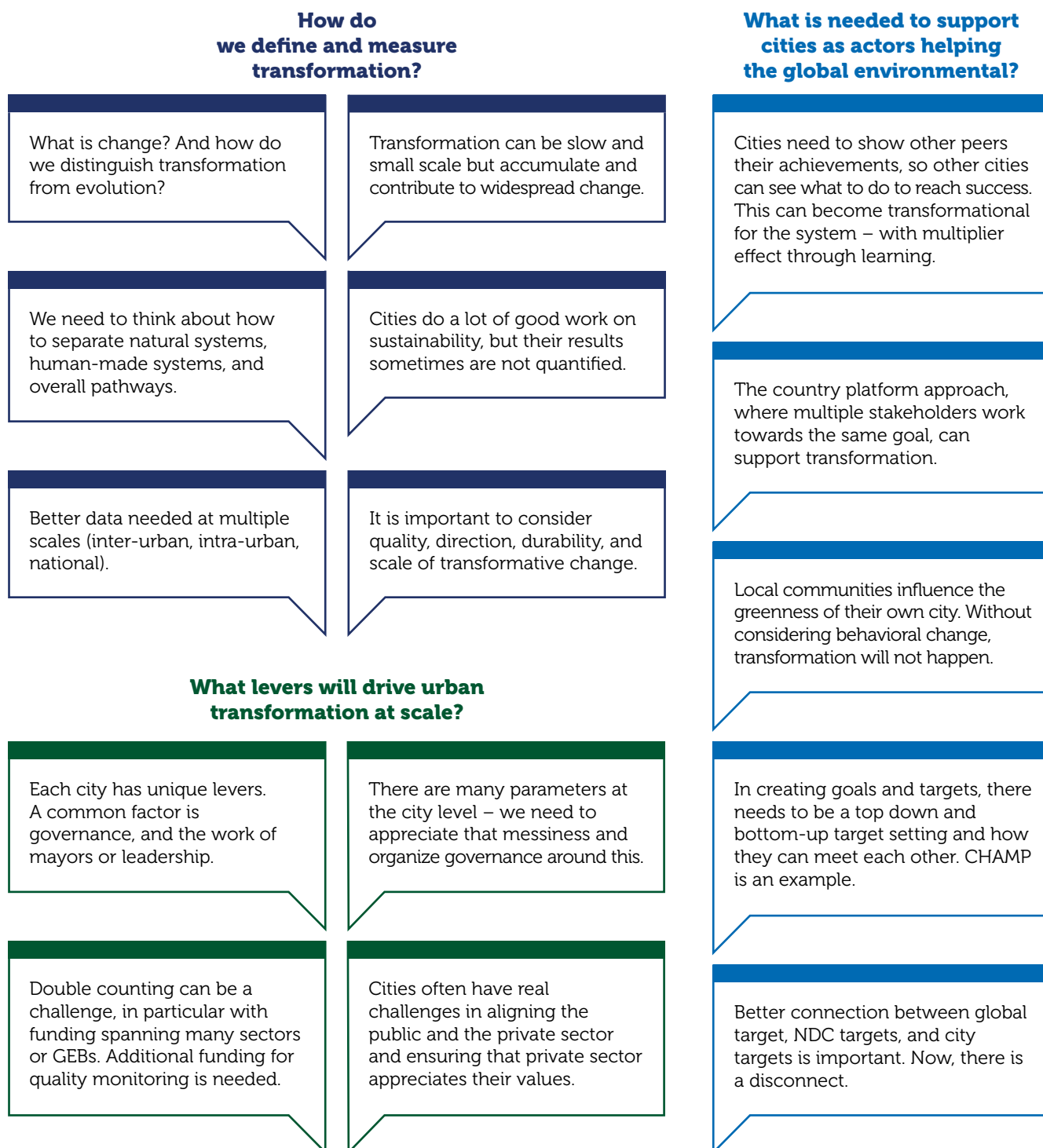
In the context of delivering multiple environmental benefits particularly related to climate change and nature, there is limited evidence of how different benefits of action for climate and nature together can be achieved in synergy or what the trade-offs may be. There is even less evidence of how these two agendas can be combined with other goals relating to e.g., pollution, development, and social justice. Case studies and knowledge dissemination can highlight ways in which policies, programs and other interventions contribute to multiple global goals. A forthcoming Special Report on Cities by the Intergovernmental Panel on Climate Change on Cities aims to harvest knowledge from many sources to ensure that the potential of urban responses in tackling global environmental issues is recognized. Given the GEF's focus



on delivering multiple environmental benefits, experience and lessons from its SCP portfolio can provide useful evidence for inclusion in the report.

Some critical aspects relating to measuring transformation, defining levers for it, and how to go about to reach significant scale are shown in Figure 5 below.

Figure 5. Critical aspects for urban transformation



Integrated approaches to urban planning and design

There is strong scientific evidence in support of integrated approaches, and the concept is becoming more widely used for initiatives focusing on cities as naturally integrated systems. Rather than tackling problems in isolation, integration helps to create coordinated and synergistic solutions that crowd-in multiple stakeholders, strategies, and perspectives across scales. Integrated approaches can result in multiple co-benefits and contribute to changes in processes and systems, rather than isolated innovations. Key features of this approach include cross-sectoral collaborations, long-term visions, systems thinking approaches, sustainability, and adaptive management with feedback loops, and it is often more responsive to the needs of people.

However, the integrated approach can be complex, bureaucratic, resource-intensive, involve conflicting interests, and require a high level of knowledge and data to develop and implement solutions. Overcoming these challenges to create an enabling environment in cities requires several enabling conditions including supportive national and local policies, transparent access to data, community trust, strong leadership, and stakeholder coalitions as agents of change. Integration should be understood not just as a goal but as a driver of transformative change.



Guntur © UNIDO

What is needed to promote integrated urban planning and support transformation?

Cities are naturally integrated systems consisting of multiple sectors to deliver urban services across different administrative arrangements.² The integrated urban planning approach therefore indicates a need for cross-sectoral planning (horizontal integration) and coordination between different actors and level of governments (vertical integration). Moreover, integrated approaches for systems transformation require synergies between urban infrastructure, surrounding natural ecosystems and social systems to deliver inclusive benefits.³ Therefore, adopting integration goes beyond land use and infrastructure planning, and needs to consider urban governance and stakeholder engagement. Siloed structures for urban functions have been widely documented as one of the systemic barriers for urban transformation, where integrated approaches are considered one of the key solutions in addressing this barrier.^{4,5,6,7} Without integration, isolated or “patchy” urban development interventions risk limited possibilities with low impact, meaning that integrated approaches can also be fiscally prudent. Certain systemic outcomes, such as reducing urban sprawl, require coordinated water, electricity, mobility, and waste management service delivery improvements within the dense city core, and enhancing strategic density here requires coordination between landowners, real estate actors, and infrastructure service delivery.⁸

While acknowledging that integration brings many benefits and can help find synergies between investments or strategies, it is worth noting that it may also mean compromises and shared priorities. More integration can also mean more complex processes, subsequently requiring multifunctional levers, and coherent and efficient processes. It is crucial that everyone involved is incentivized and sees the benefits for them. Roles, mandates, and responsibilities must be clear, to avoid “over-integrating” or “over-designing” urban processes. One way to ensure this is to build on existing work and plans so that new integrated approaches mean reinforcement and enhancement of interventions that would have happened anyway, rather than add-ons that need separate workstreams of funding. Integrated urban planning also needs to consider policies and investments jointly to be able to take a fully systematic approach.

Finally, essential aspects to enable and sustain integrated approaches include metrics to measure success, institutional capacity to carry out the work, and not the least; leadership and long-term visions to guide collective efforts.

Learning from the GEF's Sustainable Cities Program



The SCP has through the years generated plenty of useful lessons. Along with the topics chosen for the workshop, several examples showcased successful outcomes and best practices for scaling, along with lessons from failures to foster improvements. Invited experts presented the global context and latest research findings, while SCP implementation partners shared ground-level experiences, highlighting aspects of integration, transformation, and learning. Subsequent discussions during the sessions provided valuable insights into future work on these topics.

Urban planning, land use, and spatial form

Context and reflections

The discussion on land use and urban planning highlighted the important role of cities in regulating and enforcing land use and development. Sometimes seen as a rigid and time-consuming process, urban planning lays a foundation for urban sustainability and can give municipalities authority over their land and policies. The absence of planning, on the other hand, would undoubtedly make urbanization even harder to manage. To face global demographic growth, well-planned cities are our best option to preserve natural land.

From the perspective of urban planning, integration means aligning urban policies, investments, and form. Function follows form within the urban space, and the layout of the city can result in major differences in energy and emissions patterns. Density and connections between

citizens and services are key topics to address, as it provides opportunities for low-carbon lifestyles. Tools such as the Urban Sustainability Framework that was supported under GEF-6 can help cities understand and assess their progress.

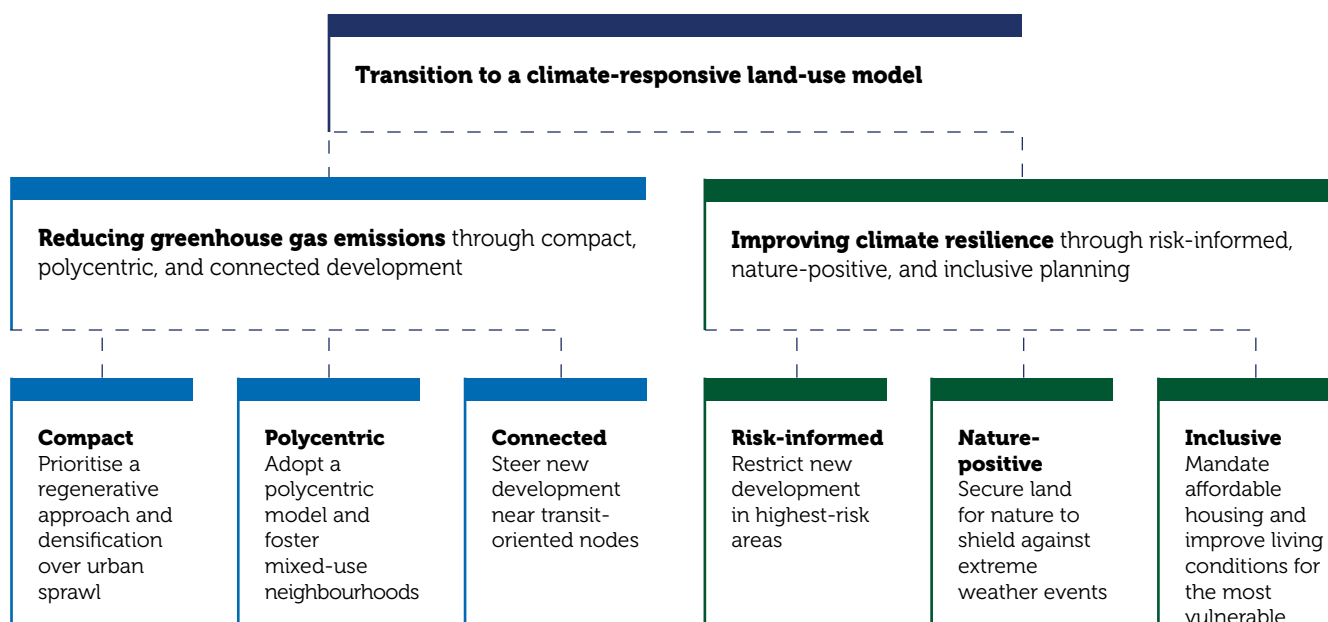
Based on the examples and recent trends, strong governance frameworks are crucial in linking actors around planning visions, to incentivize investments in suitable locations. Data and visual maps can help guide the dialogues. A gap that still needs addressing is to have the private sector better involved, and from an earlier stage. They have a large influence in many urban areas in the Global South, and their investments need to be better aligned with the planning strategies in the cities.

The form of the city also drives economic performance. If function follows form, and form follows finance, then the finance aspect needs to receive more attention in urban processes. This would require a significant change for many cities, and the GEF is well placed to support such a shift. With its strong linkages to urban form and finance, land use planning can enable cities that are compact, mixed-use, transit oriented. Land use planning has the potential to contribute to a 25 percent reduction in greenhouse gas emissions, is key to climate resilience, and can protect valuable ecosystems and biodiversity from degradation (Figure 6). It was even argued that “the best climate activist is a good urban planner.”



Guntur © UNIDO

Figure 6. Transition to a climate responsive land use model
(Helene Chartier, C40 Cities, 2025).



Examples from the SCP

Most of the country projects under the SCP use land use planning and spatial form to advance urban sustainability. Often, this is an underlying basis that enables other technical solutions. In this context, two examples were showcased:

- **Integration of people with participatory land-use planning:** In the Asunción Metropolitan Area (AMA) in Paraguay, the UNDP-led GEF-6 project has demonstrated the effectiveness of participatory processes in contributing to sustainable change. A notable enabler was the creation of the Association of Municipalities of the Metropolitan Area of Asunción, which brought 11 municipalities together to plan and design the urban region. The participatory process led to an Atlas of the AMA with territorial diagnosis for the entire metropolitan area, which informed the Metropolitan Strategy, and 11 municipal land use plans. The development of this participatory methodology has been replicated in other Paraguayan cities and has strengthened capacities of the Technical Secretariat of Planning.
- **Evidence-driven spatial and investment planning through collaboration and visualization:** The GEF-7 Indonesia project, led by the World Bank, underscored the value of integrated, data-driven land use planning

in urban areas and the utility of decision-making tools for visualizing and tracking outcomes. Working in five cities, the project has created an online mapping platform that can help link spatial planning with investment decisions and create incentives for growth in desired areas. The visual maps in the platform have been useful in stimulating a dialogue between different actors, including the private sector.

Key lessons learned

- Adaptive management and ongoing negotiations are crucial to address ever-changing contexts, and ensure that plans and strategies reflect the current needs while keeping the long-term vision for sustainable development of territories.
- Strengthened and direct dialogues with local governments can earn trust in the project and in the relationship.
- Early identification of fundamental capacity gaps helps provide support specific to each local government.
- The lack of available data can create an opportunity to strengthen knowledge sharing protocols and links between different institutions at the national and local level when producing and sharing information.

Decarbonization and the resilient built environment

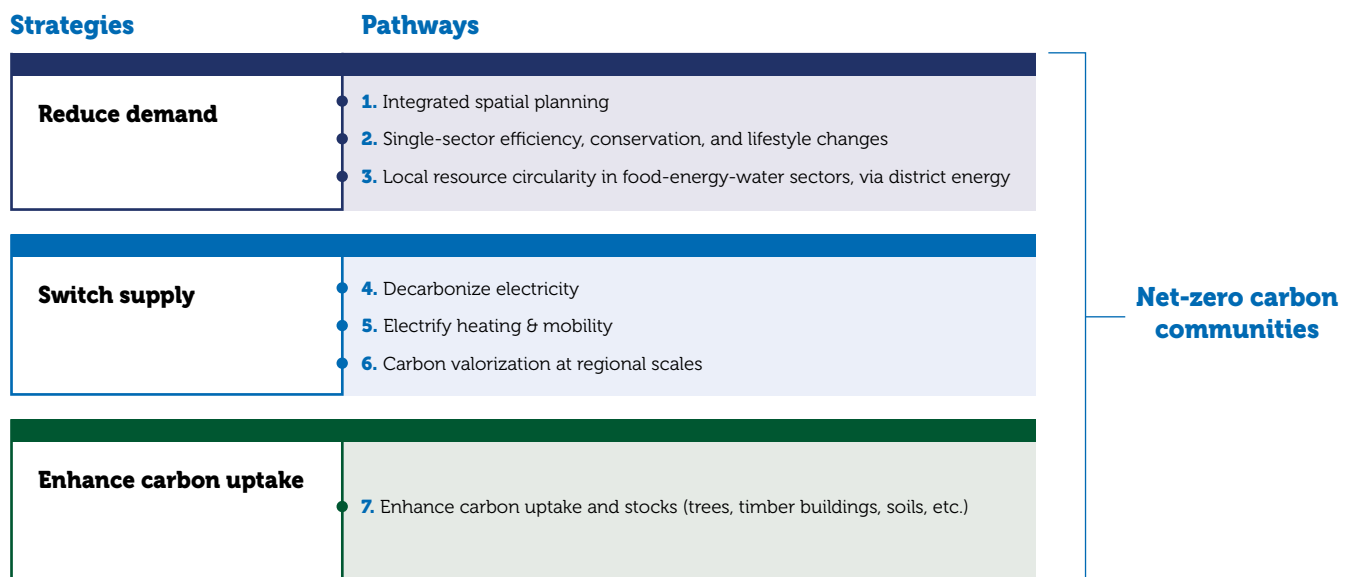
Context and reflections

Actions for decarbonization and a resilient built environment are at the center of the urban sustainability agenda. However, the emphasis should not be solely on carbon reduction. Instead, the connection between reducing carbon emissions and enhancing urban quality of life should be highlighted—this is a priority for cities and a natural benefit of moving away from carbon-intensive technologies. The discussion must also consider natural resources, climate resilience, health, and equity and address land use, biodiversity loss, and other related co-benefits.

To achieve net-zero ambitions in cities, urban transformation needs to consider multiple urban provisioning systems toward multiple societal goals, from local to global scales, through advances in data, pathways modeling, and knowledge co-production. Focus is often on energy and mobility, but looking only at these two issues will not be sufficient. Integrating other aspects, such as material value chains and behavioral change, is equally important to reduce consumption and carbon generation. Seven key integrated physical provisioning systems to target are: energy, mobility, built form (infrastructure and building materials), water, sanitation and waste, food and agriculture, and greenery.

Cities offer numerous opportunities to address these interlinked systemic challenges simultaneously. Although change and progress can appear slow, when multiple critical pieces come together advancements can occur rapidly. While pushing the limits of technology is crucial, it is equally important to explore other instruments that can have a much larger impact—such as local solutions that support circularity, reused materials and biomaterials (Figure 7).

Figure 7. Strategies and pathways for decarbonizing urban provisioning systems
(From Ramaswami et al (2023); Adapted from Seto et al., 2021).





Ningbo © World Bank

Examples from the SCP

The range of solutions with decarbonization and resilience as benefits within the program is wide. Two projects were presented at the workshop that tackled decarbonization through different entry points, all guided by the integrated approach.

- **Decarbonization at scale through spatial planning and mobility:** In China, the GEF-6 project led by the World Bank makes use of transit-oriented development (TOD) as an approach to connect mobility with urban spatial planning to maximize benefits at the city level. The project has received national recognition and scaling, and the solutions have been applied in several cities. The TOD plans include mixed-use development around public transit stations, promoting walkable and bikeable communities and encouraging public transportation use. The project has been transformational as it supports local economies and urban life around stations by decentralizing populations and allowing smaller towns and suburbs to be well-connected to city centers and their businesses. Through land value capture, the external benefits of rail transit could be internalized, alleviating the substantial financial pressure of rail transit construction, operation, and maintenance, while laying a foundation for diversified business development that engages the private sector.



Johannesburg © GEF

- **Eco districts integrating several net-zero entry points:**

DBSA showcased its GEF-6 project in Johannesburg, South Africa, which takes a truly integrated approach to decarbonize the city and deliver multiple co-benefits. Social housing at scale brings great opportunity to integrate and decarbonize. The Johannesburg pilot was led by the municipal housing company that could highlight the lessons learned, better understand the value-add through cost-benefit analyses, and scale up best practices. The outcomes of the project will also inform the policy work by the South Africa Green Building Council—positively impacting the housing sector in the entire country. The same project worked to improve urban food systems, sourcing from local farmers according to set standards and indicators. Food waste from the markets could be used to produce biogas in new plants that are also part of this integrated approach.

Key lessons learned

- An integrated and multifaceted project can manage complexities and bring successful examples by building strong partnerships. Projects must align with long-term goals of the city to maintain prioritization, while component outcomes and deliverables align with short-term priorities and realities.
- Policies and mechanisms such as land value capture can be an entry point for increased engagement by private sector actors involved in development and land use management.
- Monitoring can help find opportunities for improvement and ensure that project interventions remain relevant and well designed.
- To overcome procurement challenges, splitting components into smaller packages can help in finding the right type of specialists and in making contracts more manageable.

Nature and biodiversity

Context and reflections

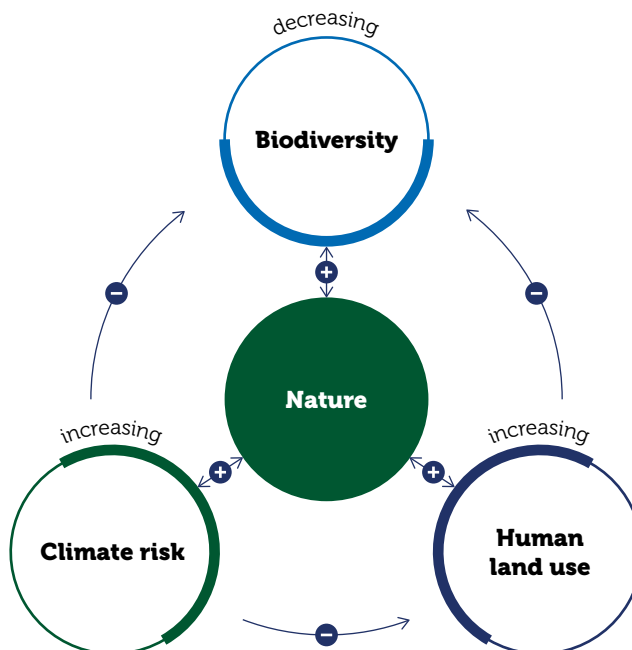
Urban expansion is a major driver of biodiversity loss. Over 1,500 cities with populations more than 300,000 are located within biodiversity hotspots.⁹ Cities overbuilding their natural surroundings also face challenges for degradation of the ecosystem services that they rely on and make them more vulnerable to climate change.

Biodiversity, climate change, and land use are interlinked in the cityscape and need to be understood as part of the same urban system (Figure 8). The Hotspot Stoplight¹⁰ is a planning tool that uses artificial intelligence and machine learning to consider these aspects together, with the aim of also defining areas where urban development is *possible*. From the perspective of urban decision makers, showing the areas that are suitable for expansion is just as important as issuing warnings about where growth shouldn't take place.

While it is widely understood that nature must be considered on a much larger scale beyond city boundaries, intervention within cities can bring benefits for local ecosystems, boost resilience, create increased land value, and improve human health. Many cities have turned brownfields or old urban roads to parks and green corridors, often with great interest and support from both politicians and the public. One example is Medellín in Colombia, which developed a highway integrated with green and blue corridors.

However, a combination of city scale and larger scale intervention for nature and biodiversity will be needed. Given that urban regions are growing, it will be important to look at the quality and not only quantity of urban nature, and to take a metropolitan or territorial approach that considers resource sheds, ecosystem services, and connectivity at a larger scale. Identifying suitable species and the right technical specifications for the local context will be key for nature-based solutions and enhancing urban biodiversity, to ensure sustainability, maintenance, and ecosystem benefits.

Figure 8. Nature as a link between climate, biodiversity, and land use
(Matthijs Bouw, University of Pennsylvania, 2025).



While it is important to integrate nature in cities for human well-being, it is equally important from a GEF perspective that such integration delivers benefits for the global environment. There is also a global policy context for cities to get involved in biodiversity conservation. The Kunming-Montreal Global Biodiversity Framework acknowledges the need for local action, with its Target 12 introduced as the first “city target” in the Rio Conventions. In addition, the Convention on Biological Diversity (CBD) is the only Rio Convention that has a mechanism for local government engagement and a Plan of Action for their contribution to global biodiversity targets— a great opportunity for global advocacy and impact that the GEF can support as financial mechanism of the CBD.



Examples from the SCP

The topic of urban nature and nature-based solutions has become a clear niche for the SCP. From a rather low share of cities targeting this in GEF-6, GEF-7 included nature-based solutions as a priority area for almost all participating cities, and GEF-8 is showing similar trends. This is a field where the GEF's comparative advantage can bring large-scale results.

- **Alignment with national initiatives and pooling of funds helps restoring ecosystems:** The ADB-led GEF-7 project in Chennai, India, is an example of a GEF investment in nature-based solutions (lake restoration) that is delivering large-scale impact due to its link with a large national program and ADB financing to the Tamil Nadu state. This alignment with ongoing initiatives enables sustainable results from the GEF's projects. The Chennai example has received wide attention in India, as often is the case with greening projects, and visitors and professionals are coming in large numbers to learn more on-site. Successful solutions are ready to be scaled up in other locations in India, but will require a mental shift from civil engineering to ecological approaches. The streamlining of knowledge in biodiversity into conventional education, and the use of non-traditional experts, can be ways to overcome this barrier.
- **Restoration of nature can increase urban quality of life through recreational values and increased resilience:** The wetlands around Kigali in Rwanda are critical for the city's biodiversity and climate resilience, but rapid urbanization is threatening these important ecosystems. A GEF-7 SCP project, implemented by the World Bank, is restoring degraded wetlands in Kigali to bring back their function as natural water filters and stormwater buffers. At the same time, the wetland park

has become one of the most popular recreation areas for inhabitants and visitors of all ages.

- **Measuring impact from urban nature at the local scale contributes to the national goals:** IUCN, as an organization with a biodiversity conservation mandate, will work in Peru and Guatemala under the SCP to strengthen integration of nature and biodiversity in urban planning. In this context, metrics such as the Urban Nature Index are useful resources. There is also a need to recognize and value local protected areas, including Other Effective Area-based Conservation Measures at the national level. For long-term sustainability, such local actions must be strengthened and recognized legally.

Key lessons learned

- Leveraging existing programs, integrating them with larger initiatives, and aligning with state and urban programs can facilitate faster acceptance and smoother approval processes.
- Internalizing 'green' approaches at state, city, policy, project administration, and importantly procurement levels will be key to scaling up successful examples.
- The development of the theory of change must distinguish the local, national, regional, and global scales, paying particular attention to the relationships between the local and national scale.
- Given the wide range of landscapes and city capacities worldwide, solutions need to be contextual and based on local knowledge. A balance is needed between the complexity of the problems versus what is feasible and effective on the ground.

Circular economy

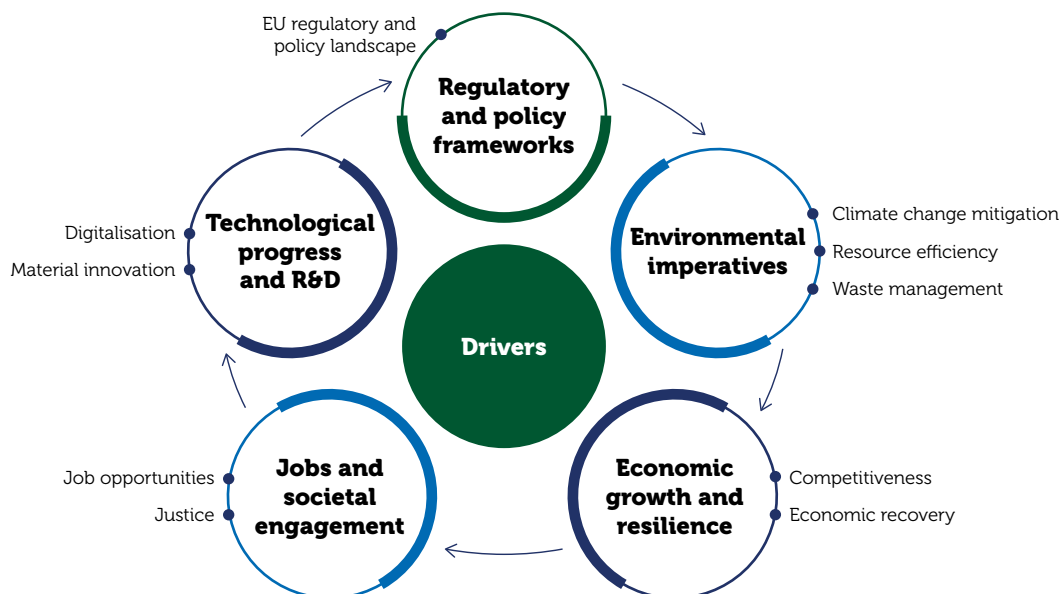
Context and reflections

The concept of “circular economy” can have many different meanings, but largely refers to solutions that seek to reduce linear throughput of natural resources and close energy and material loops to advance sustainability. A more circular economy could help solve urban environmental challenges, for example by better reusing materials and products (which helps reduce natural resource extraction and waste generation), and by lowering the demand for energy and water (by e.g., using industrial waste heat or recycling treated water for appropriate purposes). Ultimately, such solutions can mitigate climate change and create more resilient supply chains. Circular economy may be different from resource circularity, circularity approaches, or other related definitions linked to this theme. In this context, there are important topics to understand around trade-offs between nature, carbon, and

resource use, and the crucial aspect of finding the right indicators. It is also important to consider whether circular economy is inherently sustainable or resilient. Resource circularity that only focuses on one material or waste stream can result in high energy demand and pollution as well as be less resilient to shocks, so therefore a holistic approach needs to be taken when promoting circular economy within cities. The economic aspects of circular economy (i.e., aspects contributing to competitiveness, economic growth and resilience) are crucial when building the business case for circularity and taking it from theory to practice.

Moving towards a circular economy will create “winners” and “losers,” and therefore solutions also must support those who may not benefit from this development. In this regard, well-designed policies will be required to motivate decision makers and practitioners to engage in circular economy projects. Therefore, leading organizations such as the Organisation for Economic Co-operation and Development (OECD) are involved in policy dialogues to promote circular solutions in cities and regions (Figure 9). To understand the value of these solutions, the equation also needs to consider costs of inaction and co-benefits of the circular economy. Indicators need further attention, as currently many indicators are data-driven rather than objective-driven.

Figure 9. Drivers towards the circular economy, example from the European Union (OECD, Centre for Entrepreneurship, SMEs, Regions and Cities, 2025).



Finally, many circular solutions may be well developed in theory, but still not widely used in practice. In many cities, circular economy is seen as “in progress” or “emerging,” whereas few cities and regions have reached an “advanced” stage. Measures needed to advance this topic include governance models and suitable policies, while key drivers include economic growth and job creation, and environmental imperatives such as climate change mitigation and resource efficiency.

Examples from the SCP

- **Urban agrifood systems as an entry to integrated solutions.** The GEF-8 country projects implemented by FAO will take a circular approach that factors in green infrastructure and food systems, and how urban and peri-urban areas can be linked around the concept of agrifood systems to achieve benefits of resilience and efficiency. Integrated frameworks are needed to capture interactions and complexities, and weak governance frameworks is one main barrier that needs to be overcome, particularly in many African cities.
- **Using innovative technologies to produce circular jobs for all.** The city of Guntur, India, a participant in the GEF-6 program under UNIDO implementation, integrated several sectors into one urban project to harness synergies and find co-benefits, and multiple waste streams were linked to urban energy and mobility plans in a systemic manner. Alignment between technology, policy, investment, multistakeholder dialogue, and capacity-building support were key enablers for the success of the project. The project initially worked on mapping stakeholders in the city to ensure that all actors that could have an impact on the project outcomes were identified. Based on this, the project could ensure a high share of women employed in the targeted sectors.

Key lessons learned

- The importance of systems thinking, as opposed to disjointed interventions tackling seemingly separate issues, is central to the concept of circular economy.
- When designing circular solutions, it is important to consider context-specific urban planning, including local geography, history, policy, community, and behavioral aspects.
- Through showcasing a clear business case and co-benefits for resilient and inclusive planning, circular solutions can be better mainstreamed into local and national policies and plans.
- Finally, a city is a microcosm and can serve as excellent grounds for experimentation and piloting innovative circular solutions.

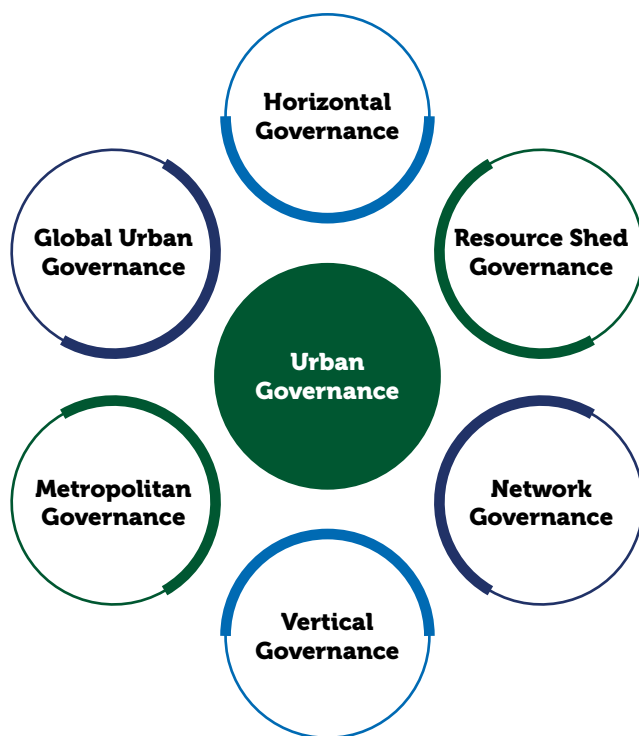


Urban governance

Context and reflections

Governance is an important factor in transforming urban systems, with many challenges and opportunities in urban governance to achieve sustainability benefits. While setting the scope of governance for urban development, a broader whole-of-government framework needs to look at urban governance at the city level, metropolitan level, state level, as well as the global level (Figure 10). There is already an active discussion around the urban agenda in multilateral conventions and institutions like the GEF that focus specifically on urban system transformation.

Figure 10. Urban governance perspectives
(Adapted from Astrid Haas, African Centre for Cities, 2025).



City network governance, with cities connecting directly with each other and working collaboratively in addressing common challenges with a collective vision (e.g. ICLEI, C40, etc.), can be a powerful tool to lift cities' voices globally. Resource shed governance, which looks at urban governance beyond cities and includes the engagement of ministries and departments involved in governing urban surroundings, is particularly relevant for solutions which take broader territorial approach, such as nature-based solutions, but can be complex.

All along these different scales of urban governance, it is crucial to involve diverse groups in urban governance, including community groups, civil society, private sector, and researchers, due to their role in representing the interests of people and businesses within urban operations.

Multilevel governance refers to the coordination and collaboration between various levels of government (local to international) and across public and private sectors to tackle dynamic challenges and factor interlinkages between different urban functions, and is often seen as an essential element of integrated urban planning. It can enable seamless collaboration between institutions across different jurisdictions and sectors, forging strong relationships to ensure coherent policies and mutually reinforcing initiatives.

Strong leadership is a driving force for effective governance for urban sustainability and transformation. At the same time, any changes in leadership can significantly impact the trajectory of governance initiatives. Moving from a champion-based model to a system-based approach therefore can mainstream key enablers, ensuring that governance becomes a core driver of systems transformation rather than a constraint.

Finally, the scope of governance must encompass planning, execution, and monitoring of urban transformation projects. In Singapore, for instance, planning is synonymous with governance, reinforcing the ownership of vision from communities and residents. This approach further reinforced the importance of involving communities early and often, as their engagement is crucial for successful implementation and sustainability of projects.

Examples from the SCP

Based on an assessment by ICLEI of the various governance frameworks adopted in cities under the SCP, three critical barriers to effective multilevel governance have been identified. First, institutional fragmentation often leads to conflicting policies and siloed decisions. Second, limited local capacity creates difficulties to achieve integrated governance. Third, gaps in data and monitoring affects evidence-based decision making and accountabilities.

The barriers and recommendations discussed during the workshop were complemented by examples from several SCP projects and notably from Paraguay and Indonesia.

- In Asunción, Paraguay, the GEF-UNDP project facilitated the creation of an Association of Municipalities of the Metropolitan Area of Asunción (AMA) and an Atlas of AMA database to facilitate close coordination between various sectoral departments and address the data gap faced by urban planners.
- In Indonesia, the GEF-World Bank project faced a significant challenge in aligning the vision and priorities of the national government with local governments in five cities, due to complex urban governance system in the country. The project showed how it is possible to link local spatial development plans with national level investment plans, with the potential to foster national-local collaboration and align mutual interests to advance sustainability.
- Similar evidence has emerged from various projects in Africa where cities like Freetown, Sierra Leone, and Diamniadio, Senegal heavily depend on national government for major investments and often face challenges in alignment of visions for sustainable urban transformation. Continuous efforts to facilitate direct dialogue, establishing mutual trust, and strengthening relationships were shared as soft but highly important measures to address multi-level governance challenges.

Key lessons learned

Based on the lessons that have emerged from the assessment and discussions to strengthen multilevel governance, the recommendations are to:

- Institutionalize multilevel governance mechanisms, which involves creating structures that facilitate coordination between different levels of government



- Acknowledge the diverse urban governance structures in different countries, and based on the local context, map actors and roles in order to develop innovative models that can advance sustainability in urban functions
- Scale capacity-building hubs and invest in long-term capacity infrastructure to build local capabilities, ensuring that policies are effectively implemented
- Refine and diversify financing strategies, including the promotion of blended finance and fiscal tools
- Let policies be adaptive and inclusive, to ensure that governance evolves within its context, accommodates the diverse needs and perspectives of various stakeholders, and enables co-designing with communities
- Standardize monitoring and evaluation (M&E) frameworks to enhance accountability and learning, and develop scalable M&E strategies that align with governance objectives to help institutionalize data-driven support, making M&E an integral part of decision making rather than a mere compliance exercise.

Mobilizing finance for urban sustainability

Context and reflections

The strategic deployment of catalytic funds—such as through the SCP, the World Bank’s City Climate Gap Fund (Gap Fund), and the European Bank for Reconstruction and Development’s Green Cities Program (GCP)—can effectively mobilize significant financing for urban sustainability initiatives. As demonstrated by these programs and various city-level experiences, both opportunities and challenges exist in attracting private sector investment, aligning financial flows with ambitious objectives, and strengthening municipal capacity to secure funding.

Mobilizing finance for sustainability interventions needs to factor in the distinctions between funding, financing, and efficiency. Within this framework, **funding** refers to providing or allocating resources whereas **financing**

implies the instruments and the ways resources are used to meet specific needs. **Efficiency** enables funding to flow smoothly, reduces financing costs, and utilizes the financing in a way that maximizes the benefits. Moreover, identifying and developing a suitable climate or sustainability project does not automatically guarantee access to low-cost financing. Cities must establish foundational capacities and systems to effectively secure and utilize funding for sustainability initiatives.

At the macro level, the link between spatial planning and urban investment decisions is generally weak which leads to wider investment gaps and inefficiency in infrastructure spending. At the project development level, pre-feasibility studies for projects are critical to shape how and from where the project will be financed. These studies should consider finance as part of the project design and carefully propose options to ensure that they don’t create legal or technical restrictions for multilateral development banks and private sector entities to participate in the project.

Another important topic is to match financing with climate and sustainability ambitions of cities. City networks working with mayors have noticed a big gap between what cities are willing to do and the financing that is available. In this context, collaboration of diverse institutions working in this space with greater engagement of the private sector was identified as crucial to bridging this gap.



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Examples from the SCP and other initiatives

- The SCP and other global initiatives—notably the Gap Fund, and GCP—have led to preparation of strategic projects and strengthened capacities in cities to scale up urban sustainability investments. Readiness activities funded through these programs are accelerating finance flow to cities by transferring knowledge, building capacity to manage resources, and preparing financing plans. City finance academies by UrbanShift and the Global Platform for Sustainable Cities (GPSC), project preparation support by the Gap Fund, and green city action plans by the GCP are supporting several cities globally. Collaboration among these initiatives is also emerging with an example from Argentina where UrbanShift's technical support facilitated selection of a city to be further supported by the Gap Fund in preparing a finance-ready climate project.
- Examples have shown how technical assistance and feasibility studies led to private sector investment in electric bus fleets and influenced government subsidy policies. In Asunción, Paraguay under the GEF-6 SCP, collaboration with the national development bank pre-committed investment for 1,000 electric buses using various financing instruments. Another example from Casablanca, Morocco highlighted how technical support on strengthening revenues and taxes led to transformation in spending and developing innovative financing structures such as land value capture.
- The GEF-7 SCP project in Indonesia is supporting five cities in developing spatial plans and link these plans with broader urban investment plans and programs at the national level. Such linkages enable better local-to-national policy alignment on urban development and mobilize financing from the national governments.

Key lessons learned

- Effective use of GEF funding and other grants requires strategic planning and alignment with public financing goals to support climate initiatives and public goods investments. The process of accessing grant funds involves careful coordination and adherence to the specific requirements and objectives of the funding programs.
- Capacity-building initiatives like the UrbanShift Finance Academies are vital for empowering cities with the knowledge and tools needed to effectively manage climate finance. These programs provide essential training and insights into best practices, financial instruments, and strategic planning for urban sustainability.
- Project preparation facilities such as the Gap Fund and GCP are playing critical roles in identifying investable projects and supporting prefeasibility studies. The prefeasibility studies should consider financing options and sources during design rather than at the end.
- Private sector investment in climate-related projects is challenging due to the demand for stable returns and risk aversion. Innovative financial approaches and instruments are needed to make these investments more attractive and feasible for private capital. Technical assistance can play a catalytic role in creating enabling policies and conditions for the private sector to invest.
- Successful climate finance must align with the ambitious goals set by cities and regions. Collaborative efforts involving various stakeholders are essential to scale up financial resources and achieve impactful results.
- While additional grants and innovative instruments will add value to sustainability investments and financing, most of the money for sustainability solutions will come from traditional sources of local revenues and national transfers. Therefore, cities and countries need to strengthen efficiency in these processes and mainstream climate and nature goals within core urban functions and public finance objectives.
- Collaboration among various initiatives to aid cities in securing finance is essential. The GPSC can play a pivotal role in this effort moving forward, in conjunction with initiatives like the Cities Climate Finance Leadership Alliance (CCFLA).

Programmatic approach, knowledge management, and advocacy

Background and introduction

The SCP adopts a programmatic approach, bringing a set of diverse, context-specific investments in countries and cities globally under one umbrella, complemented by a global knowledge and coordination platform. This follows the principle of achieving results which are more than the sum of the parts by creating valuable knowledge and collective leadership and ambitions.

The dedicated focus on knowledge management and advocacy for local action for global goals makes the program unique and directly contributes to the GEF's vision to become a learning organization.¹¹ By embedding knowledge management and learning into its programmatic architecture, the program creates an opportunity to scale integrated approaches and to connect project-level innovation with broader system-level transformation.

The SCP reflects a growing recognition within the GEF partnership of the importance of embedding knowledge and learning directly into program design and delivery. The GEF's Knowledge Management and Learning Strategy from 2024 highlights the need for knowledge to be purposeful, actionable, and integrated throughout the project cycle to support systemic change. It advocates for an intentional shift from knowledge as a static output to knowledge as a tool for influencing behavior, informing planning, and shaping investment.



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Moving beyond traditional views of knowledge, this approach promotes a culture where co-creation and open sharing inform everyday decision making. Instead of knowledge being treated as static reports, it becomes a practical tool applied in day-to-day planning, adaptive management, and policy choices across projects and institutions. The strategy emphasizes connecting different types of knowledge, technical, scientific, policy-based, and local experience, so that decisions are grounded in diverse perspectives and more likely to lead to systemic change.

Within the SCP, knowledge is viewed as a shared responsibility, with learning activities designed to be participatory, inclusive, and responsive to local realities. The program partners see the value of interactive formats such as peer exchanges, participatory planning, and visual tools, which have proven effective in building understanding and collaboration across sectors and levels of government.

The SCP's global platforms under UNEP (UrbanShift) and World Bank (GPSC) support the transfer of local innovations across contexts, while engaging in global forums, highlighting the significance of city leadership, multi-level governance, and integrated approaches. As the GEF is the financing mechanism for key multilateral environmental agreements, this advocacy is rooted in the Conferences of the Parties of UNFCCC and CBD, along with other strategic global forums such as the World Urban Forum and dedicated regional and global forums of UrbanShift and the GPSC, in collaboration with city networks and other partners.

As the program evolves under GEF-8, the emphasis will remain on strengthening systemic learning and building intentional feedback loops that inform decision-making across levels. Looking ahead, there is growing momentum to scale these efforts by aligning knowledge management and learning with program design, monitoring, and adaptive management, ensuring that knowledge becomes a key lever for impact.

Key lessons learned

- The SCP's programmatic approach has provided a platform not only for financing integrated urban projects, but also for fostering collaboration, continuous learning, and strategic communication.
- Strategic partnerships with city networks such as C40, ICLEI, and WRI are valuable as they bring tailored support and fostered communities of practice among cities tackling similar challenges.

- Learning offerings have included a mix of in-person clinics, virtual exchanges, regional dialogues, and e-learning tools, flexibly adapted to city-specific needs while ensuring coherence across the program. Thematic learning journeys provided structured opportunities to explore topics such as nature-based solutions, circular economy, and climate finance in depth.
- Global advocacy is a key enabler of visibility and influence, with program contributions to international dialogues (e.g., UNFCCC, CBD) helping to position cities as active shapers of the global sustainability agenda, not only as implementers but also as thought leaders. This visibility helps position cities as key actors in shaping the global sustainability agenda.
- Drawing from GEF-6, key lessons show the importance of structured yet flexible tools such as the Urban Sustainability Framework, and the value of cross-city dialogue through thematic knowledge events and working groups. These approaches have laid a foundation for subsequent efforts under GEF-7 and GEF-8.
- One key learning from the GEF-6 GPSC's experience was the importance of a solid but adaptable results framework. The urban diagnostics and baseline assessments carried out by the GPSC helped cities clarify their priorities and design projects more effectively.
 - Under UrbanShift in GEF-7, there have been efforts to align the results framework with the GEF's goals and improve the quality and consistency of data collected across cities.
 - The GPSC for the GEF-8 program will further refine the results measurement system, promote consistent reporting across country projects, and enhance the strategic use of data for storytelling, decision making, and knowledge sharing. It will adopt a renewed focus on scaling successful practices and aligning learning activities with the evolving needs of city stakeholders, particularly in the context of climate resilience, governance, and financial sustainability.

Synthesis of observations and lessons from the workshop

The learning workshop provided strategic insights for strengthening the SCP and identified topics for broader adoption of integrated approaches by global urban actors:

- The SCP has been well established since its launch nearly 10 years ago and is now widely recognized for bringing in a diverse set of partners and stakeholders to support the urban system. Over the years, the integrated approach has been unpacked with specific entry points by cities and program partners as presented and shared in the learning workshop.
- A potential risk of integrated approaches is that interventions may become too dispersed and isolated, resulting in reduced incremental value. Therefore, it is important for the program to focus on addressing the root causes of environmental degradation in and by cities, and to include complementary interventions that add significant value rather than standard projects.

The scope of the program is evolving, and can be extended in strategic areas:

- **Urban planning and policy** can achieve large scale impact with modest funding and should remain a focus for the program. More focus on urban-rural linkages can add further value.
- **Nature and biodiversity** have become a major focus of the program. As a global thought leader and leading financial institution, the GEF can accelerate integration of nature and biodiversity in urban planning with a broader spatial approach that considers metropolitan areas, urban resource sheds, and territories.
- **Circular economy** often faces challenges in practical implementation, including within the GEF's program. Identifying easy wins and contextual entry points that offer economic and social benefits will be crucial for attracting city interest.
- To enhance the focus on addressing systemic drivers of environmental degradation and enhance ownership, the scope could be expanded to more comprehensively include topics such as **disaster risk reduction, housing, urban informality, water, and sanitation**.
- **Innovation** can become an even stronger aspect of the program by utilizing data-driven processes and artificial intelligence to inform decisions.

Governance and stakeholder engagement is an important aspect where the GEF's program can offer real value:

- **Urban governance** remains central to driving urban sustainability, regardless of theme or entry point discussed. Here, cities play an important (but complex) role in between the communities on the ground, and the national governments.
- The **role of private businesses** in urban development must be better understood and incorporated in urban governance models, including through initiatives such as the SCP. Businesses are important players within urban governance and land management and influencing the physical form of cities.
- Building on lessons from the **multilevel governance** study with ICLEI, a similar exercise focused on **private sector engagement** would be useful for the partnership.
- **Informality** is a large share of urbanization in many cities in the Global South, which was not widely discussed and needs to be considered as part of urban governance structures.

Stronger links between urban initiatives and program components are needed:

- There are many global urban programs and initiatives – all partners **need to improve collaboration** to not overwhelm cities and to not duplicate work. We can leverage each other's strengths even better; this workshop was a great example of that.
- **Operationally for the GEF program**, the linkages between the global platform and the country projects need to be clear to all actors involved. Sometimes the two are seen as disconnected. Coordination with other programs and initiatives can be strengthened, and more discussions are needed on how this collaboration may look.

Knowledge and learning can scale up impact and reach new audiences:

- **The GEF's strengthened focus on knowledge and learning** and its approach to collaborating with academic and research institutions (e.g., through this learning workshop) is a welcome initiative and more such efforts will be beneficial for the global community working in the urban transformation space. Going forward, the program could invest in **regional learning hubs**, **communities of practice**, or **city-to-city mentoring schemes** to institutionalize learning and support long-term capacity development.
- There's an opportunity to **amplify impact stories** through stronger storytelling and communication, connecting the dots between global goals and local action. This supports both advocacy and stakeholder engagement. Having champions at different levels can also help drive projects forward and keep motivation during turbulent times.
- In addition, **digital tools offer scalable pathways for engagement**. Online platforms, interactive dashboards, and microlearning products, especially when designed inclusively, can make technical knowledge more accessible to a wider range of stakeholders, including municipal staff, civil society, and youth networks.
- To unlock the full potential of learning, it will be important to move from knowledge dissemination to **intentional, demand-driven knowledge engagement**. This means integrating knowledge management plans from the outset, creating feedback loops during implementation, and building incentives for documentation, reflection, and sharing.
- A clear **knowledge management and learning architecture** can be developed for GEF-8 cities, including learning goals, roles, and tools. Strengthening partnerships with intermediaries such as academic institutions and training institutions and launching pilots for new learning and knowledge exchange formats can support adaptive learning and longer-term learning capacity.

Looking ahead

The learning workshop reinforced the importance of transforming urban systems for delivering environmental benefits and highlighted the value of integrated approaches in addressing interconnected urban development priorities. As the SCP advances its implementation and plans future programming, the following key factors are proposed consideration by partners involved:

- 1. Political context:** The integrated approach may involve navigating complex urban governance structures within countries to strengthen political will and commitment. It requires providing guidance to political decision makers to battle silos and create mechanisms for multilevel governance and institutional collaboration. Circumstances such as differing governments at city and national levels, project delays due to political changes, or limited incentives to collaborate, are practical considerations to account for.
- 2. Social and cultural factors:** The human and cultural aspects are relevant in advancing urban sustainability, particularly as behavioral change is increasingly recognized for sustainable transformation. Considering these factors may help in tailoring capacity-building activities and specific solutions, managing cultural differences, adhering to timelines, and managing expectations of people during implementation. Further assessment of this topic, including regional and city variations in behaviors and approaches, may provide additional insights.
- 3. Operational aspects:** Practical aspects such as procurement, logistics, and staff contracts greatly impact the results on the ground. These are important to factor in early during project design and planning. More discussions and sharing of experiences around this would be helpful going forward.
- 4. Learning from failures:** While the workshop brought up many successful examples that can be replicated and scaled up, learning from failures will be crucial and merits more attention. Continuous assessments during project implementation can help address challenges effectively and turn them into opportunities.
- 5. Innovation:** Solutions to incentivize innovative ideas and involve unconventional urban groups are needed, which includes both technical and institutional innovation. The use of artificial intelligence is recommended to catalyze innovation across different types of solutions.
- 6. Stakeholder perspectives:** Informal settlements and livelihoods are central to urban development in many Global South cities, and the opportunities they present need to be further understood. The role of private sector actors, especially real estate developers, is significant due to the strong linkages between financing and urban form. Additionally, gender and inclusion should be discussed further and considered as essential dimensions to ensure a just transformative change of urban systems.

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Annex 1.

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References

- ¹ Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). 2024. Summary for Policymakers of the Thematic Assessment Report on the Underlying Causes of Biodiversity Loss and the Determinants of Transformative Change and Options for Achieving the 2050 Vision for Biodiversity of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. O'Brien, K., Garibaldi, L., Agrawal, A., Bennett, E., Biggs, R., Calderón Contreras, R., Carr, E., Frantzeskaki, N., Gosnell, H., Gurung, J., Lambertucci, S., Leventon, J., Liao, C., Reyes García, V., Shannon, L., Villasante, S., Wickson, F., Zinngrebe, Y., and Perianin, L. (eds.). IPBES secretariat, Bonn, Germany. DOI: <https://doi.org/10.5281/zenodo.11382230>
- ² Mehrotra, Shagun, Lincoln L. Lewis, Mariana Orloff, and Beth Olberding, eds. 2020. Volume I of Greater Than Parts: A Metropolitan Opportunity. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/905511605294062645>
- ³ *ibid*
- ⁴ United Nations Human Settlements Programme. 2019. Addressing Systemic Barriers for Achieving Sustainable Urbanization in Emerging Economies. ISBN Number: (Volume) 978-92-1-132837-0. https://unhabitat.org/sites/default/files/2020/11/02_ukfco_addressing-systemic-barriers.pdf
- ⁵ Lwasa, S., K.C. Seto, X. Bai, H. Blanco, K.R. Gurney, Ş. Kılış, O. Lucon, J. Murakami, J. Pan, A. Sharifi, Y. Yamagata, 2022: Urban systems and other settlements. In IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.010
- ⁶ United Nations Human Settlements Programme. 2024. Cities and Climate Action – World Cities Report 2024. Nairobi, Kenya. https://unhabitat.org/sites/default/files/2024/11/wcr2024_-_full_report.pdf
- ⁷ World Resources Institute. UrbanShift: Integrated Urban Planning <https://www.shifcities.org/integrated-urban-planning> (accessed July 31, 2025)
- ⁸ Mehrotra, Shagun, Lincoln L. Lewis, Mariana Orloff, and Beth Olberding, eds. 2020. Volume I of Greater Than Parts: A Metropolitan Opportunity. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/905511605294062645>
- ⁹ Atlas for the End of the World. Cities in Hotspots. https://atlas-for-the-end-of-the-world.com/world_maps/world_maps_cities_sprawling.html (accessed July 31, 2025)
- ¹⁰ United Nations Human Settlements Programme. Hotspot Spotlight. https://unhabitat.org/sites/default/files/2024/11/hotstop_spotlight_brochure_2024.pdf (accessed July 31, 2025)
- ¹¹ Global Environment Facility. 2024. Strategy for Knowledge Management and Learning. <https://www.thegef.org/newsroom/publications/strategy-knowledge-management-and-learning>



The Global Environment Facility (GEF) includes several multilateral funds working together to address the planet's most pressing challenges in an integrated way. Its financing helps developing countries address complex challenges and work towards meeting international environmental goals. Over the past three decades, the GEF has provided more than \$26 billion in financing, primarily as grants, and mobilized another \$153 billion for country-driven priority projects.