Chapter 7:
Multi-level Governance for Inclusive Climate Action

Quick facts

1. Addressing the climate crisis calls for a "whole of society" approach, requiring the participation and collaboration of multiple layers of authority and cooperation across different jurisdictions.

2. There is an urgent need to develop and strengthen the capacities of local and regional governments to implement climate solutions, particularly in developing countries.

3. Networked, bottom-up movements led by cities are increasingly playing a key role in global climate governance.

4. Hybrid governance approaches, characterized by multi-stakeholder and cross-sectoral collaboration, offer a powerful alternative to conventional top-down approaches to climate action.

Policy points

1. Effective climate action requires multi-level governance and collaboration across different scales.

2. Localization of Sustainable Development Goals, including Goal 13 ensures that the global development agenda is not just a set of distant goals, but an implementable framework that is impactful at the local level.

3. To unlock the transformative potential of locally-led climate action, increasing local capabilities to facilitate and manage adaptation initiatives is vital.

4. Strengthening the co-existence of formal and informal governance systems offers valuable opportunities to accelerate climate action.
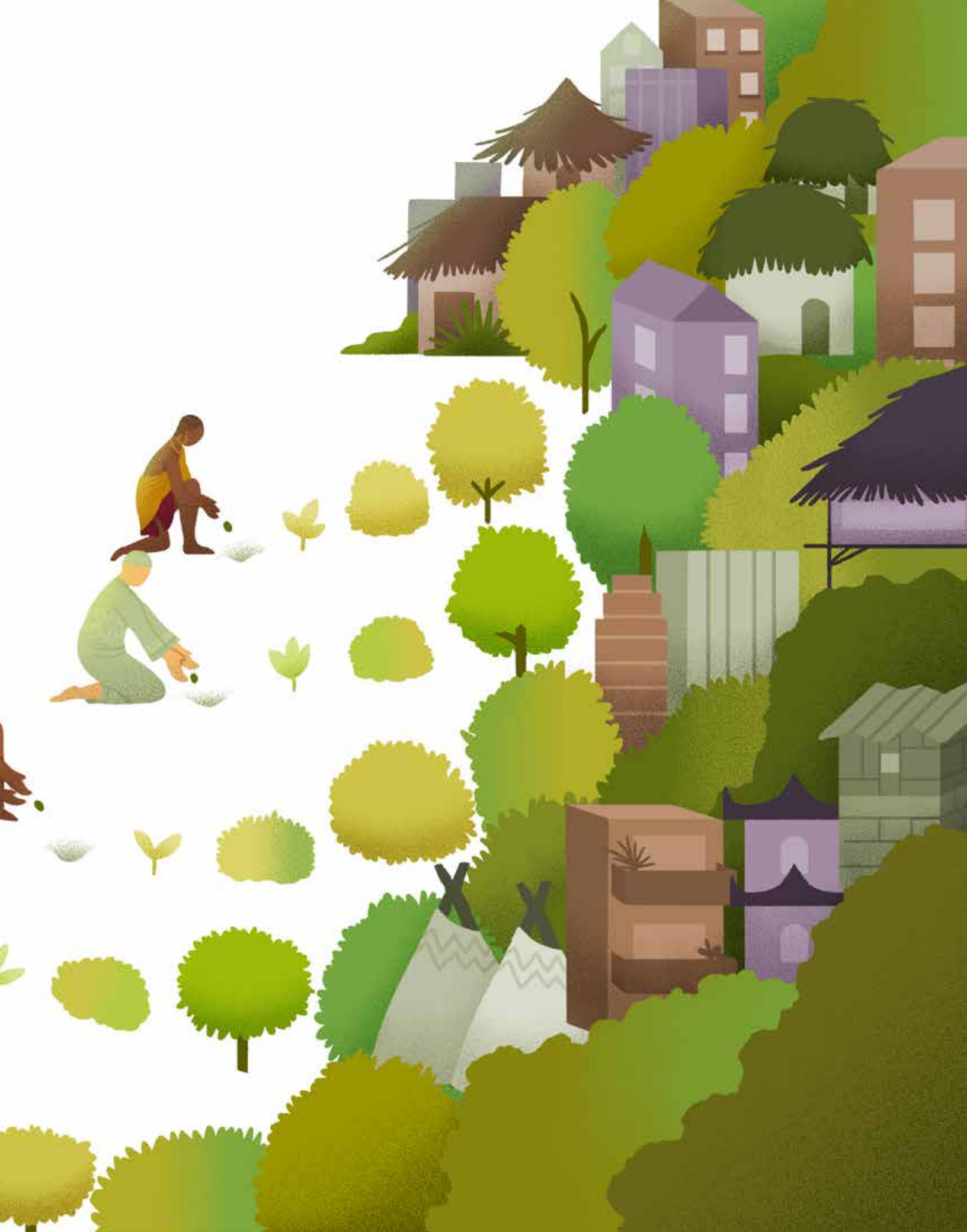
The world is teetering at a point of no return: in the words of the United Nations (UN) Secretary-General, "the battle for 1.5ºC will be won or lost in the 2020s – under the watch of leaders today".[1] Whilst the previous chapters have underscored the important role of cities to potentially mobilize strong and ambitious climate action, all this depends on decisions taken by policymakers to spur action at various levels of governance. Climate change is indeed a global emergency that requires international cooperation and coordinated solutions at all levels.[2] Yet, stuck in a rut of inaction in the face of this emergency, the global community is still grappling with ways to convince various levels of governments to make the climate crisis a priority.

UN Member States have called for the widest cooperation and participation of all countries in an effective and appropriate international response to climate change.[3] Increasingly, there are calls for urgent and concerted international effort to make good on commitments made at various UN Framework Convention on Climate Change (UNFCCC) Conference of Party (COP) meetings. However, much still needs to be done to get to the point where the threat of climate change has been adequately addressed. For this to happen, governments should not only make greater commitments with respect to their Nationally Determined Contributions (NDCs), but also work with cities to achieve more ambitious targets.

Indeed, Sustainable Development Goal 13 (SDG 13) focuses on combating climate change and its impacts, calling for urgent action to mitigate climate risks, enhance adaptive capacity and integrate climate measures into national policies, strategies and planning. While the previous chapters have underscored that cities are the arenas for this climate battle, achieving SDG 13 requires coordinated efforts across various levels of governance. Further, as climate change is a complex and multifaceted issue that transcends borders and sectors, the concept of multi-level governance becomes essential in this context, involving multiple layers of authority: from international and national bodies to local and regional governments, as well as civil society and communities, among other stakeholders.

It is against this backdrop that this chapter explores the role of multi-level governance in achieving SDG 13, emphasizing the significance of multilateralism. It examines how different levels of governance interact, the importance of cooperation among countries and local governments, and the ways in which multilateralism can enhance climate action. Through the lens of multi-level governance, this chapter highlights the interconnectedness of global, national and local efforts in addressing climate change and achieving sustainable development. Lastly, the chapter explores how governance, through modes of co-production with relevant stakeholders, can facilitate climate-resilient services in urban areas.

7.1 Understanding Multi-level Governance and Its Relevance to Climate Action

The concept of multi-level governance, which emphasizes "the connections between vertical tiers of government and horizontally organized forms of governance", offers a valuable framework for understanding how environmental problems are governed both within and across different scales.[4] This system encompasses diverse actors who represent different forms of authority and competencies. In the context of climate adaptation and mitigation, decision-making processes have been dispersed upward to international organizations and transnational networks, downward to cities and regions and outward to non-state actors. The vertical dimension of multi-level governance recognizes that national governments cannot effectively implement national climate strategies without working closely with regional and local governments as frontline drivers of change. Cities, in turn, are integrated into national political administrative systems: for better or worse, these shape the ability of local governments to act on climate change. In the horizontal dimension, connections are forged between different ministries and sectoral agencies (such as housing, transport and the environment). Transnational city networks—such as C40 Cities, Local Governments for Sustainability (ICLEI), United Cities and Local Governments (UCLG) and US Mayors Climate Protection, among others—are also important in strengthening horizontal connections, supporting local governments in their efforts to address climate change.[5] Figure 7.1 illustrates the vertical and horizontal dimensions of multi-level governance for climate change.

Clean up following hurricanes Helene and Milton, Treasure Island, Florida USA. © Shutterstock

Figure 7.1: The vertical and horizontal dimensions of multi-level governance for climate change
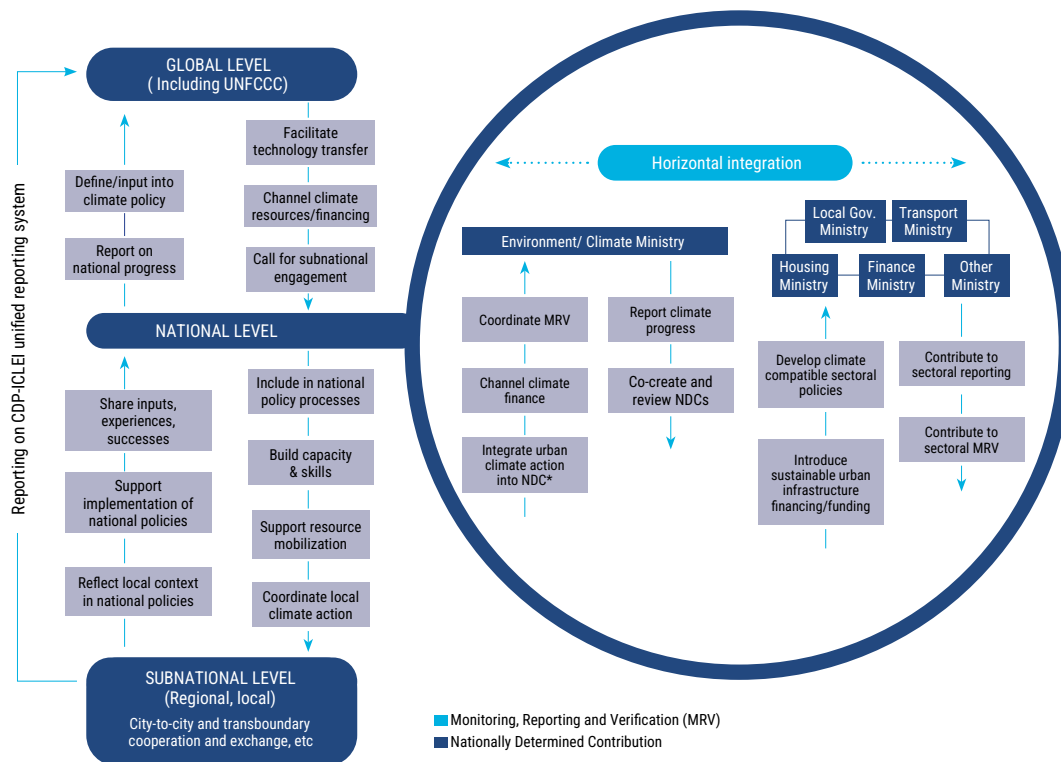
Source: UN-Habitat, 2022g.

As Figure 7.1 clearly demonstrates, even though the climate battle will be won or lost in cities, the climate emergency cannot be effectively addressed by cities alone. At the same time, climate change is not solely a national issue, but a challenge that requires cooperation across different jurisdictions and sectors. The complexity of the climate crisis and its multidimensional social, economic, political and environmental implications calls for a well-coordinated response across scales (Chapter 2), tackling social vulnerabilities (Chapter 4), investing in resilient infrastructure (Chapter 6), fostering innovation (Chapter 8) and supported by adequate financing (Chapter 9). Battling climate change requires significant resources, political will and technical capacities from the global to national and subnational levels.[6]

7.1.1 The complexity of climate change and the need for multi-level governance

Climate change presents a unique challenge due to its global nature, requiring responses at various levels. Global warming, rising sea levels and extreme weather events affect countries differently, necessitating tailored strategies at the national and subnational levels. At the same time, international cooperation is crucial for setting common goals, sharing resources and addressing transboundary issues. Given that the impacts of climate change transcends jurisdictional boundaries, no single stakeholder and no single level of government can keep the Paris Agreement target of a 1.5°C increase within reach alone.
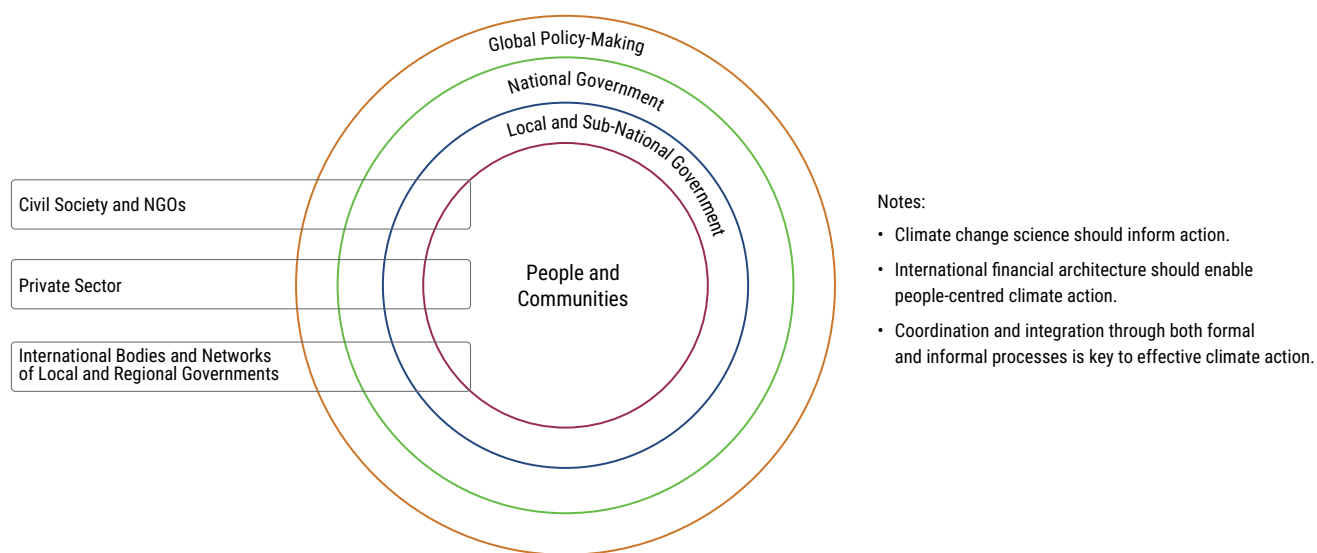

Even though the climate battle will be won or lost in cities, the climate emergency cannot be effectively addressed by cities alone

As illustrated in Figure 7.2, there are complex interactions and relationships among various actors involved in climate governance—from international bodies to national, subnational and local governments and their networks, as well as civil society, the private sector (Chapter 2) and financial institutions (Chapter 9), all of whom play pivotal roles in climate governance. As highlighted in Chapters 2 and Chapter 8, the private sector can be a valuable source of expertise, innovation and resources under multi-level governance approaches for supporting urban climate interventions. Private sector actors, including multinational corporations and industry associations, influence climate policy through lobbying and the adoption of sustainable practices. These entities interact with governments at all levels with respect to regulatory compliance. Non-governmental organizations (NGOs) and civil society organizations play a vital "watchdog" role, advocating national governments and multilateral processes for better climate policies while shaping public opinion. These organizations engage with all levels of government to ensure accountability and promote sustainable practices.

As discussed in the next sections of this chapter, networks of local and subnational governments advocate on behalf of their members in international processes and collaborate with research institutions to conduct studies and share best practices. These networks play a critical role in aligning policies and providing support across different levels of government, ensuring a cohesive approach to climate governance as well as advocacy through multilateral processes. Understanding these relationships is key to creating and implementing effective people-centred climate policies and measures.

Figure 7.2: A "whole of society" approach toward people-centred climate action

Notes:
- Climate change science should inform action.
- International financial architecture should enable people-centred climate action.
- Coordination and integration through both formal and informal processes is key to effective climate action.

7.1.2 The role of national governments in multi-level governance

Multilateral processes, mainly driven by the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC), play a central role in shaping global climate policy. They influence national governments by providing policy guidelines to follow through with decisions, scientific assessments and technical support. National governments, in turn, are pivotal in implementing their internationally agreed climate goals through national policies by crafting their NDCs. National governments are also responsible for translating international guidelines into actionable policies, which—when including local and subnational governments in their design as a key lever—can then be implemented effectively at the city level. National legislative bodies then formulate regulations that enforce these policies across all territories. National governments also have the mandate to regulate the private sector to ensure compliance and foster sustainable practices.

The existence of national regulation has a significant impact on local climate planning. Cities in Denmark, France, Slovakia and the UK, where local climate plans are compulsory, are about 1.8 times more likely to have a mitigation plan, and five times more likely to have an adaptation plan, compared to cities in other countries where it is not mandatory.[7] In Slovakia, for example, local authorities are required to develop Action Plans for Sustainable Energy, such as the *Akčný plán trvalo udržateľnej energie mesta Nitra do roku* 2020 (Action Plan for Sustainable Energy of the City of Nitra until 2020). These strategic framework documents focus on climate change mitigation efforts: the mandate for their creation is established by the National Energy Policy and the National Framework and Energy Strategy of the Slovak Republic.[8] In some cities, climate policies are not solely the product of national or international requirements (i.e. top-down). Helsinki, for instance, has been proactive in initiating and developing its own climate agendas.[9]

Adequate financing for adaptation actions such as early warning systems, disaster response and recovery systems, and adaptive social protection is also urgently needed (Chapter 9). As illustrated in Figure 7.1, national governments have a key role to play in the mobilization as well as the allocation of resources for climate adaptation and mitigation. However, this must be in coordination with other levels of governments—as the complexity and scope of climate change require the involvement of local and regional governments, particularly given their proximity to the communities and ecosystems most affected. It is thus imperative that national policies are integrated with local actions and regional strategies. Moreover, in emergencies, for instance, the coordination advantage of centralization can diminish and needs to be complemented by more agile mechanisms that empower decentralized government entities.[10]

Complexity and scope of climate change require the involvement of local and regional governments, particularly given their proximity to the communities and ecosystems most affected

Through national emergency funds, however, the national governments can act as a guarantor of safety during climate crises by internalizing the knowledge in territorial inequalities when a rapid response is needed. At the same time, financing a pool of aggregated projects through clearinghouses managed by networks of local and subnational governments could also serve as a lever to mitigate financial risks. This could ensure effective allocation of financial resources to support grassroots climate initiatives, making local and subnational governments essential actors in the overall climate governance framework. All in all, the differentiated capacities to respond to such a global responsibility through a subsidiarity scheme must be recognized.

7.1.3 The role of local and regional governments in climate action

Local and regional governments are at the forefront of climate action. As they are directly responsible for implementing many of the policies and measures needed to achieve SDG 13, local and regional governments are the most appropriate arena in which climate action should be implemented for different reasons. First, as highlighted in previous chapters of this report, cities are significant contributors of greenhouse gas (GHG) emissions and high energy consumption. Consequently, they have a great responsibility to engage in climate mitigation and adaptation—but also, with the right policies in place, the potential to deliver transformative change in both these areas.[11]

Second, local and regional governments facilitate action in response to climate change by fostering partnerships with relevant stakeholders, encouraging public participation, and lobbying national governments. They work closely with NGOs and civil society organizations to implement projects and educate communities about climate action. In the same vein, local governments leverage their networks for knowledge dissemination and collaboration: in the United Kingdom (UK), for instance, UK100—a consortium of local representatives committed to achieving net zero by 2050—is providing cities with a platform to exchange experiences on their green transition activities and lobby the national government to allocate more resources to achieve this.[12]

Third, some local governments have gained considerable experience in addressing environmental problems, particularly in energy management, transportation, waste management, disaster risk reduction and urban planning (see Chapter 5). Through climate action plans, they manage these critical areas that have significant implications for climate change mitigation and adaptation. In the OECD, for instance, local and regional governments oversee almost two-thirds (64 per cent) of environment- and climate-related public investment.[13] Local and subnational governments play a critical role in bridging the gap between national policies and local implementation, often in innovative ways: they adapt national guidelines to fit regional and local contexts, ensure policy alignment across different levels of government, and enforce these policies within their jurisdictions. On the front lines of climate action, these governments engage with communities, enforce local regulations that align with higher-level policies, and drive local climate initiatives.

Urban planning and climate resilience

Within the vertical dimension of multi-level governance, local governments play a central role in planning for urban climate resilience, thereby contributing to SDG 11 (inclusive, resilient and sustainable cities). Cities are "at the interface of local action and national and international level climate change adaptation and mitigation commitments".[14] As elaborated in Chapter 5 of this Report, local governments have a direct influence on building climate adaptive cities when they make intentional decisions to mainstream climate change into their city plans. However, there are significant discrepancies in the ability of local and regional governments in developed and developing countries to integrate climate resilience into urban planning frameworks (see Chapter 5). Cities in developed countries often have a well-established track record of incorporating climate considerations into their urban planning processes. These cities have integrated strategies that address both mitigation and adaptation measures, leveraging advanced technologies, robust financial resources and extensive institutional capacities to build resilient urban environments.[15]

In contrast, cities in developing countries face numerous challenges in embedding climate resilience within their urban planning frameworks. In developing countries, some spatial strategies have limited actions to address climate change, and fail to integrate its implications into planning processes effectively. These challenges stem from limited financial resources, inadequate technical expertise, and often fragmented institutional structures. As a result, the capacity of these cities to systematically address climate risks and integrate resilience measures into urban planning is significantly constrained. Additionally, the lack of data, weak governance structures and competing development priorities further hinder their ability to implement comprehensive climate strategies. Moreover, most local governments in developing countries lack devolved power and authority,[16] which can limit their capacity to innovate.

Local governments have a direct influence on building climate adaptive cities when they make intentional decisions to mainstream climate change into their city plans

At the same time, the potential for climate action at the city level is often overlooked, with a focus on national and supranational scales dominating.[17] Therefore, within the multilateral framework, this centralization of authority can lead to a disconnect between the needs and potential of cities and the broader national and state-level policies. Additionally, the focus on national and supranational scales often overshadows the significant role that cities can play in climate action. Therefore, it is important to strengthen multi-level collaboration and ensure that climate action is delivered at different scales through the involvement of all levels of government.

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This includes strengthening collaboration between local, state and federal governments, and this could be achieved through the establishment of intergovernmental task forces or committees that bring together representatives from different levels of government to develop and implement coordinated climate action plans. UN-Habitat champions collaborative climate governance as it "leads to more effective, longer-lasting solutions towards a low-carbon and climate-resilient future."[18] The Coalition for Urban Transitions also notes that transition to zero-carbon cities depends on meaningful partnerships among different tiers of government, with national governments actively enabling and supporting climate action at the local level.[19] In this regard, it is important to note that initiatives such as Coalition for High Ambition Multi-level Partnerships (CHAMP) for climate action have emerged in recent years to enhance cooperation between national and subnational governments.

However, there is also an urgent need to develop and strengthen the capacities of local and regional governments to implement climate solutions, especially in developing countries. Too often solutions to address the challenges associated with climate change are proposed, but the follow through in terms of implementable action is missing or non-existent because of the absence of the required capacity or technical knowhow to implement such solutions. For example, policy proposals relating to compact cities should be made with due consideration of the technical ability on the ground for implementation. In many cities, this may require retrofitting of existing land use, changes in planning regulations and the adoption of mixed land uses: all this has the potential to cause significant disruptions, particularly in contexts where local authorities lack the expertise to undertake these activities themselves.

Additionally, local and regional governments' role in urban planning and fostering climate resilience faces considerable financial barriers. As discussed in Chapter 9, these levels of government face several barriers in accessing urban climate finance: regulatory and policy barriers; project preparation barriers; and implementation and financing barriers. They need to access predictable funding flows for local climate projects and be recognized by international financial institutions as worthy of credit or subsidies. As mentioned above, national and subnational governments could work together to establish risk-sharing mechanisms to mitigate financial risks on projects.

Disaster risk reduction and adaptation

As articulated in Chapter 3 of this Report, disaster risk reduction, resilience building and disaster preparedness are at the core of socioeconomic development. Local governments are often the first responders to climate-related disasters, such as floods, storms and heatwaves. They play a crucial role in disaster risk reduction by implementing early warning systems, building resilient infrastructure

as well as supporting vulnerable communities. Many local governments have already undertaken comprehensive vulnerability assessments and established mitigation and adaptation strategies, including early warning systems for floods, landslips and droughts.[20]

Local and regional governments, as key players within the multi-level governance framework, possess significant opportunities to influence disaster risk reduction, accelerate disaster response and enhance recovery efforts. Through their control over land use planning, building codes and regulations, these governments can reduce exposure to hazards and ensure that new developments are resilient to potential disasters. As discussed in Chapter 5, enforcing stringent building codes in flood-prone areas can prevent the construction of vulnerable structures, while promoting the use of flood-resistant materials can mitigate the impact of flooding on existing buildings.

Moreover, local governments have the responsibility to conduct regular risk assessments, monitor environmental conditions and establish robust early warning systems. These systems are essential for detecting early signs of disasters, such as rising river levels or the likelihood of landslides, and communicating these risks to the public. By doing so, local governments can facilitate timely evacuations and other preventive measures, thereby reducing the potential for loss of life and property in the face of climate hazards.

Local governments, often the first responders to climate-induced disasters, play a crucial role through their local civil protection offices. They often lead efforts in declaring climate emergencies, making executive decisions in areas where they possess fuller control, as well as providing important information in support of greater intervention by higher levels of governments.[21] In the same vein, as climate change and natural disasters do not stop at administrative boundaries, regional governments, with their broader jurisdictions, are well-positioned to coordinate climate action across multiple municipalities. This coordination is vital for addressing transboundary risks and issues that cross administrative boundaries, such as watershed management, air quality and regional transportation networks.

First responders in a flooded residential area. © Shutterstock

Even though the principle of subsidiarity is still valid and valuable, some decisions are most effectively implemented at a regional or metropolitan level when the scale of the action requires a degree of coordination to ensure consistency and harmonization.[22] As observed during the COVID-19 pandemic, the risk of fragmentation of public policies significantly increases with ad-hoc decision-making at the local level, as opposed to coordinated approaches across jurisdictions.[23] By working together, local and regional governments can develop integrated strategies that address the unique challenges of their areas while contributing to national and global climate goals.

7.2   Multilateralism in Climate Governance

Effective and inclusive multilateralism, supported by transparent and accountable institutions, can facilitate more coherent and comprehensive responses to global challenges.[24] In the context of climate change, multilateralism has been integral to the establishment of global agreements, setting standards, and facilitating the flow of finance, technology and knowledge. The global nature of this emergency calls for its effective global governance, and the existing multilateral agreements have been a step in unlocking this governance.

7.2.1   The role of multilateral institutions

At present, within the UN system and outside, several bodies work on climate change. Within the UN system, as highlighted in previous sections and Chapter 2, UNFCCC's COPs are the leading global forums for multilateral discussion of climate change matters. Other UN System bodies leading the work on climate change include IPCC, the UN Environment Programme (UNEP), Green Climate Fund (CGF), the UN Office for Disaster Risk Reduction (UNDRR) and the World Meteorological Organization (WMO), among others. Besides the UN, and as discussed in the next sections, international city networks such as C40 Cities are playing a leading role through networked urban climate action, while the Global Commission on Adaptation (GCA) is catalyzing adaptation efforts across the world. The UNFCCC, GCA and the IPCC, for example, serve as platforms to accelerate, coordinate and support climate adaptation initiatives by providing scientific assessments, policy recommendations and strategic frameworks that guide international and national actions.[25]

UN-Habitat has been active in multilateral engagement and international cooperation on a range of urban and housing issues, including the localization of the SDGs. Through its Cities and Climate Change Initiative, for instance, UN-Habitat has been supporting cities in emerging and developing countries to address climate change. Concurrently, in the face of current global crises, UN-Habitat has been championing inclusive and effective multilateralism as a lever to realize urban resilience. At the Second Session of the UN-Habitat Assembly in 2023, the Ministerial Declaration titled *A Sustainable Urban Future through Inclusive and Effective Multilateralism: Achieving the Sustainable Development Goals in Times of Global Crisis,* countries reaffirmed their commitment to the New Urban Agenda (NUA) and its implementation plan and endorsed the role of UN-Habitat as the United Nations' focal point for sustainable urbanization and human settlements.[26]

Cities and regions around the world are increasingly engaging in multilateral initiatives to advocate for stronger climate action

Besides UN-Habitat, and aforementioned bodies leading work on climate change within the UN System, various other UN agencies and international organizations such as the World Bank Group, and philanthropic organizations like the Bloomberg Philanthropies and the Bill and Melinda Gates Foundation, among others, are instrumental in assisting national governments climate action efforts. For example, they provide financial resources, technical expertise, and capacity-building support to help countries develop and implement effective climate adaptation strategies. By bridging the gap between global commitments and local actions, these organizations ensure that adaptation efforts are aligned with broader sustainable development aims and are responsive to the needs of vulnerable populations (see Chapter 4). Together, these supranational and international organizations foster collaboration across borders, enhance knowledge sharing and mobilize resources to address the complex, interconnected challenges posed by climate change.

7.2.2   Multilateralism at the local and regional levels

Cities and regions around the world are increasingly engaging in multilateral initiatives to advocate for stronger climate action. This has largely been through city and subnational networks that are engaged in transnational climate governance. Table 7.1 provides examples of some of these, their scope of operations and impacts of their activities. For example, through C40 Cities, members collaborate on initiatives such as sustainable transportation, energy efficiency and climate resilience, demonstrating the power of multilateralism at the subnational level. Similarly, the Regions4 network (formerly known as NRG4SD) brings together regional governments to collaborate on sustainable development and climate action. These multilateral initiatives enable local and regional governments to amplify their impact by pooling resources, sharing knowledge and expertise, and influencing global climate policy. They also provide a platform for cities and regions to showcase their achievements and learn from the experiences of others, fostering innovation and accelerating progress towards SDG 13.

In influencing global climate policy today, two key alliances represent the local and regional governments constituency: The Global Task Force of Local and Regional Governments (GTF), coordinated by UCLG, that advocates towards the UN; and the Local Governments and Municipal Authorities (LGMA), coordinated by Local Governments for Sustainability (ICLEI), that advocates towards the UNFCCC, serving as the voice of cities and regions. Both have been advocating for a multi-level governance approach for a long time through their efforts in implementing the global development agendas at local level. The Global Covenant of Mayors for Climate and Energy (GCoM) acts as a significant alliance in this context, bringing together the expertise of the city networks and the national Covenants of Mayors to find innovative solutions for cities to achieve their climate targets.

A municipal truck uses anti smog gun to spray water on the road for dust suppression to reduce air pollution in Delhi, India. © Shutterstock

The Glasgow Climate Pact, arising from the rigorous negotiations of COP26, represented a pivotal moment in global climate action. The Pact holds considerable significance for local and regional governments, and their advocacy efforts through LGMA. The Pact acknowledges in its preamble "the urgent need for multi-level action" in combating climate challenges.[27] By recognizing local and regional governments as essential stakeholders, the pact validated their authority and capacity to implement tangible solutions on the ground. Additionally, its provisions around multi-level and cooperative action underscored the importance of collaboration between national and subnational entities, emphasizing the interconnectedness of efforts across all levels of governance. As discussed in Chapter 2, subsequent COP meetings have produced key milestones and outcomes on climate action, with significant implications for urban areas.

7.2.3 The synergy between multi-level governance and multilateralism

The synergy between multi-level governance and multilateralism is critical for achieving SDG 13 and other SDGs. While *multi-level governance* ensures that climate action is implemented at all levels—from global agreements to local initiatives—*multilateralism* facilitates the coordination and cooperation needed to align these efforts and scale up their impact. As highlighted in Chapter 2, the implications of various COP meetings for cities clearly call for enhanced multi-level governance. Noteworthy, significant urban initiatives focused on multi-level governance have been launched alongside recent COPs, such as the Cities Race-to-Zero and Cities Race-to-Resilience campaigns at COP 26. The SURGe Initiative launched at COP 27 aims to accelerate local and urban climate action through multi-level governance, engagement and delivery through five integrated tracks, contributing to achieving the Paris climate goals and SDGs. CHAMP, recently launched in COP 28, supports the unlocking of climate action through multi-level partnerships.

> **Localizing the SDGs, including SDG 13, is a way of ensuring that the global agenda is not just a set of distant targets, but a practical framework that directly impacts people's lives at the local level**

It is evident that the synergy between multi-level governance and multilateralism lies in their complementary strengths. Multi-level governance allows for a more granular approach, where local and regional authorities can implement policies that are closely aligned with the unique needs and conditions of their constituencies. This bottom-up perspective is crucial in ensuring that global policies are effective at the ground level, where their impact is most directly felt. Multilateralism, meanwhile, provides the platform for collective action, enabling countries to pool resources, share knowledge and coordinate efforts on a global scale. It facilitates the development of international norms and standards, which can then be adapted and implemented through the structures of multi-level governance. Oftentimes, national policy developments are "frequently inspired, driven and necessitated by international negotiations and agreements" that then inform policy making at the various regional, national and local levels.[28] Indeed, for this synergy between multi-level governance and multilateralism to work effectively, there is a need to align global, national and local efforts.

Aligning global, national and local efforts

To achieve SDG 13, it is essential to align global, national and local efforts. This means fostering strong communication channels between global institutions, national governments and local authorities, as well as encouraging horizontal collaboration among countries and regions.

Formally institutionalizing SDGs into planning and policy processes at both national and local levels is an essential means of mainstreaming the principle of localization into every level of government

While multilateral pacts such as the Paris Agreement set the framework for global action, their success depends on national governments translating these commitments into actionable policies in Member States. Local and regional governments, in turn, must implement these policies in ways that reflect their unique circumstances and needs. The European Union (EU), for instance, has adopted a multi-level approach to climate governance, where member states are required to develop national energy and climate plans that contribute to the EU's overall climate targets. These plans are then implemented by local and regional governments, ensuring that climate action is coordinated across all levels of governance.[29]

It is also vital to ensure that climate actions at all levels are inclusive and equitable, addressing the needs of the most vulnerable populations, who are often disproportionately affected by climate change (as noted in Chapter 4). By aligning efforts across these levels, synergies can be created that enhance the effectiveness of climate action, ensuring that global commitments translate into tangible results on the ground. A fundamental approach advanced by UN-Habitat for the alignment of global, national and local efforts is *SDG localization*: this involves adapting and implementing the global goal to fit the specific contexts, priorities and needs of local communities. Localizing the SDGs, including SDG 13, is a way of ensuring that the global agenda is not just a set of distant targets, but a practical framework that directly impacts people's lives at the local level.[30] Today, on-the-ground delivery of SDGs is being supported by the Local2030 Coalition—a multi-stakeholder platform designed to facilitate cooperation across the UN and to support the localization of the Goals—whose secretariat is hosted by UN-Habitat.

SDG localization requires a "whole of government" and "whole of society" approach.[31] Formally institutionalizing SDGs into planning and policy processes at both national and local levels is an essential means of mainstreaming the principle of localization into every level of government.[32] In Germany, for instance, the State Secretaries Committee for Sustainable Development oversaw the revision of the National Sustainable Development Strategy to align it with the SDGs, as well as facilitated the integration of SDG initiatives across all government departments, including the Department for Regions and Local Government.[33] This top-down approach is complemented by bottom-up engagement by German association of cities (DST) through the German Municipal Charter for the Future.[34]

In Europe, cities have become deeply embedded in European multi-level climate governance frameworks.[35] European cities are not only implementing local climate policies but are also actively engaging with national and supranational institutions to shape broader climate agendas. In the UK, Bristol—among other distinctions, the first city in the country to declare a climate emergency[36]—has been a leading example of localization of SDGs in cities. A key important highlight from Bristol's leadership in SDG localization is that the process has largely been driven by city dwellers and other stakeholders, whose collective efforts and resources facilitated local government engagement with the goals (Box 7.1).[37] Other cities have also embraced the opportunities of localization. In Japan, Kitakyushu City set up a SDGs Council to advice on the implementation of the SDGs through the engagement of various stakeholders Box 7.2).[38] In Italy, SDG localization is supported by the creation of a "community of intentions" (a network of civil servants, specialists and other stakeholders) who engage in dialogue and partnerships across all regions, autonomous provinces and metropolitan cities.[39]

Box 7.1: Localization of SDGs in Bristol, UK

Bristol's leadership in SDG localization in the UK is unique. The process was first initiated by a dedicated group of citizen campaigners who engaged local authorities, NGOs and businesses on the value of the SDGs as a framework for action in the city. Through sustained "embedded advocacy" and political support from Bristol's elected Mayor, the SDGs became a critical platform to bring different stakeholders together towards shared goals. Through concerted efforts, Bristol integrated SDGs into its ambitious One City Plan to synchronize its objectives with the global aspirations enshrined in the SDGs. In July 2019, Bristol released its first ever Voluntary Local Review (VLR), which was widely circulated through international city networks and served as an important mechanism for building inter-city relationships and sharing practical lessons on SDG localization. At the onset of the COVID-19 pandemic in 2020, the SDG framework became an important anchor in Bristol's recovery planning. In 2021, Bristol initiated a new program of citizen engagement to strengthen awareness of the SDGs in the city through the multi-stakeholder "SDG Alliance".

Source: (Fox & Macleod, 2023).

Effective localization of global agendas is often hampered by lack of technical and financial capacity, especially among municipalities.[40] In many cities around the world, there has been limited support from central governments for the localization of SDGs, particularly in terms of funding and policy guidance. Funding is crucial to the effective implementation of SDG localization. While some large and wealthy cities, like New York City (US) or Singapore, have the capacity to allocate financial and human resources to engage with the SDGs,[41] many urban dwellers live in small- and medium-sized cities that face significant resource constraints—even in wealthy countries.

SDG localization may also be constrained by a lack of policy guidance from national governments, which can hinder the effective implementation of global goals at the local level. Without clear national directives, local governments may struggle to interpret how the SDGs relate to their specific contexts and how to integrate these goals into their existing frameworks. As a result, cities and regions may develop fragmented or inconsistent approaches to SDG localization. This often leads to gaps and disparities in progress across different areas, with some cities advancing rapidly as others lag. For example, a city might prioritize certain SDGs that align with its immediate needs, like infrastructure development, while neglecting others that are equally important, such as reducing inequalities or tackling climate change.[42]

It is thus critical for central governments to develop national SDG localization frameworks that provide clear policy guidelines and best practices for cities to follow. Such frameworks would include step-by-step guidance on how to integrate SDGs into local planning processes, as well as templates and toolkits that cities can use to develop their own strategies. Moreover, the Ministerial Declaration of the Second Session of UN-Habitat Assembly encourages Member States and relevant stakeholders to use inclusive and effective multilateralism and international cooperation to, among other actions, "strengthen SDG localization and empower local and regional authorities and governments as central actors to accelerate action to fulfil the 2030 Agenda for Sustainable Development".[43]

Kitakyushu, Japan. © Shutterstock

> ### Box 7.2: Localization of SDGs in Kitakyushu, Japan
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> The City of Kitakyushu, Japan, has a rich history of community-led activism that stretches back to the 1960s, when a number of women's associations collectively mobilized to call for the city's industrial pollution to be more strictly regulated. Their campaign led to partnerships between the city government, civil society and the industries that ultimately led to improved air quality and a cleaner ocean. More recently, continuing this tradition in response to contemporary challenges, the city has established a Kitakyushu City SDGs Council. The council, comprising eight experts from various environmental, economic and social fields, offers guidance on policies to support the implementation of the SDGs through multi-stakeholder partnerships. At the same time, the Kitakyushu SDG Club was also set up to provide an inclusive space for anyone in the city to join: it soon gained more than 800 members.
>
> *Source: UN-Habitat, 2022d.*

It is critical for central governments to develop national SDG localization frameworks that provide clear policy guidelines and best practices for cities to follow

The role of partnerships and networks

Partnerships and networks play a crucial role in bridging the gap between different levels of governance and facilitating multilateral cooperation. Initiatives like GCoM and the Cities Climate Finance Leadership Alliance (CCFLA) have been instrumental in driving multilateral cooperation towards effective urban climate responses. The failure of national governments to directly confront the challenge of climate change has necessitated the emergence of networked bottom-up movements of climate governance by cities, upholding the goals of the Paris Agreement.[44]

Over the past few years, various cities across the globe have joined national and transnational city networks, from national-level associations (such as the US Mayors Climate Protection Agreement) to global consortiums (such as C40 Cities). Table 7.1 provides an overview of city networks and their operational mandates as they relate to transnational climate governance. These provide a platform for cities and regions to share knowledge, collaborate on projects and advocate for stronger climate policies at the national and international levels. Notably, the IPCC acknowledges the central role played by city networks in spearheading public engagement on climate change responses and in catalyzing the diffusion of climate policies throughout the world.

Table 7.1: Examples of city and subnational networks engaged in transnational climate governance

Name	Describe themselves as:	Scope of operation	Significance and impact
ICLEI (Local Governments for Sustainability)	"The leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future"	They work directly with members, local governments in improving local practices and influencing policy globally.	Since its formation in 1990, ICLEI has been instrumental in championing sustainability agendas.
C40 Cities	"A network of the world's megacities committed to addressing climate change"	Coordinates processes of collaboration and knowledge sharing, as well as developing city-based metrics.	Formed in 2005, the network has raised the profile of the cities and climate change agenda.
The World Mayors Council on Climate Change	"An alliance of committed local government leaders concerned about climate change"	The Council brings together Mayors, former Mayors and Council Members who make a personal commitment to political action for climate change.	Since its formation in 2005, the Council has worked to deliver politically savvy initiatives that have put climate change on local policy agendas.
United Cities and Local Governments (UCLG)	"UCLG represents and defends the interests of local governments on the world stage, regardless of the size of the communities they serve"	UCLG's mission is to advocate democratic self-governance…and represent local governments and develop policy- many of which relate to climate change.	Since its inception in 2004, UCLG has had a strong voice in shaping international agendas, with a clear pro-democratic governance advocacy agenda, which has also promoted key climate change policy.
Region4 (formerly known as NRG4SD)	"Regions4 is a global network representing subnational governments (states, regions, and provinces) before UN processes, European Union initiatives, and global discussions in the field of sustainable development"	Region4's mission is to empower regional governments by enabling the strongest connections inside and outside the network and translating them into impactful action.	Region4 have worked in partnership with UN organizations, linking climate change objectives with SDGs.
Energy Cities	"The European Association of local authorities in energy transition"	The Association develops proposals to advance a transition, to help their members directly.	Created in 1990, the network represents more than 1,000 local governments in Europe, mainly municipalities.
EU Covenant of Mayors	"Signatory local authorities share a vision for making cities decarbonized and resilient where citizens have access to secure, sustainable and affordable energy"	By signing the Covenant, local governments commit to deliver a Sustainable Energy and Climate Action Plan and establish a monitoring process.	Over 6,000 "democratically constituted local governments" have signed the covenant since 2005, shaping both local and European Policy.
Asian Cities Climate Change Resilience Network (ACCCRN)	"A multi-year initiative to strengthen the capacity of over 50 rapidly urbanizing cities in Bangladesh, India, Indonesia, the Philippines, Thailand and Vietnam to survive, adapt, and transform in the face of climate-related stress and shocks"	Works directly with members, mainly individual practitioners, to support the development of partnerships and provide access to a shared knowledgebase.	The ACCCRN has had a strong influence in collaborative approaches to urban resilience, and has raised the profile of its national partners, such as the Mercy Corps Indonesia.
Japan, the Coalition of Local Governments for Environmental Initiative (COLGEI)	Is a network of members representing local governments in Japan.	Members include local governments but also other organizations, such as universities or concerned members of the public.	Since the early 1990s, COLGEI holds an annual conference for sharing practices and experiences; works in partnership with ICLEI.

Source: Adapted from Castán Broto, 2017.

Since the ratification of the Paris Agreement, advocacy by such city networks has strongly supported multi-level governance and the overall increasing prominence of cities and subnational governments in COP negotiations and international fora addressing climate change. The increasing prominence of city networks in global climate governance indicates a significant shift from the traditional state-centric, multilateral approach underpinning the UNFCCC to a transnational framework characterized by the active participation of subnational and non-state actors.[45] For instance, European cities are key participants in EU-led initiatives such as the EU Covenant of Mayors for Climate and Energy. This initiative brings together thousands of local governments committed to implementing EU climate and energy objectives, including reducing GHG emissions by at least 40 per cent by 2030.[46] Through these and other networks, members can share best practices and influence EU climate legislation, such as the European Green Deal, which aims for climate neutrality by 2050.[47] Cities like Paris, Barcelona and Copenhagen have themselves set ambitious local targets aligned with EU goals, demonstrating how urban actions contribute to broader European climate policies.[48] Many cities across Europe are also members of global city networks like the C40 Cities and ICLEI, which work closely with the European Commission and other EU bodies, as well as Eurocities (Box 7.3).

Box 7.3: The integrative governance vision of the Eurocities network

Eurocities—the 200-strong membership network of major cities in Europe—has been a vocal advocate for the adoption of an ambitious European Green and Social Deal as the centrepiece of a Europe-wide transformation. In particular, it has called for the development of an "enabling framework" of tailored policy and finance to support investments in renewables, energy-efficient construction and low-carbon transportation. Importantly, it emphasizes the need to place cities and local government front and centre of this process, including the promotion of a Green Deal Industrial Plan to promote collaboration between businesses and local authorities. This call for empowered city-level action aligns with Eurocities' advocacy for "a local Europe with the capacity to act".

Source: Eurocities, 2023.

City networks and alliances have also been powerful tools for cities in developing countries to create synergies and attracting funding. In Mali, the national Association of Municipalities was able to deploy EU funding to strengthen SDG localization in 100 municipalities. In Ghana, similarly, the National Association of Local Authorities of Ghana (NALAG)—with financial assistance from the Commonwealth Local Government Forum—has initiated a number of programmes to enhance the ability of local, provincial and district governments to adapt the SDGs to their local realities.[49]

In recent years, city diplomacy is increasingly being leveraged to drive climate action. The Urban20—a city diplomacy initiative bringing together mayors from major G20 cities to inform the discussions of national leaders at the G20—is facilitating engagement between the G20 and cities, raising the profile of urban issues in the G20 agenda. It is a forum for cities to develop a collective message and perspective to inform G20 negotiations. The works undertaken by the Urban20 constituency result in a Communiqué on which the member cities agree upon, to advocate on the local perspective and solutions regarding the priorities of each G20 Presidency.[50]

The influence of city diplomacy in enhancing ambition on urban climate action has also been seen in the enhanced international engagement and bilateral cooperation between Australian and Chinese stakeholders. This was achieved through the "Shared Pathways to COP28" program, a bilateral exchange and capacity-building program focused on strengthening urban climate action in both countries that was facilitated by Melbourne Centre for Cities at the University of Melbourne.[51] Indeed, such city-university partnerships have been proven to catalyze and support effective urban sustainability transformations.[52]

Working jointly towards effective climate action
Collaboration and knowledge sharing play a crucial role in both mitigation and adaptation. Regional climate alliances are formed with neighbouring municipalities to tackle climate issues collectively, sharing resources and best practices, as well as integrated approaches that offer significant co-benefits. By addressing multiple objectives simultaneously, integrated climate actions provide a more sustainable and resilient future for communities. [53]

As highlighted in previous sections and various chapters of this report, a coordinated and integrated approach to the complex interactions and relationships across various levels of governance and actors, as shown in Figure 7.2, is key to effective climate action. Ireland, for instance, ensured policy coherence and smooth coordination across different levels in its first Climate Action Plan in 2019 (see Box 7.4). Since then, the country has fostered national engagement through National Dialogue on Climate Action (NDCA)—a mechanism for facilitating social dialogue on climate action and ensuring wider public consultation and engagement for its annual climate action plans.[54]

The increasing prominence of city networks in global climate governance indicates a significant shift from the traditional state-centric, multilateral approach underpinning the UNFCCC to a transnational framework characterized by the active participation of subnational and non-state actors

Box 7.4: Ireland's multi-level governance approach in tackling climate change

In 2019, the Irish government launched its first all-of-government Climate Action Plan. The purpose of the plan is to provide the details of how the state intends to meet its EU target of reducing its carbon emissions by 30 per cent between 2021 and 2030 to create a resilient, vibrant and sustainable country. The plan outlines 183 actions within 13 different policy areas that extend to all sectors of Irish society and its economy: for each action, the plan sets out the steps necessary for delivery, a realistic timeline and the actor/s responsible for ensuring implementation. Progress can therefore be readily tracked and measured.

It is a cross-sectoral plan in that it includes measures across the sectors responsible for the country's GHG emissions. The plan takes a multi-level governance approach, by including local, regional, national and international actors and detailing their roles in implementing the actions in the plan. The plan also sets out a clear monitoring, evaluation and accountability framework to ensure policy coherence and smooth coordination across different levels of government and scales.

Source: Wagner et al, 2021.

7.2.4 Challenges and opportunities in multi-level governance and multilateralism

While multi-level governance and multilateralism offer significant opportunities for advancing climate action, they also present challenges. Multi-level governance involves multiple layers of decision-making across local, regional, national and international levels. While this decentralized approach can be more adaptive and responsive to local contexts, it often leads to policy fragmentation. The absence of a coherent policy framework can result in overlapping or conflicting regulations, making it difficult to implement effective climate action. For instance, a national climate policy might emphasize renewable energy, while local regulations could still support fossil fuel industries due to economic dependencies, leading to a lack of policy coherence. Local governments might prioritize immediate climate adaptation needs, such as flood control, while national governments focus on long-term mitigation strategies. Without proper coordination, these differing priorities can lead to inefficient use of resources and missed opportunities for synergistic action.

Limited powers, resources and capacity also hamper climate action by cities in developing countries. Oftentimes, cities lack sufficient responsibility or resources to autonomously implement urban climate initiatives themselves. Even in instances where there is a high level of overall devolution and a relatively high degree of fiscal decentralization, there may still be strong centralization in the energy sector—leaving urban authorities constrained with respect to meaningful role in energy transitions.[55] In the US, recent years have seen tension between state and federal governments on climate policies, as well as multiple obstacles to robust subnational climate policy.[56] These competing institutional and jurisdictional interactions can hamper effective climate action.[57] Therefore, ensuring that different levels of government work together towards common goals is essential for achieving SDG 13.

Flooding aftermarth, Chiang Rai, Thailand. © Shutterstock

Flooding following Cyclone Idai, Mozambique. © Shutterstock

Multi-level governance processes are also characterized by complex power relations among different actors, which may serve to exclude marginalized stakeholders, thereby reinforcing existing vulnerabilities.[58] Ensuring inclusivity requires deliberate efforts to engage disenfranchised groups, such as Indigenous communities, women and low-income populations, in governance processes. While multilateralism offers a global platform for collective action towards climate change, developed countries often dominate the agenda-setting process, potentially sidelining the concerns of developing nations, which are disproportionately affected by climate change. This imbalance can lead to inequitable climate agreements that fail to address the needs of the most vulnerable populations. Multi-level governance must involve all relevant stakeholders, including marginalized communities, Indigenous Peoples, and vulnerable groups, who are often disproportionately affected by climate change. Multilateralism should also address the needs of developing countries, which may lack the resources and capacity to implement effective climate action.

7.3 Governance and Co-Production for Climate-Resilient Services in Urban Areas

The urgency of climate change requires robust, inclusive and adaptive governance frameworks that can facilitate climate-resilient services, particularly in urban areas. Effective multi-level governance and hybrid approaches are essential for supporting urban resilience by fostering collaboration, coordination and synergies across different stakeholders, sectors and levels of government. Past editions of this report underscore that addressing complex challenges such as climate change require coordinated action across all scales.[59] The IPCC also notes that transformative capacity—that is, the capacity required to deliver adaptation action—"extends across multiple agency levels or geographical locations, as well as various domains".[60] At the same time, as discussed in the previous sections, it is important to recognize that local governments are at the forefront of multi-level governance, given the increasing emphasis on localization of global agendas and the critical role of cities in this process.[61]

Hybrid approaches, which integrate top-down policies with bottom-up initiatives and participatory processes, have considerable potential to enhance the effectiveness and legitimacy of resilience efforts by incorporating diverse perspectives, local knowledge and innovative solutions. However, much of the literature in this area has tended to focus on generic recommendations for improving governance rather than context- and place-specific insights for fostering change on the ground.[62] It is important to note, though, that institutions such as C40 Cities have often provided valuable local insights. For example, in advancing 10 factors that underpin good climate governance in cities (see Box 7.5), C40 Cities has developed a series of case studies from cities across the world. These highlight the varied and innovative approaches cities are adopting to ensure alignment of city priorities and development objectives with the goals of the Paris Agreement.[63]

In the quest for inclusive and adaptive frameworks, hybrid governance approaches are especially critical in developing countries, where formal governance structures often operate in parallel with informal and traditional forms of governance. The IPCC highlights the significant role that aspects of informal governance, such as Indigenous and local knowledge, informal learning and neighbourhood associations, can play in building resilience to climate impacts.[64] This section therefore explores how governance, through modes of co-production with relevant stakeholders, can facilitate climate-resilient services in urban areas, with a particular focus on the context of developing countries. It examines how local practices can be effectively scaled up, as well as the challenges and opportunities of co-existing formal and informal governance systems.

The urgency of climate change requires robust, inclusive and adaptive governance frameworks that can facilitate climate-resilient services, particularly in urban areas

Box 7.5: Factors underpinning effective climate governance in cities

Good governance is crucial for cities to deliver on their climate targets. C40 Cities has identified 10 factors that underpin good climate governance in cities:

- *Institutional arrangements:* The institutional architecture outlining roles and responsibilities within, and across, a city's governance structure is central to carrying out the city's climate action plan.
- *Legal frameworks to support climate action:* The various legislation assisting a city's climate action plan and the degree to which it strengthens horizontal and vertical climate action.
- *Mainstreaming climate policy:* Integrating climate action across the city through governance structures and systems, policy frameworks and political support.
- *Cross-departmental arrangements and action:* Implementation of integrated city-wide actions through, for instance, dedicated multi-departmental climate committees.
- *Vertical integration:* City climate action and ambition that is integrated or aligned with both higher and lower levels of government.
- *Budgetary mainstreaming:* Including climate priorities into the wider city budget processes general financial management.
- *External governance:* Setting up structures that facilitate long-term engagement with external stakeholders, including devolving actions and responsibilities.
- *Monitoring and transparent reporting systems.* Implementing systems to track progress (including monitoring emissions and implementation of climate actions) and create accountability.
- *Communication and engagement:* The local government engagement with the public, civil society and other stakeholders such as the private sector, as well as making information accessible to them to foster broader support for a city's climate action plan.
- *Innovative solutions to capacity and resource challenges:* Innovative measures to overcome challenges related to staff capacity and resourcing.

Source: C40 Cities, 2021c.

7.3.1 The role of governance in facilitating climate-resilient services

Effective governance involves the participation of various stakeholders, including governments, civil society, the private sector and local communities, in the decision-making process. Such co-production ensures that climate strategies are not only technically sound, but also socially inclusive and responsive to local needs.

Co-production as a mode of urban climate governance

Co-production allows for the integration of diverse knowledge systems, including scientific expertise, local knowledge and Indigenous practices, into the development of climate-resilient services (see Chapter 4). As World Cities Report 2022 notes, co-production can strengthen local capacities, draw attention to environmental injustice, and enhance awareness and transparency.[65] As an approach, co-production transcends the limits of conventional participation by expanding the scope not only of *who* can engage in decision-making processes, but also *how* they can do so: by fostering accessible "activity spaces" open to an array of different stakeholders, it provides participants with the opportunity to "collectively shape discourses, imaginaries and solutions".[66] Therefore, in co-producing climate solutions, new relationships are built and community actors are empowered to take active roles in tackling climate change.

As underscored in Chapter 6, engaging residents in the process of planning, design and construction of housing (and associated infrastructure such as disaster emergency shelters) can ensure that the finished product meets their specific needs. Furthermore, incorporating local knowledge about hazards, vulnerabilities and responses into these processes can prove transformative. In Ulaanbaatar, Mongolia, the involvement of communities in the co-design of the Flood Resilience in Ulaanbaatar Ger-Areas (FRUGA) project brought multiple benefits: while the incorporation of local knowledge into the design ensured it aligned with the needs of residents, their active participation also generated a greater sense of commitment and ownership. The adaptation measures implemented in the project "include reduction of flood risk through resilient urban development and land use management, recycling and treatment of used water, and implementation of comprehensive flood prevention measures such as a flood retention wall, drainage channels, and suitable latrines".[67] In Genk (Belgium), co-production was used to transform the Stiemer valley from an unloved and underutilized area of the city into a mixed-use, blue-green public space. In this context, the spatial masterplan was developed through the involvement of multiple city departments and regional governmental institutions, with residents engaged through a range of activities, including bicycle tours and neighbourhood consultations.[68]

The development of the Climate Justice Charter for South Africa exemplifies a participatory approach to regulation—engaging civil society organizations, grassroots movements and individuals in the drafting process. Initiated by the Co-operative and Policy Alternative Centre (COPAC) and the South African Food Sovereignty Campaign (SAFSC), the drafting process emerged from years of advocacy for food sovereignty and climate justice, involving assemblies in workplaces, communities and faith-based spaces to deepen grassroots input. The movement plans to develop an economic model for the charter, a just transition plan, enabling constituents to develop their own strategies for systemic alternatives and socio-ecological restructuring.[69] Involving local-level actors and communities is a key factor in building trust and legitimacy for such processes.

Although most cities in both developing and developed regions have been actively adopting co-production as an approach to urban climate

Successfully embedding co-production requires a focus on sustaining it beyond isolated interventions by fostering long-term relationships and ensuring ongoing support for engagement activities and local communities

governance, the majority still face limited political capacity, conflicting stakeholder interests, silo mentalities and a structural lack of resources.[70] One of the ongoing challenges in integrating co-production into urban climate governance lies in the mismatch between co-production practices and existing formal governance structures and processes. For city policy officers, engaging in co-production often involves navigating its complexities and diversity, while constantly needing to allocate time, develop skills and secure support for these initiatives.[71] Successfully embedding co-production requires a focus on sustaining it beyond isolated interventions by fostering long-term relationships and ensuring ongoing support for engagement activities and local communities. Without this long-term perspective, co-production risks leading to negative outcomes, such as disempowerment, participation fatigue and diminished trust between city governments and urban communities.

The importance of inclusive governance

Inclusive governance is essential for building climate resilience, particularly in urban areas where diverse populations are often exposed to varying degrees of risk. Ensuring that all stakeholders, including marginalized groups, have a voice in the governance process helps to create more equitable and effective climate strategies (as articulated in Chapter 4). At the local level, stakeholder engagement increases adaptive capacity by enhancing knowledge about climate change and local responses, increasing their willingness to be involved in management. In Sierra Leone, for instance, the Federation for Urban and Rural Poor (FEDURP)—a women-led network of more than 3,000 people—is contributing to vulnerability assessments. Besides being a savings group, network members take on other tasks: undertaking detailed data surveys to identify high-risk areas, for example, or building capacity and awareness among local residents on flood prevention.[72]

In Indonesia, the Bangkit Berdaya program in Jambi City showcases an innovative approach to fostering a green economy through community-based efforts and participatory governance. With the primary objective of accelerating infrastructure development at the grassroots level, the program encourages cooperative community participation to address local environmental and infrastructure challenges. The program streamlines the selection process of small-scale community development proposals and engages residents in the construction process through the Indonesian tradition of *gotong-royong* or community action. Through multi-level collaborative efforts between government, communities and the private sector, the program not only accelerates infrastructure development but also fosters a sense of solidarity and ownership among residents.[73]

Inclusive governance, when combined with strong institutions, leads to

interventions that are well-aligned with local contexts and needs—thus enhancing adaptive capacity.[74] In Brazil, through the Roadmap Making Barcarena a Resilient City, the municipality engages in a participatory approach involving government and society to co-create solutions aligned with global agendas like the SDGs, the NUA, Paris Agreement and Sendai Framework. The city's resilience strategy, developed in collaboration with UNDRR, considers various factors such as socioeconomic vulnerability, gender, disability and inequality—aiming to address not only disaster risk reduction but also broader societal vulnerabilities (as discussed in Chapter 4). Through this integrated vision of resilience, Barcarena's Resilience Committee is fostering an enabling institutional ecosystem that includes representatives from various public policy councils and international organizations, among others, to ensure a coordinated and holistic approach to risk reduction across all sectors of government and society.[75] In Nepal, the National Disaster Risk Reduction and Management Authority has been proactive in engaging persons with disabilities, thus serving as an example to advocate for disability-inclusion in climate action.[76]

Mitigation efforts can be enhanced by inclusive governance. Meaningful participation by stakeholders bolsters efforts by governments to adopt and implement more ambitious climate policies and enhances political support, improves transparency and supports just climate mitigation outcomes. Additionally, inclusive governance fosters solidarity in community groups and networks, increasing social awareness and willingness to accept trade-offs while reducing conflict and corruption.[77] Given that governance and institutional structures determine the allocation of resources, implementation of policies and overall adaptive capacity, this is especially important. All too often, climate action is impeded by inadequate institutional frameworks. Yet, effective, accountable and inclusive institutions at all levels, as envisioned by SDG 16, are integral to effective climate action and mainstreaming resilience. Strong institutions with clear, inclusive and forward-looking policies can enhance resilience.

Today, the public sector's role in addressing societal challenges and fostering inclusive and sustainable development is pivotal—a people's response is largely shaped by it. In an era characterized by increasingly complex and inter-connected global challenges, it is imperative that public institutions evolve to anticipate future development needs and be more responsive to the communities they serve.[78] As noted in Chapter 2, building trust and legitimacy of institutions is critical for urban climate governance and action. In Bangladesh, for example, a study on adaptation pathways for flood-affected households found that improving the efficiency and effectiveness of local governments and institutions was crucial for enhancing livelihood resilience.[79]

Inclusive governance, when combined with strong institutions, leads to interventions that are well-aligned with local contexts and needs

Transforming the public sector also calls for adoption and operationalization of the Principles of Effective Governance for Sustainable Development (Figure 7.3). These 11 principles were prepared under the auspices of the UN Committee of Experts of Public Administration and endorsed by UN Economic and Social Council in 2018, to help countries build effective, accountable and inclusive institutions at all levels of governance. *Effectiveness* is viewed through three principles: competence, sound policymaking and collaboration. With respect to *accountability*, the principles are integrity, transparency and independent oversight. *Inclusiveness* encompasses the following principles: leaving no one behind, subsidiarity, non-discrimination, intergenerational equity and participation.[80]

Figure 7.3: Principles of Effective Governance for Sustainable Development

Effectiveness
• Competence
• Sound policymaking
• Collaboration

Inclusiveness
• Leaving no one behind
• Subsidiary
• Non-discrimination
• Intergenerational Equity
• Participation

Accountability
• Integrity
• Transparency
• Independent Oversight

Source: Based on United Nations Economic and Social Council, 2018.

In conclusion, in contexts where formal governance structures may be weak or under-resourced, informal and traditional forms of governance often play a critical role in service delivery and community organization. These informal systems, as discussed in the next section, often provide valuable insights and resources that formal governance mechanisms may overlook, particularly in areas such as disaster risk reduction and water resource management. Inclusive climate governance also implies recognition of the contribution of informal governance.

7.3.2 The role of informal governance in climate resilience

The previous edition of this report (World Cities Report 2022) notes that formalized relationships between government and the plurality of various stakeholders in urban governance, especially civil society, strengthens communities and those who are underrepresented.[81] At the same time, the reality is that informal arrangements have become another useful mechanism to provide solutions to crises plaguing the world. Climate governance today is already permeated by all sorts of informal governance systems, ranging from the international level (for example, the networking at climate policy events such as UNFCCC's COP or the G20 summits)[82] to local-level arrangements within communities providing home-grown solutions. In this section, informal governance refers to the non-codified practices, norms and institutions that operate outside formal structures but still play a significant role in governing communities. In many developing countries, informal governance is often context-bound: as it is usually deeply rooted in local culture and traditions, with social relationships playing crucial roles, it is generally more accessible and responsive to the needs of local populations than formal governance structures.

All in all, informal governance has created an "innovative space" to explore new possibilities and develop trust between critical actors.[83] This is evidenced, for instance, in the customary governance and practices by which Indigenous Peoples and local communities contribute to environmental governance across scales—even though they are yet to be fully recognized in conservation and development policies, let alone society at large.[84] It is also demonstrated by the vital role that informal learning and knowledge exchange, facilitated by informal networks, play in motivating actions on climate change mitigation and adaptation on the ground. Finally, it is also evident in the role played by neighbourhood associations and other community-based organizations engaged in informal governance in building local resilience.

Indigenous and local knowledge and climate resilience

Indigenous Peoples and local communities contribute to territorial management and environmental stewardship through customary governance and practices that create and maintain biodiversity.[85] As highlighted in Chapter 5, Indigenous knowledge systems carry ancient and intergenerational wisdom that is vital to climate resilience, particularly in regions where communities have had a harmonious relationship with their natural environment over centuries. As this ecological knowledge both evolves from and responds to the natural world, it is increasingly recognized as ideal for developing and advancing meaningful climate solutions.[86]

Informal governance has created an "innovative space" to explore new possibilities and develop trust between critical actors

Indigenous and local knowledge is "context-specific, collective, informally transmitted and multi-functional, and can encompass factual information about the environment and guidance on management of resources and related rights and social behaviour."[87] This knowledge encompasses practices related to agriculture and water resource management as communities are more directly reliant on the environment for subsistence. It also touches on approaches to disaster preparedness that have been passed down through generations and are often more sustainable and adaptive, considering gaps in policy and practice in disasters risk reduction.

Chapter 5 also highlighted Indigenous urban design and building practices that are attuned to local conditions and that minimize emissions while being adaptive to local climate conditions. By integrating Indigenous and local knowledge into formal climate strategies through co-production, inclusive governance can enhance the resilience of urban areas to climate impacts. For example, in Honiara, the Solomon Islands, Indigenous knowledge systems played a vital role in community-selected tree varieties used in flood mitigation (see Box 7.6). [88] Similarly, local knowledge played a significant role in species selection and choice of planting methods in the implementation of tree planting in Lilongwe, Malawi.[89] In Gorakhpur, India, residents' historical knowledge of past floods and their impacts was integral to flood risk mapping.[90] In Shumar, Bhutan, a community of mostly older persons has used their years of experience in managing the impacts of landslides to design a specially adapted water delivery system suspended from the branches of large trees.[91] Fostering such local niches and other forms of innovation (Chapter 8), as well as scaling up their successes, can significantly contribute to broader climate resilience efforts.

Indeed, such engagement enhances the positive impacts of adaptation and minimizes the likelihood of maladaptation. Whilst Indigenous and local knowledge is a valuable resource and can be integrated with modern climate change adaptation strategies for more effective, context-specific responses, barriers persist. In Africa, for instance, current national adaptation policies on the continent show serious gaps in effectively integrating Indigenous and local knowledge systems within the legal frameworks to reduce vulnerability.[92] In Latin America. the perspectives, knowledge and rights of Indigenous People are often ignored, necessitating their legal empowerment to sway climate action. [93] It is thus vital for the knowledge, perspectives and practices of Indigenous Peoples across the world to meaningfully inform transformative, evidence-backed climate action.[94] Moreover, as underscored in Chapter 8, the inclusion of multiple knowledge and perspectives is central to "a just urban transition." At the multilateral level, this journey of inclusion culminated with the establishment of the Local Communities and Indigenous Peoples Platform, which offers Indigenous Peoples and local communities across the world an avenue for knowledge exchange and experience sharing. It also builds their capacity and facilitates their engagement in the UNFCCC process.[95]

> **Box 7.6: Leveraging Indigenous knowledge in flood prevention measures in Honiara, the Solomon Islands**
>
> Honiara struggles to cope with the growth of informal settlements, particularly against a backdrop of climate change-induced environmental stress. Many homes in informal areas near the riverbanks have already been destroyed by flash flooding, while many more located on the hillside have been affected by landslides. Other vulnerabilities that have been exacerbated by climate change impacts include constrained water shortages, inadequate drainage, inaccessible roads, inadequate waste disposal and overcrowding.
>
> UN-Habitat's multilayered approach to vulnerability mapping, overlaying climate change and urban spatial vulnerabilities, identified an informal area in Koa Hill, located along the Mataniko River in Honiara, as a climate vulnerability hotspot. Flood mitigation measures such as slope stabilization along the riverbank and on top of the hill, using community-selected tree varieties, were implemented by UN-Habitat in collaboration with local communities. These measures have moderated the impacts of extreme rainfall and landslides, strengthening the resilience of informal settlements in Koa Hill. The project also included an urban garden and nursery with a safe space for propagating seedlings for future use.
>
> *Source: UN-Habitat, 2023f.*

Informal learning and knowledge exchange

Climate change education cannot and should not stay limited to formal education.[96] Informal learning and knowledge exchange play a vital role in motivating actions on climate change mitigation and adaptation. In cities, public communication and awareness campaigns by various levels of government as well as other stakeholders have often offered informal learning opportunities—playing a key role in raising awareness, shaping public understanding and changing behaviour. An analysis of climate actions taken by the 96 cities which make up C40 Cities found that awareness and educational campaigns were the third most common action taken by cities to combat climate change.[97] While a variety of strategies and media may be employed, such awareness campaigns have the net effect of strengthening public engagement in climate change policy and building resilience.[98]

Further, the capacity of local communities can be enhanced through awareness-raising and training activities that allow them to effectively participate. In this regard, community members should have the opportunity not only to benefit from information flows, but actively contribute to its dissemination as educators and communicators themselves. Informal networks, such as neighbourhood associations and community-based organizations, are vital in such capacity enhancement,

facilitating the sharing of information and best practices related to climate adaptation and mitigation. In slums and informal settlements, for instance, community meetings, social networks and local leaders can play a crucial role in presenting knowledge about climate risks and adaptation strategies in ways the community can relate to. By supporting and leveraging these informal learning mechanisms, governance at various levels can ensure that climate information reaches all segments of the population, including those who are most vulnerable. At the same time, this can be useful in tackling misinformation and disinformation campaigns seeking to undermine climate action.

Neighbourhood associations and local resilience

In localizing the SDGs and responding to climate change, the neighbourhood scale cannot be an afterthought. Their unique scale, located at the intersection of the city and the individual building, affords them with multiple opportunities to stir collective climate action.[99] For example, UN-Habitat considers climate-responsive urban design to be most effective when applied at this scale, where urban morphology, geometry of spaces and street orientation can be manipulated for resilience to climate change.[100] Also, the proximity and tangibility of participating in climate action encourages neighbourhood residents to collectively address mitigation and adaptation challenges.[101]

In most cities, both in developed and developing countries, neighbourhood associations and other community-based organizations often play a vital role in building local resilience to climate change at this scale. These groups, which are often formed in response to specific local needs or challenges, can mobilize resources, coordinate community efforts and advocate for the interests of residents in the face of climate risks. In many urban areas, particularly in developing countries, neighbourhood associations have taken the lead in organizing disaster preparedness initiatives, managing local resources and advocating for infrastructure improvements. These associations can serve as key partners in the co-production of climate-resilient services, leveraging local knowledge and social capital that can enhance the effectiveness of formal governance efforts.

7.3.3 Scaling up local practices for climate resilience: Challenges and opportunities

While local practices and informal governance mechanisms play a crucial role in building climate resilience, there is often a need to scale up these initiatives to have a broader impact. Scaling up involves expanding successful local practices to a wider audience or integrating them into formal governance frameworks to ensure that they contribute to broader climate resilience efforts. One of the main challenges of scaling up local practices is the potential loss of context-specific knowledge and the risk of oversimplification. Many local practices are deeply rooted in the specific environmental, cultural, and social contexts of the communities in which they have developed. When these practices are scaled up or replicated in different contexts, there is a risk that their effectiveness may be diminished or that they may not be as easily accepted by other communities.

Another challenge is the potential resistance from formal governance structures, which may view informal practices as being at odds with established regulations or standards. Entrenched structural and systemic factors like historical power relations, or political agendas that prioritize technocratic approaches and scientific knowledge over Indigenous Peoples, traditional or local knowledge can reinforce existing barriers and ensure that these valuable perspectives continue to be sidelined from mainstream adaptation efforts.[102] For instance, Indigenous Peoples and local communities have often been excluded or even displaced by formal conservation efforts such as the creation of protected areas. Even though they increasingly engage in environmental governance across scale, they still face numerous participation barriers in regional and global governance.[103]

Oftentimes, conflicts between formal and informal governance systems do arise, particularly when there is a breakdown of communication or loss of trust. Indigenous Peoples, for example, being on the frontlines of ecosystem conservation, often find their efforts to halt activities that degrade the environment penalized through intimidation, criminalization and violence, including assassinations.[104] Even where formal structures or national policies do recognize the vital importance of community-based or locally-led practices, legislative, administrative or conceptual challenges can still arise. Studies have shown that efforts to upscale locally-led adaptation can be obstructed by a limited understanding of the concept of community-led adaptation at the local government level as well as lack of coordination between nodal ministries and implementing bodies responsible for adaptation interventions, leading to poor implementation.[105] Notwithstanding the central role local authorities have to play, reinforcing and scaling these activities requires awareness and coordination at all levels of government, while civil society actors can help ensure accountability and the flow of information.[106] Additionally, sustainability and scalability is closely linked to institutional and technical capacity building tailored to different contexts, including increasing local capacities to access and manage finance.[107]

Despite these challenges, there are significant opportunities for scaling up local practices to enhance climate resilience that can contribute to global impact. One approach is to integrate successful local practices into formal governance frameworks through the process of co-production. Involving local communities in the design and implementation of climate policies is essentially devolving and developing climate governance at the local level. This ensures that these policies are informed by local knowledge, practices and experiences, increasing their likelihood of being effective. At the same time, building local leadership and local government capacity, as well as supporting effective monitoring, evaluation and learning, is key.[108] Empowering local stakeholders to lead in adaptation efforts, in line with the Principles for Locally Led Adaptation Action outlined in Box 7.7, should be prioritized.

Sustainability and scalability is closely linked to institutional and technical capacity building

Partnerships between local communities, various levels of governments and international organizations, among other stakeholders, is providing much needed resources and support to scale up successful local practices. The Global Environment Facility Small Grants Programme (GEF SGP), for instance, has provided financial and technical support for the development and implementation of innovative local actions that address global environmental issues. The mobilization of bottom-up actions has encompassed numerous projects that integrate Indigenous knowledge into climate resilience initiatives, helping to scale up these practices to benefit larger populations.[109] The Global Center on Adaptation acts as "a solutions broker" for scaling up locally-led adaptation action, linking efforts on the ground to funding from international financial institutions and donors as well as facilitating local organizations peer-to-peer and South-to-South learning.[110] European Commission's initiative Communities for Climate (C4C) is empowering local action against climate change by supporting community-led projects—promoting a culture of resilience and sustainability, serving as a model for broader change across Europe."[111] The aforementioned global city networks, such as C40 Cities, have also been effective platforms for transforming and scaling up pilot experiments.[112]

Lastly, dissemination of local knowledge and practices more widely through a variety of media and platforms is essential. In scaling local practices to have impact across many levels (including the global), it is important to harness the potential of digital technologies. These can promote or make way for more reflexive, inclusive governance systems that address the complexity of climate change and help meet climate goals.[113] Also, a great opportunity lies in leveraging technology and digital platforms for wide dissemination of local knowledge and practices. Already, the digital space is rife with information about successful climate adaptation strategies. It is also connecting communities with similar challenges, as well as facilitating peer-to-peer learning through various online portals, such as the GCA's "Global Hub on Locally Led Adaptation" and UNFCCC's "Local Communities and Indigenous Peoples Platform Web Portal".

Involving local communities in the design and implementation of climate policies is essentially devolving and developing climate governance at the local level

Volunteers engage in beach cleaning and tree planting, Yogyakarta, Indonesia. © Shutterstock

Box 7.7: Principles for Locally Led Adaptation Action

The Global Commission for Adaptation developed the following set of eight principles as a guiding framework to enable more effective and sustainable adaptation at the local level. They ensure that bottom-up climate action is inclusive, informed, adequately resourced and impactful:

1. *Devolving decision-making to the lowest appropriate level:* Giving local institutions and communities more direct access to finance and decision-making power over how adaptation actions are defined, prioritized, designed, implemented; how progress is monitored; and how success is evaluated.

2. *Addressing structural inequalities faced by women, youth, children, disabled and displaced people, Indigenous Peoples and marginalized ethnic groups:* Integrating gender-based, economic, and political inequalities that are root causes of vulnerability into the core of adaptation action and encouraging vulnerable and marginalized individuals to meaningfully participate in and lead adaptation decisions.

3. *Providing patient and predictable funding that can be accessed more easily:* Supporting long-term development of local governance processes, capacity, and institutions through simpler access modalities and longer term and more predictable funding horizons, to ensure that communities can effectively implement adaptation actions.

4. *Investing in local capabilities to leave an institutional legacy:* Improving the capabilities of local institutions to ensure they can understand climate risks and uncertainties, generate solutions and facilitate and manage adaptation initiatives over the longterm without being dependent on project-based donor funding.

5. *Building a robust understanding of climate risk and uncertainty:* Informing adaptation decisions through a combination of local, traditional, Indigenous, generational and scientific knowledge that can enable resilience under a range of future climate scenarios.

6. *Flexible programming and learning:* Enabling adaptive management to address the inherent uncertainty in adaptation, especially through robust monitoring and learning systems, flexible finance and flexible programming.

7. *Ensuring transparency and accountability:* Making processes of financing, designing and delivering programs more transparent and accountable downward to local stakeholders.

8. *Collaborative action and investment:* Collaboration across sectors, initiatives and levels to ensure that different initiatives and different sources of funding (humanitarian assistance, development, disaster risk reduction, green recovery funds, etc.) support one another, and their activities avoid duplication, to enhance efficiencies and good practice.

Source: Global Commission on Adaptation, 2021.

7.3.4 The co-existence of formal and informal governance

The co-existence of formal and informal governance systems presents both challenges as well as opportunities for realizing effective climate action. During crises, as was the case with the COVID-19 pandemic, UN-Habitat underscores the urgent need to work directly with communities, connecting formal and informal governance mechanisms and supporting self-organization in communities, recognizing their social and cultural diversity.[114] While formal governance structures provide the legal and institutional frameworks necessary for large-scale climate initiatives, informal governance systems—as illustrated above—enhance legitimacy and inclusiveness while at the same time offering the flexibility and responsiveness to local conditions.

Understanding informal institutions is crucial for adapting to climate change, advancing technological adaptation measures, achieving comprehensive disaster management and advancing collective decision-making

Involving local communities in the design and implementation of climate policies is essentially devolving and developing climate governance at the local level

It is not enough just to have different levels of government complementing and strengthening each other in formal arrangements: a people-centred, inclusive climate action, as illustrated in Figure 7.2, demands the co-existence of formal and informal governance. One of the primary challenges of co-existence is the potential for conflicts between formal and informal governance systems that may arise due to differences in priorities, values, and approaches to governance. As highlighted in previous subsections, formal governance structures (often backed by legal systems) may prioritize standardized solutions and regulatory compliance; informal systems, on the other hand, may emphasize local knowledge and adaptive practices that may not always align with formal regulations. Furthermore, formal institutions might hamper or undermine informal institutions, while informal institutions can also subvert or replace formal institutions.[115]

Another challenge is the potential for power imbalances between formal and informal governance systems. In many cases, informal governance systems may lack the resources, authority or recognition needed to effectively influence formal decision-making processes. This can lead to a situation where informal systems are marginalized or overlooked, even when they offer valuable insights or solutions. As IPCC notes, addressing climate change will require governance that goes beyond notions of formal government or political authority, and integrates other actors including informal institutions and communities. Understanding informal institutions is crucial for adapting to climate change, advancing technological adaptation measures, achieving comprehensive disaster management and advancing collective decision-making.[116] Furthermore, "enabling transformative capacity requires novel governance arrangements based on broad participation."[117]

Positive synergies that enhance climate resilience can be realized from the co-existence of formal and informal governance systems, as the ability to combine the strengths of both systems can create more effective and adaptive governance structures. For example, formal governance systems can provide the resources, authority and coordination needed to implement large-scale climate initiatives, while informal systems can offer the flexibility, responsiveness and local knowledge needed to tailor these initiatives to specific contexts. By working together, formal and informal governance systems can create more holistic and adaptive approaches to climate resilience. In Montreal (Canada), for example, the Metropolitan Agora is a fundamentally informal arrangement that allows the public to learn, exchange, debate and propose ideas for the implementation of the Metropolitan Land Use and Development Plan.[118]

Another opportunity lies in the potential for mutual learning and capacity building. Formal governance systems can learn from the adaptive practices and local knowledge of informal systems, while informal systems can benefit from the resources, expertise and institutional support provided by formal governance structures. This mutual learning can help to build more resilient and adaptive governance systems that are better equipped to address the complex and dynamic challenges of climate change. Some informal arrangements are often used in a complimentary manner to address gaps in the formal governance systems. Besides catalyzing innovative grassroots solutions to the specific challenges of slums, "there are varying degrees of ability to demand accountability from policymakers, service providers and governance actors within these communities":[119] informal governance structures frequently interact with elements of the formal system, such as local councillors, to negotiate concessions around service access and other needs.

Positive synergies that enhance climate resilience can be realized from the co-existence of formal and informal governance systems

Walk for Your Future climate march, Brussels, Belgioum. © Shutterstock

7.4 Concluding Remarks and Lessons for Policy

Owing to the unique and global nature of the climate emergency, this chapter has underscored the imperative for responses at various levels. For instance, as climate change requires robust, inclusive and adaptive governance frameworks that can facilitate climate-resilient services in cities, this chapter notes the vital role of hybrid governance approaches—supported by effective, accountable and inclusive institutions at all levels—in supporting urban resilience. It has also highlighted the challenges of integrating co-production into urban climate governance, such as the misalignment between co-production practices and existing formal governance structures and processes. More broadly, the chapter outlines a number of key recommendations for international, national and local stakeholders to bear in mind:

- *Strengthen multi-level collaboration and ensure that climate action is delivered at different scales* through the involvement of all levels of government. As multi-level governance ensures that climate action is implemented at all levels, this chapter foregrounds the urgent need to develop and strengthen the capacities of local and regional governments to implement climate solutions, particularly in developing countries.

- *Align global, national and local efforts to ensure effective climate governance:* In this regard, multilateralism has a key role to play in facilitating the coordination and cooperation needed to align these efforts and scale up their impact. The localization of global development agendas is a fundamental way to align these efforts, in particular by formally institutionalizing the SDGs into planning and policy processes at both the national and local levels.

- *Engage partnerships and networks to bridge the gap between different levels of governance* and facilitating multilateral cooperation, given the increasing prominence of city networks in global climate governance. These horizontal structures—frequently diverse and transnational in nature—offer enormous potential to disrupt traditional and entrenched governance hierarchies that in many cases obstruct effective, inclusive climate action.

- *Extend climate action beyond mainstream governance frameworks to include informal, traditional and Indigenous systems:* All too often, particularly at the national level, climate policies are not only poorly integrated between different formal actors, but also wholly disconnected from the complex informal structures that are often the primary source of authorities, knowledge and consensus building in slums and informal settlements. This includes valuable Indigenous knowledge, often developed over centuries, that could strengthen urban resilience strategies.

- *Scale up local practices and learning to enhance climate resilience at the global level:* While it is vital to ensure adequate support and technical assistance is channelled down from the international and national levels, where resources are typically concentrated, it is also important that there is a two-way process of exchange. Through inclusive platforms and knowledge exchange, there are significant opportunities to replicate successful approaches at scale.

Endnotes

1   United Nations, 2024d.
2   United Nations, n.d.[a].
3   United Nations, 2012.
4   Betsill & Bulkeley, 2021.
5   Betsill & Bulkeley, 2021.
6   Di Gregorio, et al., 2019.
7   Reckien, et al., 2018.
8   Reckien, et al., 2018.
9   Landauer et al, 2019.
10   UCLG, Metropolis and LSECities, 2021.
11   Betsill & Bulkeley, 2021.
12   UCLG, Metropolis and LSECities, 2021.
13   UCLG, Metropolis and LSECities, 2021.
14   Reckien, et al., 2018.
15   Camponeschi, 2021.
16   Annan-Aggrey et al, 2021.
17   Ireland & Clausen, 2019.
18   UN-Habitat, n.d.c.
19   This collaboration is necessary as higher tiers of government national and regional governments. tend to have primary authority or influence over two-thirds of global urban abatement potential (Coalition for Urban Transitions, 2019).
20   UN-Habitat, 2022b; UN-Habitat, 2020a.
21   UCLG, Metropolis and LSECities, 2021.
22   GIZ and UN-Habitat, 2015.
23   UCLG, Metropolis and LSECities, 2021.
24   United Nations, 2022b.
25   Ishtiaque, 2021.

26   IISD, 2023.
27   UNFCCC, 2022c.
28   Rietig, 2020.
29   European Commission, n.d.
30   Annan-Aggrey & Arku, 2024.
31   UNDP, 2024d.
32   Fox & Macleod, 2023.
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34   Fox & Macleod, 2023; Global Taskforce of Local and Regional Governments, 2016.
35   Kern, 2019.
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40   Annan-Aggrey & Arku, 2024.
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51   Melbourne Centre for Cities, 2024.
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54   Government of Ireland, 2024.
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56   Basseches, et al., 2022.
57   Landauer et al, 2019.
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59   UN-Habitat, 2022b; UN-Habitat, 2020a.
60   IPCC, 2022c.
61   Castán Broto & Westman, 2020.
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63   C40 Cities, 2021c.
64   IPCC, 2022c.
65   UN-Habitat, 2022b.
66   Hölscher, et al., 2024.
67   UN-Habitat, 2023e.
68   Hölscher, et al., 2024.
69   OIDP, n.d.[a].
70   Schmidt et al, 2024.
71   Hölscher, et al., 2024.
72   Kellog, 2020.
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74   UNDP and IDOS, 2024.
75   Case study from UCLG.
76   Humanity & Inclusion, 2023.
77   UNDP and IDOS, 2024.
78   United Nations, 2024c.
79   Roy et al, 2021; UNDP and IDOS, 2024.
80   United Nations Economic and Social Council, 2018.
81   UN-Habitat, 2022b.
82   The number of informal organizations involved in international climate politics has significantly increased over time (Michaelowa et al, 2024; Penttilä, 2009).
83   Ayres, 2017.
84   Brondízio, et al., 2021.
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86   Climate Atlas of Canada, n.d.
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