



# MULTI-LEVEL GOVERNANCE FOR EFFECTIVE URBAN CLIMATE ACTION IN THE GLOBAL SOUTH

## **MULTI-LEVEL GOVERNANCE FOR EFFECTIVE URBAN CLIMATE ACTION IN THE GLOBAL SOUTH**

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# LIST OF ABBREVIATIONS

<b>CBO</b>	Community-Based Organization
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>COVID-19</b>	Coronavirus Disease of 2019
<b>CRVA</b>	Climate Risk and Vulnerability Assessment
<b>CSO</b>	Civil Society Organization
<b>DGCC</b>	Directorate General of Climate Change
<b>ECTRS</b>	Energy Conservation Target Responsibility System
<b>GCC</b>	GreenClimateCities
<b>GHG</b>	GreenHouse Gas
<b>ICLEI</b>	Local Governments for Sustainability
<b>ICMSE</b>	Imposto Sobre Circulação de Mercadorias e Serviços Ecológico
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IRWM</b>	Integrated Water Resources Management
<b>LDC</b>	Least Developed Country
<b>LULUCF</b>	Land Use, Land Use Change and Forestry
<b>MLG</b>	Multi-Level Governance
<b>MoEF</b>	Ministry of Environment and Forestry
<b>NAP</b>	National Adaptation Plan
<b>NDC</b>	National Determined Contributions
<b>NGO</b>	Non-governmental Organizations
<b>NUA</b>	New Urban Agenda
<b>NUP</b>	National Urban Policy
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>REDD+</b>	Reducing Emissions from Deforestation and Forest Degradation
<b>SDG</b>	Sustainable Development Goals
<b>SEA</b>	Strategic Environmental Assessment
<b>SIDS</b>	Small Island Developing States
<b>SPFM</b>	Subnational Pooled Financing Mechanism
<b>SRN</b>	National Registry System
<b>UN-HABITAT</b>	United Nations Human Settlement Programme
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs
<b>UNDP</b>	United Nations Development Programme
<b>UNEP</b>	United Nations Environment Programme
<b>UNESCAP</b>	United Nations Economic and Social Commission for Asia and the Pacific
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change Secretariat
<b>Urban-LEDS</b>	Urban Low Emission Development

## EXECUTIVE SUMMARY

While climate change presents serious risks for all countries, the situation is more acute for populations in developing countries<sup>1</sup>, the situation is more acute for populations in developing countries whose vulnerability is intensified by the intersection of many underlying factors. These include poverty, conflicts, weak institutional structures, limited human, institutional, and financial capacity, and reliance on climate-sensitive socio-economic activities.

Collectively, these factors impair the ability of countries to anticipate, cope and respond to both direct and indirect effects of climate change. Urban populations in these countries are already suffering from extreme weather events, flooding, subsidence, storms, heatwaves, water scarcity, droughts and sea level rise among other climate change effects. Considering that 55 per cent of the world's population lives in urban areas and this share is projected to increase to 68 per cent by 2050,<sup>2</sup> cities are the main battleground for climate change action. Indeed, the most vulnerable regions are where urbanization will take place more rapidly as 90 per cent of the 2.5 billion people expected to live in cities in the next three decades will be in Asia and Africa.<sup>3</sup>

A growing urban population not only makes the prospects of higher emissions real but it also means that many will be at heightened risk from the adverse effects of climate change, including millions of informal settlers, whole populations in coastal areas, delta regions and small island developing States as well as substantial numbers in arid and semi-arid areas.

The role of cities has been recognized by the Paris Agreement, which identifies them as "important stakeholders, capable of mobilizing strong and ambitious climate action". The New Urban Agenda (NUA) also puts urban areas at the centre of climate change action and, more notably, introduces a multi-level governance approach by including the commitment to promote "...international, national, subnational and local climate action, including climate change adaptation and mitigation, and to supporting the efforts of cities and human settlements, their inhabitants and all local stakeholders to be important implementers".

It is in appreciation of the important role of multi-level governance that this guide has been developed to offer an understanding of how to improve horizontal and vertical coordination among different levels of government as well as leveraging the contributions of non-State actors such as the private sector, civil societies, community organizations and academia, among others.

The guide first provides an overview of the nature and magnitude of climate change impacts and risks that developing countries face. This part includes an analysis of the special vulnerability of various groups and makes the case for urban climate action.

.....  
**1** United Nations Statistics Division notes that "there is no established convention for the designation of 'developed' and 'developing' countries or areas in the United Nations system" and therefore "the designations 'developed' and 'developing' are intended for statistical convenience and do not necessarily express a judgment about the stage reached by the particular country or area in the development process". This is the position adopted by this paper.

**2** UN-Habitat (2020). *World Cities Report: The Value of Sustainable Urbanization*.

**3** UNDESA (2018). *Revision of World Urbanization Prospects*.

Following this, various ways to respond to climate change are explored that involve, for example, measures of mitigation and adaptation. Next, the role of non-State actors such as civil societies, community organizations, the private sector and academia is highlighted; these groups act as information clearing houses and bridge the gap between governments and populations as well as being essential mobilizers of climate finance and technology.

Emphasizing non-State actors aligns with the New Urban Agenda (NUA), which recognizes “the leading role of national governments and the equally important contributions of subnational and local governments, civil society and other relevant stakeholders”. A detailed discussion is then provided on the different informal and formal mechanisms that can be used to promote multi-level governance in developing countries.

Subsequently, the guide lays out some key enabling conditions for effective urban-climate action in developing countries that aims to offer guidance to non-State actors and policymakers at all levels of government.

The conditions include providing capacity; facilitating fiscal decentralization; entrenching public participation; establishing strong data collection and sharing arrangements; enacting supportive legal and regulatory frameworks; and having the political will for climate action. Lastly, the guide provides examples of multi-level climate action at the national, regional and city-levels.





A destroyed house by weather conditions in Dadaab Refugee Camp, Kenya © Eduardo Lopez Moreno

# CLIMATE CHANGE IMPACTS IN THE GLOBAL SOUTH

## Overview

The nature and magnitude of current and future climate change impacts present severe challenges to countries in the Global South. Africa, a continent already suffering from a variable climate, is facing increased water scarcity in some parts, increased flooding in others, and an overall reduction in agricultural production.

Extreme weather events are increasingly more frequent and intense as exemplified by the highly destructive Cyclone Idai in 2019 that led to hundreds of casualties and hundreds of thousands of displaced people. In the same year, the southern part of Africa experienced extensive drought while the Greater Horn of Africa region shifted from very dry conditions to floods and landslides associated with heavy rainfall.<sup>4</sup>

The continent is also at risk of an increased prevalence of existing and novel infectious diseases such as malaria and tuberculosis due to climate change. For example, rising temperatures are projected to accelerate the migration of the vectors of these diseases into new territories at higher altitudes, thus exposing millions of previously unexposed people.<sup>5</sup> Climate change is further projected to hinder economic growth, impede the fight against poverty and undermine food security.

It is also expected to catalyse the displacement of people as well as indirectly increase the risk of violent conflicts through the amplification of already existing drivers of conflicts such as access to natural resources and poverty.<sup>6</sup>

In Asia, climate change is affecting many areas, including water resources, agriculture and food security, ecosystems, human health, and urbanization. For example, the melting of glaciers in the Himalayas presents an increased risk of flooding, erosion, mudslides, and water distress due to the drying up of rivers. It is estimated that throughout Asia, one billion people could face water shortage leading to drought and land degradation by the 2050s.<sup>7</sup>

The continent is threatened with an increase in the frequency and duration of severe heatwaves with serious effects on mortality and morbidity of populations, particularly for people living in poverty, children, and the elderly. The Asia-Pacific region is also characterized as being the most disaster-prone region in the world. Half of Asia's population, about 2.4 billion people, live in low-lying coastal areas and an average of 43,000 people in the Asia-Pacific are already killed in storms, floods, and landslides each year.<sup>8</sup>

6 Ibid.

7 Ibid.

8 UNDP (2019). Climate change in Asia and the Pacific. What's at stake? Available at <https://www.asia-pacific.undp.org/content/rbap/en/home/presscenter/articles/2019/climate-change-in-asia-and-the-pacific.html#:~:text=While%20Asia%2DPacific's%20poorer%20communities,out%20decades%20of%20development%20gains>.

4 World Meteorological Organization (2020). *State of the Climate in Africa*.

5 United Nations Framework Convention on Climate Change Secretariat (2007). *Climate Change: Impacts, Vulnerabilities and Adaptation in Developing States*.

Rising sea levels threaten to intensify floods and storms and degrade land through increased salination. In Bangladesh, for instance, a sea level rise of one metre would lead to around 18 million people who live in coastal areas losing their homes.<sup>9</sup> Indeed, in the last two years alone, Sri Lanka, Myanmar, and Nepal have experienced deadly floods and landslides, Vietnam and India have been severely hit by tropical storms, and Pakistan and India have seen blistering temperatures above 50°C.<sup>10</sup> These erratic weather patterns not only take lives but also displace people, destroy infrastructure, contaminate freshwater, crush ecosystems and wipe out agricultural land.

Latin America and the Caribbean have not been spared from the adverse effects of climate change. The region has experienced climate-related changes, including increasing frequency and intensity of extreme events. Torrential rains and resulting floods, including those associated with tropical cyclones, have resulted in tens of thousands of deaths, severe economic losses, and social disruption in the region in recent years.<sup>11</sup> Increasingly dry conditions are being witnessed in north-eastern Brazil, Central America, the Caribbean, and some parts of Mexico. The effects of climate change are particularly concerning considering that between 150,000 and 2.1 million people are currently pushed into extreme poverty because

of natural disasters in the region each year.<sup>12</sup> Climate change poses a threat to food security and nutrition intake as current projections are for reductions of around 20 per cent in crop yields for beans and maize in Central America and the Caribbean alone. Furthermore, the spread of vector-borne diseases because of a changing climate could further affect the 160 million people who currently lack access to a safely managed water supply and the 350 million people without access to safe sanitation in the region.<sup>13</sup>

The challenges that all countries face in effectively coping with climate change impacts are exacerbated in Small Island Developing States (SIDS) because of their small geographical area, isolation, and high level of exposure. SIDS are characterized by the concentration of large settlements with associated economic and social activities at or near the coast. In SIDS, arable land, water resources, and biodiversity are already under pressure from sea level rise. Tropical storms and cyclones cause storm surges, coral bleaching, inundation of land, and coastal and soil erosion, with resulting high-cost damage to socio-economic and cultural infrastructure. For these countries, climate change poses a real existential threat. A case in point is the Maldives, where a one-meter rise in sea level would mean the complete disappearance of the nation.<sup>14</sup>

9 IPCC (2019). *Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities*. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*.

10 UNDP (2019). *Climate Change in Asia and the Pacific. What's At Stake?* Available at <https://www.asia-pacific.undp.org/content/rbap/en/home/presscenter/articles/2019/climate-change-in-asia-and-the-pacific.html#:~:text=While%20Asia%20Pacific's%20poorer%20communities,out%20decades%20of%20development%20gains>.

11 United Nations Framework Convention on Climate Change Secretariat (2007). *Climate Change: Impacts, Vulnerabilities and Adaptation in Developing States*.

12 World Bank (2021), *Promoting Climate Change Action in Latin America and the Caribbean*. Available at <https://www.worldbank.org/en/results/2021/04/14/promoting-climate-change-action-in-latin-america-and-the-caribbean>.

13 Ibid.

14 United Nations Framework Convention on Climate Change Secretariat (2005). *Climate Change: Small Island Developing States*.

## Special Vulnerability and Intersectionality

It is noteworthy that even within developing countries, some countries and groups are more vulnerable than others to the adverse effects of climate change due to the intersection of multiple underlying factors. The special vulnerability of SIDS, for example, is exhibited by the concentration of populations, socio-economic activities and infrastructure along the coastal zone; a limited physical size that effectively eliminates some adaptation options; dependence on water resources for freshwater supply that are highly sensitive to sea level changes; relative isolation and great distance to major markets which affects competitiveness in trade; and generally limited availability of natural resources, with many already heavily stressed from unsustainable human activities.<sup>15</sup>

The special vulnerability of some countries is a result of reliance on climate-sensitive sectors such as agriculture and fisheries coupled with limited human, institutional, technological, and financial capacity to anticipate and respond to the direct and indirect effects of climate change.<sup>16</sup> In general, the vulnerability is the highest for least developed countries (LDCs) in the tropical and subtropical areas. Hence, the countries with the fewest resources are likely to bear the greatest burden of climate change in terms of loss of life and relative effects on investment and the economy.<sup>17</sup> Many sectors providing basic livelihood services to people living in poverty in developing countries are not able to cope even with current climate variability and stresses.

15 Ibid.

16 ND-GAIN (2013). *Global Adaptation Index: Measure of Country Vulnerability and Capability to Respond to Climate Change*. University of Notre Dame.

17 IPCC (2014). *AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability*.

Often, extreme weather events set back the progress towards international commitments such as the Sustainable Development Goals for decades. With fishing grounds depleting, and droughts, floods, and storms destroying entire annual harvests in affected areas, the El Niño phenomenon serves as a prime example of how climatic variability already affects vulnerable countries and people today.<sup>18</sup>

Furthermore, the brunt of the adverse impacts of global climate change will be felt hardest by some of the poorest and most vulnerable communities within countries.<sup>19</sup> The urban poor, women, indigenous peoples, and migrants are examples of groups that are, and will continue to be, disproportionately affected by climate change impacts. These groups are more vulnerable as they are more likely to lack the financial, social, and political means to secure alternative livelihoods, thus leaving them in a situation that has been described as potentially "apocalyptic".<sup>20</sup>

They also have inadequate assets, capabilities, safety nets, and networks to deal with shocks and stresses, which reduces their ability to anticipate, cope with, adapt to and transform their livelihoods.<sup>21</sup> Women, for example, may be constrained by social and cultural structures that place them in inferior social positions and limit their access to income, education, public voice, and survival mechanisms.

18 World Bank (2009). *Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation*.

19 Nanda, Ved P. (2009). *Climate Change and Developing Countries: The International Law Perspective*. ILSA J. Int'l & Comp. L. 16, 539.

20 UNDP (2007/8). *Human Development Report 2007/8: Fighting climate change – Human solidarity in a divided world*. New York.

21 Hallegatte, Stephane (2016). *Shock Waves: Managing the Impacts of Climate Change on Poverty*. Washington D.C: World Bank.

In addition, the coping capacities of people living in poverty are often already constrained due to several factors, including HIV/AIDS, and increasing population densities.<sup>22</sup> Indeed, as the COVID-19 pandemic has shown, it is the most marginalized that are always disproportionately hit by disasters.<sup>23</sup>

## Urban Areas and Climate Change

Urban areas account for two-thirds of greenhouse gas emissions and energy consumption, making them major contributors to climate change.<sup>24</sup> While most urban areas in developing countries have made a negligible contribution to greenhouse gases (GHGs) emissions, they stand to be severely affected by the negative impacts associated with climate change due to the concentration of peoples, economic activities, assets, and social and cultural institutions. Cities are already suffering from extreme weather events, flooding, subsidence, storms, heatwaves, water scarcity, droughts, and sea level rise among other climate change effects that are already being felt by millions of urban dwellers throughout the world. Increased frequency of hot days and warm spells is resulting in a higher frequency of heatwaves and is expected to exacerbate urban heat island effects, causing heat-related health problems.<sup>25</sup>

Droughts are reducing water availability in many cities, which will add more people to the 150 million people currently living in cities with chronic water shortages.<sup>26</sup> Numerous urban areas are located along cyclone tracks and there is evidence that storms are increasing in both frequency, intensity and durability. Heavy rainfall and storm surges would impact urban areas through flooding, which in turn can lead to the destruction of properties and public infrastructure, contamination of water sources, waterlogging, loss of business and livelihood options, and an increase in water-borne and water-related diseases.<sup>27</sup>

In addition, sea level rise poses a huge threat to both small and large coastal cities. Although just 2 per cent of the world's total land is urban, almost 10 per cent of coastal land lower than 10 meters above sea level is already urbanized or quasi-urbanized.<sup>28</sup> 13 per cent of the world's total urban landmass is in low-elevation coastal zones.<sup>29</sup> Indeed, some countries' urban populations are especially concentrated in low-elevation coastal zones.

22 World Bank (2009). *Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation*.

23 UN-Habitat (2021), *Cities and Pandemics: Towards a more just, green, and healthy future*.

24 UNEP, *Cities and Climate Change*. Available at <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/cities-and-climate-change>.

25 Hajat, Shakoor, Madeline O'Connor, and Tom Kosatsky (2010). Health effects of hot weather: from awareness of risk factors to effective health protection. *The Lancet* 375, no. 9717: 856–863.

26 "Chapter 8: Urban Areas" in IPCC (2014). *AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability*. Available at [https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap8\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap8_FINAL.pdf)

27 Ibid.

28 Coalition for Urban Transitions (2019). *Climate Emergency-Urban Opportunity*.

29 Ibid.

For example, in Guyana, Maldives, Belize, and Suriname, the entire urban population lives at an elevation lower than 10 meters above sea level, and 81 per cent of the urban population of Thailand and Bahrain live at this level of elevation as well.<sup>30</sup> Since most countries' economies depend heavily on the activity of their cities, the increased vulnerability caused by the low elevation poses a risk to future national economic development and growth.<sup>31</sup>

Furthermore, a significant proportion of the urban population of developing countries resides in informal settlements, further intensifying their vulnerability. It is estimated that almost a billion people live in slums, more than 881 millions of them in developing countries alone.<sup>32</sup> These settlements have been built outside the 'formal' system of laws and regulations that are meant to ensure safe, resilient structures, settlements, and systems. In addition to living under conditions characterized by inadequate access to safe water, sanitation, sufficient living space and lack of secure tenure, informal settlers also face the grave threat of climate change.

They stand to be disproportionately affected due to three underlying factors. First, they are often located in environmentally fragile areas such as steep slopes, floodplains, coastal shores, and riverbanks. Second, the general socio-economic characteristics of slum dwellers, such as high levels of poverty and illiteracy, mean that these communities have a low capacity to deal with climate impacts. Third, slums often suffer from political and institutional marginalization by public authorities that refuse to legitimize their urban existence. Consequently, such areas often miss out on investments in risk-reducing infrastructure.<sup>33</sup>

Considering that 55 per cent of the world's population currently reside in urban areas with a projected increase to 68 per cent by 2050,<sup>34</sup> there is a very strong and urgent need for urban areas to accelerate climate change adaptation and mitigation activities. Indeed, the most vulnerable regions are where urbanization will take place more rapidly. Of the 2.5 billion people expected to live in cities in the next three decades, 90 per cent of them will be in Asia and Africa.<sup>35</sup> A growing urban population not only makes the prospects of higher emissions real, but also means that many will be at heightened risk from the adverse effects of climate change.

30 Ibid.

31 Ibid.

32 UN-Habitat (2016). *World Cities Report 2016*.

33 UN-Habitat (2018). *Addressing the most Vulnerable First: Pro-Poor Climate Action in Informal Settlements*.

34 UN-Habitat (2020). *World Cities Report: The Value of Sustainable Urbanization*.

35 UNDESA (2018). *2018 Revision of World Urbanization Prospects*.



# INTERNATIONAL FRAMEWORK ON CLIMATE CHANGE RESPONSE

## Introduction

The main objective of the United Nations Framework Convention on Climate Change (UNFCCC) was to "stabilize atmospheric greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system" within a timeframe that would make it possible for "ecosystems to adapt naturally, ensure the protection of food security as well as promote sustainable development".<sup>36</sup> The UNFCCC calls for countries to "take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects",<sup>37</sup> and also exhorts the formulation and implementation of measures to "facilitate adequate adaptation to climate change".<sup>38</sup>

It further implores countries to cooperate in preparing for adaptation and specifically mentions the need to develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture and for the protection and rehabilitation of areas affected by drought and desertification, as well as floods.<sup>39</sup> The Kyoto Protocol reiterates the necessity of adaptation and identifies several sectors, including energy, transport, industry, agriculture, forestry and waste management. It notes that "adaptation technologies and methods for improving spatial planning would improve adaptation to climate change".<sup>40</sup>

Adaptation received greater focus in the Cancun Agreements and the momentum generated through the Cancun Adaptation Framework was crystallized in the Paris Agreement, where adaptation was the subject of two Articles (7 and 8). The Paris Agreement recognizes that "adaptation is a global challenge faced by all" and is key to "the long-term global response to climate change to protect people, livelihoods and ecosystems".<sup>41</sup> Notably, the Paris Agreement identifies cities as "important stakeholders, capable of mobilizing strong and ambitious climate action".<sup>42</sup>

The Sustainable Development Goals (SDGs) through SDG 13 specifically mention building climate resilience and developing the adaptive capacity to climate-related hazards and natural disasters. SDG 13 also includes a target (13.2) on the integration of "climate change measures into national policies, strategies and planning".<sup>43</sup> SDG 11 calls for inclusive, safe, resilient, and sustainable cities, and among its targets there are several that are directly related to climate action such as sustainable transport systems, green buildings, and the reduction of the environmental impact of cities.

The SDGs commitments on climate change mitigation are complemented by the New Urban Agenda (NUA), which includes various paragraphs that signify the importance of climate change action, including the commitment to promote "international, national, subnational and local climate action, climate change adaptation

.....  
<sup>36</sup> Article 2, UNFCCC.

<sup>37</sup> Article 3.3

<sup>38</sup> Article 4.1 (b)

<sup>39</sup> Article 4.1 (e)

<sup>40</sup> Article 10 (b) (i)

.....  
<sup>41</sup> Article 7.2.

<sup>42</sup> Preamble

<sup>43</sup> Target 13.2.

and mitigation, and to support the efforts of cities and human settlements, their inhabitants and all local stakeholders to be important implementers".<sup>44</sup> It also highlights the need for a "medium- to a long-term adaptation planning process, as well as city-level assessments of climate vulnerability and impact, to inform adaptation plans, policies, programmes, and actions that build the resilience of urban inhabitants, including through the use of ecosystem-based adaptation".<sup>45</sup>

The NUA includes a commitment to reduce GHG emissions from all relevant sectors in line with the goal of the Paris Agreement to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels (para 79). The NUA also mentions the need for developing "sustainable, renewable and affordable energy, energy-efficient buildings and construction modes, and to promote energy conservation and efficiency, which are essential to enable the reduction of greenhouse gas and black carbon emissions" (para 75).

The Sendai Framework on Disaster Reduction also recognizes that climate change is one of the risks driving disasters and, to this end, requires governments to prepare, review and periodically update disaster preparedness and contingency policies and plans, and consider climate change scenarios and their impact to mainstream disaster risk assessments into land-use policy development and implementation, including urban planning.

44 Para 79

45 Para 80

## Relevant Themes in Climate Change Response

### Mitigation

Mitigation involves actions that reduce the rate of climate change and is aimed at limiting or preventing GHGs and enhancing activities that remove these gases from the atmosphere (sinks).<sup>46</sup> GHGs come from a range of sources and climate mitigation can be applied across all sectors and activities. These include policies to reduce emissions such as energy efficiency standards, subsidies for renewable energy, carbon taxes, an emissions trading system, funding of urban mass transit systems, and technology research and development. Mitigation actions aimed at enhancing sinks relate to land use, land-use change and forestry (LULUCF), and include measures to reduce emissions from deforestation and forest degradation (REDD+)<sup>47</sup> and to encourage afforestation.<sup>48</sup>

### Adaptation

Adaptation involves "anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause".<sup>49</sup>

46 Change, IPCC Climate (2014). *Mitigation of Climate Change*. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change 1454.

47 Reducing emissions from deforestation and forest degradation.

48 Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani (2017). *International Climate Change Law. Yearbook of International Environmental Law* 28: 549-551.

49 European Commission, *Climate Action, Adaptation to Climate Change*. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:82:FIN>.

Adaptation activities are aimed at improving the resilience of societies against risks by building capacity, reducing poverty, and strengthening disaster preparedness.<sup>50</sup> In the urban context, adaptation may involve establishing frameworks for risk and vulnerability assessments; creating early warning systems; 'climate proofing' existing infrastructure; constructing sea walls and river embankments; improving storm drainage systems; conserving wetlands to absorb peak flows from floods; planting of protective mangroves to reduce the intensity of storm surges; upgrading slums to improve their resilience; and undertaking planned relocations.<sup>51</sup> It is important to note that for developing countries, adaptation to climate change is the main focus due to their limited contribution to GHGs but very high vulnerability to impacts.

## Finance

The role of finance in climate change action is widely acknowledged in global agendas. The Addis Ababa Action Agenda recognizes that "funding from all sources, including public and private, bilateral and multilateral, as well as alternative sources of finance, will need to be stepped up for investments in many areas including for low-carbon and climate-resilient development".<sup>52</sup> The NUA also calls for the development and expansion of financial instruments related to climate change action.

It specifically acknowledges that resources will be needed to improve transport and mobility infrastructure and systems (para 118), and calls for adequate investments in protective, accessible, and sustainable infrastructure (para 119).

Similarly, finance appears prominently in the Paris Agreement, whereby one of the key objectives is "making finance flows consistent with a pathway towards low GHGs and climate-resilient development".<sup>53</sup>

The World Bank estimates that developing countries will require approximately USD 275 billion per year by 2030 for adaptation and mitigation.<sup>54</sup> In the urban context, these range from reconfiguring urban planning systems to make them less reliant on vehicle transport; climate-proofing existing infrastructure and building new ones to enhance resilience; upgrading slums; relocating whole populations from vulnerable areas; and extending resilient infrastructure and basic services to communities. Nonetheless, the amount provided for countries to shift towards low-carbon and resilient development pathways falls short of what is required. Furthermore, even with the resources that are currently being provided, only an estimated 10 per cent of these resources reach local communities, and yet it is at this level that most of the impacts will be felt.<sup>55</sup>

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50 Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani (2017). *International Climate Change Law. Yearbook of International Environmental Law* 28: 549-551.

51 Gianluca Crispi and Rashid Abubakar (2021). *Urban Law and Climate Change* (forthcoming UNEP and UN-Habitat).

52 Addis Ababa Action Agenda of the third International Conference on Financing for Development, Para 60.

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53 Article 2.1.c

54 World Bank (2010). *World Development Report 2010: Development and Climate Change*. Washington, D.C.

55 Marek Soanes, Clare Shakya, Anna Walnycky and Sam Greene (2019). *Money Where It Matters: Designing funds for the frontier* (International Institute for Environment and Development).

## Capacity Building

Capacity building is essential for countries in the Global South to undertake domestic climate action. The vulnerability of these countries to climate change is intensified by their limited human, institutional, and financial capacity to anticipate and respond to the direct and indirect effects of climate change.<sup>56</sup>

As such, building the capacity of such countries has taken a prominent position in the Paris Agreement which dedicates a stand-alone Article (11) to it, and provides that the purpose of capacity building is to enhance the ability and capacity of developing States to undertake mitigation and adaptation measures. The range of targeted areas includes technology development, access to finance, communication of information, education, training, and public awareness.<sup>57</sup>

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<sup>56</sup> ND-GAIN (2013). *Global Adaptation Index: Measure of Country Vulnerability and Capability to Respond to Climate Change*. University of Notre Dame.

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<sup>57</sup> Article 11.1.



Stilt houses, coping with climate change © Development Planning Unit, University College London

## MULTI-LEVEL GOVERNANCE

Governance refers to the process through which State and non-State actors interact to design and implement policies within a given set of formal and informal rules that shape and are shaped by power.<sup>58</sup> It involves the structures and processes that are designed to ensure accountability, transparency, responsiveness, rule of law, stability, equity and inclusiveness, empowerment, and broad-based participation. Governance also represents the norms, values, and rules of the game through which public affairs are managed in a manner that is transparent, participatory, inclusive, and responsive, and sets the parameters under which management and administrative systems will operate.<sup>59</sup> In the climate change context, the magnitude and urgency of the challenge calls for an emphasis on strong and effective governance systems and practices.

Multi-level governance has been defined as “the arrangements for making binding decisions that engage a multiplicity of politically independent but otherwise interdependent institutional actors (private, public and social) at different territorial levels, and that does not assign exclusive policy competence or assert a stable hierarchy of political authority to any level”.<sup>60</sup>

In the climate change context, multi-level governance has been defined as the “structural and institutional setting in which different levels of government distribute roles and responsibilities, coordinate and cooperate on climate action, as well as the specific instruments that are implemented at different levels of government to support and implement local climate action.”<sup>61</sup> The Organisation for Economic Co-operation and Development (OECD) notes that “multilevel governance calls for narrowing or closing the policy gaps among levels of government via the adoption of tools for vertical and horizontal cooperation”.<sup>62</sup>

This paper extracts and combines elements from all the definitions to regard multi-level governance as: a) vertical coordination among governments at various levels as well as with other stakeholders such as civil societies, community organizations, the private sector, among others; and b) horizontal coordination within and amongst governments (and their departments) at the same level as well as coordination with and amongst non-State actors. This approach is consistent with the Intergovernmental Panel on Climate Change (IPCC) which, in the context of adaptation,<sup>63</sup> observes that:

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58 World Bank (2017). *Governance and the Law*.

59 UNESCO, *Concept of Governance*. Available at: <http://www.ibe.unesco.org/en/geqaf/technical-notes/concept-governance>.

60 Schmitter, Philippe (2004). “Neofunctionalism” in *European Integration Theory*, A. Wiener and T. Diez (eds.) Oxford University Press; OECD (2005). *Building Competitive Regions: Strategies and Governance*.

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61 GIZ (2020). *Multi-Level Climate Governance Supporting Local Action*.

62 Corfee-Morlot, Jan et al (2009). *Cities, Climate Change and Multilevel Governance. OECD Environmental Working Papers No. 14*.

63 It is arguable that the statement is just as applicable to mitigation.

"Adaptation planning and implementation can be enhanced through complementary actions across levels, from individuals to governments. National governments can coordinate adaptation efforts of local and sub-national governments, for example by protecting vulnerable groups, by supporting economic diversification and by providing information, policy and legal frameworks and financial support. Local governments and the private sector are increasingly recognized as critical to progress in adaptation, given their roles in scaling up adaptation of communities, households and civil society and in managing risk information and financing".<sup>64</sup>

## Most Relevant Actors

There is an array of actors that play an important role for multi-level governance and urban-related climate change action. However, the principal groups of actors that fall under the definition of governance include the government, the private sector and civil society. Actors such as independent research institutions are, in this context, viewed as civil society organizations that capture all actors that do not represent the State or the market. Also, governments are seen as multi-lateral actors in the international arena by being responsible for global frameworks for climate change governance such as the UNFCCC Conference of Parties.

## National Governments

The role of national governments is to provide guidance in the translation of international climate change commitments into binding, concrete, and coherent actions at the domestic level.

64 IPCC (2014). *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.*

National governments are particularly crucial actors as financial resources, technical capabilities as well as the mandate to act in most climate-related sectors such as industrialization, agriculture, and mining are in many countries often nested at this level. National governments are responsible for creating an enabling legal and institutional framework to facilitate mitigation and adaptation. They lead the formulation of national policies related to climate change while benefiting from bottom-up perspectives of communities and governments at other levels. It is, however, notable that while accountability for preparing, communicating, and implementing national determined contributions (NDCs) is vested in national governments, the effectiveness of actions relies on coordination across the various levels of governments, including with sub-national governments (regions/states/provinces/metropolises/local governments).

## Regional Governments

Regional governments enable contextual particularities such as geographical features, resource endowments, and social-economic status within regions, provinces, and metropolises to be factored into climate change adaptation. Also, regional governments provide "a scaling factor that can make structural changes possible that would be unattainable on a purely local basis".<sup>65</sup> Regional governments enable the harnessing of technical know-how, human resources and financial capacity that would not be possible if individual local governments acted in isolation. They also enable a coherent consideration of regional circumstances and needs and offer an avenue for the exchange of ideas and experiences.

65 Corfee-Morlot, Jan et al (2009). *Cities, Climate Change and Multilevel Governance. OECD Environmental Working Papers No. 14.*

For instance, a transboundary river that passes through several administrative areas that causes seasonal flooding due to increased precipitation from climate change would benefit from an adaptation strategy including mitigating and responding to risks developed at the sub-national rather than at the local level.

## Local Governments

As the closest level to the people, local governments have contextual knowledge about their territories and the climate change challenges affecting them. Therefore, they are more likely to accurately appreciate the needs and concerns of their local population and it is also more likely that their authority will be accepted as legitimate. Local governments are well positioned to develop policy and programmatic solutions that best meet specific geographic, climatic, economic, and cultural conditions. Local authorities serve as a vehicle for the implementation of nationally (and at times, regionally) driven policies, to ensure that the mandates outlined at a national scale are carried out and deliver meaningful results at the local scale.

City mandates already cover critical areas related to climate change, including transport, waste management, building and construction, and provision of basic services such as water and energy.<sup>66</sup>

Their involvement in these activities means that cities are well-positioned to steer growth towards less GHG emissions and more resilient systems. Local governments are in a good position to “provide a means of social and technical innovation that is not possible at a broader scale, ultimately providing a vehicle for learning and broader dissemination as well as lead to bottom-up diffusion of successful approaches that may influence regional, national and even international actions”.<sup>67</sup> Local governments are in a position to elaborate in-depth city resilience profiles, providing a systemic approach to the city from a multi-hazard, multi-sectoral and multi-stakeholder perspective, and produce actionable guidance to increase their capacity to build urban resilience for the long term.<sup>68</sup>

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66 Gianluca Crispi and Rashid Abubakar (2021). *Urban Law and Climate Change* (forthcoming UNEP and UN-Habitat).

67 Corfee-Morlot, Jan et al (2009). *Cities, Climate Change and Multilevel Governance. OECD Environmental Working Papers No. 14*, .

68 UN-Habitat (2018). *Guide to the City Resilience Profiling Tool*.

## **BOX 1. Roles of different levels of government in climate change action**

### **National Governments**

- Sign international climate change agreements and popularize them nationally
- Formulate national climate policy framework – near and long-term targets – strategic orientation for policy
- Enact national laws, policies, and standards in key climate-related sectors (e.g., energy, air pollution, water)
- Regulate performance (e.g., building or appliance standards)
- Prioritize and set out timeframes for national action (e.g., by sector)
- Infrastructure funding and authorization for construction (e.g., national roads, sitting power or transmission facilities, water supply and quality, parks, or reserves)
- Establish a national greenhouse gases (GHG) inventory system and build understanding of nation-wide mitigation opportunities and their costs
- Risk characterization at a national scale; definition of risk management rules or guidance, funding, and principles
- Monitor performance of climate policies – national scale
- Fund core analytic inputs to facilitate sub-national (regional and local) decision making
- Provide regions, local governments with tools and support to make good decisions (e.g., inventory methods)

### **Regional Governments**

- Implementation of national laws and standards
- Regional climate policy framework – near and long-term targets – regional strategic orientation
- Regional laws and policies in key climate-related sectors (e.g., energy, air pollution, water).
- Regulate performance in key sectors in cases when permitted by national law to do so (e.g., building or appliance standards)
- Prioritize and set out timeframes for regional action (e.g., by sector)
- Provide incentives, funding, and authorization to enable local action on climate change
- Risk characterization at regional scale; definition of risk management rules or guidance, funding, and principles.

- Establish a monitoring system to track GHG emissions and policy performance over time
- Ensure that decision-makers have the tools, information, and appropriate institutional context to deliver good decisions

### **Local Governments**

- Implement local decisions as foreseen under national or regional law
- Where authority exists – act autonomously e.g., through land-use planning, decisions on local infrastructure (e.g., local roads, urban planning and zoning, flood control, water supply, local parks/reserves/green-spaces, sanitary waste)
- Identify local priorities – enhance local/regional understanding working with local actors
- Raise awareness, create deliberative “space” for decision making
- Develop locally adapted policies and measures e.g., public-private partnerships and local public procurement policies

**Source:** Corfee-Morlot, Jan, et al (2009). Cities, Climate Change and Multilevel Governance. *OECD Environmental Working Papers* No. 14.

## Non-State Actors

### Civil Society Organizations

Civil society organizations (CSOs) are defined as “non-State, not-for-profit, voluntary entities formed by people in the social sphere that are separate from the State and the market. CSOs represent a wide range of interests and ties. They can include community-based organizations as well as non-governmental organizations (NGOs).”<sup>69</sup> Examples include community-based organizations and village associations, environmental groups, women’s rights groups, farmers’ associations, faith-based organizations, labour unions, co-operatives, professional associations, chambers of commerce, independent research institutes and the not-for-profit media.<sup>70</sup> Civil society organizations play a crucial role in urban governance as they help to bridge the gap between governments and populations by providing a platform for the transmission of local views. In developing countries, civil societies often go further to not only complement the work of governments but also fill in service provision gaps. In the climate change context, civil society groups perform essential functions, such as facilitating the spread of information about climate change risks and vulnerabilities at the local level; contributing to the formulation of policies; amplifying the voices of local communities, particularly the most vulnerable; and assisting in the mobilization of climate finance.

69 Ruggie, John, *The UN Guiding Principles on Business and Human Rights (UNGPs) reporting framework on ‘CSOs’*. *Shift and Mazars LLP*. Available at: <https://www.ungpreporting.org/glossary/civil-society-organizations-csos/>.

70 Definition put forward by the 2007–2008 Advisory Group on CSOs and Aid Effectiveness and now adopted by the OECD DAC.

In most developing countries, the role of civil society may be taken by local NGOs and community-based organizations (CBOs). These organizations often have a close understanding of local needs and challenges in addition to enjoying substantial social legitimacy and acceptance, which is key in generating collective action.<sup>71</sup>

### The Private Sector

The private sector accounts for 85 per cent of all investments worldwide, represents about 75 per cent of global climate finance flows and, in developing countries, 90 per cent of people depend on private sector-generated income.<sup>72</sup> In the climate change context, the private sector can be an important player in providing technology, mobilizing finances, and engaging with governments, civil society and community organizations to come up with relevant climate-related policies, plans and actions. The private sector also has a key role to play in climate change mitigation by transforming their business practices into actions that contribute to low-emission pathways. Nonetheless, research shows that the potential offered by the private sector is not fully exploited in developing countries. The amount of investment flows and climate finance that goes to the most vulnerable, such as LDCs is very low.<sup>73</sup> Private sector investments to developing countries also tend to bypass people living in extreme poverty since it is usually directed at the formal sector.

71 Aboniyo, Josiane (2017). *The Role of Community Based Organizations in Transferring Climate Change Information: A Case of Eastern Province Farmers Community, Rwanda*. (Pan African University).

72 Climate Action Network (2013). *Climate Change Adaptation, and the Role of the Private Sector: Creating effective tools for private sector engagement*.

73 Ibid.

Yet, the informal economy accounts for the majority of total employment in these countries, estimated at 85.8 per cent in Africa and 68.2 per cent in Asia and the Pacific (excluding agriculture, the percentage stands at 71.9 per cent and 59.2 per cent, respectively).<sup>74</sup> Furthermore, the for-profit nature of private sector activities has limited its contribution to supporting community adaptation and low-emission development in resource-poor contexts.<sup>75</sup> Accordingly, there needs to be a broader discussion on how the potential of the private sector may be harnessed for climate action in developing countries, including through increased investment and climate finance to the poorest and greater engagement with the informal economy.

## Vertical Coordination

Vertical coordination entails the alignment of “climate policies, plans and implementation across different levels of government, leveraging the potential of each respective level through collective efforts and promoting top-down and bottom-up information exchange”.<sup>76</sup> The need for vertical coordination is underscored by two inter-related factors. On the one hand, climate change response requires substantial financial resources and complex technical know-how. In most cities throughout the world, but most specifically in developing countries where these financial and technical resources are lacking, the involvement of national governments and other actors such as the private sector, academic and research institutions as well as other CSOs is essential.

Furthermore, in most countries, pathways for action in areas related to climate change are often steered from higher levels. For instance, while regional and local policies determine the specific details of land use, human settlement patterns and transport planning, the space for action and potential for change is usually guided and determined by national policies, technical standards, budgets, and priorities.<sup>77</sup> The second factor underscoring the need for vertical coordination is that national governments alone cannot effectively plan and implement all climate change actions from the centre.

Climate change actions must involve other levels of government as well as non-State actors for two main reasons. First, the impacts of climate change are felt locally, meaning that adaptation requires changes at local levels in addition to the fact that GHGs are the result of actions or processes that occur in each place. Hence, a multitude of local-level actions will ultimately be needed to alter future emission pathways over the long-term.

Second, “key information and specific knowledge gained from local experimentation should contribute to the design of policy at the central level”, which means that a range of local actors will need to be involved, including not only local governments but also communities and their associations.<sup>78</sup> Vertical coordination is thus a mechanism that reflects the reality of effective climate change action – no government at any level can operate in isolation from others or in exclusion of non-State actors.

74 International Labour Organization (2018). *Women and Men in the Informal Economy: A Statistical Picture*.

75 Climate Action Network (2013). *Climate Change Adaptation, and the Role of the Private Sector: Creating effective tools for private sector engagement*.

76 Corfee-Morlot, Jan et al (2009). *Cities, Climate Change and Multilevel Governance. OECD Environmental Working Papers No. 14*, .

77 Ibid.

78 Ibid.

## Horizontal Coordination

Horizontal coordination within and amongst governments (and their departments) at the same level is crucial for policy coherence and the implementation of a 'whole of government approach'. Institutional arrangements vary among countries, but it is common to find ministries dealing with infrastructure, urban planning, housing, finance, energy, agriculture, transport, land and environment at the national and sub-national levels. In some countries, these areas are dealt with through different ministries while others combine them under one ministry (although even in these cases they could still be under separate departments within the ministry). At the local level, there also exist line departments such as those dealing with housing, infrastructure, urban planning, environment and natural resources, energy, and utilities. In both cases, inter-institutional coordination is essential. For instance, transport systems are intricately connected to urban planning and land-use practices in that higher availability of motorized transport infrastructure may contribute to urban sprawl and greater emissions.

Similarly, housing policies and energy use are linked, as green housing policies may steer buildings towards improved energy efficiency. These inter-linkages mean that policies in one sector could promote or undermine planned actions in another sector. The need to coordinate is also underscored by the fact that different ministries may make use of different policy and implementation instruments.

As such, ministries, and line departments such as those dealing with housing, infrastructure, urban planning, environment and natural resources, energy, and utilities within local governments need to work in a coordinated and coherent manner for effectiveness.<sup>79</sup>

Horizontal coordination should also encompass coordination among various local governments because many urban challenges, including climate change, do not recognize administrative boundaries. Rapid urbanization has contributed to the expansion of urban areas beyond their traditional administrative boundaries in many parts of the world. The effect of this phenomenon has been the emergence of human settlements that do not fit within any one municipal area but are spread across two or more. In this sense, the administrative boundaries do not correspond to functional and morphological boundaries leading to institutional loopholes and service delivery gaps. To address them, there is a need for collaboration among local governments either bilaterally, multi-laterally or through the form of metropolitan governments. City-to-city cooperation and collaboration mechanisms can lead to more integrated and effective responses, also serving as a catalyst for developing or improving local solutions and contributing to an increased city to city exchange of capacity and knowledge. City networks such as C-40 are an increasingly essential element in supporting and advancing city-to-city exchange.

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<sup>79</sup> Gianluca Crispi and Rashid Abubakar. *Urban Law and Climate Change* (forthcoming UNEP and UN-Habitat, 2022).

## MECHANISMS FOR MULTI-LEVEL GOVERNANCE

Urban-related climate change action in countries takes many forms, including the development of relevant policies and legislation (which may be sectoral such as housing, environmental, energy, transport etc.) and mitigation and adaptation plans. Some of these actions precede the Paris Agreement and represent longstanding commitments from these countries under the UNFCCC and the Kyoto Protocol.

National policies that could benefit from multi-level governance approaches are listed in the table below.

These policies often require action by numerous actors spanning different levels of government and sectoral areas, thus necessitating a multi-level governance approach to ensure harmonious implementation.

### **BOX 2. Domestic tools for climate change action that could benefit from mlg approaches**

#### **Nationally Determined Contributions (NDCs)**

Nationally Determined Contributions (NDCs) are the foundation of the Paris Agreement. Their uniqueness is based on the fact that they are “nationally determined” – in that it is for respective countries to determine how they are going to contribute to the climate change effort. This is in contrast with the UNFCCC and Kyoto Protocol, where targets were internationally agreed i.e., top-down, while the NDCs are bottom-up. According to Article 4.2 of the Paris Agreement, the obligations of parties regarding NDCs are to “undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement”. In terms of scope, therefore, NDCs can include components on mitigation (Article 4), adaptation (Article 7), finance (Article 9), technology transfer (Article 10), and capacity building (Article 11).

The Paris Agreement requires NDCs to be communicated after every five years; that every new NDC communication should show a progression from the previous one; that the NDC show the highest possible ambition; and after the process has started, for NDCs to be informed by the global stock take.<sup>80</sup> The preparation and communication of NDCs and the requirement of progression is an obligation that applies to both developed and developing parties. Countries may adjust their NDC at any time, given changes in financial capabilities, technology, or capacity. These submissions are publicly available on the NDC interim registry. A study undertaken by UN-Habitat in 2017 showed that the majority of NDCs, 113 out of 164, show strong or moderate urban content.<sup>81</sup>

80 ECBI (2020). *Pocket Guide to NDCs*.

81 UN-Habitat (2020). *Enhancing Nationally Determined Contributions Through Urban Climate Action*.

## National Adaptation Plans (NAPs)

National Adaptation Plans (NAPs) are a country's comprehensive plan for the implementation of adaptation actions in the medium to long-term and any associated monitoring and evaluation. NAPs, as an instrument to programme adaptation actions, were agreed under the Cancun Adaptation Framework at the 16th Conference of the Parties in 2010. NAPs are a continuous, progressive, and iterative process designed to be country-driven and transparent. The agreed objectives of the national adaptation plan process are to reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience, and to facilitate the integration of climate change adaptation, in a coherent manner, into relevant new and existing policies, programmes and activities, in particular developing planning processes and strategies, within all relevant sectors and at various levels.

## National Action Plans

An action plan is a policy instrument used by countries to guide integrated and coherent climate change action at the national level and, in some countries, at the regional and state level (such as in the United States). Although countries refer to such 'action plans' using different titles - National Climate Change Action Plan (Kenya, India, North Macedonia, Philippines, Turkey and Indonesia); National Climate Change Strategy and Action Plan (Namibia); National Strategic Action Plan for Climate Change and Disaster Risk Management (Tuvalu); National Climate Change Strategy (Tanzania) etc., – the common objective is usually to offer a framework through which countries may translate their international climate change obligations into concrete actions at the domestic level. These policy instruments usually lay out the institutional and policy structure that a country/region/State will use to develop and implement a climate change mitigation and adaptation strategy. In some countries, the adaptation component of action plans is elaborated through the NAPs.

## National Urban Policies (NUPs)

A NUP refers to "a coherent set of decisions derived through a deliberate government-led process of coordinating and rallying various actors for a common vision and goal that will promote more transformative, productive, inclusive and resilient urban development for the long term".<sup>82</sup> One of the key functions of a NUP is to facilitate the management of interdependencies across different actors and levels of government while ensuring policy coherence, creating incentives for more sustainable practices, and providing a basis for the better allocation of resources. While NUPs hold a lot of potential for climate change action in urban contexts, a recent study has revealed that out of the 113 NUPs with available data (out of total of 119 NUPs that are in the formulation stage or beyond), there is inadequate consideration of climate resilience, with only 48 per cent of NUPs giving moderate to extensive attention to this thematic area.<sup>83</sup>

82 UN-Habitat (2014). *The Evolution of National Urban Policies: A Global Overview*.

83 OECD, UN-Habitat and Cities Alliance (2021). *Global State of National Urban. Policy 2021: Achieving Sustainable Development Goals and Delivering Climate Action*.

## Formal Mechanisms

Developing countries have adopted the use of formal and institutionalized mechanisms to encourage inter-institutional coordination and the engagement of non-State actors. 'Formal and institutionalized' in this sense denotes the existence of a process or forum that has been officially sanctioned, approved, and supported by the government, such as through the enactment of a supportive legal framework. Three main mechanisms appear most prominently: inter-governmental bodies with multi-stakeholder representation; financing mechanisms aimed at incentivizing institutional coordination; and bilateral agreements between levels of government.

The most common formal mechanism for multi-level climate change governance is the creation of inter-governmental bodies with multi-stakeholder representation.<sup>84</sup> Kenya has a Climate Change Council which is chaired by the president and comprises representatives from the national cabinet, the county government, private sector, civil society, academia, and marginalized communities. The council has the role of primary coordination, policy direction, oversight, and guidance across all levels of government and ensuring that climate change is mainstreamed across all levels of government. A Climate Change Council (*Consejo Nacional de Cambio Climático*) also exists in Guatemala and brings together members of several ministries and other public sector institutions as well as representatives of municipalities, private sector associations and NGOs.<sup>85</sup>

In Brazil, the coordination mechanism takes the form of a Climate Change Forum (*Fórum Brasileiro de Mudança do Clima*) which is made up of government officials at the federal, state, and municipal levels in addition to non-State actors to deliberate and contribute to climate change policymaking. Colombia has an Intersectoral Climate Change Commission (*Comisión Intersectorial de Cambio Climático*) to promote national inter-institutional coordination as well as nine Regional Nodes on Climate Change (*Nodos Regionales de Cambio Climático*) created by presidential decree to promote coordination between the national and the regional levels on climate change matters. Examples from Asia include Myanmar's National Environmental Conservation and Climate Change Committee to coordinate climate action horizontally and vertically; and the Philippines Climate Change Commission which is tasked with monitoring and evaluating the climate change programmes and activities of ministries and local governments.<sup>86</sup>

Countries have also established some formalized financing mechanisms aimed at incentivizing institutional coordination in climate change action. An example is India's Tamil Nadu Urban Development Fund, which is a form of subnational pooled financing mechanism (SPFM) that allows local governments to jointly access loans, bonds, and other forms of finance. The utility of SPFMs is that they enable local governments that individually lack the credit history or financial scope to access such finance to do so collectively.<sup>87</sup>

84 Adriázola, P., E. Dellas, and D. Tänzle (2018). *Multi-level climate governance supporting local action*. Deutsche Gesellschaft für internationale Zusammenarbeit.

85 Mueller, Scott.A., Harris, Jordan M., Sperling, Joshua and José Gutiérrez, Maria (2017). *Forging Low Emission Development Paths in Latin America: Multi-level dynamics in the world's most urbanized region*. LEDS Global Partnership.

86 Adriázola, P., E. Dellas, and D. Tänzle (2018). *Multi-level climate governance supporting local action*. Deutsche Gesellschaft für internationale Zusammenarbeit.

87 FMDV (2016). *The Potential Catalytic Role of Subnational Pooled Financing Mechanisms*.

Another way in which financing mechanisms have been used to promote multi-level climate change action is through conditional inter-governmental transfers. Brazil and India are countries where ecological considerations play a relevant role in inter-governmental transfers. In Brazil, climate change action is funded through ecological fiscal transfers under the Imposto Sobre Circulação de Mercadorias e Serviços Ecológico (ICMSE); a 25 per cent municipal share is distributed according to ecological considerations (half to conservation units and half to watershed protection).

These criteria include the size of protected areas, the area of the municipality, and the protected area's management category. Some States also impose additional environmental criteria, such as protection of water reserves, quality of water, sanitation, and treatment of solid waste and sewage.<sup>88</sup> In India, inter-governmental transfers have also been used for climate change mitigation through incentives for preservation of carbon sinks. In 2015, the Finance Commission added forest cover to the formula that determines the amount of tax revenue the union government distributes annually to each of India's states, alongside historical population, recent population, poverty, and area. From the fiscal years of 2015–16 through 2019–2020, the union government distributed 7.5 per cent of the divisible central tax revenue that is devolved to states in proportion to states' area of 'very dense' or as measured by the India State of Forest Report 2013.<sup>89</sup>

The third mechanism is bilateral agreements between levels of government where they agree to pursue collective action, with one level complementing the actions of the other. An example would be the energy conservation target responsibility system (ECTRS) in China. Although the country's governance structure is characterized by strong central government control, local governments perform a significant role in the implementation of national policies.<sup>90</sup> In the ECTRS, targets set at the national level are cascaded down and implemented at the provincial and local levels. The responsibility for achieving the targets is vested at the sub-national level (e.g., provincial governors and party-secretaries), with the national government committing to support local implementation through capacity building and financing. The targets are also differentiated, with more developed provinces receiving higher targets.<sup>91</sup> Furthermore, while the targets are developed in a top-down manner, it is for the sub-national governments to determine the best way to meet them, taking into consideration their socio-economic status, financial resources, and technological capabilities.

## Informal Mechanisms

Informal mechanisms are collaborative practices that have been forged without the aid of regulatory instruments and may include initiatives such as local government networks and partnerships or informal fora, which bring together representatives from different levels of government and non-State actors.

88 UNDP (2016). *Ecological Fiscal Transfers*. Available at: <http://www.undp.org/content/dam/sdfinance/doc/ecological-fiscal-transfer>.

89 Busch, Jonah, Avani Kapur, and Anit Mukherjee (2019). Ecological fiscal transfers and subnational budgets: Did forest-based fiscal devolution lead Indian states to increase forestry expenditure?. *CGD Policy Paper* 159: 1–3.

90 Lo, Kevin (2020). Governing energy consumption in China: a comprehensive assessment of the energy conservation target responsibility system. *Energy Transitions* 4, no. 1: 57–67.

91 Ibid.

These mechanisms play a key role in sharing information, knowledge, and lessons learnt from implementing climate change activities in their respective contexts. For instance, cities in India have a Climate Alliance with more than 100 cities that provides a platform for information sharing on urban climate action. Local government networks can also “improve both horizontal and vertical coordination and coherence, for example where cities develop shared GHG emission reduction targets (horizontal), or where city networks represent cities’ interests vis-à-vis national governments or in international processes (vertical)”.<sup>92</sup> The latter role has been undertaken in South Africa through the South African Local Government Association.<sup>93</sup> Other roles that local government networks play include facilitating access to funding through joint bids and providing capacity building to their members through training and technical support.<sup>94</sup>

However, there is concern that most city networks are concentrated in the Global North, with the benefits of such initiatives reaching mostly cities in wealthier and more developed countries. There is thus a need for wider membership of cities in the Global South, including through more active communication of the tangible benefits of joining such alliances and extending membership to secondary cities and towns in developing countries.<sup>95</sup>

92 Adriázola, P., E. Dellas, and D. Tänzle (2018). Multi-level climate governance supporting local action. Deutsche Gesellschaft für internationale Zusammenarbeit.

93 See <https://nationalgovernment.co.za/units/view/171/south-african-local-government-association-salga>.

94 Adriázola, P., E. Dellas, and D. Tänzle (2018). Multi-level climate governance supporting local action. Deutsche Gesellschaft für internationale Zusammenarbeit.

95 Ibid.

## Inter-municipal Coordination

While the formal and informal mechanisms described above involve local governments, and in many countries have been used by municipalities to foster coordination, this paper seeks to emphasize the role of inter-municipal coordination in promoting sustainable, inclusive, climate-friendly, and resilient urban development. The rationale for inter-municipal coordination is to address issues that go beyond jurisdictional boundaries by coordinating competencies at new scales. Climate change impacts are not constrained by administrative boundaries which call for coherent and coordinated actions among local governments in order to benefit from greater technical and financial capabilities.<sup>96</sup> Indeed, such collaboration is essential considering that one of the most prominent urbanization trends of this century is the growth of metropolises.<sup>97</sup> Approximately 2.59 billion people currently live in metropolises, which is equivalent to one third of the world’s population.<sup>98</sup> It is projected that metropolitan areas will continue to increase and a substantial proportion of the growth will be in developing countries. In 2020, over 300.6 million people lived in African metropolises and that number is projected to increase by more than 191 million between 2020 and 2035. In Asia-Pacific, where currently 1.44 billion people live in metropolises, the population will grow by over 416 million.<sup>99</sup>

96 Ibid.

97 A metropolis is defined as “a city and its commuting zone, which consists of suburban, peri-urban and rural areas economically and socially linked to the city” by the UN Statistical Commission and endorsed by other UN reports such as the *World Urbanization Prospects* (UNDESA) and the *Global State of Metropolis 2020: Population Data Booklet* (UN-Habitat) because it captures the full extent of a city including the dense areas beyond the municipal boundaries.

98 UN-Habitat (2020). *Global State of Metropolis 2020 : Population Data Booklet.*

99 Ibid.

As local jurisdictions within a metropolis are connected areas with strong territorial interdependencies (ranging from economic, social, and environmental) regardless of administrative boundaries, it is essential that these interdependencies are managed in an integrated way. Inter-municipal coordination is done in several ways, from the lightest to the most stringent in institutional terms. These range from informal/soft coordination on one end of the spectrum to a special status of "metropolitan cities" on the other. In between, there are inter-municipal authorities and supra-municipal authorities.

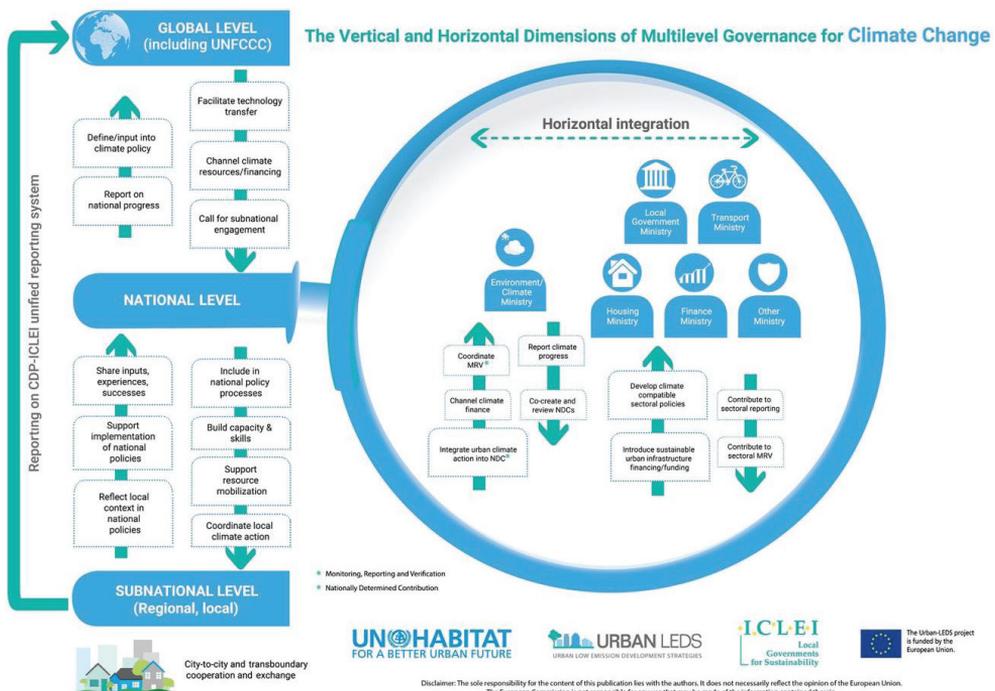
While these forms were identified in the context of the OECD, they are also found in developing countries. For instance, in the capital of the Philippines, Metropolitan Manila encompasses 17 individual local government units which are coordinated by the Metropolitan Manila Development Authority. In South Africa, large cities with substantial populations are organized into 'metropolitan municipalities' to coordinate actions across a number of local councils.

# ENABLING CONDITIONS FOR MULTI-LEVEL GOVERNANCE IN CLIMATE ACTION

For multi-level governance to be an effective element of climate change action in developing countries, several enabling conditions are necessary. As climate impacts are felt locally and emissions are results of processes that occur in a given place, local governments are crucial players in climate change adaptation and mitigation and building their capacities should be prioritized, including through fiscal decentralization and an expanded mandate for climate change-related activities. The involvement of different actors, stakeholders and the public is also an essential part of multi-level governance as it improves the

quality of plans, policies, and actions, promotes compliance, and ensures that such strategies respond to the real needs of individuals and communities. Furthermore, as climate change action requires broad-based inter-sectoral action across different levels of government and their departments, it is key that all the actors can share and benefit from collected data to ensure coherence and efficiency. Supportive legal frameworks and political will are also vital for effective multi-level governance for climate change action in the Global South.

**FIGURE 1.** The vertical and horizontal dimensions of multi-level governance for climate change



## Capacity Building

Local governments require human, technical, institutional, and strategic capacities to develop and implement locally appropriate adaptation and mitigation strategies to combat climate change.<sup>100</sup> They can only fulfil their mandates and undertake climate change activities if they have been sufficiently equipped. As the Paris Committee on Capacity Building has noted, "capacity-building is a critical means of implementation and achieving the goals of the Paris Agreement requires enhanced, sustained and long-term capacity if countries are to close the gap between ambition and implementation."<sup>101</sup> Accordingly, there should be an emphasis on building and improving local governments' capacities and knowledge. Mechanisms include defining adequate minimum qualifications of staff, performing capacity needs assessments and mandatory periodic training, and promoting knowledge exchange with other local governments.

## Fiscal Decentralization

Without finance, the authority to raise it and the capacity to allocate and monitor it effectively, local governments in developing countries will be unable to undertake significant or meaningful actions on climate change.<sup>102</sup> Local governments often have limited revenue bases and are dependent on fiscal transfers from the central government. They may not have the power to levy taxes as the law gives this mandate to national, provincial, or regional governments.

100 Adriázola, P., E. Dellas, and D. Tänzle (2018). Multi-level climate governance supporting local action. Deutsche Gesellschaft für internationale Zusammenarbeit.

101 Paris Committee of Capacity-Building (2019). *Coherence, and coordination of capacity-building activities of constituted bodies and in other relevant processes under the Convention*, UNFCCC.

102 UNESCAP (2020), *Vertical Integration of Climate Change Policies and Actions in Asia-Pacific Cities*.

Legal frameworks, particularly in developing countries, also limit municipal borrowing, restrict the ability of municipalities to reallocate funds among budget categories, and place caps on certain types of expenditures. This is also the case in the implementation of alternative financial mechanisms, like municipal bonds and green bonds where rules and regulations may limit the effectiveness of these instruments and the capacity of municipalities to access private capital to finance climate change mitigation and adaptation. To promote climate finance at the local level, legal frameworks should enable local authorities to raise revenue to fulfil their functions, e.g. by authorizing municipalities to levy taxes such as land-based taxes (property tax, infrastructure charges, land value capture, sale of serviced land, sale of development rights), non-land taxes (licence fees for businesses, taxes on households, taxes on vehicles, etc.), and user charges (services, planning applications and building permits, business registration, market fees), among others.<sup>103</sup>

Moreover, even with additional funds from intergovernmental transfers and locally generated revenue, local governments may not have sufficient discretion over their use to reduce emissions and energy use or undertake specific adaptation activities. These restrictions may curtail effective climate change mitigation and adaptation in urban areas and prevent locally appropriate action. It is, thus, important that where appropriate, local governments are vested with autonomy to spend resources in accordance with their local needs and priorities related to climate change.

103 UN-Habitat (2016). *Finance for City Leaders: Handbook*.

## Public Participation

Public participation is a critical component of governance. Involving stakeholders not only increases the quality of proposals and ensures that they respond to the real needs of the people, but it also improves compliance due to increased buy-in from them. Public participation in environmental decision-making was recognized under Principle 10 of the Rio Declaration. To catalyse and accelerate the implementation of Principle 10, governments adopted the Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters (the Bali Guidelines) at the 11th Special Session of UNEP's Governing Council/Global Ministerial in Bali, Indonesia, in 2010. Principle 10 became the subject matter of a legally binding global instrument, Convention on Access to Information, Public Participation in Decision-making, Access to Justice in Environmental Matters (Aarhus Convention), and a regional agreement (the Regional Agreement on Access to Information, Public Participation, and Justice in Environmental Matters in Latin America and the Caribbean or the Escazú Agreement). Specific to the climate change legal regime, the United Nations Framework Convention on Climate Change (UNFCCC) calls for public participation in addressing climate change and developing adequate responses,<sup>104</sup> and the Paris Agreement identifies public participation as one of the elements to enhance climate actions.<sup>105</sup>

'Meaningful' participation means that stakeholder involvement should not be a cosmetic exercise merely undertaken to fulfill formal requirements. Instead, public participation should enable residents to actively have their views and needs integrated into the process and reflected in the outcome. The Paris Agreement underscores the need for climate change actions that are "gender-responsive, participatory and fully transparent", which consider "vulnerable groups, communities and ecosystems", and take advantage of "traditional knowledge, knowledge of indigenous peoples and local knowledge systems".<sup>106</sup> Involving a wide range of stakeholders may, for instance, propose options that not only promote adaptation but also support other goals such as mitigation, disaster risk reduction, and better environmental management. Furthermore, expanding the stakeholder pool enables the use of local, traditional, and indigenous knowledge and practices, which carry a huge potential for cost effectiveness, efficiency of measures and innovative options on local climate science due to the unique local information on climatic and weather patterns and trends.

104 Article 6.a.iii.

105 Article 12.

106 Article 7.5.

### **BOX 3. Importance of stakeholder participation**

- Improve the quality of the decisions, by benefiting from stakeholders' expertise at the very start
- Help to identify controversial issues or difficulties before a decision is made
- Bring together stakeholders with several different viewpoints and help different parties find common ground, reducing the risk of opposition in later phases
- Reduce delays and costs in the implementation phase
- Better inform stakeholders about the objectives and the issues at hand
- Lead to better acceptance of the decisions and measures that are taken
- Increase the confidence of the public about decision-makers
- Help more stakeholders commit to action, so that more ambitious climate protection goals can be agreed

Coopenergy Consortium (2015). *A Guide to Multi-level Governance for Local and Regional Public Authorities*.

### **Local Mandate for Climate Change Related Areas**

The principle of subsidiarity stipulates that authority and resources should be at the government level that is closest to the people to ensure effective, appropriate, and cost-effective delivery of services. In the urban context, the closest level is represented by local authorities, which perform a variety of functions that may have an impact on climate change mitigation and adaptation.

Local governments have first-hand knowledge of their territories and of the climate challenges affecting them. They are also more likely to accurately appreciate the needs and concerns of their local population and it is also more likely that their authority will be accepted as legitimate. As local governments are the closest level to the people, it is preferable that they be vested with the mandate for areas related to climate change action although operating under directives from the national level.

### **BOX 4. The Kenyan climate change act 2016**

The Kenya *Climate Change Act 2016* gave county governments the mandate to participate in climate change action by requiring them to mainstream the implementation of the National Climate Change Action Plan in the development, updating and approval of the county Integrated Development Plan (Section 19.2). Consequently, several counties have included climate considerations in their plans.

For instance, the *Nairobi Integrated Development Plan 2018-2022* notes that climate change has affected the county through rising temperatures, changes in precipitation levels, unpredictable weather patterns, and increased food insecurity. Hence, it calls for the adoption of several response strategies, including the establishment of early warning systems; monitoring climate change and disseminating information to farmers; adaptation of new technologies in both solid and other types of waste management as opposed to using open dumping sites; and diversification of energy sources by investing in renewable sources, water harvesting, recycling, and conservation.

## Data Collection and Sharing

Data collection and sharing is one of the essential ingredients of effective governance as it assists public bodies to make more informed policy decisions. Data sharing is particularly critical to evidence-based decision-making as it allows the aggregation of data from a wide range of sources in greater quantities which can reveal new correlations and patterns that can help governments to tackle multi-dimensional challenges. It reveals correlations that would otherwise remain invisible and by readily availing data, reduces searching and processing times, which in turn help to speed up decision-making and improve efficiency.<sup>107</sup>

Data accuracy on climate issues such as the frequency and intensity of hazards, risks and vulnerabilities is a key governance challenge in developing countries with inadequate time series data to measure impacts of hazards. Furthermore, if data is to be sharable, public, and accessible, efforts towards making it comparable across cities and regions is needed.

Data sharing should happen between governments at all levels (vertical data collection and sharing) as well as horizontally among subnational governments (different cities, regions, provinces) and within local government departments and institutions.

107 Law Commission of England and Wales, *Data Sharing Between Public Bodies: A Consultation Paper, Consultation Paper No 214*.

Accordingly, there should be:

- Vertical data collection and sharing among local, subnational, and national levels
- Horizontal data collection and sharing among subnational governments (different cities, regions, provinces)
- Local data collection and sharing among different departments and institutions in the same city<sup>108</sup>

Climate change data, trends, and models can be complex tools for governments and inhabitants to adopt, especially in contexts where capacity and resources are limited. The City Resilience Profiling Tool is an accessible methodology built to support local governments and city inhabitants to overcome this challenge. By connecting stakeholders (from climate change experts, data service providers, people and city authorities) around a common resilience framework, data collection is extensive and forms the basis of diagnostics on exposure, sensitivity, and the adaptive capacity of a city.<sup>109</sup>

108 See the *Law and Climate Change Toolkit (Urban Law Module)*. Available at <https://climatelawtoolkit.org/>.

109 UN-Habitat (2018). *Climate Action Enhancer*.

## Supportive Legal Frameworks

The law performs a crucial role in supporting multi-level governance for climate action in cities. Strong comprehensive laws can create legally binding obligations to set GHGs emission reduction targets and adaptation goals and create oversight bodies and coordination mechanisms to bring together and clarify responsibilities across levels of government and lay down obligations to mainstream climate change action into national and sub-national plans. Legislative frameworks may also create specialized funds and budgets, facilitate monitoring and reporting obligations, and integrate important democracy elements such as the right to public participation, access to information and access to justice. The law also holds several advantages over 'soft mechanisms', including an increased chance of enforceability through incentives and penalties as well its power to facilitate economic and social change. Policymakers and legislators must, however, ensure that such legal frameworks are in tune with local realities if effectiveness is to be achieved. Laws need to be appropriate to the local contexts in which they operate to especially recognize the realities of priority groups such as women, indigenous peoples, and migrants for inclusive governance. Legal interventions should be influenced by the prevailing situation, taking into consideration the availability of capacity for implementation. Blind transplantation of laws that have worked in other countries should be discouraged, especially in resource-poor contexts. The idea should not necessarily be to enact a comprehensive law that tries to address everything, but one that focuses on the basic needs of the urban population to lead a decent, productive, and safe life, with the possibility of scaling up to more complex interventions as capacity and resources increase.<sup>110</sup>

110 UN-Habitat (2020). *Human Rights, Rule of Law, and the New Urban Agenda*.

## Political Will

The importance of political will cannot be overstated, particularly considering the inherent nature of the climate change problem and how it affects several economic sectors of a country, including manufacturing, energy, agriculture, transport, and urban planning that are usually mandated in separate public policy domains. Action on climate change requires cross-sectoral cooperation and therefore governments are usually reluctant to overhaul their policies and face the economic risks associated with it. Governments also have different priorities, interests and capabilities, meaning that actions across various policy domains are difficult to achieve.

Furthermore, the countries that contribute to the highest GHGs emission are not necessarily the ones that will be most adversely affected and, as such, the incentive for them to act might be low.<sup>111</sup> Accordingly, even where multi-level coordination among different levels of government exists, there still needs to be a deliberate directive from political leaders to ensure successful local implementation, including through the use of a "political champion". Such actions may be motivated through awareness of co-benefits, especially financial ones, such as achieving cost savings and attracting external funding and investment, as well as expected "political gains for local leaders" that may accrue from undertaking climate change activities.<sup>112</sup>

111 Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani (2017). *International Climate Change Law. Yearbook of International Environmental Law* 28: 549-551.

112 Krause, Rachel M (2013). The motivations behind municipal climate engagement: An empirical assessment of how local objectives shape the production of a public good. *Cityscape*: 125-141.

# CASE STUDIES ON MULTI-LEVEL CLIMATE ACTION IN THE GLOBAL SOUTH



**Disclaimers**

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

The scale = 1:5 million.  
Source: United Nations Geospatial

**OVERVIEW** →



Source: Urban Low Emission Development (Urban-LEDS)



Project jointly implemented by:



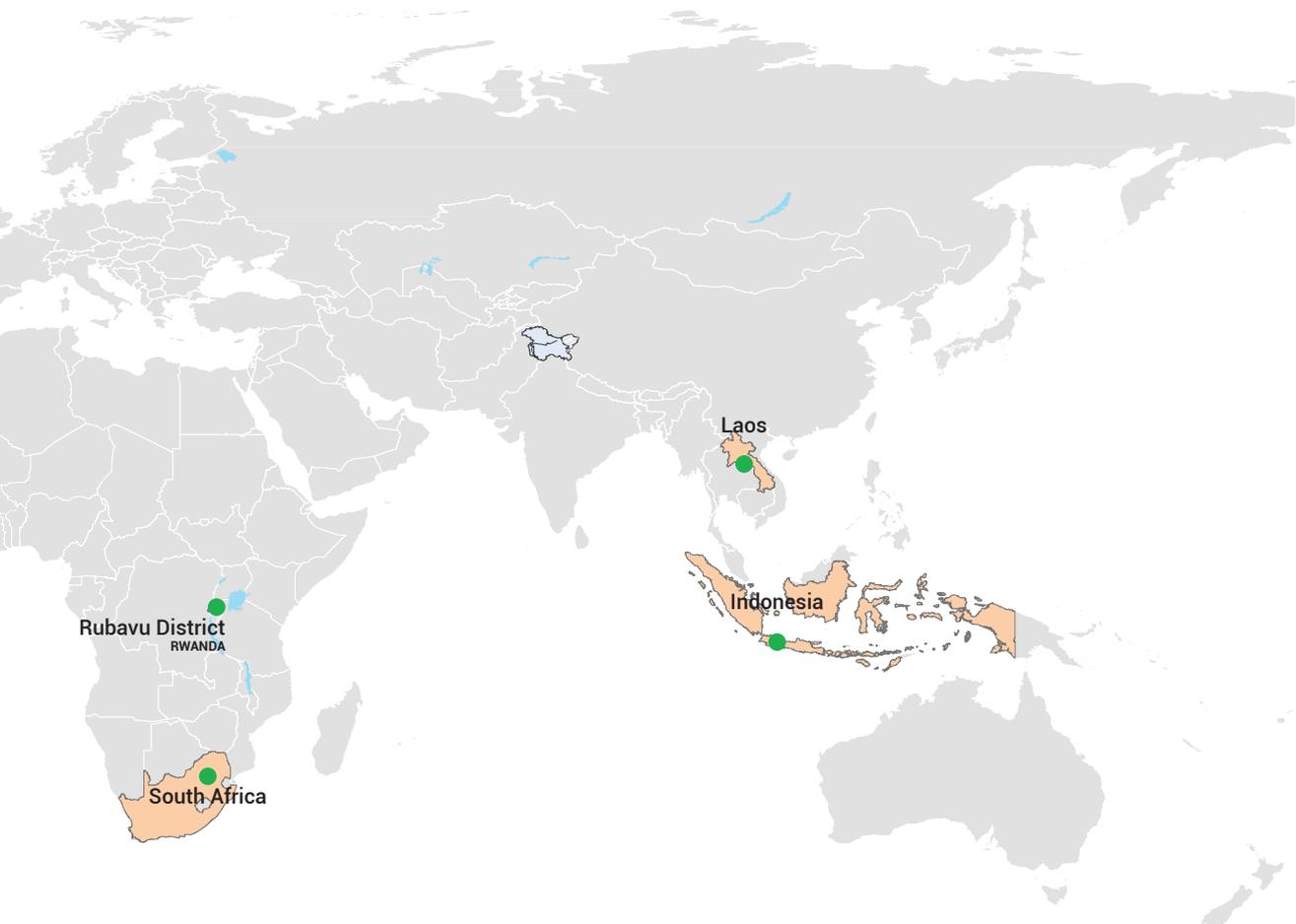
and financed by:



60 Cities



8 Countries worldwide



## PHASES

2012 - 2015

2017



### PHASE 1

#### 8 Model cities

- Brazil
- India
- Indonesia
- and South Africa



### PHASE 2

#### +23 Model & Satellite cities

- Colombia
- Bangladesh
- Lao PDR
- and Rwanda

This section provides examples of multi-level climate action at the national, regional, and city-levels. The cases are drawn from the Urban Low Emission Development (Urban-LEDS) project that is jointly implemented by UN-Habitat and Local Governments for Sustainability (ICLEI) and financed by the European Commission. The project uses a multi-level governance approach to accelerate urban low emission development and climate resilience across more than 60 cities in 8 countries worldwide. Between 2012 and 2015, under the first phase of the Urban-LEDS project, ICLEI and UN-Habitat supported eight model cities in Brazil, India, Indonesia, and

South Africa to develop comprehensive Urban Low Emission Development Strategies and action plans using ICLEI's GreenClimateCities (GCC) process methodology. In 2017, a second phase of the project was launched (Urban-LEDS II) with the addition of 23 model and satellite cities, and included activities expanding into Colombia, Bangladesh, Laos, and Rwanda. The guide includes the cases of Indonesia, Laos, the district of Rubavu in Rwanda, South Africa, and the city of Recife in Brazil to give a regional outlook that reflects various approaches to multi-level governance for climate change adaptation and mitigation.



Taken in Aceh, Indonesia © Hermansyah, unsplash-2017

## Indonesia



Target to reduce GHGs  
\*(GHG: GreenHouse Gases)



**29** per cent  
from business-  
as-usual by 2030



**41** per cent  
with international  
support



Indonesia Climate  
Change Trust Fund



**2017**

**2018**

**2019**

□ Online Low Carbon  
Development Planning,  
Monitoring and Evaluation  
System was also launched  
by the Ministry of National  
Development Planning  
Agency (Bappenas)

**National Registry System (SRN)**



**822** Registrar/submitters,



**2152** Registered accounts,



**287** Registered activities and



**265** Verified activities

**AKSARA (Low Carbon Development Planning  
and Monitoring Application)**

**MODULES**



*Planning, Monitoring, Evaluation and reporting*

Due to its extensive coastline and millions of people living on low-lying land just above sea level, Indonesia is one of the world's most vulnerable countries to sea level rise. Floods and droughts are regular natural disasters that will likely be exacerbated by climate change. Indonesia has recognized its important role in climate change action considering its geographic position and extensive tropical rainforests with high biodiversity, high carbon stock values, and energy and mineral resources.<sup>113</sup>

Indonesia formulated a national action plan on climate change action in 2011 that included, among other things, a pledge to reduce national GHGs by 29 per cent from business-as-usual by 2030 (or 41 per cent with international support). Provincial governments are also mandated to develop their corresponding provincial action plans in consultation with other State and non-State actors such as local government units and NGOs. Hence, local governments as well as other stakeholders are, in this case, active players in formulating climate change actions in the country.<sup>114</sup>

To coordinate the formulation and implementation of Indonesia's NDCs, the Directorate General of Climate Change (DGCC) was established under the Ministry of Environment and Forestry (MoEF). Nine strategies have been developed by the DGCC to implement the NDCs that include, for example, 'One Data Policy on GHG'. According to this GHG inventory<sup>115</sup> activity, each level of government is required to contribute to the development of the national GHG inventory according to Presidential Regulation No. 16/2015 and MoEF regulations. These actions depart from a participatory approach to policy-making and vertical coordination among governments at various levels within Indonesia.<sup>116</sup>

Furthermore, the national government developed the National Registry System (SRN) to enhance transparency in support of the Paris Agreement. It is a web-based data and information management system for action and resources on climate change adaptation and mitigation. Cities can have their adaptation and mitigation actions reported into the registry after being validated and verified in coordination with MoEF. There have been 822 registrar/submitters, 2,152 registered accounts, 287 registered and 265 verified activities in the SRN as of 10 October 2018. An online Low Carbon Development Planning, Monitoring and Evaluation System was also launched by the Ministry of National Development Planning Agency (Bappenas) in 2017 to coordinate implementation and simplify the monitoring, evaluating, and reporting on low carbon planning achievements.<sup>117</sup>

113 UNFCCC (2016). *First Nationally Determined Contribution Republic of Indonesia*. Available at [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/First%20NDC%20Indonesia\\_submitted%20to%20UNFCCC%20Set\\_November%20%202016.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/First%20NDC%20Indonesia_submitted%20to%20UNFCCC%20Set_November%20%202016.pdf).

114 Nidasari, Nisa and Lumban Gaoil, Rika (2020). *Urban-LEDS country factsheet: multi-level governance for climate change in Indonesia* (ICLEI). Available at: <https://urban-leds.org/wp-content/uploads/2020/06/Urban-LEDS-Country-factsheet-Indonesia-web.pdf>.

115 A GHG inventory is an estimate of emissions and removals of greenhouse gases (GHG) from given sources or sinks, from a defined country in a specific period. In the context of the UNFCCC, GHG inventories provide national and annual estimates. The GHG inventory is part of the scope of the UNFCCC's National Communications and the Biennial Update Report (BUR)." <https://www.climamed.eu/wp-content/uploads/files/An-Introduction-to-National-GHG-Inventories.pdf>.

116 Nidasari, Nisa and Lumban Gaoil, Rika (2020). *Urban-LEDS country factsheet: multi-level governance for climate change in Indonesia* (ICLEI). Available at: <https://urban-leds.org/wp-content/uploads/2020/06/Urban-LEDS-Country-factsheet-Indonesia-web.pdf>.

117 Ibid.

The online system was replaced by AKSARA (Low Carbon Development Planning and Monitoring Application) in 2019 which is expected to “ facilitate more integrated, accurate, comprehensive, consistent and transparent monitoring, reporting and verification processes to steer Monitoring, Reporting and Verification arrangements towards the Enhanced Transparency Framework through 4 modules”. These modules include planning, monitoring, evaluation, and reporting. Also, through this online system, stakeholders (person, group or organization that has legitimate interest in the work of a company or project) and particularly regional government officials will be able to access a knowledge platform and an e-learning module to strengthen their capacities to address climate change.<sup>118</sup> This is a clear example of how data could be shared horizontally and vertically for evidence-based decision-making.

Additionally, Indonesia has managed to mobilize financial resources for activities supporting emission reduction targets and the implementation of the national action plan on climate change adaptation through the Indonesia Climate Change Trust Fund. This fund can only be accessed by civil society organizations, academia, and the private sector. However, local governments are also able to access the fund if the climate action strategies contribute to the achievement of local development plans and targets. Furthermore, local governments, such as the city of Kupang, have managed to install solar-powered street lighting and energy-efficient lighting based on revenue collected from residents through a street lighting tax.<sup>119</sup>

The case of Indonesia illustrates how elements of fiscal decentralization, data collection and sharing, public participation, and the principle of subsidiarity can be implemented through various mechanisms, and the supporting role of multi-level governance in progressing efforts towards climate change adaptation and mitigation.

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118 IKI (2020). *The Indonesian Low Carbon Development Planning and Monitoring Application* (The German Federal Ministry for Environment, Nature Conservation and Nuclear Safety 2020). Available at: <https://www.international-climate-initiative.com/en/news/article/the-indonesian-low-carbon-development-planning-and-monitoring-application>.

119 Ibid.



Sunset from a viewpoint overlooking Nong Khiaw, Laos © Giuliano Gabella

## Laos



- NDC
- National Climate change Action Plan



**70** per cent of the population rely on natural resource-focused industries for their livelihoods and food security



**2015**

Decentralization under 3-build system (SAM SANG)



**109** targeted villages



**51** districts

### RESULTS



Strengthened local political system

### CHALLENGES



Limited human resource capacity beyond the national government

Laos is highly vulnerable to climate change, partly due to 70 per cent of its population being reliant on natural resource-focused industries for their livelihoods and food security. The country is particularly prone to floods and droughts that are already severely affecting the people and the economy.<sup>120</sup> In the face of these challenges, Laos has recognized the need to mainstream climate change resilience and mitigation into development plans as stipulated by Laos' Nationally Determined Contributions. In particular, the NDC integrates aspects of urban development by aiming to increase the use of public transport and the resilience of urban infrastructure as well as build capacities on sustainable and integrated urban planning.<sup>121</sup> Laos also had a National Climate Change Action Plan that covered the period 2013-2020, which compelled local governments to "consolidate various projects and focal tasks related to climate change, then integrate them into their Social Economic Development Plans, followed by participation and reasonable involvement into executing, monitoring and reporting". In terms of implementing NDC, governance arrangements are still being developed. There are currently 10 individual sector working groups representing various ministries that report to a governmental 'round table' that could be used for NDC coordination. However, awareness of NDC among government officials at various departments apart from the Ministry of Natural Resources and Environment and the Ministry of Agriculture and Forestry is lacking, which makes NDC coordination challenging.<sup>122</sup>

Laos is increasingly decentralizing responsibilities from the national government to local administration levels (province, district, and village) under the three-build system known as 'Sam Sang'. The system was enforced in 2015, albeit still being progressively implemented, and aims to develop provinces as the strategic units, districts as comprehensively strengthened (integration) units, and villages as development units.<sup>123</sup> Also, the system aims to improve public service delivery at the local level by enhancing accountability in governance, government ownership, and capacity of local administrations. It was piloted in 109 targeted villages of 51 districts. The report of the 7th National Socio-Economic Development Plan (2011-2015) indicated some positive results of the Sam Sang system in terms of its directives, processes, and outcomes. For example, around 6,422 government officials have been transferred mostly from higher levels of government to work at the village level as of 2017, resulting in a strengthened local political system. The report also identified some challenges in the pilot implementation of the system, such as limited human resource capacity beyond the national government.<sup>124</sup>

As the Sam Sang system is yet to be fully implemented, it still provides the opportunity for Laos to coordinate climate change action across all levels of government. By increasingly delegating responsibilities, functions, and resources to local administrations, the Sam Sang system devolution directive also serves as an example of how the principle of subsidiarity can be approached in practice.

120 UNFCC (2015). *Intended nationally determined contribution: Lao PDR*. Available at <https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Laos/1/Lao%20PDR%20INDC.pdf>.

121 Robertson, Heaher (2020). *Urban-LEDS country factsheet: multilevel governance for climate change in LAO PDR*. Available at [https://urban-leds.org/wp-content/uploads/2020/11/Urban-LEDS-Country-factsheet-Lao-PDR\\_2.pdf](https://urban-leds.org/wp-content/uploads/2020/11/Urban-LEDS-Country-factsheet-Lao-PDR_2.pdf).

122 Ibid.

123 Ibid.

124 Vongxay, Vongsakda, and Yangsoo Yi (2017). *Sam Sang Rural Community Development Model of Lao PDR in Approach to Successful Implementation-Lessons from Korea's Saemul Undong*. *Journal of Agricultural Extension & Community Development* 24, no. 2 : 143–154.



Water For Growth Rwanda © World Water Day 2018, in Rwanda

## The district of Rubavu, Rwanda



NDC



**16** per cent emission reduction by 2030



**22** per cent with international support



'Climate Risk and Vulnerability Assessment' (CRVA) programme through the Urban-LEDS project



Sebeya Catchment Management Plan (2018-2024)

### BENEFITS:



Effectively manage land, water, and related natural resources



Simultaneously, the plan created **human resources capacity**, especially relating to **spatial planning** and **IWRM**, boosted the participation of citizens in planning and budgeting, and promoted knowledge sharing and capacity building among stakeholders as well as transparency and accountability.

Rwanda is also increasingly experiencing the impacts of climate change. For example, rainfall variability and frequency are increasing, which further drives natural disasters such as droughts, floods, and landslides. Consequently, the population and the economy of Rwanda stand to be severely affected as the natural disasters result in, for example, soil erosion, water pollution, infrastructure damage, loss of property and even loss of lives. As the country is highly reliant on rain-fed agriculture for rural livelihoods and exports, these climate change impacts are of concern.<sup>125</sup> The district of Rubavu is particularly prone to floods due to heavy rainfalls and hilly topography.<sup>126</sup> Considering its high vulnerability to climate change, Rwanda revised its NDC in 2020 that sets more ambitious targets for both mitigation (16 per cent emission reduction by 2030 and a further conditional reduction of 22 per cent based on the provision of international support and financing) and adaptation (24 cross-sectoral adaptation interventions).<sup>127</sup>

The district administration of Rubavu developed, through the Urban-LEDS project and with inputs from local stakeholders, a 'Climate Risk and Vulnerability Assessment' (CRVA) to supplement its disaster mitigation strategies considering the prominent issue of flooding. The CRVA enabled the increasing climate change-related risks to be identified, which prompted the development of the Sebeya Catchment<sup>128</sup> Management Plan (2018-2024). The plan aims to "effectively manage land, water and related natural resources that contribute to sustainable socio-economic development and improved livelihoods". The plan also considers environmental flow, downstream water demands and resilience to climate change that minimizes water-related disasters.<sup>129</sup>

The development of the Catchment Plan was highly participatory as it involved all key stakeholders within the catchment area ranging from the private sector, civil society, national ministries, and agencies. Various representatives from National Women Council, NGOs, the private sector as well as district vice mayors and district technical staff are part of the Catchment Task Force that was empowered by the Ministry of Environment to better manage water resources. Furthermore, an inter-district collaboration around natural resources was developed. Thereby, the catchment planning integrated both elements of Strategic Environmental Assessment (SEA) and Integrated Water Resources Management (IWRM) to ensure participatory processes and effective consideration for environmental concerns throughout policy, plan, and programme-making.<sup>130</sup>

The Catchment Plan is a clear example of how various stakeholders can collaborate around a natural resource that transcends administrative and sectoral boundaries for inclusive and multi-level governance. Simultaneously, the plan created human resources capacity, especially relating to spatial planning and IWRM, boosted the participation of citizens in planning and budgeting, and promoted knowledge sharing and capacity building among stakeholders as well as transparency and accountability.<sup>131</sup>

125 UNFCCC (2020). *Updated National Determined Contribution (The Republic of Rwanda)*. Available at [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Rwanda%20First/Rwanda\\_Updated\\_NDC\\_May\\_2020.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Rwanda%20First/Rwanda_Updated_NDC_May_2020.pdf).

126 UN-Habitat. *Rubavu, Rwanda: Flood Risk Management Strategies*. Available at <https://urban-leds.org/city-in-focus/#1624259875207-63109f1c-7bd7>.

127 INTRA-ACP GCCA+, *Rwanda is the first LDC to submit its updated NDCs in 2020*. Available at <https://intraacpgccaplus.org/rwanda-is-the-first-ldc-to-submit-its-updated-ndcs-in-2020/>.

128 A catchment is defined by the Ministry of Environment of Rwanda as "...any area of land where precipitation collects and drains off into a common outlet, such as a river, lake, or other body of water".

129 Ibid.

130 Ministry of Environment (2018). *Sebeya Catchment Management Plan (2018-2024)*. Available at: [https://waterportal.rwb.rw/sites/default/files/2019-04/Sebeya%20Catchment%20Plan\\_0.pdf](https://waterportal.rwb.rw/sites/default/files/2019-04/Sebeya%20Catchment%20Plan_0.pdf).

131 Ibid.



South African Snow © Delyth Angharad

## South Africa



- NDC
- Adoption of Climate Change bill in 2021, sets emissions reduction targets for 2025 and 2035



online platform for national climate change information system



### PURPOSE



Monitors and evaluates climate change drivers and events, links to national objectives, targets and strategies in respect of climate change mitigation and adaptation monitoring and assessment of actions taken by stakeholders

The South African society and economy are at risk of being severely impacted by climate change as the country is within a drought belt and dependent on climate-sensitive sectors such as agriculture and forestry. Increased droughts will add pressure to already depleted water resources, and a hotter drier climate could reduce rich and unique biodiversity through desertification. Another example of a climate change impact is the spread of diseases such as malaria, as changes in temperature and rainfall patterns could extend the geographic range of vector-borne diseases.<sup>132</sup> The NDC of South Africa includes an ambitious adaptation component and absolute emission reduction targets,<sup>133</sup> which was revised in 2021 whereby South Africa further raised its ambition.

South Africa formulated the Climate Change Bill in 2018 that distributes responsibilities for climate-related measures between the national, provincial, and local levels of government. According to the bill, subnational governments should “undertake a climate change needs and response assessment for the province or municipality”. Therefore, the bill enables local governments to engage in climate change action, although it does not compel them to conduct GHG inventories.<sup>134</sup> The bill was adopted in 2021 by Cabinet as well as the revised NDCs that set more ambitious emission reduction targets for 2025 and 2035.<sup>135</sup>

A national climate change information system was launched through an online platform in 2020 that “...monitors and evaluates climate change drivers, events, links to national objectives, targets and strategies in respect of climate change mitigation and adaptation monitoring and assessment of actions taken by stakeholders”.<sup>136</sup> Data is derived from several sources, including the national and provincial climate change response databases that will help to track South Africa’s overall transition to low carbon and climate-resilient economy. It also serves to inform policy and decision-making by offering a series of decision support tools.<sup>137</sup> The examples of the Climate Change Bill and the online information system highlight potential steps to take to foster an enabling legal environment and data sharing/collection for effective climate change action.

132 UNDP. *Climate Change Adaptation: South Africa*. Available at <https://www.adaptation-undp.org/explore/africa/south-africa>.

133 Cf. Kerim-Dikeni, Melissa (2020). *Urban-LEDS country factsheet: multilevel governance for climate change in South Africa*. UN-Habitat. Available at <https://urban-leds.org/wp-content/uploads/2020/06/Urban-LEDS-Country-factsheet-South-Africa.pdf>.

134 Ibid.

135 Ministry of Forestry, Fisheries, and the Environment. *Important climate change measures for South Africa adopted by Cabinet* (22 September 2021). Available at [https://www.environment.gov.za/mediarelease/cabinetapproves\\_cop26sandc\\_climatechangebill](https://www.environment.gov.za/mediarelease/cabinetapproves_cop26sandc_climatechangebill).

136 Ministry of Forestry, Fisheries, and the Environment. *About the CCIS*. Available at <https://ccis.environment.gov.za/#/about>.

137 Cf. Kerim-Dikeni, Melissa (2020). *Urban-LEDS country factsheet: multilevel governance for climate change in South Africa*. UN-Habitat. Available at <https://urban-leds.org/wp-content/uploads/2020/06/Urban-LEDS-Country-factsheet-South-Africa.pdf>.



Recife do Alto © Eduardo Otubof

## Recife, Brazil



NDC

↓ **37** per cent and **43** per cent of reducing emissions from 2005 levels by 2025 and 2030 respectively



The City of Recife has embraced the GreenClimateCities (GCC) with support from the Urban-LEDS project



.....→ The integration of GCC into the existing metropolitan monitoring system (COMCLIMA) that manage progress across **14** municipalities of Recife.

Simultaneously, the mayor of Recife articulated relevant cross-sectoral policies to address critical issues that were exposed through the GHG emissions inventory process. These policies increased collaboration among different departments that, for example, resulted in a Green Roof Law.

Brazil is highly vulnerable to climate change, especially as it threatens the Amazon Basin and the unique biodiverse ecosystems that provide essential services for many people around the world and that play an important role in the global climate system by being a huge CO<sub>2</sub> sink. For example, changing patterns of precipitation and temperatures increase the severity of droughts that might, in the worst-case scenario, transform the Amazon Basin into a savannah. The subsequent consequences would be devastating for the climate worldwide and the livelihoods of local populations reliant on the rain forest.<sup>138</sup> The city of Recife is the largest in the north-east region that has been identified as a hotspot by the IPCC. Due to droughts along with semi-arid weather in continental areas, concentrated rain in the winter season, subsistence agriculture and intense industrial activities, the north-east region is experiencing constant internal displacement of people. This has created impoverished settlements throughout the cities.<sup>139</sup> The NDC of Brazil establishes the targets of reducing emissions by 37 per cent and 43 per cent from 2005 levels by 2025 and 2030 respectively. However, the country revised its NDC in 2020 that reduces its climate action targets for 2025 and 2030 and, in November 2021, announced a further updated NDC target that also seems to not increase the ambition compared to its first NDC.<sup>140</sup>

With support from the Urban-LEDS project, the City of Recife has embraced the GreenClimateCities (GCC) methodology by ICLEI for walking step-by-step towards climate neutrality. It resulted in the integration of GCC into the existing metropolitan monitoring system (COMCLIMA) that manages progress across 14 municipalities of Recife. In doing so, municipal leaders were incentivized to engage in a participatory approach to regional policy-making as political barriers and resistance to a new agenda on climate change were curtailed. Simultaneously, the mayor of Recife articulated relevant cross-sectoral policies to address critical issues that were exposed through the GHG emissions inventory process. These policies increased collaboration among different departments that, for example, resulted in a Green Roof Law. This law demands that the roof of all residential and commercial buildings must be covered by vegetation if it is over 400 m<sup>2</sup> or is greater than four stories. Civil society, the private sector, and academia were consulted throughout the implementation of the GCC methodology, including the formulation and approval of the Green Roof Law.<sup>141</sup>

Public participation and vertical coordination in public policy-making were also prominent for the development of the GHG emissions inventory and the creation of a Climate Action Plan. For example, involving local communities enabled local drivers of GHG emissions to be identified, which also guaranteed support from stakeholders for the city administration to implement strategies accordingly.<sup>142</sup>

The success of the implementation of CGG in terms of new laws such as the Green Roof Law and policies such as the Climate Action Plan can be attributed to various factors: political figures in the city becoming champions of the project, the inclusion of civil society, and the development of effective communication channels. It underscores the importance of a political will, enabling legal environment and public participation for climate action.

138 UNDP. *Climate Change Adaptation: Brazil*. Available at <https://www.adaptation-undp.org/explore/south-america/brazil>.

139 Reis de Albuquerque, R., & Ragone Voto, Fabio (2016). *Recife, Brazil: Enhancing the participatory process when building a municipal climate change agenda*. UN-Habitat. Available at [https://urban-leds.org/wp-content/uploads/2019/resources/case-studies/ICLEI\\_cs\\_191\\_Recife\\_Urban-LEDS.pdf](https://urban-leds.org/wp-content/uploads/2019/resources/case-studies/ICLEI_cs_191_Recife_Urban-LEDS.pdf).

140 The Climate Action Tracker. *CAT Climate Target Update Tracker: Brazil* (2021). Available at <https://climateactiontracker.org/climate-target-update-tracker/brazil/2020-12-09/>.

141 Ibid.

142 Ibid.

## CONCLUSION

Multi-level governance holds immense power to assist urban areas in developing countries to enhance their resilience and grow in climate-friendly pathways. National governments should lead the way and leverage their financial and technical capabilities to bring in sub-national governments (regional and local) that possess extensive knowledge over local contexts in addition to an ability to contribute their own resources and expertise.

The role of non-State actors such as civil society organizations, community organizations, the private sector and academia must be recognized as they act as information clearing houses and bridge the gap between governments and populations as well as being essential mobilizers of climate finance and technology.

It is also important for governments in developing countries to appreciate that their achievement of goals under the Paris Agreement, the SDGs, the Sendai Framework and the NUA, among other global commitments, require several enabling conditions for effective multi-level governance. These include providing capacity building; facilitating fiscal decentralization; entrenching public participation; establishing strong data collection and sharing arrangements; enacting supportive legal frameworks; and having the political will for climate action. The cases of Indonesia, Laos, the district of Rubavu in Rwanda, South Africa, and the city of Recife in Brazil illustrate various approaches on how to use these elements of multi-level governance for effective climate action.

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As recognized by the Paris Agreement, cities play an important role to mitigate and adapt to climate change as cities can mobilize strong and ambitious climate action. To ensure effective climate action, multi-level governance is essential as it calls for all state and non-State actors to act on climate change. Thus, multi-level governance holds immense power to assist urban areas in the Global South to enhance their resilience and grow in climate-friendly ways.

It is in appreciation of the important role of multi-level governance that this guide has been developed to offer an understanding on how to improve horizontal and vertical coordination among different levels of government as well as leveraging the contributions of non-State actors such as the private sector, civil societies, community organizations, and academia, among others, in the Global South.

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