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## THE URBAN GOVERNANCE OF CLIMATE CHANGE

- THE EVOLVING ROLE OF CITIES AS NON-STATE ACTORS IN THE INTERNATIONAL CLIMATE REGIME

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- CLIMATE CHANGE MITIGATION AND THE SDGS IN URBAN INDIA: SYNERGIES AND CONFLICTS

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// “While nations talk, cities act.” This quote from Mike Bloomberg, the former New York mayor, reflects the frequent portrayal of the role of cities and local governments in global climate governance: in light of concerns about the inability of national governments to agree on and achieve sufficient emissions reductions, cities and transnational city networks are often seen as actors that could fill that gap (Johnson, 2018). The readiness of cities to take ambitious climate action in the face of inaction at national level was perhaps never more visible than when President Trump decided to withdraw the United States from the Paris Agreement. In response, mayors, governors and business leaders formed “We Are Still In”, a coalition of non-state actors reaffirming their commitment to the global climate pact, joined to date by 247 cities across the US.<sup>1</sup>

While hardly anyone would argue against the importance of cities and local governments in the implementation of climate policies, what remains contested is their role in the international climate regime. The analysis conducted in this article uncovers how the activities of cities and transnational city networks, which have been evolving over the years, have gradually broadened the “international climate regime”, even though cities are not subjects of international law. The international climate regime referenced is formed of the principles, rules, norms and procedures included in the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, the Paris Agreement and other related documents (see: Okereke et al., 2009: 58). It increasingly offers visibility, legitimacy and motivation to the climate protection efforts of cities (and other non-state actors).

The chapter is organised as follows: First, we briefly discuss the relevance of cities in the context of climate change. The second section presents the evolution of city-level responses to climate change. The third outlines milestones that helped cities gain visibility within the international climate regime, starting with the establishment of the Local Government and Municipal Authorities (LGMA) Constituency in the UNFCCC process,

1. <https://www.wearestillin.com/signatories>

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and continuing with the recognition of cities as governmental actors in this process in 2010. Then a closer look is given to the role played by transnational city networks. And finally, the role of cities in the international climate regime on the road to COP21 in Paris is analysed, along with the developments that followed the adoption of the Paris Agreement.<sup>2</sup> We conclude with a summary of the main argument.

## I. Cities as key sites of climate mitigation and adaptation

Today, 55% of the world's people live in urban areas. The city-dwelling population only passed the 50% mark in 2007, and ever since the share has kept increasing. It is projected that the population living in urban areas worldwide will rise to 68% by 2050.<sup>3</sup> The urban population today accounts for over 70% of the world's greenhouse gas (GHG) emissions.

Cities are not only relevant as the source of greenhouse gas emissions, but also as places where many solutions can be devised. As homes to most of the world's universities, public and private research bodies, businesses, think tanks and policy institutes, cities serve as hubs of innovation and knowledge exchange. Thanks to their density, concentrated populations and control over decisions on existing and new infrastructure, cities can significantly contribute to climate mitigation and greenhouse gas reductions. This can be achieved, for example, by designing transport infrastructure that promotes the use of public transport and cycling over cars, by retrofitting existing building stock and, ultimately, by steering the way a city is designed, for instance, by using green and blue infrastructure, planning for dense, compact settlements and introducing policies to curb urban sprawl.

Furthermore, when it comes to adaptation, the impacts of urbanisation and climate change are converging in dangerous ways. Urban areas are particularly exposed to extreme heat stress and precipitation-related weather events: 70% of cities are already dealing with the effects of climate change, and nearly all are at risk. Moreover, more than 90% of all urban areas are coastal, putting the majority of cities on Earth at risk of flooding from rising sea levels and powerful storms. More than 136 megacities (port cities with populations of over one million) are at risk of flooding due to sea level rise if no further adaptation is undertaken (Hoegh-Guldberg, 2018). Since local governments are frequently in charge of energy supply, transport, mobility, land use planning, building regulations, and storm water and waste management, they can make a significant contribution to climate change mitigation and adaptation on behalf of the majority of the world's population.

## II. The Evolution of local responses to climate change

Cities have been at the forefront of climate action for nearly three decades. Prior to the adoption of the UNFCCC in 1992, the first municipal governments in North America and Europe had already started establishing renewable energy targets, energy efficiency incentive programmes, green procurement standards and public transport policies that aimed to reduce local GHG emissions (Bulkeley, 2010). In the years since, cities' responses

2. COP21 was the 21<sup>st</sup> Conference of the Parties to the UNFCCC.

3. <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

to climate change have evolved in scope and nature and spread to thousands of cities across all continents, demonstrating the potential of cities to advance climate mitigation and adaptation (Smeds and Acuto, 2018). Activities undertaken by municipalities themselves in response to climate change have evolved from the above-listed self-regulation activities, which initially primarily concerned assets and activities directly operated by local governments, to citywide climate protection strategies. A survey of 350 members of the transnational city network ICLEI – Local Governments for Sustainability has shown that cities worldwide are increasingly integrating climate mitigation activities into sectoral plans, long-range plans, sustainable development plans and energy plans, with 78% of cities reporting that they have established a specific mitigation target. Of those, 93% propose specific actions for reaching this target (Aylett, 2014).

Beyond strategies and policies, cities are the sites of multiple interventions aimed at either reducing GHG emissions or adapting urban areas to the impacts of climate change. In a study from 2013 Castán Broto and Bulkeley investigated over 600 examples of what they term *urban climate change experiments* – innovative, purposive and strategic interventions aimed at reducing GHG emissions or vulnerabilities to climate change impacts. The study sheds light on the diversity of the climate change actions tried and tested in urban areas, which are being implemented not only by local governments, but also by other public or private actors working alone or in partnerships, and which are found in cities around the world irrespective of their size and income.

Taken together, the reduction targets and pledged mitigation actions of individual cities amount to a considerable total emissions potential: to date the carbonn Climate Registry, a global reporting platform for cities and regions recorded pledges from 1065 local government entities representing 9% of the world's population, amounting to reductions of 5.6 GtCO<sub>2e</sub> by 2020 and 26.8 GtCO<sub>2e</sub> by 2050.<sup>4</sup> For comparison, the UNEP Global Emissions Gap Report indicates that NDCs (national emissions reductions pledges with a time horizon of 2030) fall short of emissions reductions that would keep temperatures within the 1.5°C limit. The emissions gap will amount to 29–32 GtCO<sub>2e</sub> by 2030 (UNEP, 2018).<sup>5</sup>

### III. The emerging engagement of Cities in the international climate regime

Over the years, the importance of cities in terms of climate action has also been increasingly recognised in the international climate regime (see: ICLEI, 2015; Rambelli et al., 2017). The involvement of cities in the international process started as early as 1995, when 150 local authorities and municipal organisations from more than 50 countries presented a communiqué to the Conference of the Parties (COP) that included the recommendation to create a local authority subsidiary body to support local authorities' climate mitigation efforts. As a result, the LGMA Constituency was established, alongside constituencies for businesses and environmental NGOs. The LGMA Constituency gathers together networks of local and subnational governments that are accredited to the UNFCCC as observers. All constituencies have a Focal Point that has a coordinating function and communicates with parties and the UNFCCC Secretariat. ICLEI has been the LGMA's Focal Point since its establishment.

4. Many cities have adopted emissions calculations standards using their own principles as no emissions standard regulations are available to cities at national level. Comparing emissions reductions and climate actions remains difficult: reasons include boundary setting, emissions factors calculations, and data collection. See: <https://carbonn.org/>
5. It should be noted that NDCs may include cities' commitments. Currently, no standards exist that avoid double counting.

In the Cancun Agreements in 2010, local and subnational governments were officially recognised as governmental stakeholders.

Urban climate change actions are more likely to occur in cities that are members of a transnational city network.

After the creation of the constituency, the visibility of cities within the international climate regime did not significantly increase until 2007, when the Bali Road Map, a two-year process to reach a binding agreement in 2009 in Copenhagen, was adopted by COP13. Since the road map did not include the local perspective, ICLEI decided to develop a “Local Government Climate Roadmap” (LGCR) as a parallel and accompanying process. The aim of this roadmap was threefold: 1) to have local and subnational governments recognised as “governmental stakeholders” of the global climate regime; 2) to engage them in setting the agenda and implementing the global climate regime through partnerships at all levels; and 3) to mobilise financial resources to increase municipal capacities for climate mitigation and adaptation.

Despite the unsuccessful COP15 in Copenhagen in 2009, the LGCR’s objectives have mostly been accomplished in the 2010s. In the Cancun Agreements in 2010, local and subnational governments were officially recognised as governmental stakeholders and local and subnational leaders met with the COP16 Presidency for a first dialogue. Three years later, in 2013, local and subnational governments were highly visible in the official agenda thanks to a workshop on urbanisation organised within the new negotiation group for Paris, and the first ever “Cities Day”, announced and endorsed by the UNFCCC Secretariat and the COP Presidency. What is more, the COP19 presidency hosted a Cities and Sub-nationals Dialogue, which brought together mayors and ministers from across the globe. Last but not least, Friends of Cities, a partnership between the LGMA and the parties that pushes for the recognition, engagement and empowerment of local and subnational governments within the international climate regime, conducts thematic technical studies, and organises regular ministerial-mayoral dialogues, was also created in 2013. The pioneering members of Friends of Cities are Mexico, France, Poland, Indonesia, South Africa, Peru, Germany, the Netherlands and Senegal.

#### **IV. The role of networks for cities’ climate action**

When international negotiations stalled after the unsuccessful attempt to reach a binding agreement in Copenhagen in 2009, attention shifted to the climate action of non-state and subnational actors, including actions taken by the transnational city networks. These networks play an important role not only by representing the local perspective in the international climate regime, but also by facilitating cooperation and knowledge exchange between cities to promote the spreading out of city-level climate actions. The study by Castán Broto and Bulkeley (2013) demonstrates that urban climate change actions are more likely to occur in cities that are members of a transnational city network, and that membership is a stronger determinant for such intervention than other factors such as GDP per capita or population size. Transnational city networks dedicated to addressing climate change such as ICLEI, C40, Climate Alliance and the Global Covenant of Mayors bring cities together on a voluntary basis to foster increased mobility of effective policy interventions and are said to be “the primary vehicle through which cities participate in the global response to climate change” (Gordon and Johnson, 2018). The networks’ main efforts include the aforementioned political

advocacy and lobbying on behalf of member cities in the international climate regime but also facilitating the spreading out of urban climate actions e.g. through city-to-city collaboration and knowledge exchange. The networks facilitate such cooperation by providing points of access to finance, technology and expertise (Smeds and Acuto, 2018; Johnson, 2018; Gordon and Johnson, 2018). Last but not least, networks develop methodologies and establish platforms for estimating and reporting emissions reductions, establishing baselines, calculating carbon budgets and modelling reduction scenarios and trajectories (Gordon and Johnson, 2018). Through this kind of networked response, cities can act directly on climate change, irrespective of the action taken at the national level, to collectively achieve a visible, global response to climate change. In turn, the importance of cities' collective efforts is being increasingly recognised at the intergovernmental level, as evidenced by the developments in the international climate regime in the run up to COP21 and the adoption of the Paris Agreement in 2015.

The Paris Agreement establishes a number of new forums and further develops existing mechanisms to improve cooperation between states and non-state actors.

## **V. Towards the Paris Agreement and beyond: the increasing visibility of cities in the international climate regime**

2014 was a crucial year in terms of dialogues, as two mechanisms were created to explore the role and impact of local and subnational governments in the framework of the Ad Hoc Working Group on the Durban Platform for Enhanced Action. The Forum on Cities and Sub-national Authorities and the Technical Expert Meeting on Urban Environment presented ground breaking examples of local action in diverse areas, including, among others, low-carbon transport, renewable energy, and climate change adaptation. What is more, the Lima–Paris Action Agenda as well as the Non-State Actor Zone for Climate Action (NAZCA) were created, allowing companies, cities, regions and investors to register their commitments to climate action (Gordon and Johnson, 2018; ICLEI, 2015; Rambelli et al., 2017). The successful advocacy of the LGMA is also reflected in the COP decision 1/CP.21 to adopt the Paris Agreement. This decision “welcomes the efforts of non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other subnational authorities” (UNFCCC, 2016: Section V, paragraph 134) and calls for stronger and more ambitious climate action by parties and non-party stakeholders, including cities. In fact, the COP decision explicitly calls on non-state actors to step up their efforts and make them public on the NAZCA platform. The mentioning of the platform in the COP decision provides legitimacy and links it loosely to the official negotiation process (Donat, 2017).

Although the Paris Agreement does not give non-state actors a seat at the table in the official negotiation process – no surprise in an intergovernmental forum, as cities are not subjects of international law – the agreement nevertheless establishes a number of new forums and further develops existing mechanisms to improve cooperation between states and non-state actors. These include: a) the Technical Examination Processes, an expert exchange that allows non-state actors to exchange ideas about their approaches and to feed their experience into the negotiations; b) High-Level Events which allow for exchange between

non-state actors and ministers or heads of state; and c) the High-Level Climate Champions who organise the High-Level Events and provide a point of contact for non-state actors to indirectly influence the agenda of the Technical Examination Processes and High-Level Events. Through these forums and processes, cities can convey their knowledge and demands into the official processes such as the Global Stocktake, and expand their dialogue with the parties (Donat, 2017).

Nationally Determined Contributions (NDCs) are another important element introduced with the Paris Agreement. If countries address urban issues in their NDCs, this provides support for cities to take ambitious climate action. A comparative review of NDCs by UN Habitat shows that over two-thirds of the analysed NDCs (113 out of 164) contain relevant urban keywords in the context of national priorities and ambitions for reducing emissions and adapting to climate change. Moreover, 79 NDCs mentioned specific mitigation and/or adaptation measures within the urban context. Asian and African countries address urban issues most often, followed by those in Latin America and the Caribbean. In contrast, European and other developed countries hardly ever include urban climate challenges or measures in their NDCs. An important explanatory factor for the uptake of urban content seems to be the pace of urbanisation in a country (UN Habitat, 2017).

Since COP21, and as part of the Talanoa Dialogue, a process launched at COP23 in 2017 to help countries implement and enhance their NDCs, the LGMA has facilitated a series of Cities and Regions Talanoa Dialogues. These in-country climate consultations convene national, regional and local governments to take stock of, shape and strengthen NDCs. To date, they have taken place in 37 countries. The Intergovernmental Panel on Climate Change, the key source of science and evidence informing the UNFCCC process, recommended stronger integration of impacts of climate change on cities and their unique adaptation and mitigation opportunities in its main report. The panel also announced that it will produce a special report on climate change and cities (IPCC, 2016). In 2018, the body organised a scientific conference on climate change in cities,<sup>6</sup> partly to stimulate scientific reports and peer reviewed publications on the subject. On the other hand, local governments are hardly mentioned in the text of the “Katowice Rulebook”, the 2018 document which establishes the detailed guidelines for the implementation of the Paris Agreement.

## VI. Limits to city-driven climate action

Without ambitious national policies and progress in the international climate regime, there are limits to the extent to which city- and city network-driven climate action can address the global problem of climate change. First of all, this is simply because there are limits to the type of climate actions cities can govern. Many matters, like trade policies, fuel subsidies and even suburban transport services are beyond cities’ jurisdictions. Moreover, most of the emissions reductions pledged and delivered by cities focus on emissions that occur within city boundaries with limited consideration of emissions associated with consumption of goods produced beyond those boundaries (Castán Broto and Bulkeley, 2013). There are also limited opportunities for cities to implement larger scale negative emissions schemes in the form of bio-sequestration or carbon capture and

6. <https://citiesipcc.org/>



storage. Moreover, the ability of cities to undertake climate mitigation and adaptation activities and engage in transnational city networks is limited to cities with the capacity and resources to do so – many poor and marginal cities are excluded (Gordon and Johnson, 2018).

More importantly, while cities and city networks focus on delivering mitigation and adaptation on the ground and strive for greater visibility in the international climate regime, the extent to which they question or attempt to redefine the overarching governance framework is limited. As argued by Johnson (2018), in their response to climate change cities operate within the frameworks and respond to the norms and practices set out by national governments and intergovernmental institutions. The city networks that aim to be the voice of cities in the international climate regime receive funding and intellectual contributions from international donors, multinational corporations and national governments, which are likely to shape their objectives and priorities. Survey data gathered among side-event participants in 2011 and 2012 regarding the roles performed by local government and municipal authorities in climate governance shows that the LGMA's strongest side has always been taking adaptation and mitigation actions, while their influence on policymakers and the agenda is limited, according to other stakeholders (Nasiritousi et al., 2014). Even at the local level, most climate actions are technical interventions. A 2018 study by Castán Broto et al. analysed 400 urban sustainability initiatives (over 20% of which addressed either energy or climate change and air pollution) looking for evidence of initiatives possessing qualities that increase the capacity of urban systems to attain deep transformation. The study found that actions designed to rethink modes of governance and promote urban transformative capacity are rare.

## Conclusion

The governing of climate change is not only confined to arenas of international negotiation or national policymaking; it is also a critical urban issue. As major CO<sub>2</sub> emitters, but also due to their vulnerability, many cities aspire to raise the ambition of national and international climate governance through leading by example and delivering significant and visible action on the ground. The number of city-focused measuring and reporting initiatives (such as carbonn Cities Climate Registry, the Carbon Disclosure Project and the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories) increasingly show the sheer volume and impact of actions taken at city level.

Over the years, formal, top-down governance at intergovernmental and national level has proven insufficient to address a problem as complex as climate change. The reality of climate change governance today is instead polycentric. Despite this, formal recognition of the important role of cities (and other non-state actors) in international climate agreements is only possible to a limited extent, as cities are not subjects of international law and therefore do not have a direct say in the official negotiations. This is far from a unique characteristic of the international climate regime, and is a general issue at international level. Hence, city networks such as United Cities and Local Governments (UCLG) advocate for a substantial reform of the UN system to give cities a more prominent, formal role in the international governance system.

Nevertheless, our analysis suggests that the participation of cities in the international climate regime goes beyond the usual role of stakeholders in similar intergovernmental processes with ministerial-mayoral dialogues, visibility on the official agenda, discussions with the COP Presidency and recognition as governmental stakeholders in the Cancun Agreements in 2010. In fact, several forums were created or strengthened in the run up to Paris as well as at COP21 to allow for better exchange between state and city representatives. While these platforms and forums are not a formal part of the negotiation process, they are closely linked to the negotiations, thus offering increasing visibility, legitimacy and motivation for the climate protection efforts of city actors. More recently, the IPCC has also emphasised actions undertaken by cities in its work.

In conclusion, global climate institutions and organisations can learn from and are being influenced by the experiences and insights gained at city level. The increased efforts of cities over the years are slowly being accommodated by the international climate regime. Hence, the activities of cities and city networks have broadened what constitutes the international climate regime.

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