



# Better City Network Data Empowers Climate Action from Below

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As the annual United Nations climate change summit winds down in Egypt, amidst shortcomings of multilateral diplomatic action and calls to attend to a deepening global environmental catastrophe, a group of international actors stands out against the grain: cities.

The impact of cities in fighting climate change is becoming more visible and ever better documented as local leaders progressively step up their commitment to tackling one of the planet's deepest crises. Crucial to this story is progress over the past decade made in data collection on city involvement in global governance.

Cities are turnstiles of so many large footprints on the planet—from the global economy to logistics, migration, and technological change—but they are also the most concentrated territorial sources of global greenhouse gas (GHG) emissions. In response, the past three decades have seen the formation of transnational municipal networks (TMNs), or organized coalitions of local governments, that enable cities to improve their individual capacity to address global challenges such as climate change.

Environmentally-focused city networks including ICLEI - Local Governments for Sustainability, C40 Cities, and many more have grown to become crucial collective action mechanisms by which member cities share policy knowledge and other resources, and access multilateral funding and legitimacy.

But do these networks help facilitate the all-important outcome of decarbonization, or the actual reductions of urban GHG emissions? Advances in data have allowed us in a [recent study](#) to show that on a global scale, more concurrent city memberships in environmental city networks indeed are associated with greater urban GHG emissions reductions.

This finding was made possible by harnessing the world’s largest accounting of city memberships in these networks—covering over 10,000 cities—which we created in 2018 to better understand how this [growing ecosystem of formalized city networking](#) is evolving, and how it drives change across borders on pressing global challenges. Now [openly accessible](#), the database at the heart of this study offers insight as to how we can measure the intersection of city diplomacy, networks, and global urban action on climate change.

### [What the data already tells us](#)

Data gathered to date tells us quite clearly that memberships of environmentally engaged city networks are consequential for climate action in multiple ways. It propels local governments to join peers in collective efforts to implement climate action plans; it pushes toward a strengthening of central-local climate policy coordination; and it shapes the participation of cities more formally in key multilateral venues and processes like the UNFCCC—the world’s climate governance regime for nations.

These networks improve the capacity of member cities to decarbonize by providing greenhouse gas inventorying software and model climate policies. They do so in many diverse modes, from independently bridging across state borders as TMNs, but also as coalitions either stated by multilateral organizations or philanthropies.

Cities and TMNs often partner with environmental services-providing businesses in order to offer member cities access to discount energy efficiency upgrade services. Data about this landscape of networking can be uniquely powerful, as these networks are forging new spaces for cities in global climate negotiation spaces previously occupied principally by national governments.

For example, the largest environmental TMN, ICLEI, leads the Local Governments and Municipal Authorities constituency within the UNFCCC, which continues to make key strides to integrate subnational climate action into national negotiations, including through the first-ever “[Climate & Urbanization Ministerial](#)” held at COP27.

Environmental city networks can also help cities fill gaps in national climate

leadership. When President Trump announced in 2017 his intent to withdraw the US from the Paris Climate Agreement, cities across the US and globally joined networks including C40 Cities and the Global Covenant of Mayors for Climate & Energy to reaffirm their commitment to enforce the agreement.

During this period of near-nonexistent US national-level climate policy, the contributions of subnational actors' commitments to decarbonization were [most significant](#). Evidence of these climate actions are key to not only build a greater case for cities to have [a seat at the multilateral table](#), but also to propel even more city action.

For example, even if our data represents but a snapshot of 2018, it provides an already clear indication of the uptick of city participation in these networks. While the Biden administration has re-committed to the Paris Accord, climate leadership gaps in the US and abroad cannot be filled without local government help.

Specifically, the commitments by national governments to reduce GHGs fall short of what is needed to keep global warming below 2°C, leaving an “emissions gap.” However, subnational governments have made GHG reduction commitments independently of nations, and the collective amount of committed reductions would be [sufficient to fill the national emissions gap](#).

Environmental city networks are crucial in this regard because they provide cities the technical and policy tools to improve their climate mitigation capabilities and deliver on their commitments. With these advancements and recognition of the key role of urban climate action, we also need greater and more refined capacity to back up city action with solid data as to how they partner and deliver.

### [Delivering data to build impact](#)

Data on the emerging landscape of subnational climate action matters because it can also be used to improve national climate mitigation efforts. In short, urban data is not just a key ingredient of climate action for cities but for multilateral and national institutions alike. While the [Global Stocktake](#)—a UNFCCC mechanism—is designed to account for climate mitigation efforts and thus enable nations to increase their GHG reduction commitments, it lacks sufficient information on subnational government action.

This is why organizations including the Open Earth Foundation, the Data-Driven EnviroLab, and the Climate Action Data 2.0 are seeking to strengthen the data architecture of the Global Stocktake by harmonizing subnational climate action datasets. While environmental TMNs are a prominent

organizational form through which cities are engaged in climate action, there are many other initiatives beyond TMNs involving subnational actors such as the [Race To Zero Campaign](#) that populate this new governance landscape.

The value of datasets like ours is their potential to push evidence-based policymakers and activist climate researchers, and to leverage the data on city participation in environmental networks to answer pressing questions on how a global movement for urban climate action is making a difference—and how it can be enhanced. It highlights spaces for investment, areas for capacity building, and dimensions of success and opportunity often sidelined by the global climate news cycle.

The full global ecosystem of city networks covers global governance issues well beyond environmental protection, which our data also cover, and includes networks focused on diverse multilateral issues from health to security—from the WHO Alliance for Healthy Cities to Mayors for Peace—and many in between.

This wide and vibrant ecosystem of collective city involvement in TMNs, visualized below, is ripe for greater recognition and activation, and can be leveraged for research insights on global cities' increasing involvement in these and other issue areas.

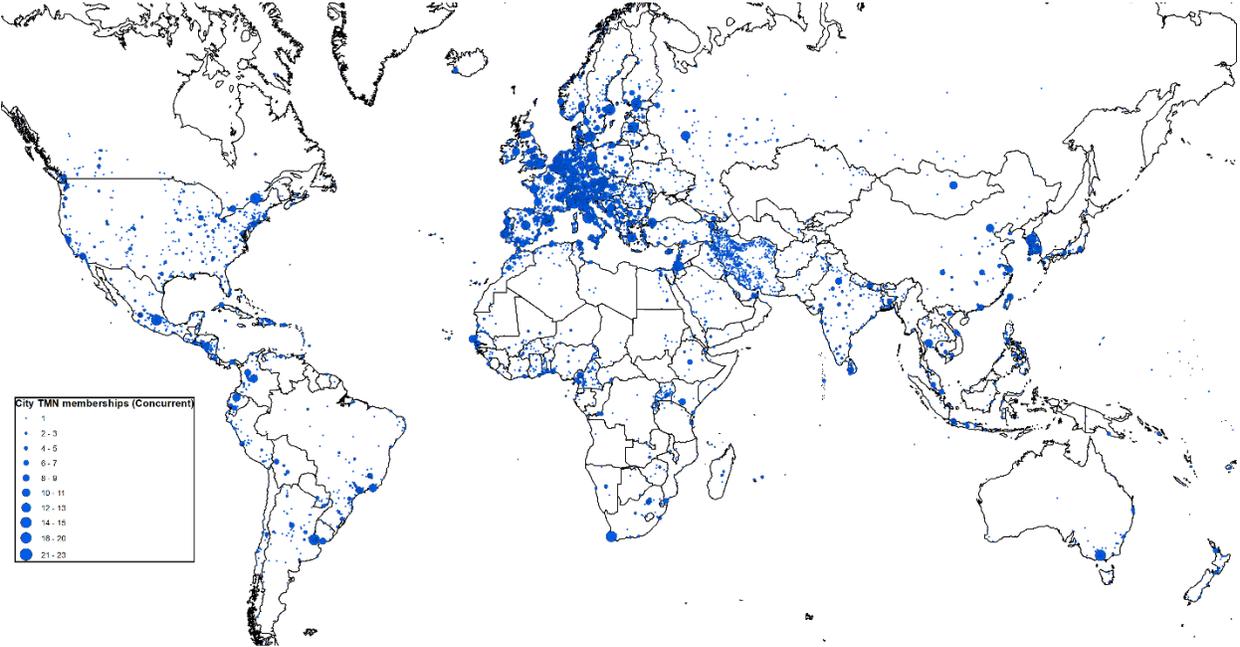


Image source: Benjamin Leffel

## A call for action, and some promising recognition

Luckily, some recognition is afoot. Accounting for and understanding city involvement in global governance will enable leaders to maximize the problem-solving capability of globally organized cities, particularly on shared problems such as climate change.

This is eminently relevant to national leadership, as the US Department of State has appointed the first [Special Representative for Subnational Diplomacy](#), Ambassador Nina Hachigian, in a role that will provide a national apparatus for supporting cities in global affairs, including climate goals.

Engineering greater local-global engagement requires leveraging new data on local activities in international affairs. Indeed, the previous iteration of this office, then called the Special Representative for Global Intergovernmental Affairs, was led by Reta Jo Lewis, who [called for](#) the State Department to leverage new global city data to enhance subnational diplomacy, allowing for targeted assistance to internationalizing communities to achieve their goals across policy, commercial, and educational contexts.

Backing up these important moves and significant recognition with a sound evidence base on the shape, impact, and potential of the global ecosystem of city networks is critical but in its infancy. We encourage more researchers and policymakers to follow suit and dive into developing collaboratively greater data-based understanding of the difference city diplomacy makes today on the prospects of our current climate crisis and other global grand challenges.

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