Translating Global Vision into Local Reality: Building the right knowledge and policy infrastructure to support local sustainable development

Urban 20 White Paper

An SDSN contribution to the U20 process

Source: Compiled by IIHS

Authored by:

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK

About Urban 20

Urban 20 (U20) is a new city diplomacy initiative developed under the leadership of Horacio Rodríguez Larreta, Mayor of the City of Buenos Aires and Anne Hidalgo, Mayor of Paris and Chair of C40 Cities Climate Leadership Group (C40). Launched on December 12, 2017 at the One Planet Summit in Paris, the initiative is chaired by the cities of Buenos Aires and Paris, and convened by C40, in collaboration with United Cities and Local Governments (UCLG).

What U20 seeks, is to highlight the expertise of cities in a range of global development challenges and to raise the profile of urban issues within the G20. U20 will offer solutions and clear recommendations to national leaders for their consideration ahead of the 2018 G20 Summit. The first year of the U20 initiative will culminate in the inaugural U20 Mayors Summit in Buenos Aires, October 29-30. With this event, U20 will remain a stepping stone toward ensuring an ongoing dialogue between cities and the G20.

In 2018, 26 cities have participated in Urban 20: Barcelona, Beijing, Berlin, City of Buenos Aires, Chicago, Durban, Hamburg, Houston, Jakarta, Johannesburg, London, Los Angeles, Madrid, Mexico City, Milan, Montreal, Moscow, New York, Paris, Rio de Janeiro, Rome, São Paulo, Seoul, Sydney, Tokyo, and Tshwane.

For more information, please visit: www.urban20.org

About the White Papers

Urban 20 is proud to present a series of White Papers from our Strategic and Advisory Partners that highlight the most relevant topics on the cities development agenda and the forthcoming urban trends. These papers define the challenges that local governments are currently facing and offer open recommendations supported by relevant, up-to-date research and data. The intention of this work is to broaden the understanding and perspective of decision makers and stakeholders as to enhance their ability to tackle these most pressing issues. The White Papers also represent the hard work and dedication of these agencies and organizations to keep the public well informed about the ongoing efforts to address the present and future challenges we share as humankind.

Image: Orbon Alija

"Translating Global Vision into Local Reality: Building the right knowledge and policy infrastructure to support local sustainable development" is a White Paper prepared by SDSN as a voluntary contribution to enrich the discussions of the Urban 20 process.

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The UN Sustainable Development Solutions Network (SDSN) has been operating since 2012 under the auspices of the UN Secretary-General. SDSN mobilizes global scientific and technological expertise to promote practical solutions for sustainable development, including the implementation of the Sustainable Development Goals (SDGs) and the Paris Climate Agreement.
It aims to accelerate joint learning and promote integrated approaches that address the interconnected economic, social, and environmental challenges confronting the world. SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society.

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Executive summary

As the world's population grows, so too do its cities. This accelerating urbanization brings to the surface simmering issues in the context of the Sustainable Development Goals–for example, ensuring the most vulnerable (such as slum dwellers) are not left behind, and reducing the overwhelming contribution of cities to carbon emissions (75 percent of global totals as of 2017) and adapting to climate change and an increasing incidence of disasters. These issues cannot be solved by a simple pen stroke from high-level policymakers and institutions. They must be tackled through bold approaches to policies and partnerships alike.

This paper proposes three approaches; the building of knowledge around the interdependencies of the SDGs and a new urban science, the creation of science-policy partnerships to support evidence-based local planning, and the implementation of supportive national policy frameworks. It also considers the crucial role of the international community including the UN and G20. By utilizing such approaches, urbanization can become science-based, responsive, and impactful, increasing the likelihood of achieving the 1.5 Celsius climate target, and ensuring no one is left behind.

The G20 occupies a unique space in global policy-making. With decisive action it can catalyze a new interdisciplinary urban science and encourage evidence-based urban policy-making. In particular it should support the creation of a high-level panel on the new science of urbanization, give local government leaders a seat at the table and clear mechanisms through which to inform G20 deliberations, and should lay out a new local to global urban strategy. This strategy must recognize that rapid urbanization is one of the most significant opportunities to address some the more intractable challenges of our time, the pivotal role local government leaders and institutional partnerships will play in addressing them, and the necessity for more inclusive local and global leadership.

Glossary

EU
European Union

GDP
Gross Domestic Product

IIHS
Indian Institute for Human Settlements

IPCC
Intergovernmental Panel on Climate Change

NUA
New Urban Agenda

NUP
National Urban Policies

SDGs
Sustainable Development Goals

SDSN
United Nations Sustainable Development Solutions Network

UN
United Nations

Introduction

In 2015, world leaders agreed upon a series of ambitious frameworks to set the world on a more sustainable path. The Sustainable Development Goals (SDGs) laid out 17 targeted yet interdependent goals relating to environment, economy, and society. Two months later, national governments again committed to action on climate change, promising to reduce emissions in order to keep global warming well below a 2-degree Celsius rise in temperature through the Paris Climate Agreement. This has been recently strengthened by a seminal IPCC report that outlines multiple pathways to a 1.5 Celsius world (IPCC 2018a). Six months earlier, countries agreed to put in place robust mitigation and adaptation strategies to manage disasters through the Sendai Framework. Finally, leaders recognized the importance of including an urban perspective in all of these agreements and subsequent action through Habitat III's New Urban Agenda. While all of these agreements have been negotiated by nation states, city representatives actively supported these processes. They shored up support for a goal explicitly focused on cities–SDG 11–and ensured that a strong, place-based narrative informs the implementation of all of the agendas. Local and regional governments have remained active on sustainable development since; for example, mayors in the United States are leading national action around the Paris Climate Agreement through We Are Still In campaign, and urban governments worldwide are institutionalizing efforts to implement the SDGs (see the Sustainable Development Solutions Network's (SDSN) Sustainable Cities Initiative and Local Data Action project).

The centrality of cities to the success of the world's sustainable development agenda is clear. **Cities are home to the majority of the world's population; "today, 55 percent of the world's population lives in urban areas, a proportion that is expected to increase to 68 percent by 2050…with close to 90 percent of this increase taking place in Asia and Africa"** (UNDESA 2018). As cities expand to accommodate this population growth, so too will urban slums and informal settlements. Today, 863 million slum dwellers are based in cities and urban areas. The informality of these settlements, most without adequate and safe housing, proper sewerage and sanitation, presents a major health crisis that is essential to address in order to accomplish SDGs 3 and 4. Cities concentrate energy poverty (SDG 7), are also the major drivers of unsustainable consumption and production patterns (SDG 12), including contributing more than 75 percent of carbon emissions from global final energy use (SDG 13) (Acuto, Parnell and Seto 2017).

Yet the dynamism of cities, with their concentrations of people, institutions, knowledge, innovation and capital, also present a huge opportunity to tackle the challenges presented within the SDGs. Today, cities are the world's economic centers, generating more than 75 percent of global GDP (Acuto, Parnell and Seto 2017). By getting urban development right, cities can create jobs and offer better livelihoods; increase economic growth; improve social inclusion; promote the decoupling of living standards and economic growth from environmental resource use; protect local and regional ecosystems; reduce both urban and rural poverty; and drastically reduce pollution. Sound urban development will accelerate progress towards achieving all of the SDGs, including the end of extreme poverty (SDSN 2013).

On the other hand, mistakes made in managing urban growth are very hard to undo. Infrastructure investments, urban land-use systems, and layouts are literally cast in stone–with impacts that may be difficult to alter for many decades. Without adequate management and investments, slums may expand and cities may fail to generate the jobs necessary to improve livelihoods. Cities are potentially the largest and most challenging 'stranded assets' to address in responding to climate change and weather extremes, as event after event across the globe have demonstrated. As a result, inequalities, exclusion, and violence may increase. Countries may fail to decouple economic development from resource use, and cities will not provide economic opportunities to surrounding rural areas, rendering all increasingly vulnerable to climate and other environmental changes (SDSN 2013). To ensure that the benefits of urbanization are fully

shared and inclusive, policies to manage urban growth need to ensure access to infrastructure and social services for all, focusing on the needs of the urban poor and other vulnerable groups for housing, education, health care, decent work, and a safe environment.

Addressing this "dark side" of urbanization will require bold new approaches (Revi 2016). Local and national governments will need to undertake long-term planning exercises with all departments of government, working across sectors not only to reimagine and redesign cities, but also to question current governance and funding models to ensure there are the right incentives for sustainable urban development. National governments have a pivotal role to play by supporting cities and local government to step up and lead on these challenges. Notably, this can be achieved through national urban policies that empower local and regional government leadership. **To encourage long-term, evidence-based planning and policy innovation, cities should strengthen their institutional capacities for inter-departmental and interdisciplinary problem solving for they need strong expert and academic partnerships, encouraging a new science of urban planning.** Finally, city leaders should lean upon the capacity and cross-country learning of a fit-for-purpose UN, as well as its affiliated knowledge networks and institutions, like the Sustainable Development Solutions Network (SDSN).

CHAPTER 1: THE INTERDEPENDENCE OF THE URBAN SUSTAINABLE DEVELOPMENT AGENDA

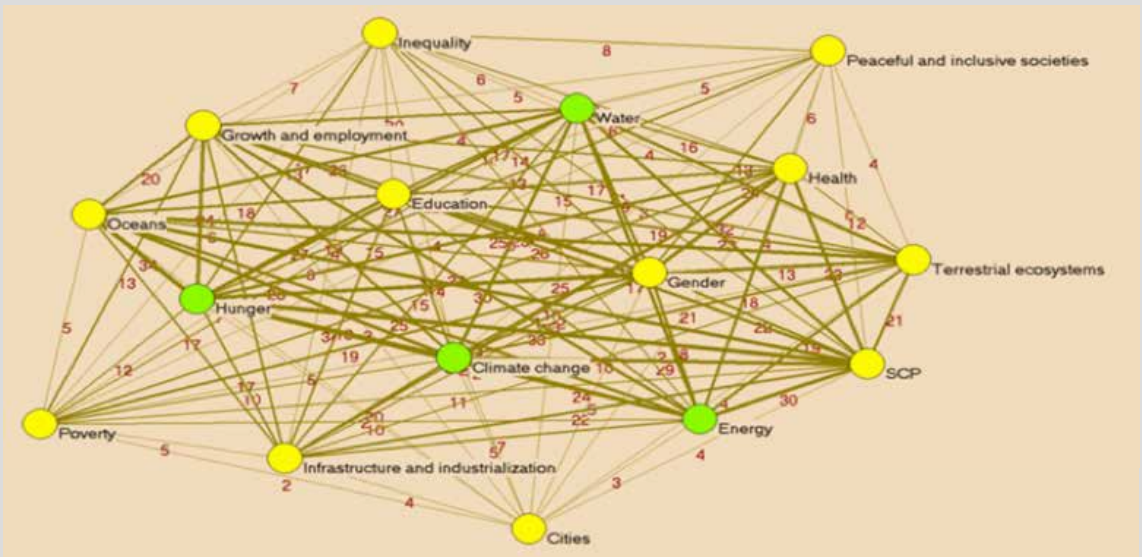
Source: Compiled by IIHS

Achieving the Sustainable Development Goals is a complex challenge; among the global development agendas adopted in 2015 and 2016, this agenda alone consists of 17 goals, 169 targets, and more than 240 indicators for monitoring progress. The goals and their accompanying targets are focused on discrete sustainable development topics such as health, education, and urbanization. Yet the preamble of the 2030 Agenda (which includes the SDGs) includes a firm commitment to recognize the interdependence of the goals and employ cross-sectoral strategies to implement them. Notably, this commitment must consider the inherent tradeoffs across goals–for example, the necessity to promote growth and create jobs (SDG 8), but only within clean industries (SDGs 9, 12, and 13), or the necessity to reduce hunger (SDG 2), but not do so at the expense of sustainable land use (SDG 15) or biofuel production to meet climate targets under SDG 13 and the Paris Agreement.

Population growth and urbanization are likely to exacerbate these tradeoffs. For example, demands for freshwater, energy, and food are all expected to increase by 30 percent or more by 2030 due to the cumulative effects of population growth, mobility, urbanization, and climate change. For many, the availability of electricity and groundwater pumps has been revolutionary for enhancing agricultural productivity and food production and would therefore be a logical way to cope with higher demands for water and food. But employing these practices at scale threatens groundwater depletion (Mainali et al. 2018) and deepens the dependence on fossil fuel-driven pumps. Hence, new cross-sectoral solutions are needed to wrestle with emerging sustainable development challenges that quantitatively measure and assess tradeoffs. **Without proper understanding of and accounting for tradeoffs and synergies across different sectors, cities run the risk of developing incoherent policies that adversely affect one another, lose the potential for positive synergy effects, and result in delayed sustainable development outcomes** (Mainali et al. 2018).

Figure 1 provides a preliminary mapping of the interdependencies among the SDGs. SDG 11 on cities is linked to nearly all of the other goals; building sustainable cities and communities is an outcome in and of itself, but cities and urban areas will also be the sites for implementation of many, if not most, of the other goals.

Figure 1. Mapping interdependencies among SDGs



Source: Le Blanc, D., (2015).

Other city-specific SDG interactions include the relationship between informal housing (SDG 11) and health outcomes (SDG 3). As more and more people move to cities, housing issues will intensify with profound public health effects; "863 million people live in slums and informal settlements, lacking durable housing, sufficient living space, security of tenure, sanitation and infrastructure, and clean water" (ICS 2017). The high density of their living encourages rapid disease transmission, which not only affects the slum dwellers but also heightens health risks for those in the surrounding urban and peri-urban area.

Another example is the relationship between health (SDG 2) and public transit (SDG 11.2) (see Figure 2). **Improving access to public transit not only reduces pollution (SDG 13) and road traffic, but also encourages physical activity (SDG 3.4), access to healthcare, education, and employment (SDGs 3,4, and 8) (ICS 2017) and helps reduce fossil fuel use and hence limit carbon emissions from transport (SDG 13).**

Figure 2. Interactions between SDG 3 and SDG 11 on transport and health outcomes

SDG + SDG 11

TARGETS		KEY INTERACTIONS	SCORE	POLICY OPTIONS
3.4	11.2	Improving transport and particularly supporting active travel modes, promotes physical activity and helps to mitigate or prevent non-communicable diseases	+2	Ensure that transport systems connect active and public transport modes, and encourage cycling and walking through measures appropriate to the local context, such as street lighting, traffic slowing measures, footpaths, cycle lanes, shading, and pedestrian crossings
3.6	11.2	Improving road safety, with particular regard to vulnerable road users such as cyclists and pedestrians, will reduce harm from traffic accidents	+3	Design infrastructure that prioritises safety and protects vulnerable road users. Ensure comprehensive road safety legislation
3.8	11.2	Transport systems support access to healthcare, employment, family and friends, and education	+2	Ensure that public and active transport systems are integrated and well-connected to homes, jobs, and services
3.9	11.2	Compact cities with well-designed public transport, cycling and walking networks enable reduced car use and contribute to reductions in carbon emissions and reduce exposure to air pollution	+3	Promote policies for compact, accessible mixed-land use urban development in order to reduce car dependence and carbon intensity of urban transport and encourage physical activity

Source: ICS 2017.

Designing policies that consider both interdependencies and long-term trends requires a very different way of working within and across government, that encourages cross departmental collaboration (to break down sector silos) and partnerships with universities and other expert groups to enable modelling and long-term planning. Planning exercises need to consider long-term trends and enable multi-dimensional feasibility assessments that take into account population growth, economic development, technological and socio-cultural factors (IPCC 2018a).

There are three mechanisms that can help to enable this. First, supportive national policy frameworks that recognize the necessity of working across multiple scales of government and empower local governments to address local, complex problems. Second, cross-sectoral collaborations, for example by each department or sector bringing to the decision-making table evidence-based plans that can be evaluated and assessed alongside each other to ensure coherence across government policy. Third, science-policy partnerships, with local universities and other sustainable development experts. These partnerships will be essential to bolster government capacity for developing evidence-based, long-term plans that consider demographic changes, technological change and innovation. The following chapters unpack these mechanisms, as well as considering the role of the international community in supporting an effective knowledge and policy infrastructure to support local sustainable development.

CHAPTER 2: SUPPORTIVE NATIONAL POLICY FRAMEWORKS AND PROCESSES

Source: Compiled by IIHS

A crucial mechanism through which to empower cities to lead on the implementation of sustainable development agendas is a national urban policy (NUP). **NUPs can provide a coordinating framework for the management of challenging issues pertaining to rapid and informal urban development, such as slum management, access to land, secure and adequate housing, basic services, delegation of authority to national and local governments, the transfer of financial flows, urban mobility, and urban energy requirements.** NUPs approved at the highest level provide a reference for ministries, government departments, and service providers on how to operate within cities and liaise with local government. They can also be a reference for legislative institutional reform (UN-Habitat 2018).

Brazil and South Africa provide examples of effective national urban policies that have been central to addressing sustainable development (see Box 1, below). OECD nations have adopted NUPs, while the European Union (EU) has launched its own Urban Agenda for the EU (https://ec.europa.eu/futurium/en/urban-agenda). Additionally, countries like China and Australia are currently "rolling out ambitious roadmaps for new strategies to manage urbanization trends and harness urban growth" (Acuto, Parnell and Seto 2017). Even in Africa, a continent that has traditionally under-invested in infrastructure and not encouraged devolution, many countries are now encouraging a strong focus on sustainable urban development. As of 2017, one in every three African countries was in the process of developing a national urban policy, most of which with a strong emphasis on infrastructure and jobs (Acuto, Parnell and Seto 2017).

Generally, the anticipated results from central governments developing a NUP are: a clearer identification of how urban development can support equitable social and economic growth that is environmentally sustainable; guidance on the future development of national urban systems and land use; and better intergovernmental coordination across sectors and levels of government (UN-Habitat 2018).

NUPs can also play a transformative role in supporting better fiscal transfers between layers of government, as increasing coherence at the policy level can improve administrative effectiveness and resource flows at the metropolitan level. NUPs can also clearly lay out parameters for resource flows to empower local government with adequate resources and capacities, including specifying the level of local government autonomy over taxes, revenues, and expenditures, particularly with respect to the collection of regulation of land and related taxes, user charges and fees to cover expenditures (UNGA 2016).

BOX 1: Integrated Urban Development Framework for South Africa

South Africa is in the midst of tackling the impact of rapid urbanization. 60 percent of the population lives in urban areas and this number is expected to increase to 70 percent by 2030 and 80 percent by 2050 (Pieterse 2017). This is significant acceleration. It is therefore important to guide the growth and management of urban areas in ways that unlock the potential of cities and towns and address acute spatial injustices, which have persisted since apartheid.

The Department of Cooperative Governance and Traditional Affairs, under the direction of the National Development Plan (NDP), designed the Integrated Urban Development Framework (IUDF) in 2016 in response to South Africa's urbanization trend. The IUDF seeks to manage the scale and growth of South African cities and towns. It aims to foster shared understanding across government and society to achieve the goals of economic development, employment creation, and improved

living conditions by addressing current urban inefficiencies as outlined in the NDP. It is a tool for reorganizing urban systems to make cities and towns more inclusive, safe, productive, and resource-efficient, thus becoming good places to work and live.

Implementation of the IUDF (Figure 3) is driven by nine levers, which are intended to support intervention and enable the achievement of strategic goals and objectives. Financing the transformation involves the participation of multiple stakeholders–government, the private sector, the public sector, nonprofits, universities, and academia to retrofit the existing city footprints. To ensure inclusive economic development, IUDF empowers stakeholders to increase enterprise development, profitability, and skill development, and to mainstream the excluded in the workforce. It emphasizes the importance of expanding the services sector, encouraging industry and decentralizing production, whilst maintaining a focus on green economy. The framework is designed to align the long-term revenues of the municipalities with the performance of local economies. This approach ensures that the municipalities work consistently to protect and enable economic growth and that the revenues available to fast-growing, efficient local economies match their expenditure needs.

Figure 3. IUDF Framework and Strategy

Source: IUDF.

The IUDF marks a "New Deal for South African" cities and towns, steering urban growth towards a sustainable model of compact, connected, and coordinated cities and towns (Pieterse 2018).

Written by Rakhi Sahay (IIHS)

Another mechanism which can be used to support subnational implementation of the SDGs is a national SDG committee. Colombia has been heralded as a "poster child" for such a process since President Juan Manuel Santos approved a decree (No.280) establishing the creation of an Inter-Agency Commission for the Preparation and Effective Implementation of the Post- 2015 Development Agenda and the SDGs. The decree was passed in February 2015, long before the SDGs were formally endorsed, demonstrating Colombia's dedication to the agenda.

The Commission commits to work across ministries and sectors to support the 2030 agenda (as highlighted by its multi-departmental composition of Ministry of Finance, Ministry of Environment, Department of Social Protection, and National Statistical Office, among others). Since its inception the Commission has launched a multi-stakeholder consultative process to identify priorities and help design the national monitoring process. To facilitate this there is a CSO representative on the Commission. The Commission is also attempting to establish a process for localizing the agenda to different regions and municipalities. Above all the Commission aims to mainstream the SDGs into Colombia's other national strategies, including the National Development Plan and the Peace Agreement (Wagner 2017). As a result, Colombian cities and municipalities have also made the SDGs a core component of their local planning. For example, Medellín's Mayor Federico Gutiérrez empowered a youth department within the city to conduct extensive outreach to young people, who represent more than one-quarter of the population. Their aim is to reduce the risks of violence by improving school attendance, promoting public art, and providing support for training and employment, among other services. The youth department (and all city departments) benchmarks progress against SDG targets, regularly reporting on this (World Bank 2017).

Finally, local and national governments can do much to advance the SDG agenda by **utilizing a new planning approach which encourages cross-sectoral collaboration.** A good example of this is provided by New York City and its OneNYC plan (NYC 2018). OneNYC was the city's 2015 sustainability plan. It pre-dated the final SDGs, but was heavily informed by discussions around their creation. The strategy is focused on social, economic, and environmental concerns, as well as having a dedicated pillar on resilience and disasters (notably, to address concerns about disaster planning raised in the aftermath of Hurricane Sandy in 2012). The development of the strategy was groundbreaking for five key reasons:

1. "OneNYC is an integrative strategy, which considers disparate impacts on neighborhoods and populations, access to key public assets, environmental insecurity and economic growth, as well as social and economic inclusion and mobility.
2. The plan harmonizes with global development efforts, while providing input on best practices and metrics to inform the global development agenda.
3. Its long-term perspective on city sustainability planning sets ambitious long-term goals under specific lead agencies, with coordinated budget planning and a monitoring framework to ensure funding and accountability.
4. Nearly every city agency was active in the core design process, and the overall strategic planning process consulted with city elected officials, an advisory board, private sector roundtables, and residents.
5. OneNYC is data- and metrics-oriented, using specific indicators to evaluate progress toward the city's goals and reporting on this progress in an annual public update" (Espey and Mesa 2018).

Planning processes like OneNYC provide concrete examples of how to organize cross-departmental, holistic sustainable development planning exercises within local and national government to effectively manage synergies and tradeoffs between goal areas.

CHAPTER 3: SCIENCE-POLICY PARTNERSHIPS

Source: Compiled by IIHS

The recent seminal IPCC report on 1.5 Celsius, identifies the urban transition as one of the four pivotal processes upon which the success of the Paris Agreement and the implementation of the SDGs rests (IPCC 2018a). It also highlights the role that local and regional governments and partnerships will play in multi-level governance, building institutional capacities and enabling technological and behavioral change required to accelerate climate action in consonance with the SDGs. This is an important example, of the convergence of science, evidence-based policy in addressing a complex challenge that demands local to global responses.

Increasing evidence is now available to show how, engaging scientists and experts in these governmental planning processes is crucial to ensuring plans are evidence- and data-based, and that they consider long term trends and dynamics. In part, **the modelling work or other long-term forecasting studies required for such plans are likely to be too time-intensive or technical for local or national government staff**. Given very few local and national governments worldwide systematically collaborate with academia (something SDSN seeks to address), simply making these connections is likely to provide immediate benefits, as demonstrated by the CitiesIPCC Cities & Climate Change Science Conference held in Edmonton, Canada in 2018.

"The need for structured engagement between city stakeholders (governance, policy-makers, planners, decision-makers) and the scientific community is long overdue, and urban climate science is needed to provide the rigorous evidence-base for urban policy-making" (CitiesIPCC 2018).

The CitiesIPCC conference was the first of its kind: a high-level conference endorsed by the world's leading climate researchers and member states and focused on local climate action (IPCC 2018b). It brought together policymakers, practitioners, and urban and climate scientists to discuss cutting edge urban climate science, and how this science applies to and will impact upon policy. Significant value was derived from global science policy coalitions showing climate transition pathways and mapping out the tools and techniques that can be used to help local governments effectively plan and prepare for climate change effects. A major recommendation from both local government representatives and academia was the necessity to encourage science-based coalitions that work with local governments and communities. They would support the capacity of policymakers and practitioners to address key areas identified by the climate and urban research agendas. Another recommendation was that the global science consortium, under the IPCC, be expanded to ensure more diversity and more policy relevance so the science that is produced internationally speaks to local, contextual challenges.

Although these recommendations and this process were specific to the climate change agenda, they are applicable to the whole sustainable development agenda. Academic and expert input can make policymakers' planning and practice more evidence-based, responsive, and impactful. Such tripartite coalitions are starting to emerge worldwide. For example, SDSN's regional and national network, comprised of local universities and expert members, work with local and national government to support SDG-oriented policy and planning, highlighting successful interventions and helping to take them to scale. Additionally, SDSN's USA Sustainable Cities Initiative identifies local host universities to convene a dialogue with local government and community on the relevance of the SDGs and their value as a planning framework. These dialogues result in the mapping of city policies, plans, and data that align with the SDG framework. Another example is provided by the City of Melbourne: Following the March 2018 Australian Sustainable Development Goals Summit, it began working with the State Government of Victoria and three leading state-wide universities to build a planning partnership focused on the SDGs.

Key criteria for effective tripartite planning processes are:

- Multi-party, including policymakers, practitioners, and academics;
- Multi-scalar, involving local, regional, and national government representatives;
- Cross-sectoral, involving scientists and policymakers from diverse areas of sustainable development (not just urban planning);
- Including long-term forecasting and modelling exercises to account for demographic, technological change and innovation and environmental trends; and
- Informed by robust use of data, including Earth observation and georeferenced data, to ensure a place-based approach to planning.

However, urban research and education also needs to be strengthened to best support these processes. As noted by leading urban scientists Acuto, Parnell and Seto (2017): "[Despite] the steady growth of urban areas worldwide, urban research and education fall short in key respects. Across academia, urban knowledge is outdated and underfunded". In order for urban researchers and their research to respond to the demands of this new, complex sustainable development agenda, they need to better draw upon all of the sciences while also linking to practical, policy-relevant problems. To this end, the global urban scientific community needs to make a conscious effort to collaborate with other sectors and sciences and to learn from policymakers to best understand the interdependent nature of the challenges on which they all work. The international community can drive this change by providing more funding for interdisciplinary urban research. Additionally, it can establish a high-level panel focused on the new science of urbanization, such as a High-Level Panel or International Committee of Experts (further discussed below).

CHAPTER 4: THE ROLE OF THE INTERNATIONAL COMMUNITY, INCLUDING THE UN AND THE G20

Source: Compiled by IIHS

The international community has a crucial role to play in supporting a new policy and knowledge system of urban science research in support of sustainable development. First and foremost, the UN, the European Union (EU), **the G20, and other multilateral processes should recognize the importance of cities, regions and local partnerships for successful implementation of sustainable development by giving them better representation in these forums, as well as the crucial insights they can bring on local sustainable development challenges.** Local government authorities are currently only represented in UN discussions on sustainable development through their one representative seat on behalf of their Major Group. City networks, coordinated through the Global Taskforce of Local and Regional Governments, should be awarded more opportunities for participation, both within the General Assembly and in parallel forums such as the G20, to report on their progress to encourage local action. The UN reform process is a great opportunity to assert the centrality of local governments for successful implementation of these complex agendas, e.g., by ensuring local government are included in regional and national UN committees and by providing more active technical support to subnational actors.

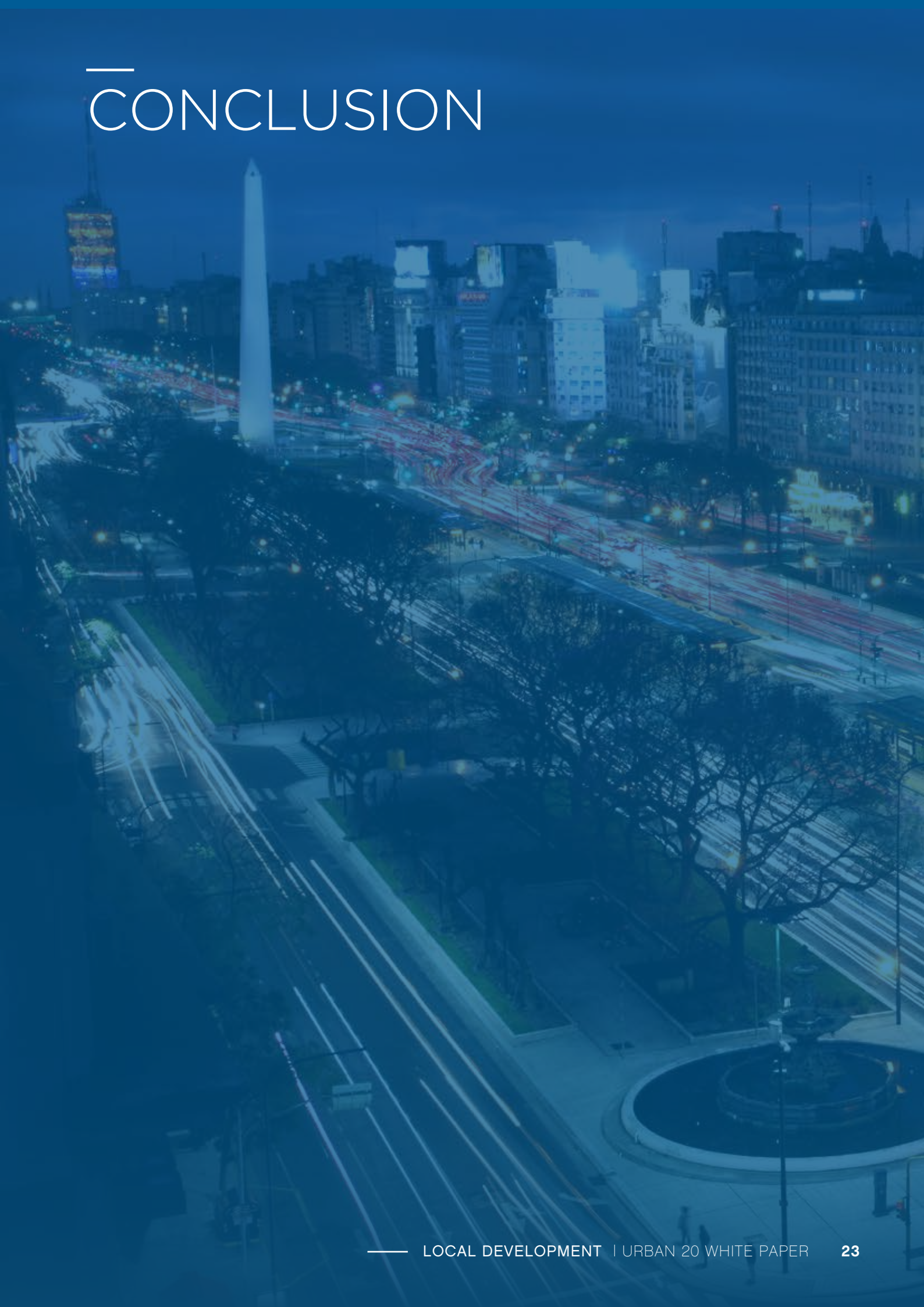
Regional economic communities can do much to promote these issues by establishing regional urban agendas, such as the Urban Agenda for the EU. The Urban Agenda for the EU was launched in May 2016 as the Pact of Amsterdam. It represents a new, multi-level working method promoting cooperation between Member States, cities, the European Commission, and other stakeholders "in order to stimulate growth, liveability, and innovation in the cities of Europe and to identify and successfully tackle social challenges" (EU 2018). The Agenda focuses on three key pillars: better regulation, including supportive policy and policy coherence; better funding, including innovative sources of funding (e.g., from the European Structural & Investment Funds); and better knowledge, including improvements to and investments in better urban and subnational data.

UN agencies like the UN Development Programme, UN-Habitat, UN-Environment and UNICEF as well as affiliated global knowledge networks like SDSN, should also be utilized in support of local government authorities. For example, these institutions can connect with the urban planning programs or departments of local schools and relevant scientific institutions to better understand the pathways to developing sustainable cities–cities that are environmentally-sensitive, low-emitting, compact, and inclusive. For more, see SDSN's USA Sustainable Cities Initiative.

The G20 occupies a unique space in the global policy arena. Collectively, the G20 countries and regions account for percent of the gross world product (GWP), 80 percent of world trade, two-thirds of the world population, and approximately half of the world land area (Australia G20, 2014). Decisive leadership by the G20 could therefore drive seismic changes in sustainable urban development. To do this the G20 should consider three things; first, like the EU, it should consider establishing a clear Urban Agenda, which not only articulates a vision of sustainable urban development, in clear alignment with the Paris Climate Agreement and the SDGs, which encourages countries to develop clear National Urban Policies and to give ample space, support and financial resources to local governments. Second, it should consider a standing mechanism through which local governments can provide input to G20 deliberations, given that city leaders are on the front lines of the sustainable development challenge.

This could be achieved by **strengthening and institutionalising the nascent U-20 process and ensuring the participation of a local government representative within the G20 Secretariat.** Finally, it should also consider leading the shift in global urban knowledge and governance by establishing a high-level group of champions (a High-Level Panel), affiliated with the G20 to help articulate a vision for a new science and policy of urbanization. This group would be made up of local government leaders and leading urban scientists who would consider not only the specific challenges facing cities, but also how they can better harness scientific knowledge to help tackle the challenges. Their outputs might include recommendations on the governance reforms needed for cities to be sufficiently empowered to act.

CONCLUSION



The challenge of building sustainable cities, regions and communities, which are equipped to: host large, growing and dense population concentrations; enable prosperity and decent work for all, while minimizing inequalities, and mitigating environmental changes - cannot be solved through current policies and processes. Bold new approaches to policies and partnerships are required, which are strongly grounded in science, evidence and national and local context. This paper proposes three approaches; the building of knowledge around the interdependencies of the SDGs and a new urban science, the creation of science-policy partnerships to support evidence-based local planning, and the implementation of supportive national policy frameworks. By utilizing such approaches, urbanization can become science-based, responsive, and impactful, increasing the likelihood of meeting the 1.5 Celsius climate target, and ensuring no one is left behind.

The paper also considers the crucial role of the international community. The G20 occupies a unique space in global policy-making. With decisive action it can catalyze a new interdisciplinary urban science and encourage evidence-based urban policy-making. In particular it should support the creation of a high-level panel on the new science of urbanization, give local government leaders a seat at the table and clear mechanisms through which to inform G20 deliberations, and should lay out a new local to global urban strategy. This strategy must recognize that rapid urbanization is one of the most significant opportunities to address the pressing challenges of our time, the pivotal role local government leaders and institutional partnerships will play, and the necessity for more inclusive local and global leadership.

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