

Getting Started with the SDGs in Cities

A Guide for Stakeholders

July 2016

Acknowledgements

This Guide was written by Chaitanya Kanuri, Aromar Revi, Jessica Espey & Holger Kuhle, with input from SDSN's Thematic Network on Sustainable Cities, chaired by Aromar Revi, Cynthia Rosenzweig and Eugenie Birch.

The authors are very grateful for feedback and contributions from several colleagues and partners, including William Cobbett (Cities Alliance), Friederike Burkert (GIZ), Verena Maier (GIZ), Rafael Tuts (UN Habitat), Guido Schmidt-Traub (SDSN), Sandra Ruckstuhl (SDSN), Emily Hosek (SDSN Brazil), Ana Abbas and Rahael Kuruvilla (IIHS). Layout by Nawaz Khan and M S Vikrant (IIHS).

Table of Contents

Abbreviations	iii
List of Boxes	v
List of Tables	vii
List of Figures.....	vii
Executive summary	1
Scope, purpose and structure of the Guide	4
Chapter 1: Cities and a territorial approach to the SDGs	6
1.1 What are the Sustainable Development Goals?.....	8
1.2 Cities and Sustainable Development	11
1.3 Localizing the SDGs	15
1.4 Habitat-III and the New Urban Agenda	18
Chapter 2: Practical tools for getting started with the SDGs	20
2.1 Step 1: Initiate an inclusive and participatory process	22
2.2 Step 2: Set the local SDG agenda.....	33
2.3 Step 3: Planning for SDG implementation	42
2.4 Step 4: Monitoring and evaluating SDG outcomes.....	54
Chapter 3: Enabling Conditions for Sustainable Development	65
3.1 Decentralized governance.....	67
3.2 Integrated local governance.....	71
3.3 Municipal Finance	76
3.4 Government capacity development for the SDGs.....	81
3.5 Policy frameworks.....	85
Conclusion	90
References	91
Annexures	99
ANNEX 1: Inclusion of the local level in global outcome documents.....	99
ANNEX 2: Mapping SDG targets onto One NYC targets	103



Abbreviations

ACC	African Centre for Cities	GI	Geographic Information
BAU	Business-As-Usual	GIS	Geographic Information Systems
CBOs	Community based organizations	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
CEE	City Enabling Environment	HDI	Human Development Index
COP21	21st Session of the Conference of Parties	HLP	High Level Panel on the Post-2015 Development Agenda
CRVS	Civil registration and vital statistics	ICC	Cartographic Institute of Catalonia
CSO	Civil Society Organizations	ICLEI	International Council for Local Environmental Initiatives
CSR	Corporate Social Responsibility	IDB	Inter-American Development Bank
DDPP	Deep Decarbonization Pathways Project	IPP	Instituto Pereira Passos
FfD	Financing for Development	JICA	Japanese International Cooperation Agency
EIA	Environmental impact assessments	LNG	Liquefied Natural Gas
EU	European Union	LPG	Liquefied Petroleum Gas
GCRO	Gauteng City Region Observatory	LRGs	Local and Regional Governments
GDP	Gross Domestic Product	MDGs	Millennium Development Goals

MoI	Means of Implementation	SPVs	Special Purpose Vehicles
MoUD	Ministry of Urban Development	STSI	Secretary of the Information and Telecommunications Society
MSPs	Multi-Stakeholder Partnerships	UNCAC	UN Convention against Corruption
NGOs	Non-Governmental Organization	UCLG	United Cities and Local Governments
NUA	New Urban Agenda	UK	United Kingdom
NUP	National Urban Policy	UN	United Nations
OECD	Organization for Economic Co-operation and Development	UNDP	United Nations Development Programme
OWG	Open Working Group	UNEP	United Nations Environment Programme
PFM	Public Financial Management	UNDP	United Nations Development Programme
PMF	Performance Measurement Framework		
PPPs	Public Private Partnerships		
SCI	Sustainable Cities Initiative		
SDGs	Sustainable Development Goal		
SDSN	UN Sustainable Development Solutions Network		
SLB	Service Level Benchmarking		
SPEs	Special purpose entities		

List of Boxes

Box 1	Mobilizing global action for sustainable development	6
Box 2	The benefits of sustainable cities	8
Box 3	Role of SDSN in SDG localization	11
Box 4	Getting started with SDG localization	14
Box 5	Institutional and stakeholder analysis	17
Box 6	21 st Century Town Meeting	19
Box 7	Overcoming the digital divide for maximum participation	20
Box 8	Colombia's National SDG Commission	22
Box 9	Participatory model of MDG localization in Uganda	25
Box 10	Aligning Baltimore's city plans with SDG targets	26
Box 11	City Prosperity Initiative	27
Box 12	Service Level Benchmarking in Indian cities	28
Box 13	Performing a target assessment	29
Box 14	OneNYC- Hunts Point Food Distribution Center	
Box 15	Metro Vancouver's interconnected management plans	32
Box 16	Backcasting for environmentally sustainable transport	34
Box 17	Needs assessment for the SDGs	37
Box 18	A multi-stakeholder partnership for municipal solid waste management	23



Box 19	SDSN Sustainable Cities: Local SDG monitoring in a metropolitan context	40
Box 20	Open Data Kit	42
Box 21	Instituto Pereira Passos, Rio de Janeiro	43
Box 22	Open Data Census	44
Box 23	Global Human Settlement Layer	45
Box 24	Spatial data infrastructure of Catalonia, Spain	46
Box 25	City Enabling Environment Assessment	50
Box 26	Territorial integration in Gauteng, South Africa	53
Box 27	The Urban Nexus approach for integrated governance	55
Box 28	Land readjustment for value capture	57
Box 29	Participatory budgeting	61
Box 30	Local Governance Reform Program, Palestinian Territories	59
Box 31	UNDP Capacity Assessment Framework	63
Box 32	Project-level capacity development for local revenue management	64
Box 33	Ghana Urban Policy Framework	68

List of Tables

Table 1	Sustainable Development Goals	5
Table 2	Stakeholder groups in local and regional governance	16
Table 3	Financing mechanisms for urban and local governments	36
Table 4	Mechanisms for integrated governance	54
Table 5	Local government share of public sector revenues and expenditures	56
Table 6	National Urban Policy frameworks	67

List of Figures

Figure 1	Sustainable Development Goals	4
Figure 2	Distribution of global population	7
Figure 3	Photo of Nyvahn Copenhagen by Nico Trinkhaus on Flickr/ CC BY-NC 2.0. CPH 2025	9
Figure 4	The Baltimore Goals	18
Figure 5	Photo of public transport in Bogota by mariordo59 on Flickr/CC BY-SA 2.0.	
Figure 6	Photo of Times Square New York Richard Burger on Flickr/CC BY-NC-ND 2.0.	31
Figure 7	Metro Vancouver's interconnected management plans	32
Figure 8	Outline of a general backcasting method	34
Figure 9	Photo of Rio de Janeiro Marcelo Druck on Flickr/CC BY-NC-ND 2.0.	42
Figure 10	Open Data Census: data in Finnish cities	44
Figure 11	Urban and metropolitan configuration of the Paris city-region	51
Figure 12	Photo of Comaro Street Johannesburg by Paul Saad on Flickr/CC BY-NC-ND 2.0.	
Figure 13	Examples of participatory budgeting across the world	61
Figure 14	Photo of Das Sonnenschiff Vauban (Germany) by Jute Marketing on Flickr/CC BY-NC-ND 2.0.	64

Executive summary

At the 2015 United Nations General Assembly, 193 UN member states unanimously adopted the 2030 Agenda for Sustainable Development, a global development agenda that lays out 17 Sustainable Development Goals (SDGs) to be achieved by 2030. The SDGs, which came into effect in January 2016, are a universal set of goals, targets and indicators that set out quantitative objectives across the social, economic, and environmental dimensions of sustainable development. Addressing critical sustainability issues such as poverty, climate change, inequality, economic development, and ecosystem protection, the SDGs will be implemented in all countries, across different territorial scales.

Cities and human settlements will be key to achieving the global SDGs. The SDGs come into effect in a world that is increasingly urban, with a little over half the global population now living in cities. Urbanization has thrown up some of the world's greatest development challenges, but it also has tremendous opportunities for advancing sustainable development. SDG 11 recognizes the central role of urbanization in sustainable development, and calls for *'mak[ing] cities and human settlements inclusive, safe, resilient and sustainable.'* As one of the 17 SDGs that will shape public policy priorities and guide development finance flows for the next fifteen years, the 'urban SDG' provides a tremendous opportunity for cities to build robust partnerships and gain additional resources for advancing sustainable urban development.

For mayors and local leaders that are working to improve the quality of life in urban environments, the SDGs provide a roadmap for more balanced and equitable urban development. All cities aim to increase prosperity, promote social inclusion, and enhance resilience and environmental sustainability. In this way the SDGs capture large parts of the existing political agenda in virtually every city. When aligned with existing planning frameworks and development priorities, they can strengthen development outcomes and provide additional resources for local governments.

Localization refers to the process of adapting, implementing, and monitoring the SDGs at the local level (1). While the specific role of urban and local governments in implementing the SDGs will depend on individual countries, their systems of decentralization and local government mandates, Chapter 2 describes four basic steps for getting started with SDG localization in cities:

Step 1: Initiate an inclusive and participatory process of SDG localization. This includes raising awareness of the SDGs at the local level, setting the stage for multi-stakeholder discussion and involvement, and prioritizing sustainable development through strong political leadership and integrated governance arrangements.

Step 2: Set the local SDG agenda. SDG localization is key to ensuring that no one and no place are left behind in the development of a more sustainable future. Cities need to adapt the global SDGs into an ambitious yet realistic local agenda, through evidence-based decision-making that is backed by public support and input.

Step 3: Plan for SDG implementation. Implementing the SDGs to be achieved by 2030 will require goal-based planning that adopts a long-term, multi-sectoral perspective, and is supported by adequate implementation capacity and financial resources, and multi-stakeholder partnerships.

Step 4: Monitor SDG progress. Disaggregated data systems are necessary to measure local progress on SDG indicators, and to review the efficiency of program implementation. Local monitoring and evaluation (M&E) systems ensure that SDG implementation remains on track, and support the development of local capacity for more responsive and accountable governance.

Many cities across the world are already leading the way on sustainable development and climate change action, and are well equipped to implement the SDGs. However, urban and local governments often struggle to drive action on sustainable development due to a number of constraints. These include limited political and fiscal power, lack of access to development finance, low levels of institutional capacity, absence of robust multi-level government cooperation and integration, and the inability to attract or be part of strong multi-stakeholder partnerships. Without first acknowledging and addressing the challenges faced by local governments in many parts of the world, SDG localization will not benefit the majority of the global urban population, will fail to build sustainable governance structures, and will constrain the achievement of sustainable outcomes.

As discussed in Chapter 3, cities and human settlements need to have adequate autonomy, capacity, and resources to effectively implement the SDGs. In the longer-term, decentralized governance systems will need to ensure that political and fiscal powers of local governments are commensurate with their responsibilities, and local government bodies need to develop the skills and capacities for delivering more integrated, sustainable outcomes. Government legislation and regulations need to prioritize and incentivize sustainable development, and strengthen local governance, both in small towns and large metropolises.

At the same time, local governments too can work in partnership with private sector and civil society stakeholders to develop innovative financing mechanisms and service delivery models that balance the social, economic and environmental dimensions of sustainable development.

The shift to sustainable development is an opportunity for urban and local governments to leapfrog traditional development trajectories to more inclusive, environmentally sustainable, and economically successful development pathways. For forward-looking urban and local governments, the SDG agenda is a powerful tool for mobilizing collective action around common goals that not only improve the quality of life for local residents, but also develops cities to become attractive investment hubs and political leaders in their own right.

Scope, purpose and structure of the Guide

What is the purpose of the Guide?

Getting Started with the SDGs in Cities outlines how cities can get started with implementing the Sustainable Development Goals (SDGs) in cities and human settlements. Effective and decisive action on sustainable development at the local level, within all cities and human settlements, is crucial to the success of Agenda 2030. Despite the key role of local authorities in SDG implementation, there is very little guidance material currently available on how to adapt the global goals to the local level. The SDG Cities Guide aims to fill this knowledge-gap, and suggest how city leaders, local practitioners and policy makers can use the SDGs to guide on-the-ground planning and development.

In the interest of remaining applicable across a wide variety of development contexts, the handbook provides general principles and processes that will need to be adapted to local conditions. Case examples are drawn from cities in low- to high-income countries, and an effort has been made to frame guidelines that can be applied across all territories.

This handbook complements an earlier SDG guide that was developed for national governments and focused on country-level implementation. The SDSN National SDG Guide, *Getting Started with the SDGs- A Guide for Stakeholders* (<https://sdg.guide/>), also touches on the supportive role of national governments for subnational implementation in cities and at the municipal level. Together, the two guides provide a holistic framework for SDG implementation from the local through regional and national levels.

Who is the Cities Guide for?

The SDG Cities Guide is aimed at local and regional government leaders, policy makers, officials, as well as practitioners from business and civil society working in cities and human settlements worldwide.

While the guide is primarily intended for use in cities and amongst urban governments, all forms of local authorities are encouraged to use the guide for their own processes towards local SDG implementation. Regional authorities, such as metropolitan governments, are also intended users of this handbook.

What does the Guide cover?

Chapter 1 provides an introduction to the SDGs, explains the role of cities and human settlements in achieving sustainable development, and briefly describes the process of SDG localization. This chapter will orient readers that are new to the SDG agenda and illustrate how to approach SDG implementation at the local level.

Chapter 2 jumps right into the process of how to get started with SDG implementation, providing step-by-step suggestions for local authorities and stakeholders as they define, plan and implement strategies for achieving the SDGs. Filled with tools and experiences from different cities and countries, readers will find a methodology to enable local SDG implementation, which can be adapted to different contexts.

Chapter 3 delves deeper into the SDG localization process, providing an overview of the enabling local conditions that will support implementation. The objective of this chapter is to show how efforts to support SDG localization can help to bolster long-term governance capacity for sustainable development. It does this by highlighting short- and medium-term governance reforms that local governments can undertake simultaneously with SDG implementation, using assessment tools, mechanisms for action, and good practice examples that promote an enabling environment for achieving the sustainable development.

The background features a repeating pattern of overlapping circles. Each circle is divided into radial segments by lines extending from its center to its circumference. The circles are rendered in a light blue color against a slightly darker blue background, creating a textured, sunburst-like effect.

CHAPTER 1

**Cities and a territorial approach
to the SDGs**

“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. Seen as the guiding principle for long-term global development, sustainable development consists of three pillars: economic development, social development and environmental protection” (<http://www.uncsd2012.org/>).

In September 2015 Heads of State and Government agreed to set the world on a path towards sustainable development through the adoption of the 2030 Agenda for Sustainable Development (<http://bit.ly/1Ep648>). This global development agenda includes 17 Sustainable Development Goals, or SDGs, which set out quantitative objectives across the social, economic, and environmental dimensions of sustainable development. The 2030 Agenda commits to achieve these goals by the year 2030 and to do so for everyone, everywhere, with no one left behind. The goals provide a framework for shared action “for people, planet, prosperity, peace, and partnership” to be implemented by “all countries and all stakeholders, acting in collaborative partnership.” As articulated in the 2030 Agenda, “never before have world leaders pledged common action and endeavor across such a broad and universal policy agenda” (2).

With the adoption of the SDGs, countries and cities around the world are turning to the question of SDG implementation. How do we operationalize these ambitious global goals? What is the role of national and local government actors? And why must cities and human settlements play a crucial role in their implementation? This chapter begins to answer some of these questions, with a focus on the role of urban and local leadership in achieving the SDGs.

1.1 What are the Sustainable Development Goals?



Figure 1 Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a universal set of goals, targets and indicators that UN member states have committed to use to frame both domestic and international development policies over the next 15 years. They build upon the progress of the Millennium Development Goals (MDGs), which were agreed by governments in 2001 and expired in 2015. While the MDGs focused on reducing extreme poverty in all its forms, the SDGs pursue a broader agenda that encompasses the social, environmental and economic aspects of sustainable development, which is relevant for all countries worldwide.

The SDGs are at the core of the 2030 Agenda for Sustainable Development,¹ which was ratified by all UN member states at the 2015 United Nations General Assembly. Their 17 goals and 169 targets address critical issues facing the world today, including the eradication of extreme poverty, tackling global inequality and climate change, promoting sustainable urbanization and industrial development, protecting natural ecosystems, and fostering the growth of peaceful and inclusive communities and governing institutions. A set of 231 indicators has also been developed to measure progress on SDG goals and targets, within and across countries.

¹ United Nations Resolution A/RES/70/1 of 25 September 2015 (2).

The table below enlists the 17 goals. A complete list of the SDGs with the targets framed under each goal is available at <https://sustainabledevelopment.un.org/post2015/transformingourworld>. A list of monitoring indicators is available at <http://unstats.un.org/sdgs/>.

Table 1: Sustainable Development Goals

SDG	Objective
Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable

The 2030 Agenda is truly universal in its scope. Unlike the MDGs, the SDGs apply to low- as well as high-income countries. When it comes to sustainable development, all countries are “developing countries,” as illustrated by the SDG Index and Dashboard published by the Bertelsmann Stiftung and the SDSN (www.sdgindex.org) as no one country has yet to achieve sustainable development. The 2030 Agenda is also the first major United Nations policy process to have been informed by global consultations with a wide range of stakeholder groups, including representatives from local and regional authorities. The result of such a broad and

multi-level consultation is that the SDGs are to be owned and implemented by all people, across different territorial scales. This means that subnational, metropolitan, and local governments are as integral to SDG implementation as national governments.

For more information on the SDGs and their historic global agreement, visit the SDSN National SDG Guide at <https://sdg.guide/>.

Box 1: Mobilizing global action for sustainable development

2015 was an important year for sustainable development, marking a potential turning point in the socio-economic and political priorities that shape development on our planet. Four important international conferences took place that defined the pieces of a global development framework that aims to eradicate poverty, halt and reverse the adverse effects of climate change, and pave the way for a more sustainable future.

- The 2030 Agenda for Sustainable Development, adopted unanimously at the 2015 UN General Assembly by 193 Heads of State and Government, lays out a global development agenda for the next fifteen years, with a comprehensive set of Sustainable Development Goals (SDGs) that succeed the Millennium Development Goals (MDGs).
- The Third World Conference on Disaster Risk Reduction adopted the Sendai Framework for Disaster Risk Reduction 2015-2030, which aims for the reduction of disaster risk and losses with a greater emphasis on risk management and resilience.
- The Third International Conference on Financing for Development adopted the Addis Ababa Action Agenda, a new global framework for financing sustainable development that seeks to align financing flows and policies with the social, environmental and economic priorities for greater sustainability.
- The 2015 United Nations Climate Change Conference, or COP 21, adopted the Paris Climate Agreement, a bold commitment by all countries to limit global warming to well below 2°C compared to pre-industrial levels.

The challenges and commitments identified at these major conferences are interrelated and call for integrated solutions (United Nations, 2015). They also call for more multi-stakeholder governance and integrated action between different levels of government to achieve agreed-upon outcomes. Cities and local governments, in addition to other non-government stakeholders, are now recognized as key implementers of the global development agenda.

1.2 Cities and Sustainable Development

This section looks at why cities are critical to achieving the SDGs, and the benefits of sustainable urban development.

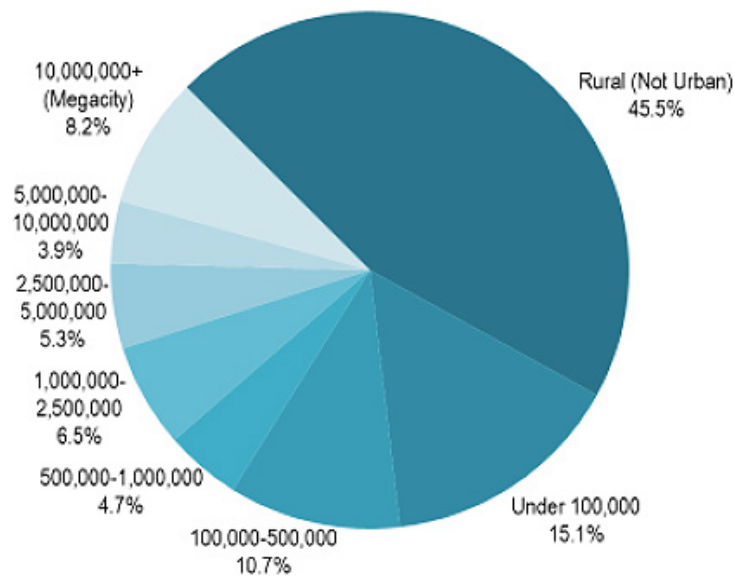


Figure 2 Distribution of global population (69)

projected to grow to two-thirds of the global population by 2050 (4). Urban living has become the norm in large swathes of the world, with about 80 percent of the population of OECD countries, South America, and the Middle East living in urban areas. Over the next decades, urbanization will be a defining trend in other parts of the world, especially in East Asia, South Asia, and sub-Saharan Africa, where the bulk of extreme poverty is concentrated (5).

Urbanization has thrown up some of the world's greatest development challenges, but it also has tremendous opportunities for advancing sustainable development. Today, cities generate 80 percent of global GDP (6), but at the same time, they are also responsible for as much as 70 percent of global energy consumption and 70 percent of global carbon emissions (7). They are home to extreme poverty, unemployment and socio-economic disparities, unsustainable patterns of consumption and production, and are key contributors to climate change and environmental degradation. And yet, cities also accommodate most of the world's businesses and informal enterprises, provide markets for industry and employment, foster technological innovations, and support high-density habitation and efficient land use.

For mayors and local leaders that are working to improve the quality of life in urban environments, the SDGs provide a roadmap for more balanced and equitable urban development. The mounting challenges posed by climate change, environmental degradation, food security, and civil unrest and violence, need different development solutions from those of the previous century. The SDGs offer a set of integrated objectives which can help to bring about

“Cities and territories are where women and men, girls and boys, live, where they work to create their livelihoods and where dreams are made. They are where poverty and inequalities are tackled, where health and education services are provided, where ecosystems are protected, and human rights must be guaranteed.” (3)

The SDGs come into effect in a world that is increasingly urban. A little over half the global population now lives in cities and this figure is

a more sustainable vision of urban development, one that provides equal opportunities to all inhabitants, promotes healthy living environments with access to green spaces, and is resilient in the face of everyday disasters and climate risks.

The quest to build sustainable cities, and their importance for the world's global development, is also putting mayors and local government leaders at the forefront of international politics. Cities like Copenhagen have gained considerable attention and investment, by aiming to be the first capital city in the world to be carbon neutral. Likewise the global Compact of Mayors², with 507 cities as signatories, is the world's largest coalition of city leaders addressing climate change by pledging to reduce their greenhouse gas emissions, tracking their progress and preparing for the impacts of climate change (<http://www.compactofmayors.org/>). These kinds of initiatives are spurring interest and investment in 21st century urban development.

Concentrating sustainable development efforts in cities is not only a practical imperative, it is also a strategic choice. Urban areas occupy a tiny proportion of the global land mass³ but have a disproportionate impact on development that can be leveraged for large gains in the fight against poverty, inequality and climate change. As clearly recognized in the report of the High Level Panel of Eminent Persons for the Post-2015 Development Agenda, “cities are where the battle for sustainable development will be won or lost.” (<http://www.post2015hlp.org/the-report/>)

² The Compact of Mayors was launched by UN Secretary-General Ban Ki-moon and his Special Envoy for Cities and Climate Change, Michael R. Bloomberg, under the leadership of the world's global city networks – C40 Cities Climate Leadership Group (C40), ICLEI – Local Governments for Sustainability (ICLEI) and the United Cities and Local Governments (UCLG) –with support from UN-Habitat.

³ Estimates vary from less than 1 percent to 3 percent. While an analysis of NASA's gridded population data, and estimates from the Demographia World Urban Areas project imply that urban areas cover approximately one percent of global land mass, the Global Rural-Urban Mapping Project (GRUMP) of Columbia University estimates that almost three percent of global land is urban (excluding Antarctica) (66).



CPH 2025 Climate Plan is the City of Copenhagen's plan for achieving carbon neutrality by 2025, while spearheading the development of green solutions generating employment and green growth.

Box 2: The benefits of sustainable cities

Key characteristics of a sustainable city include the following⁴:

- Inclusion that enables access to public goods and services, sustainable livelihood opportunities, reduced inequality, and gender equality.
- Healthy and well-planned, with walkable neighborhoods, affordable housing and services, plenty of green and public spaces, and adequate densities to optimize the cost-efficiency of service provision, including water and sanitation, transit, health and education services.
- A high quality of life, with the ability to compete globally to attract investments and migrants, and create jobs, all of which add economic value to the city.
- Protection of urban ecosystems such as coasts, lakes, forests, and wetlands, and the conservation of biodiversity, which foster healthier and more attractive living environments with greater property values and tax revenues.
- Resilience against everyday disasters and climate risks, with reduced vulnerability via provision of universal basic services, well-regulated building construction, effective ecological infrastructure like storm water drainage, early warning systems effective disaster management and emergency services, and improved community and local government capacities.
- Strong urban-rural linkages for more prosperous regional growth and balanced territorial development, with greater access to markets and employment, secure food supply chains, ecological services and well-regulated peripheral land planning.

Goal 11- the urban SDG

SDG 11 calls for '*mak[ing] cities and human settlements inclusive, safe, resilient and sustainable.*' It is a remarkable success for urbanists and local stakeholders worldwide, and puts urbanization and territorial development⁴ at the heart of sustainable development. The goal and its ten targets require action from sub-national urban governments (8). Targets under the goal address a wide range of unique, urban challenges such as: the upgrading of slums and the

⁴ Territorial local development is defined as spatially coordinated local development that leverages the interaction of actors operating at multiple scales of development planning and administration. It is driven by local actors, underpinned by strong local economies, coordinated by autonomous and accountable local authorities, and strengthened by effective linkages with the wider intergovernmental system (67).

provision of affordable housing, public transit systems, planning and governance, cultural heritage, disaster management, air quality, waste management and public and green spaces.

As one of the 17 SDGs that will shape public policy priorities and guide development finance flows for the next fifteen years, the 'urban SDG' is the strongest expression yet by the international development community of the critical role that cities play in the planet's future (9). The standalone goal on cities and human settlements will help to (5):

- i. Educate leaders and the public, and focus political attention on urgent urban challenges and future opportunities,
- ii. Mobilize and empower all urban actors around practical problem-solving, so that they may work collectively towards common objectives,
- iii. Address the specific challenges of urban poverty and access to cost-effective infrastructure and housing, with cross-cutting benefits across a range of SDGs,
- iv. Promote integrated and innovative infrastructure design and service delivery, using technology-driven and energy-efficient solutions,
- v. Promote land-use planning and efficient spatial concentration, while bringing a territorial approach to the SDGs,
- vi. Ensure urban resilience to climate change and disaster risk reduction,
- vii. Give urban and local governments a place at the table to influence decision-making in achieving sustainable development.

1.3 Localizing the SDGs

This section defines the process and incentives for urban and local governments to adapt and implement the SDGs.

Localization refers to the process of adapting, implementing, and monitoring the SDGs at the local level (1). Nearly all the SDGs have targets that will depend on local government action, including SDG 11. Localization is the process by which local authorities and local stakeholders will adapt and implement these targets within cities and human settlements.

Most countries today have multi-level governance structures, meaning that urban and local governments are directly responsible for delivering a large part of the national governments' commitment to the SDGs. In fact, as much as 65 percent of the SDG agenda may not be fully achieved without the involvement of urban and local actors (10 p. 19). Given their critical role, local governments cannot be mere implementers of a global or national SDG agenda, but must be partners in co-creating and defining policy and programmatic responses, and in the implementation and monitoring of progress against the goals and targets.

In practice, SDG localization comprises two main processes (8) (11):

- i. **Planning and implementing the SDGs:** SDG localization primarily refers to the process by which local governments (or regional governments, in some cases) define, plan, and implement strategies to achieve locally-adapted goals and targets.
- ii. **Monitoring SDG progress:** In addition to local implementation, local governments may also monitor progress on a range of SDG targets. The geographic and demographic disaggregation of data for relevant outcome-based targets has been repeatedly highlighted as crucial for the successful implementation of the SDGs, to ensure that we 'leave no one behind' (2 p. 1).

Localization may be initiated as part of a national agenda (e.g. where a national government embarks on a deliberate strategy of decentralizing their development objectives), or local governments may choose to take a leading role on implementing the SDGs within their territories and mandates. Ultimately, the selection of local goals and targets, the specific role of urban and local governments in SDG implementation, and the coordination between different levels of government for the delivery of the goals will depend on individual countries as well as their existing governance systems (11).

In many cities, SDG localization can build upon Agenda 21 processes. Agenda 21 was the influential action plan for sustainable development that came into being over 20 years ago at the seminal Rio Earth Summit in 1992. It was widely adopted at the local level, as recommended at the Summit and in its outcome document. Programs by local authorities were collectively labelled Local Agenda 21, and in 2002, an evaluation of Agenda 21 implementation found that over 6000 local authorities around the world had adopted some kind of policy or undertaken activities for sustainable development [10].

But what are the incentives for local governments to adopt or 'localize' the SDGs?

- i. **Leave no one behind:** A core principle of the 2030 Agenda is to leave no one behind. SDG implementation will thus have to ensure that development gains are equitably distributed across all territories and demographic groups. Localization recognizes that different territories have different needs and priorities that can be better

For a comprehensive list of SDG targets that are relevant to local governments, see the UCLG publication *The Sustainable Development Goals- What Local Governments Need to Know* (<http://bit.ly/1U8mgXc>).

For additional information on localization, see *Localizing the Post-2015 Development Agenda: Dialogues on Implementation* by UN-Habitat, Global Taskforce and UNDP (<http://bit.ly/1ZJvdEX>).

achieved through bottom-up approaches for development planning, and context-based implementation strategies. It helps address specific gaps in development, and has the potential to reduce territorial inequalities between places.

- ii. **Leave no place behind:** As the only goal that acknowledges the spatial aspects of development, Goal 11 embeds the territorial dimension of sustainable development within the SDG agenda. One of the primary concerns raised by the creation of Goal 11 is that it may promote separation between urban and rural areas. However, Goal 11 is not geared only towards cities but towards all human settlements, and SDG localization advocates a territorial approach in which local governments work with each other and with other partners to define, plan and implement the SDGs based on the unique local context, resources, challenges and opportunities of their territories.
- iii. **Access to development resources:** As the global development agenda of the next fifteen years, the SDGs will direct financial and technical resources from a range of international organizations, institutions of development finance, development cooperation agencies, NGOs and other stakeholders that offer development support. Local governments that integrate SDG targets in development planning and implementation may have the benefits of increased access to partnerships, finance, and technical support for achieving the outcomes.
- iv. **A ‘Sustainable Development Roadmap’ for mayors and local leaders:** For mayors and local leaders that are committed to pursuing sustainable urban development, the SDGs provide a roadmap with concrete goals and targets that can help cities become more sustainable. Furthermore, the SDG agenda has been crafted with input from millions of stakeholders – as Secretary General Ban Ki Moon described it, the SDGs are a ‘people’s agenda.’ The SDG framework responds to what local residents want, the world over. The pursuit of sustainable development has the potential to improve the quality of life for residents, and promote new economic opportunities for green growth. As the world turns towards more sustainable modes of living and development, cities and territories that invest in sustainability today will be ahead of the curve and accrue a competitive edge over other regions for development and investment.

Box 3: Role of SDSN in SDG localization

In 2012, UN Secretary-General Ban Ki-moon launched the UN Sustainable Development Solutions Network (SDSN) to mobilize global scientific and technological expertise to promote practical problem solving for sustainable development, and to help shape the design of the Sustainable Development Goals (SDGs). Following the adoption of the SDGs, the SDSN is now committed to supporting the implementation of the goals at local, national, and global scales. Through their work, SDSN aims to raise awareness of the SDGs and to foster local research partnerships that support national and local policy makers to advance implementation of this important new agenda.

The SDSN Thematic Network for Sustainable Cities seeks to identify practical solutions for improving urban management. With other key urban groups like UN-Habitat, UCLG, ICLEI, Cities Alliance, Communitas, SDI and WIEGO it helped initiate the Campaign for an Urban Sustainable Development Goal (<http://urbansdg.org/>) that resulted in a dedicated and stand-alone SDG on cities. Currently the SDSN works with local authorities and other local stakeholders to support SDG implementation in cities and to promote integrated city-level approaches. Flagship projects include the USA Sustainable Cities Initiative (USA-SCI) and the Rio Sustainable Cities Initiative. Both projects aim to facilitate local structured dialogues on the SDGs, to engage the general public and local political leaders, to undertake technical studies that identify the local relevance of the SDGs, and to develop local goals, targets and indicators. The Thematic Network also works with key development partners to strengthen urban data systems and statistical capacity for SDG monitoring.

For more information on the work of the SDSN visit <http://unsdsn.org/>

1.4 Habitat-III and the New Urban Agenda

On the upcoming Habitat-III conference, and the role of the New Urban Agenda in supporting widespread sustainable urban development.

After a successful 2015 in which sustainable urban development was adopted as a global development goal, and local and regional governments were recognized as key stakeholders in global processes, 2016 will be another important year for the urban community. In October 2016, Habitat-III, or the third United Nations Conference on Housing and Sustainable Urban Development, will take place. This will be the first high-level international conference to take place following the flurry of development and environmental diplomacy that rounded out 2015 and will provide an opportunity to take stock of progress on SDG implementation (12). Being held 20 years after Habitat-II, in a world that is now predominantly urban, it is expected that Habitat-III will build upon the robust agreements of the previous two conferences, and chart the course for a New Urban Agenda (NUA) that defines the implementation frame for cities as leaders in climate change adaptation and mitigation, as well as sustainable development and governance.

While the SDG framework forms the core of the 2030 Agenda for the world, urban stakeholders will be looking to the NUA to articulate an integrated vision of sustainable urban development, and to set out some of the means of implementation for the SDGs in cities and regions. The initial draft of the NUA is available at <https://www.habitat3.org/zerodraft>.

The background is a solid green color with several overlapping, semi-transparent sun-like patterns. Each pattern consists of a central circle with radiating lines extending to the edge, creating a fan-like or sunburst effect. The patterns are arranged in a way that they overlap each other, creating a sense of depth and movement.

CHAPTER 2

Practical tools for getting started with the SDGs

The 2030 Agenda came into effect on January 1, 2016, so now the big question for every country and every city alike is how to implement the SDGs. What is the process that should be followed to adapt and achieve such a complex and ambitious agenda?

The SDGs are a practical and useful political agenda for mayors and city leaders. All cities aim to increase prosperity, promote social inclusion, and enhance resilience and environmental sustainability. In this way the SDGs capture large parts of the political agenda in virtually every city. When aligned with existing planning frameworks and development priorities, they can strengthen development outcomes and provide additional resources for local governments.

There are four basic steps for getting started with SDG implementation in cities:

- i. **Initiate an inclusive and participatory process:** Raising awareness of the SDGs and engaging stakeholder collaboration to achieve the goals and targets.
- ii. **Set the local SDG agenda:** Translating the global SDGs into an ambitious yet realistic agenda that is tailored to the local development context.
- iii. **Planning for SDG implementation:** Deploying goal-based planning principles and mechanisms for more sustainable social, economic and environmental outcomes.
- iv. **Monitoring and evaluation:** Ensuring that SDG implementation remains on track, and developing local capacity for more responsive and accountable governance.

Each of these four steps is discussed in greater detail in this chapter. They are intended to help guide local SDG processes and to provide tools for kick-starting local dialogues on SDG implementation. They are not exhaustive, nor can they be implemented with a ‘cookie-cutter approach’; every locality will need to tailor goals and implementation strategies to their unique context, respecting the inputs of the full range of local stakeholders.

2.1 Step 1: Initiate an inclusive and participatory process

The first step of SDG localization is to raise awareness of the SDGs, include all stakeholders in the process, and promote clear and accountable local leadership for the SDGs.

UN General-Secretary Ban Ki-moon has emphasized that the SDGs are the ‘People’s Agenda’ (13). Local governments, as the level of government closest to the people, are on the frontlines of ensuring that no person and no place are left behind by the SDGs. For this, SDG localization should be an inclusive and participatory process.

Localization begins with raising awareness and understanding of the SDGs among all stakeholders, and continues with a dialogue on implementation that is participatory and partnership-based. The transformational change needed to achieve the SDGs requires broad-based public support and engagement, and a long-term shift in policy priorities towards sustainable development. An inclusive and multi-stakeholder SDG implementation process has a number of benefits. It can:

- Stimulate public participation in implementation programs, and provide political support for the sustainable development agenda,
- Increase political alignment between stakeholder groups, leading to fewer conflicts and obstacles during implementation,
- Promote the convergence of efforts by different development actors, and supplement financing and technical capacity through partnerships, and
- Ensure the inclusion of marginalized demographic groups and communities, allowing them to have a voice in development processes

Inclusive participation may be promoted through formal governance arrangements and multi-stakeholder partnerships, as well as more informal collaboration between stakeholder groups. For a truly participatory process, public engagement and collaboration should be enabled through the whole cycle of SDG planning, implementation and evaluation. This also has the potential to increase the capacities of local governments and citizens for more participatory governance in general.

Box 4: Getting started with SDG localization

Experiences to date demonstrate that a dialogue on SDG localization can be initiated by a range of different actors, including national government, local government, civil society and academia.

Brazil: The SDSN's Rio Sustainable Cities Initiative, in collaboration with the GIZ project 'Sustainable Development of Metropolitan Regions,' is working with local, metropolitan, and national stakeholders to implement a process of SDG monitoring in the metropolitan regions of Brazil, with a focus on the Rio de Janeiro Metropolitan Area (see Box 19 for more information on the initiative).

Colombia: In Colombia, the national SDG Commission is taking the lead on SDG implementation; integrating the SDGs into local development plans and helping local governments to understand how the 2030 Agenda can suit local objectives [70].

United States: The USA Sustainable Cities Initiative (USA-SCI) is supporting SDG achievement strategies in three pilot US cities: New York (New York), Baltimore (Maryland), and San Jose (California). Local academic partners and civil society stakeholders are working with SDSN and city representatives to think through integration of the SDGs with existing plans and policies. More information on the USA-SCI is available at <http://unsdsn.org/>

From powerful corporations to the most marginalized communities, the needs and concerns of all groups should be heard and considered in SDG implementation. In addition to different stakeholder groups, the representation of neighborhoods and localities is important at the local and regional level, to address challenges of spatial inequality (e.g. in slums and informal settlements) and inclusion. The table below identifies key stakeholder groups in urban and local development, and their potential roles in SDG implementation.

Table 2: Key stakeholders in local and regional governance

Stakeholder groups	Role in furthering local SDG implementation
Local authorities	Local authorities include local governments and councils, councilors, public sector institutions, parastatal agencies, and other government bodies working in local development. They are the primary drivers of SDG localization in cities and human settlements.
National and regional governments	National and regional governments frame legislation and regulations that define sectoral policies, and development priorities. Local authorities are also dependent on budgetary and program support from higher levels of government to effectively fulfill their mandates.
Parliamentarians	Parliamentarians represent the concerns of their constituencies in national and regional governments. They are important partners in facilitating legislation that responds to local needs, and supporting the allocation of funds for development projects within their territories.
Non-governmental organizations and civil society groups (NGOs and CSOs)	Under the NGO and CSO umbrella are a wide variety of organizations ranging from local neighborhood organizations to international NGOs. As SDG partners, NGOs and CSOs can bring alternate development models to achieve specific social targets, provide sectoral knowledge, support bottom-up approaches to implementation and monitoring, act as watchdogs of government and private sector accountability, and in some cases, represent excluded communities, localities, and concerns (environment, climate change) in policy-making and programmatic planning.
Businesses and industry	Stakeholders include local and multi-national corporations, businesses, industries and manufacturers, CEOs and other business leaders, cooperatives, and trade unions. There are numerous opportunities for collaboration between business and government in SDG implementation, for employment generation, social protection of labor, technological innovations, social entrepreneurship, corporate social responsibility, and philanthropic donations (14).
Universities	Universities and higher education institutions can provide long-term independent technical assistance for SDG localization (14), and can even be potential hosts of localization processes in cities and settlements. They are centers of research and development, incubators of innovative technologies, cutting-edge data and policy analysis, and educators of current and future generation of leaders. The SDSN is a global knowledge network comprised of leading sustainable development thinkers and practitioners, many of whom are affiliated to universities that work in close partnership with the network (http://unsdsn.org/).
Professionals	These include architects, surveyors, urban planners, geographers and lawyers, economists and statisticians, sociologists and engineers, and other practitioners with technical skills that can enable non-partisan participation and help to mainstream sustainable practices into their areas of planning and practice.
Faith-based institutions	Faith-based institutions play an important role in fostering communities, and are often active stakeholders in community development initiatives. They have wide spheres of influence over hard-to-reach populations, and can greatly popularize the cause of sustainable development.
Financial institutions	Local, regional and global financial institutions, especially housing, infrastructure development banks, are crucial partners in providing start-up capital and long-term, low-interest loans for large-scale infrastructure and development projects, as well as to provide support in terms of follow-up investment to pilot projects.
International organizations	These include the United Nations system, and other international organizations (IOs), which lead development processes globally. IOs can bring tremendous technical capacity and support for SDG localization to motivated cities and human settlements.
City networks	City networks such as ICLEI, UCLG, and C40, facilitate city-to-city learning, help undertake pilot projects, and provide operational and technical support, and guidance for SDG implementation to member cities.

Box 5: Institutional and stakeholder analysis

Institutional and stakeholder mapping can help to identify relevant local actors, and sets the stage for more integrated and inclusive strategies.

Institutional analysis is an essential part of any new planning and management initiative. The nature and operation of institutions, and their mode of decision-making, will have major implications for the implementation of any strategy or planning related to the promotion of sustainable development. The nature of the existing institutions should therefore be assessed, and new institutions, or frameworks for institutional collaboration and joint decision-making, should be established if necessary [68].

Stakeholder analysis is related to institutional analysis, but places more emphasis on individual motivation and/or collective interest. Stakeholders are all those who have interest in the issues being discussed. Some are active - they affect the system; some are passive - they are affected by it. A stakeholder analysis is an approach to understanding a system, and changes in it, by identifying key actors or stakeholders, and assessing their respective interests and influence to effect change in that system [68].

Urban environments are complex, with multiple levels of government, a range of functional sectors, and various stakeholder groups involved in their governance and management. This must be reflected in the institutional and stakeholder analysis, as well as the structures of organization between the different groups. An institutional and stakeholder mapping exercise forms the basis of on which to analyze the institutional arrangements that would support integrated action for SDG implementation.

Local governments can use any of the several tools and templates available for institutional and stakeholder mapping and analysis. Links to some excellent resources are given below:

- *Tools for Institutional, Political, and Social Analysis of Policy Reform: A Sourcebook for Development Practitioners* by World Bank (<http://bit.ly/1ngUwza>)
- *Stakeholder Analysis Toolkit* by Manchester Metropolitan University (<http://bit.ly/1sc9Mlx>)
- *Institutional Perception Mapping* by World Bank (<http://bit.ly/1riONfh>)

To engage stakeholders and to ensure their full understanding of the SDG agenda it is important to show how the goals are relevant to people's daily lives. There are several ways to do this, including:

- i. **Relate global goals and targets to local concerns and practical solutions.** Goals such as SDG 1, “to end poverty in all its forms everywhere”, may seem impossibly ambitious or irrelevant in certain contexts (e.g. where absolute poverty has already been achieved), if they are not tailored to speak to local concerns. For example, a more relevant local development issue in higher-income cities may be to eradicate relative poverty and homelessness, which can be communicated with corresponding programs on social protection expansion and job creation.
- ii. **Tailor the message to target audiences.** The private sector may have very different interests in the SDG agenda in comparison to civil society organizations. Tailoring the message to emphasize the interests, priorities and opportunities for different stakeholder groups, can build greater engagement among a larger public.
- iii. **Use diverse media to widen the reach** of communication. While online media provide an effective means of communication, not all citizens may have access to the internet. Depending on the context, the majority may not have internet access, or a significant proportion of the population may not be literate. Public meetings, posters and information material at government offices and neighborhood associations, oral communication via NGOs and public servants (teachers, nurses) are various channels to reach excluded audiences.
- iv. **Provide structured and facilitated opportunities for robust citizen engagement, recommendations, and feedback on policy issues.** Ensure more active engagement through opportunities for participation throughout the process of SDG implementation.
- v. **Invite and incentivize the contribution of citizens or specific stakeholder groups.** For instance, professionals and practitioners in fields such as planning, IT, or data science can be invited to propose solutions for specialized interventions, be it public space planning or mobile applications. Similarly, participatory budgeting allows citizens to propose and prioritize development projects for their communities.
- vi. **Continue communication and engagement through implementation and evaluation phases.** Raising awareness is one part of an ongoing process of fostering citizen and stakeholder participation, and ensuring transparent governance of SDG implementation.



Figure 3 The Baltimore Goals. This Baltimore Goals graphic was developed as part of the USA Sustainable Cities Initiative (USA-SCI) led by SDSN and Climate Nexus, of which Baltimore will be a model city. The graphic successfully connects the global goals to the city level.

Box 6: 21st Century Town Meeting

21st Century Town Meeting, a model for deliberative democracy pioneered by the NGO AmericaSpeaks, is intended to create engaging, meaningful opportunities for citizens to participate in public decision making.

This is a highly structured process to facilitate community input from a representative public sampling of 500-5000 people. Residents gather in neighborhood areas including post offices, community centers, and schools. Non-partisan experts present briefing information to community members, after which a deliberative discussion takes place that involves a large sampling of citizens participating in person and virtually. In-person participants sit in round tables of 10-12 each to discuss and brainstorm ideas, moderated by a trained facilitator. Using collaborative software, the contents of table conversations and online forums are collected in real time and processed by a central “theme team” into concise lists that can then be voted upon by all participants for a clear verdict of preferred options. The results are non-binding and inform a general set of policy recommendations and practices that are presented to public officials and policy makers.

By engaging a large, demographically representative group in public deliberation, the 21st Century Town Meeting ensures that: i) the general public and key stakeholders are able to participate; ii) the voice of the public gets the attention of decision makers and the media, and; iii) a substantial segment of the public supports the results of the forum and has a stake in its implementation.

This is an excellent example of modern methods to animate traditional participatory forms and to overcome barriers to participation.

Box 7: Overcoming the digital divide for maximum participation

Cities and territories in low-income regions may face constraints such as low digital connectivity, or poor literacy rates, which must be accounted for when designing initiatives to raise awareness and engage citizens. Below are two examples of local authorities, NGOs and other stakeholders engaging citizens and communities in participatory development processes, in spite of unique local challenges (15):

- In Liberia, a radio call-in program, *Know Your Law Makers*, was developed by the Centre for Promotion of Democracy with support from UNDP and broadcast by UNMIL, the official radio station of the United Nations in Liberia (in 2003). The aim was to involve people directly in governance processes by facilitating a constructive dialogue between them and their elected representatives and government officials. Key aspects of supporting the initiative included: i) the development of the radio program; (ii) mediated interaction between local people and government officials via radio phone-in programs; and (iii) support to local listening groups.
- In Philippines, the CALL 2015 project was developed in the context of MDG localization to promote transparent and accountable governance processes. The initiative created citizens-government face-to-face dialogue and feed-back mechanisms to combat corruption and strengthen delivery of basic services. The principle means of achieving this objective was the MDG Integrity Circle, involving a variety of stakeholders with special emphasis placed on engaging local women. In each city, an academic institution or a large civil society organization partnered with the city government to form at least one Integrity Circle either at the barangay (local ward) or city level.

Governance of SDG localization

Successful localization of the SDGs will depend on clear and accountable leadership that supports the integration and adaptation of the global goals to the local context. Governance of SDG localization includes the processes and institutions, both formal and informal, that will guide and shape the collective activities of stakeholders towards achieving the goals and targets. A clear governance structure should be established at the start of SDG localization, so that the responsible institutions and stakeholders are involved in the process from the very beginning. An institutional and stakeholder mapping and analysis (see Box 9) will identify local actors and institutions with the authority and resources to lead the implementation process. While the

specifics of SDG governance may vary from place to place, effective governance arrangements for SDG localization are characterized by the following:

- i. **High-level political leadership:** A process that is backed by high-level political leaders, such as the mayor or city manager, or by higher levels of government, has a greater chance of being prioritized and equipped with adequate resources for implementation.
- ii. **Embedded in local governance structures:** An SDG governance structure that is embedded in local government departments and public sector institutions can better-align the SDGs with local development policies and programs, which in turn leads to better outcomes. Many city administrations today have departments of sustainability, which could take the lead on SDG governance.
- iii. **Inter-sectoral communication and coordination:** Key municipal sectors such as planning, energy, water and sanitation, and waste management, are often governed separately, in isolation from other sectors. Governance arrangements such as inter-departmental groups, which promote greater communication and coordination between different sectors, can stimulate joint planning and multi-sector projects for SDG implementation.
- iv. **Involvement of non-state actors:** Table 2 identifies a number of non-state stakeholders that can contribute influence, resources and capacities for achieving the SDGs. Governance arrangements, such as advisory forums and multi-stakeholder partnerships, promote collaboration between state- and non-state actors.
- v. **High accountability:** It is important to clarify roles, responsibilities and the accountability of different public sector institutions and stakeholders in delivering SDG targets, as well as the functions of different partners within multi-stakeholder partnerships.

See section 3.2 for more information on integrated governance arrangements for sustainable development.



Under the direction of strong mayoral leadership, Bogotá has significantly improved the sustainability and social equity of its transport systems, with Transmilenio, a successful bus rapid transit system that services the city, and the construction of over 300km of bicycle lanes.

Box 8: Colombia's National SDG Commission

Colombia, with Guatemala, put forward the first proposal for the SDGs, and was also the first country to align its own national development objectives with the goals. The country's National SDG Commission exemplifies the characteristics described above, and provides a model for a robust governing institution for the SDGs.

- The creation of the Inter-Agency Commission for the Preparation and Effective Implementation of the Post-2015 Development Agenda and the SDGs was established by Decree No. 280. The Decree was approved by Colombia's President Juan Manuel Santos in February 2015, even before the SDGs were ratified, thereby displaying strong political will and leadership.
- The Commission is embedded in existing governance institutions. It involves the Ministries of Foreign Affairs, Environment and Sustainable Development, and Finance, as well as the Department for Social Prosperity, the National Administrative Department of Statistics, and the National Planning Department, to be represented on the Commission by their ministers/directors or vice ministers/deputy directors. This points to a high level of commitment to SDG implementation, and reflects an acknowledgment of the cross-cutting nature of the new agenda and the inter-sectoral coordination needed to deliver it.
- A clear mandate for the Commission, which includes its specific responsibilities, promotes clarity and accountability. The main goal of the Commission is to implement the SDGs and ensure monitoring, follow-up and review of the goals and their targets. Coordinating the institutions in charge of national implementation of the SDGs, formulating national policy and interventions for their implementation, recommending financing measures, and identifying key non-state actors to work jointly with the Commission are important functions of this entity.

For more information on how Colombia is getting started with the SDGs, see the report *Getting ready for SDG implementation in Latin America* (<http://bit.ly/1kJNOSs>) and SDSN blog *Getting Started with the SDGs: Emerging Questions from the First Thirty Days of SDG Implementation* (<http://bit.ly/1OmwAbO>).

2.2 Step 2: Set the local SDG agenda

Setting the local SDG agenda involves adapting the global goals and targets to the local context through an evidence-based and collective process.

Local SDG implementation should be contextual, based on the specific needs of a city or locality, and mindful of the mandates of local authorities in the given territory. The local SDG agenda will be set by local authorities, along with civil society and other stakeholders, through a process of selection, adaptation, and prioritization of the global goals and targets.

For local governments looking to set local, context-specific SDG targets, there are two questions: i) how to select the targets, and ii) at what level to set them (11). The following broad guidelines can be used in defining local SDG targets:

- **Targets should be relevant and achievable.** Targets should be relevant to the territory being administered by the local government, and they should be feasible, taking into local services, facilities and capacities. ,
- **Local targets correspond to the local government mandate.** Local goals and targets that are aligned with the functional responsibilities of local governments are likelier to be achieved in the context of local capacity and resources.
- **Priorities are selected based on development gaps.** While it is not recommended to do so, governments may need to prioritize or stagger the implementation of SDG targets due to limited resources. The prioritization of targets should be evidence-based, informed by an analysis of the most urgent development gaps. Furthermore, local governments should strive to ensure that all three pillars of sustainable development – economic, social and environmental, are equally respected and prioritized.

SDG localization can be politically fraught, as it may involve the prioritization of one development issue over another. To help address this, local governments need to emphasize the use of hard data and evidence-based decision-making for selecting SDG targets. Governments may also choose to work with a broad coalition of non-governmental partners such as universities, or urban networks/organizations to help set the local SDG agenda. For example, the SDSN works with universities, local authorities, public sector institutions and NGOs in cities like New York, Baltimore, San Jose (USA) and Rio de Janeiro (Brazil), on the local implementation of the SDG agenda. Universities and NGO partners have been crucial for data analysis and evidence-based target setting in each of these contexts.

Additionally, public input and support in setting the local SDG agenda can help to validate priorities and implementation plans.

Box 9: Participatory model of MDG localization in Uganda

Local governments can look to MDG localization processes for tips on how to involve stakeholders and select targets. A process of MDG localization in the Rwenzori region of Uganda engaged local institutions and authorities to arrive at a common agenda to address poverty through the MDGs. The localization model was based on the need for the multiplicity of development actors in the region to establish a shared understanding on the issues of poverty eradication, the priorities for action, and the appropriateness of the strategies being adopted.

This involved two steps:

- A three-month research period in which a survey was designed to understand the perspectives and priorities of the different organizations regarding poverty issues and the MDGs, disseminated among the district local governments, their county and sub-county structures and municipalities in the districts.
- A two-day conference to present the survey findings back to local authorities and officials, as well as to provide a platform for deliberation and decision-making that resulted in a compact, and an action plan for moving ahead.

Results from the participatory localization process included findings that consolidated a shared understanding of the poverty in the region, as well as the formulation of common priorities for macroeconomic strategy approaches and regional strategies. By compiling a summary of the survey results from a multitude of stakeholders, among them local government bodies, business organizations, civil society groups, women's groups and church institutions, the targeting and analysis strategy aimed to present a 'best approximation of reality' that combined diverse viewpoints (16).

Review existing policies and plans

MDG experiences have shown that countries are more likely to make progress on international development goals where they already have similar targets or priorities in place (17). The same could be said of cities. A helpful starting point is therefore to map the SDGs to existing local policies and strategies, and to gain support for these initiatives, before encouraging local governments to focus on gaps or to take broader action.

The task of reviewing existing strategies and plans, and identifying areas for change can be viewed as a two-step process involving: (a) scanning and detailing the landscape of existing strategies and plans; and (b) comparing existing goals and targets with the global SDGs and targets (18). This process provides an overview of the SDG targets for which local governments

have a mandate, by matching targets with existing development plans to be executed by local authorities.

The following types of strategies and development plans may be reviewed:

- National urban policy frameworks and ongoing nationally-funded initiatives that define the development priorities and mandates of urban and local areas (for more information on National Urban Policies, see section 3.6.1).
 - Municipal plans/ council plans/urban development plans lay out local priorities and are likely to have budgetary support for the outlined projects and initiatives.
 - Vision documents/ development roadmaps and other long-term strategies are built by successive governments, and influence short- and medium-term plans and strategies.
 - Environmental policies, climate change action plans, and sustainable development plans exist in many cities, and align closely with specific SDG objectives.
 - Sectoral or departmental plans and strategies provide an overview of the key development priorities within each sector.
 - Detailed project reports and draft planning documents can be sourced for projects that were shelved due to budgetary or capacity constraints.
- City development reports, policy briefs, and consultancy reports provide expert recommendations based on an analysis of the development context and indices, and highlight local development gaps and priorities.

The mapping of SDG targets onto existing development plans and strategies is illustrated in Annex 2. OneNYC is the development plan for the city of New York, based on the principles of growth, equity, sustainability, and resiliency. The mapping exercise aligns OneNYC targets with comparable SDG targets. The intention of this exercise is to help identify major gaps in current policy and planning and to assess the level of ambition of existing plans.

Box 10: Aligning Baltimore's city plans with SDG targets

In Baltimore, USA, one of the model cities of the USA-SCI (<http://unsdsn.org/>), the following city plans were reviewed by the Baltimore university team when mapping SDG targets to existing city development plans.

- Baltimore City Sustainability Plan (a community-responsive sustainability agenda for Baltimore)
- Disaster Preparedness and Planning Project, "DP3" (a unified approach to hazard mitigation and climate adaptation)
- Climate Action Plan (Baltimore's commitment to action to mitigate global climate change)
- Comprehensive Economic Development Strategy (strategy to guide development to further the economic growth of Baltimore)
- Healthy Baltimore 2015 (articulates Baltimore's public health priorities)
- Journey Home Strategic Priorities (Baltimore's plan to end homelessness)
- Baltimore's Promise (dedicated to improving outcomes for Baltimore's children and youth)
- Baltimore City Campaign for Grade Level Reading (campaign to improve outcomes of reading ability among Baltimore's school children)
- Public Safety in the City of Baltimore: A Strategic Plan for Improvement (strategic plan to reduce crime and guide policing)

For more information, go to <http://unsdsn.org/>.

Conduct a baseline assessment

Once existing policies and plans have been reviewed to identify relevant SDG goals and targets, it is helpful to conduct a baseline assessment to identify those SDG targets with the greatest development gaps i.e. those areas that are lagging behind.

A "baseline" refers to measurements of key conditions or indicators before a process, program, or project begins, from which change and progress can be assessed (19). An SDG baseline assessment analyzes and compares baseline data with respect to desired target levels, to help define where development priorities may lie, what appropriate interim targets might be, and what kind of resources are needed to reach desired outcomes. A baseline assessment will comprise two basic steps: i) construct a baseline comprising a set of stocktaking indicators, and

ii) benchmark⁵ baseline data against SDG targets, and against the development indices of other cities and settlements.

The baseline should ideally be constructed using a selected set of indicators. These indicators should be limited in number and include the core elements of the SDGs, based on available, high-quality data (14 p. 13). The baseline should capture local development with respect to the social, economic, and environmental aspects of the SDGs that are most applicable to the territory in question. For instance, urban and rural settlements are likely to choose different indicators to construct a baseline.

For guidelines on selecting quick, baseline indicators, see the SDSN National SDG Guide (<https://sdg.guide/>). For the full list of SDG indicators, go to <http://unstats.un.org/sdgs/iaeg-sdgs/>.

SDSN has also published an SDG Index and Dashboard, which demonstrates what national data is readily available now, and provides a framework to compile, compare and contrast this data across regions (www.unsdsn.org).

Once the baseline is prepared, values are benchmarked against the SDG targets, and against the development indices of other cities and human settlements. This assessment is then used to identify priorities in areas that are lagging behind the most, and those that impact the greatest number of inhabitants. Ideally, cities should benchmark their performance against settlements of similar size and geopolitical conditions, to preclude performance differences based on differing governance or territorial circumstances.

Local governments may conduct baseline assessments independently, or national or provincial governments may coordinate them. The allocation of need-based funding by higher levels of government to conduct the baseline assessment can incentivize and support smaller settlements to undertake the exercise. Local governments may also work with development partners such as universities, international organizations, and NGOs to conduct a baseline assessment.

Baseline data can be drawn from a broad range of statistical sources including national censuses, socio-economic surveys, agricultural and labor surveys, administrative/ department records, public utility and police records, NGO and CSO surveys and public geospatial data. In 2015, MISTRA Urban Futures conducted a deep dive on data availability for key SDG indicators in five cities across the world (<http://bit.ly/1tq2HON>), which may provide a helpful

⁵ Benchmarking in SDG implementation is the comparison of local development indices against the SDG targets, and against the development indices of other cities and human settlements to gauge where the greatest development gaps are.

reference point. There are also an increasing number of global city indexes that compile data on indicators of urban development and sustainability, such as the Arcadis Sustainable Cities Index and the UN-Habitat City Prosperity Initiative.

Box 11: City Prosperity Initiative of UN-Habitat

The City Prosperity Initiative (CPI) is both a metric and a policy dialogue, which offers cities from low- and high-income countries the possibility to create indicators and baseline information, often for the first time. It also serves to define targets and goals that can support the formulation of evidence-based policies, including the definition of city-visions and long-term plans that are both ambitious, and measurable (20).

While most indexes have been designed for national governments, using country aggregates which are often sectoral in nature, the CPI offers a unique and holistic view of sustainable urban development that is well-suited for SDG policies and decision-making, articulating the different dimensions of city growth. Unique characteristics of the CPI include (20):

- **A flexible monitoring framework-** recognizes the need to be adaptable to different city and country circumstances, according to diverse urbanization challenges and opportunities.
- **A framework that promotes integration-** promotes integration in the implementation of a more sustainable urbanization model, in order to address the environmental, social and economic objectives of sustainability.
- **An innovative tool based on spatial analysis-** provides a wealth of new analytical tools based on spatial indicators. New indicators such as street connectivity, public space, agglomeration economies provide clear spatial distributions that help increase value judgment and support decision- making.
- **A multi-scale decision-making tool-** supports evidence-based decision-making from a territorial perspective, for different levels of government working at various territorial scales ranging from national urban policies to regional and metropolitan strategies; and city-wide interventions to sub-city districts or neighborhoods.

The CPI has already been proven in more than 400 cities across the world, including 130 cities in Mexico. As a monitoring framework, it is well-aligned with SDG indicators and has the potential to become a supportive mechanism for monitoring SDG Goal 11 (20).

For more information, go to <http://unhabitat.org/>.

Box 12: Service Level Benchmarking in Indian cities

The Government of India launched a benchmarking initiative for its cities, with a focus on service delivery. Recognizing the poor development of services in Indian cities, the Ministry of Urban Development (MoUD) of India has launched a Service Level Benchmarking (SLB) initiative, covering water, sanitation, solid waste management, and storm water drainage. The initiative aims to:

- i. Identify a minimum set of standard performance parameters for the water and sanitation sector that are commonly understood and used by all stakeholders across the country,
- ii. Define a common minimum framework for monitoring and reporting on these indicators and,
- iii. Set out guidelines on how to operationalize this framework in a phased manner.

The framework encompasses 28 performance indicators and is being rolled out in 28 pilot cities across the country, with a focus on high quality data by means of data reliability grading. Urban local bodies will be asked to self-report their performance, are expected to develop performance improvement plans based on the SLB data generated. If successful, the initiative will not only enrich urban data systems but also, it will generate greater accountability for service provision among municipalities and allow for collective learning among cities. Led by the MoUD, the initiative is being implemented by urban authorities in partnership with reliable external stakeholders (21).

For more information, refer to the *Handbook of Service Level Benchmarking* by the Ministry of Urban Development, Government of India (22). Local governments can use data available from such initiatives as part of an SDG baseline assessment.

Adapt selected targets

To the extent possible local governments should adopt universal targets based on the pre-agreed global or national levels, however in some cases targets may need to be modified to ensure local relevance. For instance, SDG Target 4.1 states *'By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.'* While the emphasis of this target is on access to education, cities and settlements in developed countries that have achieved this target may want to modify it to focus on improving the quality of primary and secondary education.

Targets may also need to be modified to ensure that they can be achieved within the particular context. The baseline assessment may indicate some extreme development lags within the local context due to which specific targets will be impossible to achieve in the given time frame. For such targets, local governments may choose to set interim targets at achievable levels, whilst continuing to aspire to the global or national targets. Any target adjustments should be made in dialogue with local experts and stakeholders to ensure that they are as ambitious as possible and signify an accelerated development pathway, in comparison to past trends. Target-setting should not be overly influenced by the current capacities or resources of local governments, as these will be enhanced through integrated planning, partnerships and by the attention of international investors.

Box 13: Performing a target assessment

Stakeholder Forum (<http://www.stakeholderforum.org/>) created a transparent and replicable methodology or analytical tool to enable developed countries to weigh the relative significance of the different goals and targets according to their relevance in different contexts (23). Here, the methodology has been adapted to provide guidance to local governments.

Three criteria are proposed to assess the significance of each target- applicability, implementability, and potential for policy transformation. Targets that score high on all three criteria are development priorities within the given context, and should be mainstreamed into local development planning as such. For the local context, implementability will be a major criterion to assess.

Applicability- Examine the relevance of the target to the local context.

- Does the goal/target have universal relevance and communicate common aspirations in all contexts (or does it need to be modified/adapted for the local context)?
- Does the goal/target apply (i.e. is it relevant to local challenges and related public policy)?
- Is there already domestic/local action or policy relevant to the goal/target?

Implementability- Assess whether the target is achievable given a reasonable allocation of resources.

- Is the goal/target realistically achievable within the timeframe outlined?
- Can the goal/target be easily translated into action at the local level?
- Is the necessary data for policymaking and monitoring currently available?

Potential for policy transformation- The scope of the target to induce significant policy reform/creation of new policies, and systemic change.

- Is the framework more ambitious than the mere continuation of current trends?
- Will the achievement of the goal/target result in more sustainable outcomes both locally and domestically?
- Does the goal/target address the root causes and drivers of the identified challenges?

Use the questions to foster a discussion between stakeholders, and to inform a more technical assessment of each SDG target and its local relevance. For more details, refer to the Stakeholder Forum report *Universal Sustainable Development Goals- Understanding the transformational challenge for developed countries* (<http://bit.ly/1KmJBvd>)

2.3 Step 3: Planning for SDG implementation

This section provides guiding principles and tools that support goal-based planning for sustainable outcomes, as well as innovative financing and implementation mechanisms.

Traditional development planning tends to be incremental and based on past trends, with development plans typically formulated for short to medium timeframes that often coincide with electoral cycles. In contrast, goal-based planning supports long-term approaches towards sustainable development, allowing public and private actors to identify what is needed and chart out long-term pathways to achievement. The long-term perspective also helps to insulate the planning process from short-term political and business imperatives (14).

In addition to goal-based planning, planning for sustainable development outcomes also requires much greater policy coherence, integrated planning and reflexive governance than is the norm in mainstream policy and program implementation. Every objective and strategy needs to be understood and reviewed with regards to economic, social, and environmental implications. The SDG targets adopted for local implementation provide local and regional governments with a unique and valuable opportunity to take a long-term and integrated planning perspective.

Key characteristics of planning for sustainable outcomes include:

- **Policy coherence:** Policy coherence is defined by the OECD as *‘the systematic promotion of mutually reinforcing policy actions across government departments and agencies creating synergies towards achieving the agreed objectives.’* For local SDG implementation, this implies balancing social, economic and environmental considerations and managing potential conflicts and trade-offs to ensure that progress in achieving one target does not result in setbacks for other targets. Policy coherence with higher levels of government is equally important, to align implementation efforts, and to match funding and incentive structures with development objectives. For urban and metropolitan governments, the coherence of territorial policies will also be important, as the development needs of cities must be balanced with those of surrounding areas.
- **Multi-sectoral planning:** Multi-sectoral plans address multi-dimensional and crosscutting issues in the SDG agenda, such as poverty and climate change, which require coordinated action across a number of different sectors to be achieved. For instance, poverty eradication in cities will depend on a combination of policies and programs, including insecure housing, access to basic services, nutrition, health, education, and employment. At the local level, spatial development may also benefit

from a multi-sectoral perspective, a critical example being the alignment of housing development and transportation planning to ensure compact and inclusive urban form.

- **Reflexive and responsive policy-making:** Policy-making for goal-based planning should be based on: i) a continuous tracking of outcomes; ii) on-the-job learning and adjustment; iii) innovation based on the latest technologies, and; iv) a balance of short-term priorities with long-term development objectives, against a backdrop of changing circumstances. Reflexive policy-making will require a periodic review of local planning frameworks, in order to ensure that they are responsive to changes in development conditions. Reflexivity is also characterized by continuous re-evaluation and adaptation of policies and programs based on the regular monitoring and review of progress and outcomes (24), which will be embedded in a robust monitoring and evaluation framework (see Section 2.4 for more on M&E frameworks).

Section 3.2 in Chapter 3 provides more information on integrated governance structures that facilitate sustainable planning practices.

Another important means by which to ensure effective planning and delivery of SDG objectives is to mainstream SDG targets into existing development plans and programs, to drive long-term implementation. Mainstreaming SDG targets is a process by which targets are integrated into existing development frameworks, which may be revised to reflect more ambitious, time-bound outcomes. Integrating SDG targets into existing development frameworks offers local governments the opportunity to step back and review existing plans and strategies, to examine how they could be augmented or adapted to achieve more ambitious outcomes; and to mobilize innovative financing and partnership mechanisms to accelerate development. Mainstreaming should complement efforts to launch new, medium to long-term development policies and programs, such as climate change adaptation plans, or social protection programs.



OneNYC, the long-term development plan for the City of New York, promotes the vision of a productive, equitable, sustainable and resilient city through a series of long-term goals and strategies, and initiatives across City agencies.

Box 14: OneNYC- Hunts Point Food Distribution Center

OneNYC, the development plan for the city of New York, pursues a territorial and multi-sector planning approach, promoting balanced and sustainable spatial development in the city's neighborhoods. A good example of this approach is the commitment to redevelop the 329-acre Hunts Point Food Distribution Center (HPFDC). HPFDC is one of the largest food-distribution centers in the world, with 60 percent of the city's produce and 50 percent of meat and fish passing through it. It directly employs 8,000 people and is responsible for many other indirect jobs and positive economic spillover effects in the Hunts Point Peninsula and throughout the South Bronx neighborhood, in which it is located.

OneNYC will invest in modernizing and improving resiliency of the public markets and other HPFDC properties, so that Hunts Point will be better prepared for power outages, coastal flooding, job losses, and other disruptions that could come from extreme weather events, which might affect the citywide food distribution system. The HPFDC will also be integrated with other sectoral initiatives for mutually beneficial outcomes. The adjacent Hunts Point Wastewater Treatment Plant will be redesigned to take the food waste from HPFDC and use it as a source of energy for a local microgrid. Coastal and energy resiliency investments will not only protect critical assets and supply chains but also create new community amenities. An expressway redevelopment that provides access to Hunts Point will also be configured to improve truck access to the HPFDC, while also improving pedestrian and bicyclist safety and air quality in the surrounding area. A basket of multi-sectoral interventions thus work together to enhance positive outcomes, and improve productivity and resiliency of the city's food supply chain.

For more information, see *One New York-The Plan for a Strong and Just City*, available at <http://on.nyc.gov/1OeZYjn>.

Box 15: Metro Vancouver's interconnected management plans

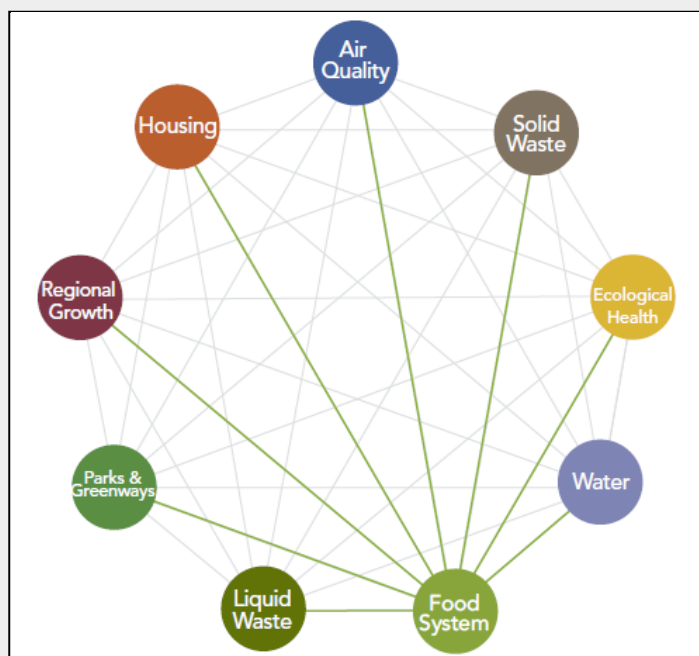


Figure 4 Metro Vancouver's interconnected management plans

Metro Vancouver's Regional Food System Strategy (RFSS) is one among a suite of interconnected regional management plans developed around Metro Vancouver's Sustainability Framework. The RFSS aims to ensure the long-term sustainability of the food system in the Greater Vancouver Regional District (renamed as Metro Vancouver), by integrating vertical policies between the different levels of government, and through integrated action between rural and urban municipalities within the Metro Vancouver region (25).

Other regional management plans formulated by the unique regional authority of Metro Vancouver intersect with the RFSS to realize inter-sectoral synergies. These include the Integrated Solid Waste and Resource Management Plan, Integrated Liquid Waste and Resource Management Plan, Affordable Housing Strategy, Drinking Water Management Plan, Air Quality Management Plan, and the Parks and Greenways Plan. The different regional plans are consciously integrated with one another at the administrative level to break down artificial silos of management and to create greater efficacy and efficiency through integrated action.

For instance, the Metro Vancouver Drinking Water Management Plan feeds into the Regional Food System Strategy, resulting in support for the adoption of environmentally sustainable irrigation practices and technologies, which will minimize the agricultural demand for water. In a similar manner, the promotion of waste reduction, reuse and recycling as part of the Integrated Solid Waste and Resource Management Plan results not only in less wasted food and reduced waste from food packaging, but also fosters food recovery activities to cut down waste at the production level as part of the RFSS.

For more information, see the Vancouver Regional Food System Strategy by Metro Vancouver (<http://bit.ly/29FoYur>).

Backcasting for goal-based planning

Backcasting is a strategic planning tool for complex systems, such as sustainable development, with a large number of uncertainties, stakeholders, and conflicting interests. Based on the premise that clear future visions have strong guiding power, it visualizes desirable targets or outcomes in the long-term, and plans for action in the short- and medium-term to reach these outcomes. Unlike forecasting, which estimates outcomes based on current trends, backcasting begins with a projection of successful outcomes, and works backwards to understand what is needed to realize the outcomes.

Backcasting is central to the goal-based planning process of SDG implementation, and will help local governments and stakeholders assess existing plans and strategies against the required level of ambition, as well as to understand the additional resources required to accelerate progress. Backcasting is the method employed by the Deep Decarbonization Pathways Project (DDPP), a global collaboration of energy research teams working to understand what is needed to limit global warming to 2°C or less. Led by SDSN and The Institute for Sustainable Development and International Relations (IDDRI), the DDPP uses backcasting to chart practical pathways to steeply reduce greenhouse gas emissions within countries.

[\(http://deepdecarbonization.org/\)](http://deepdecarbonization.org/)

The basic steps of an SDG backcasting process are as follows:

- i. Identify quantitative SDG targets to be achieved by 2030.
- ii. Working backwards from these objectives, identify the investments and policies needed to achieve these objectives.
- iii. Review the preliminary pathways with stakeholders to incorporate their advice and ensure that the strategies address all goals in an integrated manner.
- iv. Set short- and mid-term targets that are embedded in local government budgets and development plans.
- v. Periodically review and revise planning and policy frameworks to ensure that SDG progress remains on track.

Stakeholders may be tempted to use a target-by-target approach in backcasting; however, it is important to ensure that the sustainable planning principles of policy coherence and multi-sectoral planning are followed when backcasting. Local SDG implementation is primarily concerned with actionable inputs and real outcomes, and local backcasting processes should systematically inform national SDG planning and policy-making to ensure a favorable environment for successful implementation.

See the SDSN National SDG Guide (<https://sdg.guide/>) for more information on the backcasting process, and for a description of the DDP project.

Box 16: Backcasting for environmentally sustainable transport

Described below is the backcasting approach used in the OECD's Environmentally Sustainable Transport (EST) Study, which looked at how transport systems may reduce emissions by 80-90% (26). It is an example of how backcasting may be used to address specific problems and devise scenarios for implementation.

i. Determine the objectives:

Describe the purpose of the analysis, determine temporal, spatial and substantive scope of analysis, and the number and type of scenarios.

ii. Specify concrete goals and targets: Where possible, qualitative goals should be expressed in terms of quantitative targets to provide a measurable point of reference for the scenario analysis.

iii. Describe the present

system: The current transportation system, including an analysis of the main driving forces behind measures and main developments.

iv. Specify exogenous variables: These variables might include economic growth, demography, stability of the supply of fossil fuels, prices of fossil fuels, incomes and international relationships.

v. Carry out the scenario analysis: Analyze future processes at the endpoints and mid-points to develop the scenario(s).

vi. Determine the implementation requirements: Ascertain the behavioral and institutional responses required for implementing the scenario(s) and the policy-making measures necessary at different spatial levels to influence the driving forces behind measures and main developments, e.g. pricing policy, regulations, and infrastructure policies.

vii. Undertake impact analysis: (a) consolidate scenario results; (b) analyze social, economic and environmental impacts; (c) compare results of (a) and (b) with the goals and targets, as set down in step 2 and; (d) iterate analysis required (Steps 2, 4 and 5), to ensure consistency between goals and targets, and results.

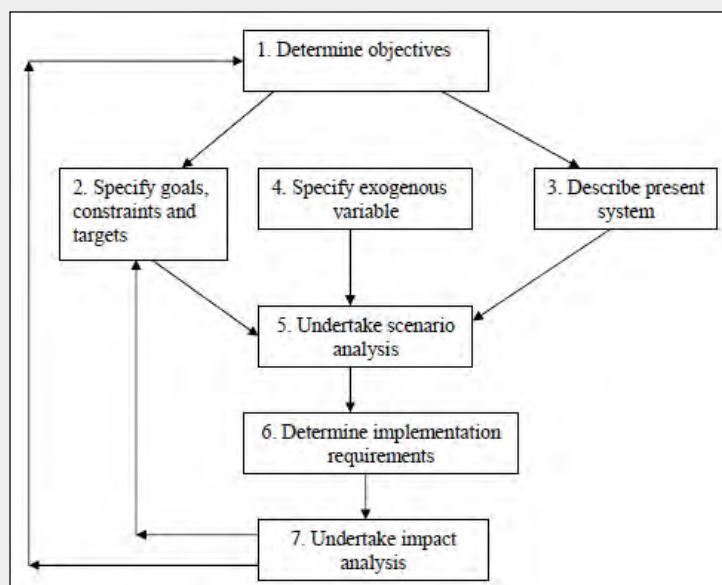


Figure 5 Outline of a general backcasting method

For more information, see the report *Backcasting as a Tool for Sustainable Transport Policy Making: the Environmentally Sustainable Transport Study in the Netherlands* (<http://bit.ly/1U8a6gZ>).

Financing analysis and investment strategy

SDG targets will need accelerated development pathways to be achieved by 2030. These pathways must be supported by effective financial management and additional financial resources. Local governments engaged in SDG localization need to mobilize innovative financing mechanisms and incorporate financial planning as an integral aspect of all action plans.

In deploying additional finances for the SDGs, local governments will depend on three key categories of revenue streams: national government transfers, own-source revenues, and private (non-government) and international sources, such as grants, loans and equity investments. The capacity for financial planning, and for mobilizing key financing mechanisms such as PPPs and sub-sovereign loans, depends on the ability of local governments to maintain a stable local environment, and to manage public finances effectively. *See Section 3.3 in Chapter 3 for an overview on developing local capacity for financing development, and for public financial management (PFM).*

Below is a table of potential financing mechanisms that form core components of urban development finance.

Table 3: Financing mechanisms for local governments

Financing mechanism	Description
Local taxes/surcharges	Taxation powers of local governments are typically restricted, with property taxes being the only significant tax source of many local authorities. Authorities can sometimes impose local surcharges for boosting local revenues, or as a financial mechanism for funding local projects or schemes.
User tariffs	The optimal pricing for public services through user fees and tariffs should be designed keeping in mind the objective of covering operation costs, while ensuring the inclusion of lifeline tariffs or well-targeted subsidy mechanisms for the poor and vulnerable. They can also promote economic efficiency and improvement in the quality of service delivery.
Transfers and grants from higher levels of government	Allocations from national and regional governments form a substantial bulk of local government finances, although their exact share in total government expenditures can vary within and across countries and sectors.
Asset management and monetization	Asset management and monetization is a means to boost local government revenues from the optimal use, lease or sale of a large variety of public assets such as land, building properties and service infrastructure.

Cost recovery or value capture	These financing mechanisms are based on the high value appreciation of developed urban land. Cost recovery mechanisms focus on the repayment of the cost of infrastructure by sharing the financial burden across all beneficiaries. Value capture mechanisms, alternatively, seek to yield to the state a proportion of the private gains made due to the infrastructural investment or land use change.
Development banks	Sub-national, national, and multilateral development banks provide an important source of financing for large-scale projects to local governments in emerging economies. By issuing long-term loans at concessionary rates, development banks provide an important source of development finance and also support local government capacity development through planning support, project oversight and risk management.
Public private partnerships	PPPs are contractual partnerships of various types between the public and private sectors on discrete projects with revenue-generating potential. PPPs can be of different types, based on the specific terms of contracts (see the section on multi-stakeholder partnerships below for more on PPPs).
Grants from international and philanthropic organizations	Grants from international organizations and philanthropic foundations fill a vital gap in financing the social aspects of sustainable development, particularly in the sectors of slum redevelopment, health, education, water supply and sanitation, and gender equality.
Municipal credit markets	Municipal credit markets allow local governments to access domestic savings and private investments, through intermediary or market mechanisms, to fund long-term, capital-intensive infrastructure projects. Two well-known models of municipal credit markets are the bank-lending model of Western Europe, in which banks act as source of lending for municipal finance, and the municipal bond model used in North America, where local capital finance is raised through bond issuance.

For local government budgets that are connected with policy-making and sector-based requirements, authorities can make use of medium-term expenditure frameworks (MTEF). An MTEF is based on annual, rolling, three year-expenditure planning that sets out the medium-term expenditure priorities and hard budget constraints against which sector plans can be developed and refined. In addition to adopting a more long-term perspective to financial planning and increasing the predictability of budget availability, MTEFs may also contain outcome criteria for the purpose of performance monitoring [40]. Linking resource availability with budget allocations and sectoral needs, MTEFs are robust tools for incorporating the SDGs into local development planning. For more information, see the World Bank working paper

Medium Term Expenditure Frameworks: From Concept to Practice. Preliminary Lessons from Africa (<http://bit.ly/24Kan9L>).

Box 17: Needs assessment for the SDGs

Financial planning for the SDGs should be based on a comprehensive needs assessment. A needs assessment is a tool that cities can use to articulate the costs of implementing the SDGs. It helps to assess the additional resources and funding needed to achieve the SDG targets from the current baseline level (see Section 2.2 for more information on the baseline assessment). While a number of assessments are recommended in this guide, local governments can choose to conduct them simultaneously or prioritize them as necessary. For example, a needs assessment can be combined with a baseline assessment to analyze development gaps and the resources needed to overcome them.

Detailed needs assessments should be conducted at the program level by city staff. For local governments that seek to attract funding from diverse sources, a broad assessment of the total additional costs to achieve local SDG targets over the 2016-2030 time-horizon may also be useful. In countries where local governments are primarily dependent on intergovernmental transfers, an incremental needs assessment may be used to demand increased budgetary allocations from higher governments. For fragmented cities or regions, where services are delivered across different local jurisdictions, sectoral needs assessments may be useful to bring together local government actors and form a coherent, regional delivery plan.

Needs assessments for the SDGs will not only need to account for the capital costs of interventions to achieve accelerated development, but also the costs of operations and maintenance, depreciation, capacity development, cooperation and coordination mechanisms, monitoring systems, and the additional operating and marginal costs for attaining universal coverage of services and systems.

An SDSN working paper provides an ambitious model of a global needs assessment- *Investment Needs to Achieve the Sustainable Development Goals: Understanding the Billions and Trillions* (<http://unsdsn.org/>). This paper proposes an analytical framework for conducting SDG needs assessments, by translating the 17 SDGs into eight 'SDG investment areas' (27). Local governments may use a similar model for conducting a total needs assessment of SDG localization. Important investment areas for a local needs assessment may include housing, basic services⁶, land, climate change, urban ecosystems, economic development, and data needs.

⁶ Basic services may be sub-divided into transportation, energy, water and sanitation, waste management, health, education, and other services, depending on the functional responsibilities of local governments.

Multi-stakeholder partnerships

The SDGs call for a renewed global partnership, and partnerships at all levels, with all countries and stakeholders working in solidarity to achieve the goals (14). Indeed, implementing this ambitious agenda will require not just more resources, but collective efforts to improve the quality, effectiveness, and impact of development cooperation (28).

Partnerships will play a central role in the local implementation of the SDGs. Local governments will need to work with national and provincial governments, and with key non-government stakeholders. For urban and local governments leading SDG localization processes, partnerships are a critical means of developing capacities, attracting additional resources and technical support, and strengthening implementation. At the same time, local governments are themselves important players in multi-stakeholder partnerships in cities, best placed to bridge the gap between higher levels of government, and civil society groups and communities.

A key focus area for local SDG collaboration will be partnerships between neighboring local authorities for territorial development. Local governments often work towards similar goals-eradicating poverty, increasing access to jobs, fighting climate change risks- and by entering into strategic partnerships with one another around common SDG targets, they can pool resources and capacities to bring about larger-scale improvements through collective impact. *See Section 3.2 for more information on intergovernmental cooperation.*

Another critical area for collaboration is between the public and private sector, through public-private partnerships (PPPs). PPPs refer to a range of contractual partnerships between the private sector and public bodies, often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public-sector assets and services. For local governments that are struggling to raise funds for implementing capital-intensive projects, the private sector has the potential to supply new sources of financing and can undertake debt burdens that local governments may be unable to access due to statutory debt limits or political constraints. PPPs are increasingly being used in cities across the world, due to the scale economies that provide attractive investment opportunities for the private sector.

For more information on goal-based partnerships, see the SDSN National SDG Guide (<https://sdg.guide/>).

Box 18: A multi-stakeholder partnership for solid waste management

Bangladesh's cities and towns generate 20,000 tons of waste a day, and like most low-income countries, 80% of that waste is organic. Waste Concern, an NGO, developed a decentralized private-public-community partnership model for waste recycling to transform the solid waste into organic compost and fertilizer using low-cost, low-tech and labor-intensive method (29).

Started in 1995 as a community-based pilot project, Waste Concern has since established a network of 60 decentralized neighborhood-based recycling and composting plants throughout Bangladesh and has created thousands of jobs for waste pickers, who earn three times their previous incomes and are provided with free lunches and childcare. In Dhaka city, Waste Concern established a large-scale, 150-ton per day capacity compost plant (equal to the amount of waste generated by 400,000 people) and collects and recycles the waste at no cost to the government (30).

Waste Concern's decentralized community-based composting model involves a number of actors and partnerships including local communities, an NGO (Waste Concern), the Ministry of Environment and Forest (MoEF), Dhaka City Corporation (DCC), Public Works Department (PWD), donor agencies and the private sector. The key roles played by these actors are as follows (29):

- **Communities:** Household waste is collected from communities; the wages of workers are supplemented by household donations; permission for local composting plants are given.
- **NGO (Waste Concern):** Technical assistance, oversight and management for all aspects of the process, from the low-tech organic composting processes, to community training in plant operation and maintenance, to assisting in marketing the compost.
- **Ministry of Environment and Forest (MoEF):** Program coordination and strategic support on behalf of the government.
- **Corporations and Municipalities:** Responsible for providing land and appropriate permits for the construction of the infrastructure.
- **Donor agencies:** Start-up funds from UNDP, UNICEF through its Urban Fringe Project and USAID through its Regional Urban Development Office.
- **Foreign Private Companies:** Dutch private company supported Waste Concern in selling carbon credits under the Clean Development Mechanism. FMO bank and Tiodos Bank from the Netherlands provided long term loans.
- **Private Sector:** Private sector agro and fertilizer companies purchase the entire produce from the composting units and market through their distribution networks to sell to the farmers.

The Waste Concern project highlights the role of multi-stakeholder partnerships in providing development solutions. In addition to the partnership model, the Waste Concern initiative also illustrates how alternate service delivery mechanisms can be developed through bottom-up multi-stakeholder solutions that integrate social, economic and environmental concerns in local development. For more information, go to www.wasteconcern.org.

2.4 Step 4: Monitoring and evaluating SDG outcomes

This section introduces the necessary components of a local SDG monitoring and evaluation framework, and provides an overview of urban data systems for effective M&E.

Achieving the SDGs requires robust monitoring and evaluation (M&E) frameworks in order to track progress and ensure accountability. While monitoring uses the systematic collection of data on specified indicators to track progress towards the objectives (31), evaluation uses the collected data to review the design, implementation and results of ongoing or completed SDG programs and projects, to determine their impact and efficiency, and to modify policies and development programs as needed. Sound M&E systems can also help governments improve their management and governance processes, and ensure that strategies adapt to changing needs and incorporate lessons learnt from implementation.

The challenge for most local governments will be in developing local M&E systems that are affordable yet comprehensive, and above all, effective in reliably capturing progress on local goals and targets. While developing M&E for local governance can be highly political and expensive to begin with, there are several benefits of local M&E systems:

- **Decision-making:** Information acquired from M&E can be leveraged to make crucial real or near-time decisions, including decisions on how best to allocate resources, and the best programs and policies for achieving desired outcomes. For local governments, the demonstrated success of development programs also makes it easier to garner continued or increased program support, be it from higher levels of government or from non-government program partners.
- **Accountability:** Many development partners such as private sector actors and international organizations require monitoring and evaluation as a pre-condition for providing program support. This is because the information from M&E can be used to scrutinize performance and the use of budget resources, thereby increasing accountability of public sector activities.
- **Organizational learning:** Monitoring and evaluation is a research tool with the potential to augment organizational learning and develop capacity for local governance, when used analytically. The information gathered should be translated into analytical, action-oriented reports that facilitate effective decision-making (32).
- **Responsive governance:** When M&E findings are made available to a broader audience, it promotes transparency and through this facilitates better decision-making and accountability (32). While making the data widely available does subject governments to scrutiny, it can also increase trust and confidence in the government. It also gives external researchers, professionals, and citizens the opportunities to develop research,

policy recommendations, and technological innovations and tools that can directly strengthen local governance.

There are three components of an effective M&E system for monitoring SDG progress (33):

- i. **Program performance information:** This is administrative data compiled on the performance of specific programs or interventions. This information can be derived from a baseline analysis combined with periodic monitoring of program indicators, usually at the departmental or administrative level. Program performance should be strongly linked to budget structures, as optimizing resource allocation is a key objective of evaluating program performance.
- ii. **City statistics:** These are social, economic, demographic, spatial, and environmental statistics that are disaggregated at the level of the city or settlement. Trends in data are used to assess the rate of development progress, and gaps in development. Data should be fine-grained enough to detect inequalities and gaps between neighborhoods and demographic groups. Statistics will be derived from national censuses and surveys, as well as departmental surveys and administrative data. For spatial and environmental statistics, there are a number of geo-spatial and mobile technologies that can be deployed by local governments.
- iii. **Evaluations:** Evaluations tend to be external, done by researchers and consultants outside of government, and occurring on an ad-hoc basis. Government authorities should pro-actively authorize evaluations of SDG implementation on a periodic basis, and the recommendations from these evaluations should be used to review and adapt implementation strategies.

In addition to the above, local M&E systems will need to develop capacity for information flows with higher levels of government, through processes which enable analysis of disaggregated and aggregated statistics, and the evaluation of local government performance and outcomes. Integrated, government-wide M&E systems will help aggregate SDG outcomes at the national level, compare SDG progress between different territories, and provide opportunities for government-to-government learning and good practice dissemination. Cities and local governments that are setting up M&E for the SDGs should build on existing data-based management and review systems, wherever available. For cities that are getting started, M&E components may be embedded at the program level in the short-term while building a government-wide system in the longer run.

The SDSN report, *Data for Development: A Needs Assessment for SDG Monitoring and Statistical Capacity Development* (<http://unsdsn.org/>), provides information on the key components and estimated costs of building up nation-wide statistical capacity for SDG monitoring and evaluation.



Rio de Janeiro, one of the cities that form part of the SDSN Solutions Initiative on Sustainable Cities, is a leader on sustainable development issues among cities of the global South, and a member of key urban networks such as SDSN and C40 Cities (of which Rio's mayor Eduardo Paes, has been chairperson since 2013).

Box 19: SDSN ‘Sustainable Cities’: Local SDG Monitoring in a Metropolitan Context

As part of the SDSN Solutions Initiative on Sustainable Cities, SDSN Brazil and the GIZ project “Sustainable Development of Metropolitan Regions” are working with key stakeholders in the Rio de Janeiro Metropolitan Area (RJMA) and other metropolitan regions throughout Brazil to examine possible solutions for local and regional implementation of the SDGs. Methods being used include inclusive dialogue, metropolitan cooperation, and contextualized monitoring of the SDGs. Rio de Janeiro’s Metropolitan Area is being used as a case study to analyze the effective localization of the global SDGs. It is also an opportunity to align Rio’s M&E framework with other local and national monitoring systems, to enable comparative analysis. The project aims to serve as a reference for the sub-national implementation of the SDGs worldwide, in particular SDG 11 (“Make cities and human settlements inclusive, safe, resilient and sustainable”).

One of the key objectives of the Solutions Initiative is to indicate how to get started with local SDG monitoring, and to demonstrate how data can support policy decisions and foster cooperation across city boundaries to achieve the SDGs. Considering the lack of resources and/or capacities to monitor the numerous SDG indicators, the SI aims to:

- i. Support the prioritization and selection of a compact set of SDG indicators for local monitoring,
- ii. Support the institutionalization of SDG indicators at the local and regional level,
- iii. Identify alternate sources and methods of local data and data collection, and
- iv. Mobilize existing resources in statistical monitoring without overburdening local governments.

Key cooperation partners include the recently-established Metropolitan Chamber of Governmental Integration of Rio de Janeiro, Casa Fluminense (a local NGO), the national Ministry of Cities, the National Statistics Commission (IBGE), the State Government of Rio de Janeiro, UN-Habitat, and a number of NGOs and the SDSN Brazil.

The experiences from Brazil will be documented in a manual that will guide local stakeholders, government actors and policy makers on how to monitor the progress of SDG implementation at the local level and strengthen cooperation across territories for more sustainable development. The Solutions Initiative will also contribute to the international Habitat III process, providing evidence on the need for metropolitan level cooperation, for joining forces between local governments in the implementation of the SDGs, and fostering integrated and balanced territorial development.

For more information, go to <http://unsdsn.org/>.

Urban data for local M&E systems

Data form the cornerstone of M&E systems; data is the raw material that is collected and processed to track progress and review the success of development programs. While the MDGs have significantly bolstered national capacities for data collection and processing, there are significant data gaps in many parts of the world. This is especially true for local governments, many of which do not have the capacity and resources to maintain their own data systems and depend on national statistical agencies to provide development data, which is often not sufficiently spatially disaggregated for targeted policy-making. The 2030 Agenda states that “quality, accessible, timely and reliable disaggregated data will be needed to help with the measurement of progress and to ensure that no one is left behind” (2). Disaggregated data will be integral to overcoming development gaps and territorial inequalities, and local governments will be key to anchoring the efforts of building robust territorial data systems.

There are three overarching objectives in developing urban and local data systems: (i) knowing the city or settlement’s performance, (ii) being able to compare it to previous years, and (iii) being able to make prognoses for upcoming years (34). Additionally, local data for sustainable development should be fine-grained and easy to disaggregate, it should be in a readable and uniform format for easy analysis and synthesis, and it should be accessible to all. Local data for tracking SDG progress will comprise a combination of development indices that are disaggregated to provide a city-wide as well as neighborhood level understanding of urban and local development progress, and project indicators that track the outcomes of development programs and projects for SDG targets.

Advances in digital technologies have greatly simplified data collection and processing methods, cutting down the time and resources required for building up robust urban data systems. Cities today can use a wide variety of geospatial and mobile technologies, as well as crowd-sourced data to collect a range of development data. Conventional surveys, censuses, and qualitative data collection methods can also be digitized for greater accuracy and efficiency. Municipalities worldwide are increasingly using such modern information and communication technologies, and advances in geo-spatial imagery, to optimize the efficiency and coverage of their data systems (34).

Building up urban or local data systems will require high-level political commitment, as data can be used to question performance and demand accountability. It may also require the support of higher levels of government, and of national statistical agencies to provide greater disaggregation in data.

The SDGs, with their emphasis on indicators and data collection, offer local governments the opportunity to strengthen local data systems and to work in partnership. The Global

Partnership for Sustainable Development Data (GPSDD) is a high-profile initiative of a global network of governments, NGOs, and businesses working together to usher in a data revolution to implement the SDGs (<http://www.data4sdgs.org/>). The Partnership is particularly committed to supporting local data roadmaps and improvements in local disaggregated data systems.

Box 20: Open Data Kit

Open Data Kit (ODK) is a free and open-source set of tools, which help organizations author, field, and manage mobile data collection solutions. ODK provides an out-of-the-box solution for users to (34):

- Build a data collection form or survey (XLSForm is recommended for larger forms),
- Collect the data on a mobile device and send it to a server, and
- Aggregate the collected data on a server and extract it in useful formats.

In addition to socio-economic and health surveys with GPS locations and images, ODK is being used to create decision support for clinicians and for building multimedia-rich nature mapping tools [46]. Given below are some examples of how the ODK has been used in projects world-wide.

- Ghana- Lumana uses ODK to map villages, survey clients, and calculate the poverty indices of the communities they serve.
- Haiti- Haiti Regeneration Initiative is piloting ODK to monitor agricultural practices, crop productivity, and farmer yields of crops.
- Pakistan- City Pulse is using ODK to collect data about 'elements at risk' in flood plain areas of Indus River.
- South Africa- Seeing Swans have performed 12,000 survey of informal structures in the Western Cape. Their customized ODK Aggregate provides real-time reporting and statistics.
- United States- Urban Strategies Council in Oakland, CA is using ODK to collect detailed property condition information in low-income neighborhoods devastated by home foreclosures.

For more information on the tool and on how to use it, see <https://opendatakit.org/>.

Box 21: Instituto Pereira Passos (IPP) Rio de Janeiro

The Pereira Passos Institute (IPP), a department of the city government of Rio de Janeiro, provides a good example of an effective data management system for strategic planning and public policy integration, mapping, cartographic production and geo-technology application.

The Institute's mission is threefold, to:

- Manage information about the City so that the planning of public policies and urban interventions has support in qualified data.
- Contribute to the improvement of living conditions, the efficiency of public management and the promotion of sustainable urban development.
- Produce and document relevant information about the Municipality, made available to the general public in the form of digital apps, studies, tables, and maps stored in the IPP Data Warehouse portal.

The IPP, at the time of its origin, oversaw urban planning, cartographic production, and the statistical compilation of development indices of Rio de Janeiro. After the Municipal Department of Urbanism took charge of urban planning, the IPP began to specialize in economic development projects, coordinating large urban projects such as the Favela Bairro slum development project, the Rio Orla digital project, and the Porto Maravilha project. IPP was also behind Rio's 2016 Olympics bid. Over time, the IPP also moved into the social sphere, with social inclusion being an important focus area. The IPP is also a key partner in the SDSN and GIZ joint initiative on monitoring the SDG indicators in the metropolitan area of Rio de Janeiro (see Box 19 for more details).

Even as the economic and social projects form a vital part of the evolving nature of the IPP, the core of the organization is as the data and knowledge center of Rio, instrumental in the formulation and monitoring of both local and non-local public policies in the city. As part of its mandate, the IPP introduces aims to promote the role of data-enabled policy-making in the municipality of Rio, as well as act as an integrating institution to bring together the different departments.

More information is available on the official website: <http://www.rio.rj.gov.br/web/ipp> (in Portuguese). A presentation by Eduarda la Rocque, ex-Director of the IPP, provides an overview of the organization and its work, available at <https://www.wilsoncenter.org/>.

Open data is an essential component of an urban data systems, which helps to foster accountability and transparency in local governance. Open data can greatly increase the accountability, and subsequently, the management of local governance, through public communication of various local government activities and services, such as budgets, expenditures, public cadasters, planning zones and ward maps, tenders, contracts, business permits, and public transport schedules. In addition to building trust in government and creating a more stable political atmosphere for investment and project management, an open data movement has the potential to promote civic engagement, reduce transaction costs of accessing information, and to further better practices of financial management, and performance monitoring and evaluation.

Box 22: Open data census

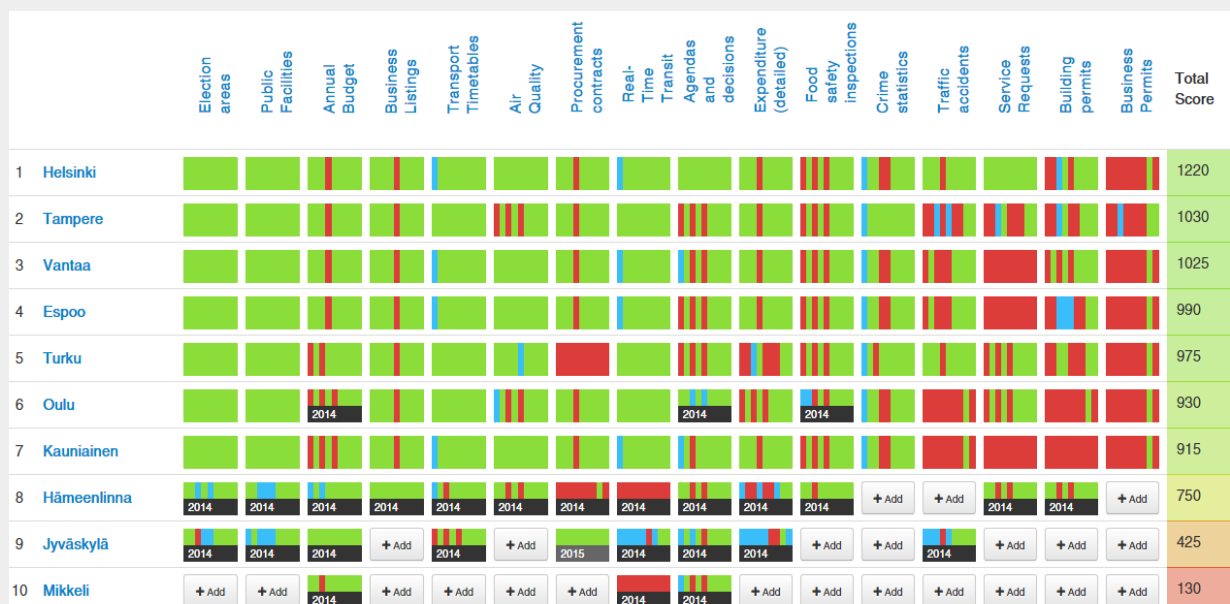


Figure 6 Open Data Census: open data in Finnish cities [47]

Local data is often the most relevant data for citizens, as they go about their daily lives – from waste collection times to local tax rates. The Local Open Data Census is a global crowd-sourced initiative that surveys and compares the progress made by different cities and local areas in releasing open data (35). With information available on the local open data in almost 40 countries, the initiative allows local stakeholders to compare the status of open data in their own cities and localities vis-à-vis other cities in the same country and across the world. As such, the Local Open Data Census is both advocacy tool and information-provider for open data in cities.

For more information, go to <http://census.okfn.org/>.

Geospatial data is information referenced to a place as a set of geographic coordinates. It identifies the geographic location and characteristics of natural and constructed features and boundaries on Earth (37). It is used in Geographic Information Systems (GIS), computer systems capable of capturing, storing, analyzing and displaying geospatial data, often in conjunction with non-geospatial data. With the ongoing explosion in the availability of geospatial data, the use of GIS is increasing exponentially in a wide range of settings.

Considering that an estimated 80 to 90 percent of government information has a geographic component (37), it isn't difficult to understand why governments would be key users of geospatial data and GIS. Spatial data systems benefit greatly from being scaled up, due to the lowered costs of shared technologies, and can improve inter-municipal coordination on common geo-spatial platforms, as many services and infrastructures operate on varying and overlapping jurisdictions.

Currently, individual cities and regions across the world are working independently to build up technical and institutional capacity for spatially-linked data systems. The involvement of national and international institutions, public and private stakeholders can facilitate the development of a global spatial data infrastructure, one that has the potential to become as ubiquitous as CRVS systems.⁷ What is needed is a big push in the form of a global partnership, such as the Global Partnership for Sustainable Development Data (<http://www.data4sdgs.org/>), to ensure that the data revolution encompasses the counting and representation of all regions and people.

⁷ In most countries, a civil registration and vital statistics (CRVS) system is used to record statistics on vital events, such as births, deaths, marriages, divorces and fetal deaths. Development and strengthening of CRVS systems are important for improving the quality of a country's vital statistics, and for using this information to guide policies and programs (71).

Box 23: Global Human Settlement Layer

The Global Human Settlement Layer (GHSL) a free, open source platform that maps the built up area of the entire world—it can produce national, regional, and local maps. GHSL proposes a new way to map, analyze, and monitor human settlements and urbanization in the 21st century. It integrates several available sources reporting about the global human settlement phenomena, with new information extracted from available remotely sensed (RS) imagery.

So far, the GHSL is the largest and most complete known experiment on automatic image information retrieval using high and very high remotely sensed image data input. It is developed and maintained by the Joint Research Centre, the European Commission's in house science service.

For more information, go to <http://ghslsys.jrc.ec.europa.eu/>.

Box 24: Spatial Data Infrastructure of Catalonia, Spain

The Catalan Spatial Data Infrastructure initiative, known as IDEC, started in 2002 as a collaboration between the Cartographic Institute of Catalonia (ICC), and two departments of the regional government (the Generalitat)- the Department of Land Policy and Public Works, and the Department of Universities, Research and the Information Society. The objective of IDEC is to promote the use of geographic information (GI) by making data more easily available to public and private sector users, and to the general public. Its main function is to develop an enabling platform to promote the dissemination of information. Geospatial maps from a range of organizations is available on the portal, including data from local networks and contributions from several municipalities.

Within the IDEC, the IDE.LOCAL project was aimed at local governments, which were incentivized to engage fully with the platform through subsidies funded by regional e-government funds. The IDEC Support Centre offered customized services to local authorities to help them understand the benefits of a collaborative framework in which different providers share their data to provide geo-knowledge to public administrations and citizens. After less than one year of operation, the IDE.LOCAL project had over 80 local authorities using the map viewers, 20-25 local authorities engaged in active data publication and connection to the IDE.LOCAL network, 15,000 monthly visitors to the online municipal street maps, and new projects were being planned over the platform.

E-government funding for the project, made available by the Catalan regional government to local governments, was critical to project implementation, and was successful in raising public awareness about the opportunities offered by GI, and in reducing the digital divide between larger urban governments and the small and medium-sized municipalities. Local authorities, companies and individuals, reported significant timesaving in requesting and processing information. The majority of local authorities interviewed also reported reduction in costs, with most savings taking place among the smaller local administrations. The IDEC tools were well-used across all departments in the administrations interviewed, leading to new procedures and services in many cases.

For more information, see the EU report *The Socio-Economic Impact of the Spatial Data Infrastructure of Catalonia* (<http://bit.ly/1WKKdEl>).



CHAPTER 3

**Enabling Conditions for
Sustainable Development**

“....the localization of the 2030 Agenda is not the implementation of a global or national agenda at local level; but rather building adequate conditions at local level to achieve the global goals.” (38).

Much of the discourse on SDG localization relates to what cities and human settlements can do to help countries and the world achieve the SDGs, and some limited discussion is devoted to what the SDGs can do for cities. Amidst the calls for localizing the SDGs, there has been insufficient discussion on whether cities and human settlements have the autonomy, capacity, and resources to effectively implement the SDGs in the first place.

Local governments often struggle to take action on sustainable development due to a number of constraints. These include limited political and fiscal power, lack of access to development finance, low levels of institutional capacity, absence of robust multi-level government cooperation and integration, and the inability to attract or be part of strong multi-stakeholder partnerships. Without first acknowledging and addressing the challenges faced by local governments in many parts of the world, SDG localization will not benefit the majority of the global urban population, will fail to build sustainable governance, and will constrain the achievement of sustainable outcomes.

Business as usual will not be good enough to bring about the transformative results needed for a sustainable future. Local governments need to strengthen their own capacities for action, build up strong partnerships, and above all, be committed to the SDG vision of inclusive sustainable development that leaves no one and no place behind. This chapter discusses the key enabling conditions for local governments to promote sustainable development and to implement the SDGs.

3.1 Decentralized governance

The SDGs offer a window of opportunity for proponents of decentralization to demand reforms, for greater resources, capacity development, executive authority, and accountability mechanisms at the local level.

Over the past few decades, decentralized governance has come into practice in almost all countries, in one form or another. Today, service provision in many of the sectors addressed by the SDGs, including water, sanitation, health, education, planning, waste management, and transport, is the responsibility of local governments and authorities in an increasing number of countries (39). This division of powers between different levels of government, and the growing responsibilities of local governments, has the potential to ensure more inclusive and representative decision-making.

Sustainable development depends on *“the effective decentralization of responsibilities, policy management, decision-making authority and sufficient resources, including revenue collection authority, to local authorities, closest to, and most representative of, their constituencies”* (40). Empowered local and regional governments have been shown to have a positive impact on service delivery and quality of life (39). And yet, development gains from decentralization continue to be uneven, with increasing spatial inequalities and exclusion within territories. In some countries, this can be attributed to how decentralization is done, e.g. via top-down processes in which national governments decentralize responsibilities and sometimes powers, but not human and financial resources (41). In other cases, a lack of adequate accountability mechanisms or unregulated private development have led to poor governance outcomes, such as unequal development and increasing local government debt burdens. And in most countries, there is an insufficient focus on territorial development, which results in fragmented spatial and sectoral governance, and poor cooperation between different local entities (42).

Improving the quality of decentralization within a country is a long-term process, depending on political will and better mechanisms for autonomous and accountable governance. However, local governments embarking on SDG implementation should be proactive in strengthening their discretionary powers, as well as their performance and accountability, using the international mandate and responsibility given to them to insist upon greater local autonomy. Specifically, local governments should strive to:

- i. **Be informed.** Gather evidence-based information to demand greater legislative, fiscal, or executive powers, within specific sectors or in operational processes.
- ii. **Evaluate performance.** Improve accountability for fiscal and expenditure management, and performance on key governance and sector-based indicators.

- iii. **Improve transparency and inclusion** in local government through more open governance, open data and greater public participation.
- iv. **Work in partnership** with higher levels of government and with local communities to improve autonomy and accountability.
- v. **Cooperate with neighboring local governments** through formal or informal mechanisms, for mutual improvements in development outcomes.
- vi. **Form coalitions** of cities and local governments to exchange best practices, and to lobby for greater powers. Convene public support for stronger local government.

Box 25: City Enabling Environment (CEE) Assessment

Countries or cities can use the City Enabling Environment (CEE) rating as a quick diagnostic to assess the institutional environment of local governments within a country (42). For local governments that want to engage with higher levels of government on strengthening local governance for the SDGs, the CEE Assessment allows local governments to benchmark their performance against governance structures in other countries.

The CEE assessment uses ten indicators that cover five areas: local governance, local capacity, financial autonomy, local efficiency, and the national institutional framework. The CEE adopts a qualitative approach by assessing local governance frameworks on a scale of 1 (least effective) to 4 (most effective) for each indicator. The ratings benchmark countries on the environment they provide for city action, areas where further progress is essential and above all, the reforms necessary to improve the city enabling environment in a given country.

For more information on the assessment tool, which was jointly developed by Cities Alliance and UCLG Africa, see the report *Assessing the Institutional Environment of Local Governments in Africa* (<http://bit.ly/1Uvii1L>).

Metropolitan governance and sustainable development

With intensifying urbanization and a global economy that is increasingly concentrated in urban areas, an increasing number of cities are at the heart of metropolitan regions,⁸ with large populations spread over a wide territorial expanse, as a result of urban sprawl. The governance of metropolitan areas will be central to achieving sustainable development, and to ensuring social equity, economic development, and environmental conservation. Metropolitan governance structures and mechanisms have the potential to strengthen local SDG impact, and increase the political and economic clout of local authorities.

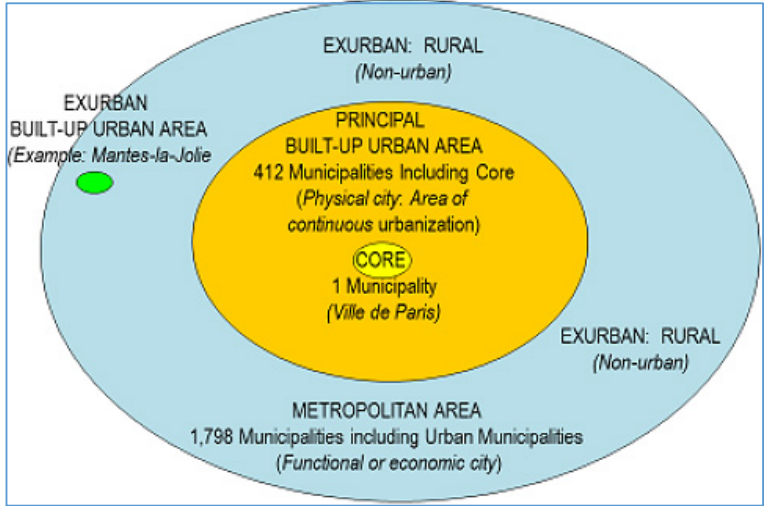


Figure 7 Urban and metropolitan configuration of the Paris city-region (69)

Metropolitan governance structures come in many shapes and sizes, ranging from a comprehensive metropolitan “government” to a variety of forms of cooperation among the numerous jurisdictions in a metropolitan area (44). While the advantages and disadvantages of different types of metropolitan governance continue to be debated, the case for some form of cross-border

cooperation is increasingly evident in metropolitan areas, as the potential of integrated regions become more and more apparent (42). There is evidence that this form of regional thinking, and the use of networks of business, nonprofits, and governments, has resulted in positive efforts to address environment degradation, poverty and inequity, governmental inefficiencies, and regional competitiveness (44).

⁸ A metropolitan region is a territory consisting of a densely populated urban core and its less-populated surrounding territories (satellite cities, towns, rural areas) characterized by housing, infrastructure and economic linkages, and comprising multiple jurisdictions and local governments (69).

In the context of SDG implementation, metropolitan cooperation has the advantage of encouraging a territorial approach to development, and of transcending the urban/rural divide to bring together local governments that may not be able to achieve the SDGs alone. Forms of cooperation may vary, from horizontal cooperation between local governments for delivering specific SDG targets through single projects, to the creation of regional bodies for improved planning, transportation, urban-rural linkages, water and environmental conservation or any other SDG objectives. Inter-municipal cooperation for the SDGs can also benefit smaller cities and towns and help them to achieve sustainable development, by providing common targets around which local authorities can collaborate, and create attractive investment opportunities for the private sector.

For more information, mechanisms, and instruments of metropolitan governance for sustainable development, see the report *Unpacking Metropolitan Governance for Sustainable Development* by GIZ and UN-Habitat (<http://star-www.giz.de/pub?r=38354>).

3.2 Integrated local governance

Successful implementation of the SDGs, with the triple bottom line of social development, economic development, and environmental protection, will require an integrated approach to governance and policy.

Integration in government refers to the coordination of working arrangements where multiple departments or public sector organizations are involved in providing a public service or program (45). An integrated approach to sustainable development emphasizes the social, economic and environmental dimensions of development, by: i) breaking down traditional sector-based governance structures; ii) encouraging coordination between departments and public sector institutions; iii) aligning development priorities across different levels of government, iv) encouraging mutually beneficial decision-making and minimizing trade-offs, and; v) promoting multi-sector planning through joint action.

This is in contrast to the increasing fragmentation of governance today, in which different levels of government, neighboring municipalities and different departments within the same municipal bodies work independently of one another in the same territories, with little coordination. As far back as 1987, the Brundtland report noted that institutions facing the challenges of sustainable development tend to be *'independent, fragmented, working to relatively narrow mandates with closed decision processes'* (46).

Integration between the policies, priorities, and programs of different government bodies is essential for balanced SDG implementation, both at the local and national levels. Forms of integrated local governance include:

- i. **Vertical coordination with national and state/regional governments:** Local governments can work more closely with higher levels of government to jointly address development, and for better-coordinated approaches to planning, implementation, and reporting. Vertical coordination in SDG governance will promote improved resource allocation based on knowledge of local needs and development gaps. The vertically-integrated Nationally Appropriate Mitigation Actions (V-NAMAs) are a good example of coordination between multiple levels of government. They form part of a set of tools and resources developed by GIZ in collaboration with ICLEI to enhance multi-level climate action for sustainable outcomes in key areas, including energy efficiency in public buildings and municipal solid waste management. For more information, go to <http://bit.ly/24LS7wM>.
- ii. **Horizontal coordination across departments/ministries:** Horizontal integration refers to coordinated policy-making across different sectors of government to optimize resource utilization and aim for mutually beneficial outcomes (45). There is a need for governments

to re-evaluate sector-based governance, establish cooperation mechanisms between different departments, and embed cross-cutting issues like environmental protection, gender, economic inclusion, and climate change adaptation and mitigation into government-wide operations. Horizontal integration is critical to the success of the SDGs in order to balance social, economic, and environmental development outcomes.

- iii. **Territorial coordination between local governments:** SDG 11 promotes a place-based approach to development. This must be supported through mechanisms of territorial integration; of policy, planning, infrastructure, and accountability across neighboring administrative borders. Be it through formal structures of regional or metropolitan governance, or informal cooperation between municipalities, territorial strategies aim to improve development linkages within the region to reduce territorial inequalities, protect ecological systems, and improve economic productivity in the region as a whole. Resultant outcomes from territorial coordination may include integrated transportation networks, regionally-coordinated service delivery, controlled urban growth and protection of agricultural lands, and stronger labor market linkages.



Johannesburg is part of South Africa's Gauteng City-Region, in which the provincial government of Gauteng works with 12 municipalities to implement territorial integration for sustainability and economic competitiveness.

Box 26: Territorial integration in Gauteng, South Africa

Territorial integration may be operationalized through a number of instruments, such as regional planning documents, and/or dedicated agencies. The Gauteng City-Region provides an example of different integrating mechanisms for territorial development.

In 2004, the provincial government of Gauteng, South Africa's most populated region, rallied the twelve municipalities in the region to establish the Gauteng City-Region to overcome urban challenges to sustainable development and economic competitiveness. Moving from a sectoral approach to development to a territorial approach, the provincial government established an Integrated Urban Planning Framework 'to guide inclusive, resilient and livable urban settlements through spatial integration.' This required the cooperation of multiple public and private stakeholders, and a collaborative partnership between the provincial and municipal governments. The territorial integration was operationalized in the form of the Gauteng Integrated Infrastructure Master Plan, using spatial data to guide balanced regional development, and the development of Municipal Integrated Transport Plans, which have led to key transportation projects being implemented.

Indicators of success include increased access to services across the region, greater horizontal and vertical coordination of public and private actors, and the development of the 'Strategy for a Developmental Green Economy,' which aims to identify opportunities for economic growth and job creation. Further regional institutions have also been developed such as the Gauteng City Region Observatory (GCRO), which has been integral in finding and providing data, maps and research outputs for the better understanding of the city-region in order to enable informed decision making and effective M&E (46).

The table below proposes examples of institutional arrangements for vertical, horizontal and territorial integration in local SDG governance. Short-term integration can be achieved by bringing stakeholders together for specific projects, while long-term cooperation mechanisms can be embedded over time.

Table 4: Mechanisms for integrated governance

Vertical coordination between multiple levels of government	
Parastatal agencies	Representative institutions of higher levels of government that work in the local or regional sphere, often in an executive capacity. While the risk of parastatal agencies replacing local governments exists, they also have the potential to work with local governments, for greater capacity development and closer cooperation between levels of government.
Vertical funds	Vertical funds link high levels policies with the capacity for implementation at local levels, providing ear-marked funding for programmatic planning, and delivery of policy outcomes.
Special Purpose Vehicles	Special Purpose Vehicles are partnerships formed for joint planning and implementation of specific projects, in which national or regional governments may provide access to long-term finance lending, and retaining oversight of project management, facilitated and/or implemented by local governments (with or without the help of private agencies).
Accountability mechanisms	Through periodic audits or M&E frameworks, multi-level accountability mechanisms can be closely linked with financial allocation decisions for greater efficacy and to better match local needs with resource flows and institutional capacity and mandates.
Inter-departmental or horizontal coordination	
Inter-departmental agencies	May be formed through informal cooperation or local government directives. Inter-departmental agencies are more effective when formed around multi-sector development projects.
Cross-sectoral departments	The Department of Planning, Department of Statistics, or other appropriate cross-sectoral institution may be assigned the additional responsibility of identifying and facilitating multi-sectoral cooperation and action for sustainable development.
Digital platforms	Shared digital platforms (possibly GIS-based) that are accessible to all departments, fostering a culture of data and information sharing that empowers sectoral departments to take more informed decisions within the larger framework of local governance.
Inter-municipal or territorial coordination	
Inter-municipal agency	Formal or informal arrangements of cooperation among the municipal organizations within an identified or implied metropolitan region, for policy decisions that have spillover effects beyond administrative borders.
Sectoral governance boards	Executive boards that amalgamate service delivery across municipal borders, for greater efficiency and fairer distribution of costs and resources. This may be for services such as waste management, fire protection, water supply and sanitation, energy, roads, etc.
Metropolitan governments	Formalized, legal institutions that form an intermediate level of governance in complex metropolitan regions that comprise a large number of local governments.

Box 27: The Urban Nexus approach for integrated governance

A practical form of integrated governance for sustainable urban development is illustrated by the 'Urban Nexus,' a concept developed and operationalized by ICLEI in cooperation with GIZ. The Urban Nexus seeks out opportunities for '*integration in cities and metropolitan regions at the different scales of the built environment and its infrastructures; integration of the region's supply chains and resource cycles; and of the policies and operations of local, regional, sub-national and national jurisdictions*' (47). By challenging traditional sectoral thinking, trade-offs and divided responsibilities that result in poor coordination, the approach guides stakeholders in identifying synergies between sectors, jurisdictions and technical domains so as to enhance institutional performance, optimize resource management and service quality. The Urban Nexus defines water, energy and food supply as its core sectors.

An Urban Nexus solution thus promotes integration. This is manifested as the integration of scales, systems, silos, services and facilities, and social relations and behaviors (47).

- **Integration across Scales:** This relates to the integration of scales of the built environment, infrastructures, local and regional supply chains and resource cycles, and policies and operations of local, regional, sub-national and national jurisdictions.
- **Integration of Systems:** The integration of systems relating to resource extraction and power generation, food cultivation, processing, manufacture, resource supply and waste management by establishing cascades, and cycles of resources between systems.
- **Integration of Services and Facilities:** To avoid the underutilization of valuable fixed assets by integrating services and facilities conventionally separated by sectoral functions.
- **Integration across Sectors:** The consolidation of institutional interests and managerial and professional sectors arising from the organization of urban areas and systems, into separate jurisdictions, utilities, and departments.
- **Integration of Social Relations and Behaviors:** To enable all stakeholders' engagement in the above integration dimensions, and counter legacies of cultural, social, and political division.

Urban and local governments aiming for more integrated development can use the Urban Nexus framework to support SDG implementation. For more information on the Urban Nexus framework, see *Operationalizing the Urban Nexus: Towards resource-efficient and integrated cities and metropolitan regions* by ICLEI and GIZ (<http://bit.ly/1xRVcwV>). For case studies of Nexus solutions identified in various cities, go to <http://www.iclei.org/urbannexus.html>.

3.3 Municipal Finance

Adequate municipal finances will be key to successful SDG implementation, and the fiscal autonomy of local governments as well as their capacities for financial management need to be strengthened for SDG localization.

Regions	Local government share of public sector (as % of total)	
	Revenues	Expenditures
North America	17.8	26.8
South Asia	1.5	16
East Asia	20	40
Southeast Asia	5.3	15.5
Europe	13	23.9
Middle East and Western Asia	N.A	4.6
Eurasia	N.A	26.5
Latin America	4	11.1
Africa	3.2	7.9

Table 5: Local government share of public sector revenues and expenditures [110]

One of the biggest hurdles facing local governments today is the mismatch between their increasing responsibilities and static revenues. Many local governments are unable to fund rising demands for investments in infrastructure and public services. While urban governments in certain countries have strong fiscal bases and are creditworthy, many local governments have weaker fiscal bases, creditworthiness and limited access to long-term funding (49)

Weak local finances may be the result of various factors, including: i) national government restrictions on local powers of revenue generation; ii) limited local capacity to collect revenues and/or deliver services; iii) local revenue generation disincentives from poorly designed fiscal transfer programs, and; iv) low political credibility/accountability of local governments, weakening revenue compliance (49).

Local governments embarking on SDG localization will face even greater financial demands, as the goal-based agenda calls for accelerated outcomes. The Addis Ababa Action Agenda and the 2030 Agenda for Sustainable Development both emphasize the need for increased funding of local governments, for more equitable and sustainable development outcomes; *“the city must be able to better finance the city”* (GTF of Local and Regional Governments, 2015). There are two key considerations for local governments as they seek to finance the SDGs and achieve the targets:

- i. **Local government fiscal frameworks:** These encompass the fiscal frameworks that define the assignment of revenues, expenditures, and the financial autonomy of local governments e.g. in setting taxes, tariffs and fees (51). As such, they are crucial to determining the scope of local government development finance, through own

source revenue generation, national and sub-national government allocations and transfers, and access to sub-sovereign lending mechanisms. Local governments' fiscal frameworks will depend on the political context, the scope and degree of decentralization, and the capacity and maturity of local government administrations. In federal countries, regional or provincial governments will also influence the scale of fiscal devolution to the local level. For local governments, implementing the SDGs will require greater fiscal resources, and the process of localization provides a key entry point for negotiation with higher levels of government to increase financial allocations and gain greater fiscal powers for own-source revenue generation.

- ii. **Other financing mechanisms:** Cities can also explore alternative financing mechanisms for SDG implementation. Urban areas, as a result of their productive economies, potential returns on investment, and high economies of scale are well-placed to attract significant private investments, and the role of credit markets and public-private partnerships is increasingly relevant in financing capital-intensive urban infrastructure projects. Similarly, the high value of urban land can be effectively mobilized through a variety of land-based financing mechanisms to stimulate development. Many alternative financing mechanisms depend on intergovernmental fiscal frameworks, which allow autonomous action by local governments, such as the ability to borrow funds from capital markets. *See section 2.3 in Chapter 2 for a table of financing mechanisms that may be mobilized to achieve the SDGs in cities.*

Box 28: Land readjustment for value capture

Value capture mechanisms are flexible, land-based financing instruments that promote a self-financed approach to urban development. The two examples below look at land readjustment as an innovative form of value capture for financing large-scale urban growth.

Town planning schemes (TPS) are a form of land readjustment practiced in the states of Gujarat and Maharashtra in India. Local governments in Gujarat, in large cities such as Ahmedabad and Surat, use the TP schemes to influence urban growth at the peripheries, and to finance land development, basic infrastructure and affordable housing. The TPS is used to develop parcels of peri-urban and agricultural land for urban development, and requires land owners to transfer up to 40 percent of their land to the government for redevelopment. The land from different owners within a given TP scheme is pooled and reconstituted as urban plots equipped with roads and basic infrastructure. In return, land owners receive cash compensation for the land taken, and retain the remaining 60 percent of their land in the form of serviced plots with a higher value than their previously undeveloped land parcels. The government builds roads and other public facilities on a portion of the land received from the landowners and reserves a portion to sell at auction to cover the costs of infrastructure development. As such, TPS does not replace urban planning, but provides financing for an incremental approach to urban development through a value capture mechanism that captures a portion of the increased land value that accrues to owners of developed urban land (51).

Land readjustment for value capture is also used by Tokyu Corporation, a private railway company that serves suburban Tokyo and connects it to the city center. Tokyu Corporation, one of several transit companies that build, own, and operate Greater Tokyo's railway network, relied heavily on land value capture from 2000 through 2010. Its railway construction costs from the 1960s through the 1980s were financed half by commercial loans and half by the Development Bank of Japan, with proceeds from land sales used to pay off the loans. Gains in land values from the time those properties were in agricultural use to when they were served by rail lines generated the profits. Particularly important to Tokyu's co-development process has been the practice of "land readjustment." Under this system, landholders give up their property and in return receive parcels that are roughly half the size of their original parcels, but that enjoy full infrastructure services (e.g., railway stations, roads, water, and electricity). The remaining land is used for roads and public spaces such as parks and is also sold to cover railway development costs. Tokyu's co-development approach has been internationally viewed as the most successful example of transit value capture in the late twentieth century (52).

While land value capture mechanisms do have drawbacks and may not be appropriate for all projects and contexts, they represent an important instrument of self-financing urban development that can be mobilized in capital-intensive transport and service infrastructure projects.

Local public financial management (PFM)

A key aspect of healthy municipal finance systems is the public management of finances. Public Financial Management (PFM) is a system of rules, procedures, and practices for government to manage public finances. It encompasses budgeting, accounting, auditing, cash management, management of public debt, revenue generation, and public sector reporting on financial operations. PFM seeks to address the key challenges of controlling government spending and making agencies operate efficiently and effectively (54). PFM directly affects the delivery of public goods and services, and promotes the sustainability of development programs and projects by curbing spending to available resources. It ensures that public funds are spent in a cost-effective manner, on projects and initiatives that directly respond to policy objectives and development goals.

Strengthened PFM processes within local government can ensure the attainment of i) fiscal discipline, ii) strategic allocation of resources and, iii) efficient service delivery (54). The SDGs will increase the pressure on available local resources, and local governments will need to transparently and equitably allocate limited finances among a diverse set of SDG targets. An open PFM system has the potential to ensure that SDG targets are prioritized and implemented in alignment with development needs and voter preferences, rather than in response to special interest groups.

For more information, see the World Bank report *Public Financial Management Performance Measurement Framework*, available at <http://bit.ly/1OloyQI>.

Box 29: Participatory budgeting



Figure 8 Examples of participatory budgeting across the world (52)

Citizens' participation in budget formulation and in maintaining accountability is key to empowered participatory governance, especially at the local level. Participatory budgeting is one such enabling process used by municipalities across the world.

Participatory budgeting (PB) is a well-established and innovative way to manage public money, and to engage people in government. It is a democratic process in which community members directly decide how to spend part of a public budget. It enables taxpayers to work with government to make the budget decisions that affect their lives. The process was first developed in Brazil in 1989, and there are now over 1,500 participatory budgets being undertaken around the world. Most of these are at the city level, for the municipal budget (52). In 2015, Paris undertook the world's largest participatory budgeting process with an allocation of EUR 75 million, or 5% of the city's total budget (53). In Porto Alegre, where participatory budgeting was born, public residents are the final decision-makers for approximately 20% of the annual budget (52).

Though each experience is different, most follow a similar basic process: residents brainstorm spending ideas, volunteer budget delegates develop proposals based on these ideas, residents vote on proposals, and the government implements the top projects. For more information on participatory budgeting, and examples of participatory budgeting processes, go to <http://www.participatorybudgeting.org/>.

Box 30: Local Governance Reform Program, Palestinian Territories

Financing non-programmatic, crosscutting capacities such as financial management can be difficult for local governments that are working with constrained budgets. The Local Governance Reform Program (LGRP) supports local governments in modernizing their administrations, introducing transparent financial management and improving the quality of their service provision. GIZ is implementing the LGRP in cooperation with a number of Palestinian partner institutions, including the Ministry of Local Government and the Municipal Development and Lending Fund (MDLF), as well as selected municipalities and civil society organizations.

The MDLF, a Palestinian semi-governmental institution, aims to encourage the flow of financial resources from the Palestinian authority, and various donors, to local government units and other local public entities to improve the delivery of local infrastructure and municipal services, to promote economic development and to enhance municipal efficiency and accountability. In addition, the MDLF aims to increase mobilization of donor assistance, strengthen intergovernmental financial transfers and promote emergency response capacity. GIZ is contributing to the fund, together with 12 other development partners, including KfW development bank.

With financial support from the MDLF via grants and loans, elected local officials and employees of civil society organizations receive training that enables them to contribute to local policy planning and decision-making processes, and to carry out joint initiatives in accordance with policy guidelines for strategic local development and investment planning, which were prepared in cooperation with LGRP partners and local authorities.

For more information, go to <http://www.mdlf.org.ps/>.

3.4 Government capacity development for the SDGs

The scale and breadth of the SDG implementation challenge is immense, and governments at all levels will need to build their institutional capacity to deliver. This section looks at tools and mechanisms to develop local government capacity.

The UNDP defines capacity development as *“the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time.”* In the SDG context, this is especially relevant for local governments, many of which will be taking on expanded mandates and responsibilities as they adopt global goals for implementation.

Capacity development initiatives can focus on strengthening different types of skills and abilities within local governance: i) functional and operational skills, which are needed for efficiency in program and project management, tax collection and procurement processes, and municipal finance management; ii) technical skills, associated with particular areas of expertise in specific sectors, such as water and sanitation engineering, urban planning, integrated waste management, and civil and transport engineering; iii) behavioral norms, which have to do with cultural shifts and changes in attitude among all stakeholders including citizens, be it to reduce waste generation or encourage greater public transit ridership among citizens, or better multi-sectoral program planning among government organizations (57). Interventions for local capacity development will depend on the type of skills or abilities being developed. For example, technical capacities may be enhanced by employing professionals with the necessary skills, or by partnering with an external organization. Capacity assessment tools can help local governments prioritize and optimize investments in capacity development where they are most needed.

Local capacity development initiatives must have clear objectives and performance indicators, must be tailored to specific capacity needs, and have sufficient resources to ensure sustained capacity development. While capacity development is a continuous and long-term process, some mechanisms for building project capacity in the short- and medium-term are indicated below.

- i. **Legislation:** Legal stipulations requiring capacity development plans and/or budget allocations for all implementation programs.
- ii. **Training programs:** Regular staff-training programs or requirements for continued learning among public sector employees.
- iii. **Partnerships:** Project partnerships with higher levels of government, public or private organizations, academic institutions, and civil society groups.
- iv. **External experts:** Consultants from private organizations or academic institutions with sectoral and/or technical expertise.
- v. **Accountability measures:** These may include regular auditing by external organizations, or social accountability through watchdog groups.
- vi. **Technology:** Incorporating digital technologies that ease administrative burden, promote greater cooperation between stakeholders, and allow for greater oversight and transparency in operations.
- vii. **Best practices:** Learning from the experiences and outcomes of initiatives by other cities or local governments.

Box 31: UNDP Capacity Assessment Framework

The UNDP Capacity Assessment Framework is a three-step capacity assessment process, the design of which is driven by an understanding of the motivation behind the assessment. For SDG implementation, local governments may want to assess the capacity of the enabling environment for financial management, monitoring and evaluation, and multi-sectoral planning. The framework can also help assess government departments, public sector institutions or other organizations in terms of: 1) institutional arrangements; 2) leadership; 3) knowledge; and/or 4) accountability. Keeping in mind the limited budgets of local governments, it may be strategic to limit capacity assessment to high-impact, crosscutting issues. Self-assessment and internal assessment models are other low cost options to support capacity development initiatives.

See the UNDP *Capacity Assessment Practice Note* for more details (<http://bit.ly/1tsl45z>).

Box 32: Capacity development for local revenue investment, Peru

Peru LNG, the largest foreign direct investment in Peru's history, consisted of the development, construction, and operation of a liquefied natural gas (LNG) plant, a related marine loading terminal and a natural gas pipeline. The project attracted a large amount of foreign investments and was expected to generate revenues that would increase the country's GDP by 1.5%, resulting in significant royalty flows to the Peruvian government, and the municipalities of the regions in which the project was located. A lack of local government capacity to address the obligations and responsibilities of the project, and to design efficient and effective mechanisms to distribute project royalties to local communities, led to a multi-pronged program of capacity development that was built into project planning, and delivered by a range of project partners (54).

Peru LNG, the private consortium responsible for implementing and operating the project, worked with private consultants to strengthen municipal investment management. Local governments received capacity building to efficiently plan, manage, and make sound investment decisions. At the same time, civil society organizations received support on monitoring revenue inflows and municipal investments in order to increase both transparency and accountability. Municipalities received in-depth technical support and training to resolve bottlenecks in the investment cycle. Investment committees were established in each municipality to promote sound investment practices. Results from the various monitoring and supervision programs were made available to project stakeholders, which include the local population and non-governmental organizations.

The Inter-American Development Bank (IDB) provided a \$5 million loan to the Government of Peru to strengthen its capacity to supervise and monitor the project's environmental and social aspects, and to ensure balanced development in the project's area of influence (55). The governmental entity responsible for supervising the project was also strengthened with over 21 inspectors assigned during construction and 12 for operation.

For more information on the Peru LNG project, go to the IDB report *Environmental and Social Strategy- Peru LNG Project* (<http://bit.ly/28P12IT>).

3.5 Policy frameworks

This section looks at how policies can enable sustainable urban and local development, including national urban policies that can support universal SDG achievement across all cities and human settlements.

Policy frameworks are a set of principles and long-term goals that form the basis of legislation and regulations, giving overall direction to the planning and development for a country/region, or within a sector of operation. They form the scaffolding for development planning and market regulation, and are instrumental in creating an enabling or limiting environment for achieving sustainable outcomes. From more sustainable production and consumption patterns to more equitable distribution of wealth, the SDG agenda demands profound changes in the way people, organizations and governments function. An enabling policy environment for sustainable development creates the appropriate structures of incentives and sanctions to align the personal interests of individuals and businesses with the collective good.

Enabling policy frameworks will constitute the foundation of progressive social and economic development, in achieving climate protection goals, and in meeting ever-increasing global energy demand (59). While policy frameworks are typically framed at the national level, local governments often have some political authority for independent policy-making in sectors such as housing, spatial planning and development, urban services and infrastructure, economic development, environmental protection and resilience etc. Through a wide range of policy instruments such as climate change plans, procurement policies, minimum wage laws, building bylaws, energy ordinances, planning regulations, and tax rebates, local governments can decisively facilitate the achievement of SDG targets, and sustainable development.

Sectoral development policies and priorities will be highly contextual, depending on a number of factors including prosperity, the rate of urbanization or urban development, migration flows, electoral priorities, and vulnerability to disaster risks. Local government powers for policymaking also vary from place to place, with some cities having more political powers and fiscal autonomy for decentralized energy policies, incentivized tax structures, and sustainable development initiatives. Thus, local authorities will need to work with higher levels of government, both to frame enabling sectoral policies in the short-term, as well as to promote greater decentralization for action in the longer run.



Das Sonnenschiff is a small community that is run entirely by solar energy, located in the eco-district of Vauban, a small German town that includes 92 passive houses and 10 'PlusEnergy' houses (60).

While sustainable policies and programs in metropolises and capital cities are often more publicized, many smaller cities and municipalities too, are taking the lead on implementing progressive policies. The German town of Vauban, home to 5000 people, was constructed in the mid-1990s as a 'sustainable model district'. All buildings have low energy-dependence, and its design encourages pedestrians and cyclists. Smaller cities and towns may also find it easier to implement bold sustainability measures; Vauban is a unique example of, "learning while planning." As a result of the highly bottom-up and participatory nature of planning and development, as well as its innovative planning schemes, the town is a model for integrated planning, and low-impact development (60).

National Urban Policies

A National Urban Policy (NUP) is a coherent set of decisions derived through a consultative process, for a common vision that promotes more transformative, productive, inclusive and resilient urban development in the long term (61). National urban policy frameworks are key to shaping urban development within countries by highlighting local priorities, framing territorial development approaches, and by defining legislation that grants local autonomy for action. They enable action for sustainable development across all cities and territories, by promoting and incentivizing sustainable outcomes.

See Section 2.3 on planning and policy frameworks for sustainable development.

NUPs serve two overarching purposes (62):

- i. To mobilize political and institutional support for a concerted effort to shape the trajectory of urban development, and
- ii. To develop the technical capabilities, legal frameworks and financial instruments to implement this commitment over time.

National urban policies provide a coordinating framework to address urban challenges and plan for future development in order to maximize the benefits of urbanization, while minimizing its adverse effects (61). They establish connections between the dynamics of urbanization and the overall processes of national development, and set the stage for empowered local and regional governance, through outcomes such as spatial, cross-governmental institutional architecture, effective political and fiscal devolution, capacity assessment and appropriate capacity development (63).

NUPs may be comprised of a single implementation document or may cover a range of policy measures and instruments that are framed and refined over time. There is no single model or approach for an NUP, and the issues they address will depend on the political, socio-economic, and cultural context of a country and its cities. Table 6 below provides a selection of NUPs from different countries, which illustrate their different forms, and variations in thematic and sectoral focus.

Table 6: National urban policy frameworks

Country		National Urban Policy Frameworks
South America	Brazil	City Statute, Metropolis Statute
	Chile	National Urban Development Policy: Sustainable Cities and Quality of Life
Europe	Czech Republic	Principles of Urban Policy, 2010
	Germany	National Urban Development Policy
Africa	Burundi	Lettre de politique Nationale d’habitat et d’urbanisation, 2008
	Ghana	National Urban Policy Framework, Action Plan
	Kenya	A draft National Urban Development Policy exists
	Mali	Politique Nationale de la Ville, 2014
	Morocco	Villes Sans Bidonvilles (Cities Without Slums), Politique de la Ville
	Nigeria	National Housing and Urban Development Policy
	South Africa	Draft Integrated Urban Development Framework
	Uganda	Uganda National Urban Policy
Asia	China	12th Five Year Plan (2011-2015), National Plan on New Urbanization (2014-2020)
	India	AMRUT, HFA, Swachh Bharat, RUrban Mission
	Philippines	National Urban Development and Housing Framework (NUDHF)
	South Korea	Korea’s Urban Vision for 2020
	Vietnam	Vietnam Urban Upgrading Project, National Urban Upgrading Strategy
Oceania	Australia	Our Cities, Our Future: A National Urban Policy for a Productive, Sustainable and Livable Future
	Samoa	The Samoa National Urban policy: “Sustainable, Resilient and Inclusive City”

National urban policies are an essential component of an enabling policy framework for sustainable urban and local development. They have the potential to facilitate more territorial approaches to development that shape inter-municipal cooperation and development- issues which local governments cannot influence alone. Urban and local governments must work in cooperation with national governments in shaping urban policies that target the development of a balanced system of cities and guide the urbanization process by promoting more compact, socially inclusive, better connected and integrated cities and territories (64). NUPs can help realize the potential of urban areas and urbanization processes in providing a higher quality of life to citizens, and for contributing to the equitable and sustainable development of surrounding regions. For cities and human settlements embarking on SDG localization, NUPs may be instrumental in supporting the achievement of the global goals locally.

Box 33: Ghana Urban Policy Framework

The Ghana National Urban Policy is a participatory and action-oriented document developed with assistance from GIZ, on behalf of the German Federal Ministry for Economic Development and Cooperation (BMZ) and in cooperation with Cities Alliance, as well as the World Bank program “Ghana Urban Transport Project.” It provides an example of how governments may structure the process of formulating an NUP.

In recognition of the inadequacy of urban infrastructure as well as the piecemeal and uncoordinated planning that characterized urban development in Ghana, the government undertook a national urban policy initiative in order to provide a comprehensive framework for urban areas. Over four years, a sequence of workshops, proposals, consultations, reviews, analyses and assessments were mobilized through an inclusive process that involved local communities, traditional leaders, private industry, and NGOs, including the country’s representatives of the urban poor, informal traders and settlement dwellers.

The framework comprises the development of a vision, guiding principles and 12 action areas which are further refined by establishing numerous detailed policy initiatives and key activities. Problems identified include issues such as a weak urban economy, land-use disorder, urban poverty, and inadequate housing and infrastructure (62).

For more information, see the *Ghana National Urban Policy Framework and Action Plan*, available at <https://www.giz.de/>.

Conclusion

In September 2015 world leaders adopted Agenda 2030 and the Sustainable Development Goals, putting the world on a path towards a more prosperous, inclusive, and environmentally sustainable future. The SDGs provide a set of quantitative goals, which can serve as a framework for local and national governments to pull in a common direction.

The shift to sustainable development is an opportunity for urban and local governments to leapfrog traditional development trajectories to more inclusive, environmentally sustainable, and economically successful development pathways. By leading this global shift towards sustainable development, cities stand to improve not only their quality of life, but also to become attractive investment hubs and political leaders in their own right.

This guide provides preliminary suggestions for how cities and local governments might start the process of operationalizing and achieving the SDGs. As underscored, creative problem solving and intensive discussions among key stakeholders are required at all levels to make the SDGs a reality by 2030.

This guide focuses on the early steps of SDG implementation. It does not comprehensively address the complex tasks of program design, budgeting, financing, service delivery, monitoring and evaluation, etc. We do hope that the ideas described here can help support multi-stakeholder discussions on achieving the SDGs in every city and region of the world. Another valuable resource on SDG localization is the *Roadmap For Localizing the SDGs: Implementation and Monitoring at Subnational Level*, a handbook developed by the Global Taskforce of Local and Regional Governments, UN-Habitat and UNDP.

We welcome comments and suggestions for improvement of this guide and request that they be sent to info@unsdsn.org. The online version of this guide [SDGCities.Guide](#) will be updated periodically. Additional resources are available below and on our website: www.unsdsn.org.

References

- [1] **UN-Habitat, UNDP & GTF of Local and Regional Governments.** *Localizing the post-2015 development agenda- dialogues on implementation.* s.l. : United Nations, 2015.
Available at: https://www.uclg.org/sites/default/files/dialogues_on_localizing_the_post-2015_development_agenda.pdf
- [2] **United Nations.** *Transforming our World: The 2030 Agenda for Sustainable Development.* 2015.
Available at: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E
- [3] **Global Taskforce of Local and Regional Governments.** *All SDGs are Local: Towards an Action Agenda in Habitat III.* 2015.
Available at: <http://www.commed-cglu.org/wp-content/uploads/2015/09/All-Goals-are-Local-towards-and-Action-Agenda-in-Habitat-III.pdf>
- [4] **UN-DESA.** *World Urbanization Prospects- The 2014 Revision.* New York: United Nations, 2015.
Available at: <https://esa.un.org/unpd/wup/Publications/Files/WUP2014-Report.pdf>
- [5] **SDSN.** *Why the World Needs an Urban Sustainable Development Goal.* 2013.
Available at: <https://sustainabledevelopment.un.org/content/documents/2569130918-SDSN-Why-the-World-Needs-an-Urban-SDG.pdf>
- [6] **McKinsey Global Institute.** *Urban World: Mapping the economic power of cities.* s.l. : McKinsey & Company, 2011.
Available at: <http://www.mckinsey.com/global-themes/urbanization/urban-world-mapping-the-economic-power-of-cities>
- [7] **UN-Habitat.** *Cities and Climate Change: Global Report on Human Settlements.* London: Earthscan, 2011.
Available at: http://mirror.unhabitat.org/downloads/docs/E_Hot_Cities.pdf
- [8] **Global Taskforce of Local and Regional Governments et al.** *How to Localize Targets and Indicators of the Post-2015 Agenda.* 2014.
Available at: https://www.uclg.org/sites/default/files/localization_targets_indicator_web.pdf
- [9] **Swope, Christopher.** *The 'urban SDG': an explainer.* Citiscope. [Online] August 14, 2014. [Cited: May 20, 2016].
Available at: <http://citiscope.org/story/2014/urban-sdg-explainer>

- [10] **Cities Alliance.** *Sustainable Development Goals and Habitat III: Opportunities for a Successful New Urban Agenda.* 2015.
Available at: <http://www.citiesalliance.org/sites/citiesalliance.org/files/Opportunities%20for%20the%20New%20Urban%20Agenda.pdf>
- [11] **Lucci, Paula.** *Localising the post-2015 agenda: what does it mean in practice?* s.l. : ODI, 2015.
Available at: http://www.delog.org/cms/upload/teaser/ODI_Localising_Post-2015_What_does_it_mean_in_practice.pdf
- [12] **Scruggs, Greg.** Habitat III — the first post-Paris implementation opportunity? . *Citiscopes* [Online] December 17, 2015. [Cited: May 23, 2016.]
Available at: <http://citiscopes.org/habitatIII/news/2015/12/habitat-iii-first-post-paris-implementation-opportunity>
- [13] **United Nations.** *Consensus Reached on New Sustainable Development Agenda to be adopted by World Leaders in September.* [Online] August 2, 2015. [Cited: May 20, 2016.]
Available at: <http://www.un.org/sustainabledevelopment/blog/2015/08/transforming-our-world-document-adoption/>
- [14] **SDSN.** *Getting Started with the Sustainable Development Goals- A Guide for Stakeholders.* New York: SDSN, 2015.
Available at: <http://unsdsn.org/wp-content/uploads/2015/12/151211-getting-started-guide-FINAL-PDF-.pdf>
- [15] **FAO et al,** "Communication for Development: Strengthening the Effectiveness of the United Nations," UNDP, New York, 2011.
Available at: http://www.unicef.org/cbsc/files/Inter-agency_C4D_Book_2011.pdf
- [16] **Roux, Chris.** *The Rwenzori Experience: Lessons learnt towards a model for localization of the Millennium Development Goals.* Kampala: s.n., 2005. UNDP/MDG/SNV Conference on the Localization of the MDGs.
Available at: <http://unhabitat.org.ph/wp-content/uploads/2015/11/CSO-Engagement-Guidebook.pdf>
- [17] **Sarwar, Moizza Binat.** *National MDG Implementation: Lessons for the SDG era.* London: Overseas Development Institute, 2015.
Available at: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10003.pdf>

- [18] **UNDG.** *Mainstreaming the 2030 Agenda for Sustainable Development- Interim Reference Guide to UN Country Teams.* s.l. : UNDG, 2015.
Available at: <https://undg.org/wp-content/uploads/2015/10/Mainstreaming-the-2030-Agenda-UNDG-Interim-Reference-Guide-to-UNCTs-7-October-2015.pdf>
- [19] **International Federation of Red Cross and Red Crescent Societies.** *Baseline Basics.* 2013.
Available at: <http://www.ifrc.org/PageFiles/79595/Baseline%20Basics%2010May2013.pdf>
- [20] **UN-Habitat,** *"The City Prosperity Initiative,"* 2016.
Available at: <http://unhabitat.org/urban-initiatives/initiatives-programmes/city-prosperity-initiative>
- [21] **Government of India Ministry of Urban Development.** **Service Level Benchmarks.**
[Online]. [Cited: May 18, 2016]
Available at: <http://moud.gov.in/policies/servicelevel>
- [22] **Ministry of Urban Development Government of India.** *Handbook of Service Level Benchmarking.* 2015.
Available at:
http://www.wsp.org/sites/wsp.org/files/publications/service_benchmarking_india.pdf
- [23] **Derek Osborn, Amy Cutter and Farooq Ullah.** *Universal Sustainable Development Goals- Understanding the transformational challenge for developed countries.* s.l. : Stakeholder Forum, 2015.
Available at: [https://sustainabledevelopment.un.org/content/documents/1684SF -
SDG Universality Report - May 2015.pdf](https://sustainabledevelopment.un.org/content/documents/1684SF_-_SDG_Universality_Report_-_May_2015.pdf)
- [24] **Umberto Pisano, Lisa Lange, Gerald Berger and Markus Hametner.** *The Sustainable Development Goals (SDGs) and their impact on the European SD governance framework.* Vienna: European Sustainable Development Network (ESDN), 2015.
Available at: [http://www.sd-network.eu/quarterly%20reports/report%20files/pdf/2015-
January-
The Sustainable Development Goals \(SDGs\) and their impact on the European SD govern
ance framework.pdf](http://www.sd-network.eu/quarterly%20reports/report%20files/pdf/2015-January-The_Sustainable_Development_Goals_(SDGs)_and_their_impact_on_the_European_SD_governance_framework.pdf)
- [25] **Kanuri, Chaitanya.** *Targeting NEXUS food security: Vancouver's Regional Food System Strategy.* Bonn: ICLEI, 2014.
Available at:
http://www2.giz.de/wbf/4tDx9kw63gma/03_UrbanNEXUS_CaseStudy_Vancouver.pdf

- [26] **Karst Geurs, Bert van Wee.** Backcasting as a Tool for Sustainable Transport Policy Making: the Environmentally Sustainable Transport Study in the Netherlands. *European Journal of Transport and Infrastructure Research*. 2004, Vol. 4, 1, pp. 47-69.
Available at: http://www.ejtir.tudelft.nl/issues/2004_01/pdf/2004_01_03.pdf
- [27] **Schmidt-Traub, Guido.** *Investment Needs to Achieve the Sustainable Development Goals: Understanding the Billions to Trillions*. Paris : SDSN, 2015.
Available at: <http://unsdsn.org/wp-content/uploads/2015/09/151112-SDG-Financing-Needs.pdf>
- [28] **Global Partnership for Effective Development Cooperation.** *Supporting the SDGs*. [Online]. [Cited May 16, 2016].
Available at: <http://effectivecooperation.org/about/supporting-the-sdgs/>
- [29] **Rahman, Habibur.** *Waste Concern: A Decentralized Community-based composting through public-private-community partnership*. s.l. : UNDP, 2011.
Available at:
http://growinginclusivemarkets.com/media/cases/Bangladesh_WasteConcern_2011.pdf
- [30] **World Economic Forum.** *Social Enterprise: Waste Concern*. [Online] [Cited: May 21, 2016.]
Available at: <http://reports.weforum.org/social-innovation-2013/waste-concern/>
- [31] **OECD.** *Glossary of Key Terms in Evaluation and Results Based Management*. 2002.
Available at: <https://www.oecd.org/dac/2754804.pdf>
- [32] **Public Service Commission of the Republic of South Africa.** *Basic Concepts in Monitoring and Evaluation*. 2008.
Available at: <http://www.psc.gov.za/documents/docs/guidelines/PSC%206%20in%20one.pdf>
- [33] **Ronette Engele, Tania Ajam.** *Implementing a Government-wide Monitoring and Evaluation System in South Africa*. s.l. : World Bank Independent Evaluation Group, 2010.
Available at:
http://siteresources.worldbank.org/EXTEVACAPDEV/Resources/ecd_wp_21_south_africa.pdf
- [34] **Constanze Heydkamp, Steffen Braun, Alanus von Radecki.** *Morgenstadt Benchmarking and City Development Concepts: The Urban Nexus and Sustainable Urban Governance*. Stuttgart : Fraunhofer IAO.
Available at:
http://www.unescap.org/sites/default/files/Final%20Short%20Report_City%20profiling.pdf
- [35] **Open Data Kit.** [Cited: May 17, 2016.] <https://opendatakit.org/>.
Available at: <https://opendatakit.org/>

- [36] **Open Knowledge Foundation.** *Open Data Census.* [Online] [Cited: March 5, 2016.] Available at: <http://census.okfn.org/>
- [37] **Folger, Peter.** *Geospatial Information and Geographic Information Systems: Current issues and future challenges.* s.l. : Congressional Research Service, 2009. Available at: <http://ggim.un.org/3rd%20Prep%20Meeting/Geospatial%20Information%20and%20GIS-Report-for-Congress.pdf>
- [38] **UCLG.** *The Local Dimension of the 2030 Agenda.* [Online] December 4, 2015. Available at: http://www.uclg.org/sites/default/files/en_motion_sdgs_o.pdf
- [39] **UCLG.** *GOLD III- Basic Services for all in an Urbanizing World.* Barcelona : UCLG, 2013. Available at: <https://www.uclg.org/en/issues/access-basic-services-gold-iii-report>
- [40] **UN-Habitat.** *International Guidelines on Decentralization and Access to Basic Services for All.* 2009. Available at: https://www.uclg.org/sites/default/files/guidelines_o.pdf
- [41] **Voices and Views.** *What is the Territorial Approach to Local Development?*[Online] February 18, 2015. [Cited: May 1, 2016.] Available at: <http://capacity4dev.ec.europa.eu/article/what-territorial-approach-local-development>
- [42] **UCLG.** *GOLD I: Decentralization and Local Democracy in the World.* s.l. : UCLG, 2008. pp. 255-278. Available at: http://www.cities-localgovernments.org/gold/Upload/gold_report/gold_report_en.pdf
- [43] **UCLG-Africa & Cities Alliance.** *Assessing the Institutional Environment of Local Governments in Africa.* Morocco : Cities Alliance & UCLG-Africa, 2013. Available at: <http://www.afriquelocale.org/en/component/k2/item/318-publication%20-assessing-the-institutional-environmentof-local-governments-in-africa>
- [44] **Zimmermann, Ulf.** Metropolitan Governance. *Encyclopedia of Public Administration and Public Policy.* s.l. : Taylor & Francis, 2006. Available at: <http://ksuweb.kennesaw.edu/~uzimmerm/Notes/Metropolitan%20Governance.pdf>
- [45] **Report by the Comptroller and Auditor General.** *Integration Across Government.* London : National Audit Office, 2013. Available at: https://www.nao.org.uk/wp-content/uploads/2013/03/10091-001_Integration-across-government.pdf

- [46] **World Commission on Environment and Development.** *Report of the World Commission on Environment and Development: Our Common Future*. s.l. : United Nations, 1987.
Available at: <http://www.un-documents.net/our-common-future.pdf>
- [47] **UN-Habitat.** *International Guidelines on Urban and Territorial Planning: Towards a Compendium of Inspiring Practices*. Kenya : UN-Habitat, 2015.
Available at: <http://unhabitat.org/wp-content/uploads/2015/04/International%20Guidelines%20%20-%20Compendium%20Inspiring%20Practices.pdf>
- [48] **GIZ & ICLEI .** *Operationalizing the Urban NEXUS: Towards resource-efficient and integrated cities and metropolitan regions*. 2014.
Available at: http://resilient-cities.iclei.org/fileadmin/sites/resilient-cities/files/Full_papers/Urban_NEXUS_Publication_ICLEI-GIZ_2014_web.pdf
- [49] **Global Taskforce of Local and Regional Governments.** *Financing Urban and Local Development: The Missing Link in Sustainable Development Finance*. 2015.
Available at: https://www.uclg.org/sites/default/files/background_paper_of_lrgs_on_ffd3.pdf
- [50] **Global Taskforce of Local and Regional Governments.** *SDGs will not be achieved if financing does not reach local levels*. 2015.
Available at: <http://www.uclg-localfinance.org/sites/default/files/BRIEFING%20LOCAL%20GOVS%20ROLE%20IN%20FFD.pdf>
- [51] **GIZ.** *Financing Local Infrastructure- Linking Local Governments and Financial Markets*. Eschborn : GIZ, 2012.
Available at: <http://www.citiesalliance.org/sites/citiesalliance.org/files/Financing%20local%20Infrastructure%20Finance%20final.pdf>
- [52] **Bishwapriya Sanyal, Chandan Deuskar.** *Town Planning Schemes as a Hybrid Land Readjustment Process in Ahmedabad, India. Value Capture and Land Policies*. Cambridge MA : Lincoln Institute of Land Policy, 2012.
Available at: https://www.lincolnst.edu/pubs/2180_Town-Planning-Schemes-as-a-Hybrid-Land-Readjustment-Process-in-Ahmedabad-India
- [53] **Murakami, Jin.** *Transit Value Capture: New Town Co-development Models and Land Market Updates in Tokyo and Hong Kong. Value Capture and Land Policies*. Cambridge MA : Lincoln Institute of Land Policy, 2012.
Available at: https://www.lincolnst.edu/pubs/2198_Transit-Value-Capture-New-Town-Co-Development-Models-and-Land-Market-Updates-in-Tokyo-and-Hong-Kong

- [54] **Department of Budget and Management of Philippines, European Union.** *Public Financial Management Assessment Tool for Local Government Units*. 2012.
Available at: <http://www.dbm.gov.ph/wp-content/uploads/DBM%20Publications/PFMAT%20Book.pdf>
- [55] **Participatory Budgeting Project.** [Online] [Cited: May 20, 2016.]
Available at: <http://www.participatorybudgeting.org/>
- [56] **Mairie de Paris.** *5115 ideas submitted for the 2015 Paris participatory budget*. [Online] March 16, 2015. [Cited: May 20, 2016.]
Available at: http://next.paris.fr/english/english/5115-ideas-submitted-for-the-2015-paris-participatorybudget/rub_8118_actu_154341_port_19237
- [57] **IFC.** Chapter 5: Invest in Capacity Building. *Strategic Community Investment: A Good Practice Handbook for Companies Doing Business in Emerging Markets*. 2010, pp. 49-57.
Available at:
<http://www.ifc.org/wps/wcm/connect/f1c0538048865842b50ef76a6515bb18/12014complete-web.pdf?MOD=AJPERES>
- [58] **Inter-American Development Bank.** *Environmental and Social Strategy- Peru LNG Project*.
Available at: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=793018>
- [59] **Woo, Fiona.** Sustainable urban development: it's time cities give back. *The Guardian*. [Online] August 13, 2013. [Cited: May 18, 2016].
Available at: <https://www.theguardian.com/global-development-professionals-network/2013/aug/13/sustainable-urban-development-regeneration>
- [60] **Angele Cauchois, et al.** *District Vauban: a sustainable model for, "learning while planning"*. s.l. : GIZ & ICLEI, 2014.
Available at: http://www2.giz.de/wbf/4tDx9kw63gma/10_UrbanNEXUS_CaseStory_Freiburg-Vauban.pdf
- [61] **UN-Habitat.** *National Urban Policy: Framework for a Rapid Diagnostic*. Nairobi : UN-Habitat, 2014.
Available at: <http://unhabitat.org/national-urban-policy-framework-for-a-rapid-diagnostic/>
- [62] **UN-Habitat & Cities Alliance.** *The Evolution of National Urban Policies*. Nairobi : UN-Habitat, 2014.
Available at:
<http://www.citiesalliance.org/sites/citiesalliance.org/files/National%20Urban%20Policies.pdf>

- [63] **Habitat III Policy Unit 3.** *Habitat III Policy Paper Framework 3- National Urban Policy.* 2015.
Available at: <https://www.habitat3.org/bitcache/e896d8d210d857cbbb94c8b0fa93504d07d6d61e?vid=566123&disposition=inline&op=view>
- [64] **UN-Habitat.** *New Generation of National Urban Policies.* Nairobi : UN-Habitat, 2014.
Available at: <http://unhabitat.org/new-generation-of-national-urban-policies-2/>
- [65] **Government of Ghana Ministry of Local Government and Rural Development.** *Ghana National Urban Policy Action Plan.* 2012.
Available at: <https://www.giz.de/en/downloads/giz2012-en-ghana-national-urban-policy-action-plan.pdf>
- [66] **Cox, Wendell.** How much of the world is covered by cities? *New Geography.* [Online] July 23, 2010. [Cited: May 18, 2016].
Available at: <http://www.newgeography.com/content/001689-how-much-world-covered-cities>.
- [67] **Rodriguez, J.** EU's new thinking on decentralisation and territorial development. *GREAT Insights Magazine.* June/July 2015, Vol. 4, 4.
Available at: <http://ecdpm.org/great-insights/territorial-development-2/eus-new-thinking-on-decentralisation-and-territorial-development/>
- [68] **Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP).** *Planning and management for coastal aquaculture management.* Rome: FAO, 2001.
Available at: <http://www.fao.org/3/a-y1818e.pdf>
- [69] **Demographia.** *Demographia World Urban Areas 12th Annual Edition.* 2016.
Available at: <http://www.demographia.com/db-worldua.pdf>
- [70] **IISD News.** *Colombia Updates Stakeholders on National Efforts to Implement the SDGs.* [Online] March 4, 2016. [Cited: May 18, 2016].
Available at: <http://sd.iisd.org/news/colombia-updates-stakeholders-on-national-efforts-to-implement-the-sdgs/>
- [71] **World Health Organisation- Regional Office for the Eastern Mediterranean.** *Civil Registration and Vital Statistics.* [Online] [Cited: June 19, 2016.]
Available at: <http://www.emro.who.int/civil-registration-statistics/about/>

Annexures

ANNEX 1: Inclusion of the local level in global outcome documents

United Nations General Assembly 2015

In addition to Sustainable Development Goal 11, which calls for sustainable cities and human settlements, the 2030 Agenda for Sustainable Development acknowledges the crucial role of sustainable urban development to the quality of life of people in Paragraph 34:

“We recognize that sustainable urban development and management are crucial to the quality of life of our people. We will work with local authorities and communities to renew and plan our cities and human settlements so as to foster community cohesion and personal security and to stimulate innovation and employment. We will reduce the negative impacts of urban activities and of chemicals, which are hazardous for human health and the environment, including through the environmentally sound management and safe use of chemicals, the reduction and recycling of waste and the more efficient use of water and energy. And we will work to minimize the impact of cities on the global climate system. We will also take account of population trends and projections in our national rural and urban development strategies and policies. We look forward to the upcoming United Nations Conference on Housing and Sustainable Urban Development to be held in Quito.”

World Conference on Disaster Risk Reduction

The Sendai Framework for Disaster Risk Reduction 2015-2030 (<http://www.unisdr.org/>) places a strong emphasis on local action for disaster risk reduction and resilience throughout the document, with the following significant mentions:

“While the enabling, guiding and coordinating role of national and federal State Governments remain essential, it is necessary to empower local authorities and local communities to reduce disaster risk, including through resources, incentives and decision-making responsibilities, as appropriate;”

- Paragraph 19 (f)

“While the drivers of disaster risk may be local, national, regional or global in scope, disaster risks have local and specific characteristics that must be understood for the determination of measures to reduce disaster risk;”

- Paragraph 19 (i)

“To ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge in disaster risk assessment and the development and implementation of policies, strategies, plans and programs of specific sectors, with a cross-sectoral approach, which should be tailored to localities and to the context;”

-Paragraph 24 (i)

“To enhance collaboration among people at the local level to disseminate disaster risk information through the involvement of community-based organizations and nongovernmental organizations.”

-Paragraph 24 (o)

“To empower local authorities, as appropriate, through regulatory and financial means to work and coordinate with civil society, communities and indigenous peoples and migrants in disaster risk management at the local level;”

-Paragraph 27 (h)

“To encourage the revision of existing or the development of new building codes and standards and rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable within the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, survey and enforce such codes through an appropriate approach, with a view to fostering disaster-resistant structures;”

-Paragraph 30 (h)

“To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas;”

-Paragraph 33 (m)

“The United Cities and Local Government organization and other relevant bodies of local governments to continue supporting cooperation and mutual learning among local governments for disaster risk reduction and the implementation of the present Framework.”

-Paragraph 48 (i)

Third International Financing for Development Conference

The Addis Ababa Action Agenda (<http://www.un.org/>) has an extensive mention dedicated to local and subnational financing and action, in Paragraph 34 of the text:

“We further acknowledge that expenditures and investments in sustainable development are being devolved to the subnational level, which often lacks adequate technical and technological capacity, financing and support. We therefore commit to scaling up international cooperation to strengthen capacities of municipalities and other local authorities. We will support cities and local authorities of developing countries, particularly in least developed countries and small island developing States, in implementing resilient and environmentally sound infrastructure, including energy, transport, water and sanitation, and sustainable and resilient buildings using local materials. We will strive to support local governments in their efforts to mobilize revenues as appropriate. We will enhance inclusive and sustainable urbanization and strengthen economic, social, and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning, within the context of national sustainable development strategies. We will work to strengthen debt management, and where appropriate to establish or strengthen municipal bond markets, to help subnational authorities to finance necessary investments. We will also promote lending from financial institutions and development banks, along with risk mitigation mechanisms, such as the Multilateral Investment Guarantee Agency, while managing currency risk. In these efforts, we will encourage the participation of local communities in decisions affecting their communities, such as in improving drinking water and sanitation management. By 2020, we will increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation, and adaptation to climate change, and resilience to disasters. We will develop and implement holistic disaster risk management at all levels in line with the Sendai Framework. In this regard, we will support national and local capacity for prevention, adaptation and mitigation of external shocks and risk management.”

2015 United Nations Climate Change Conference (COP21)

The Paris Agreement (<https://unfccc.int/>), which includes an aim to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels, briefly acknowledges the obligation of Parties to local communities, and the role of local knowledge systems:

“Parties recognize that adaptation is a global challenge faced by all with local, subnational, national, regional and international dimensions, and that it is a key component of and makes a contribution to the long-term global response to climate change to protect people, livelihoods and ecosystems, taking into account the urgent and immediate needs of those developing country Parties that are particularly vulnerable to the adverse effects of climate change.”

-Article 7 (2)

“Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science

and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.”

-Article 7 (5)

“Capacity-building should be country-driven, based on and responsive to national needs, and foster country ownership of Parties, in particular, for developing country Parties, including at the national, subnational and local levels....”

-Article 11 (2)

ANNEX 2: Mapping SDG targets onto One NYC targets

The exercise below maps SDG targets on to the targets of the long-term development plan of the city of New York, to illustrate how urban and municipal governments may review existing policies and development plans in order to select the SDG targets for localization. The target mapping exercise below is drawn from an upcoming report of the SDSN.

SDG targets	One NYC targets	
Target 1.2: By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.	Lift 800,000 New Yorkers out of poverty or near poverty by 2025	Increase median household income from \$52,250
Target 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	Increase the average number of servings of fruits and vegetables that adult New Yorkers eat per day by 25 percent, from 2.4 to 3 servings, by 2035	
Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.	Reduce infant mortality rate by 20 percent to achieve a historic low of 3.7 infant deaths per 1,000 live births citywide by 2040 up from 4.6, and dramatically decrease the racial/ethnic disparity	
Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	Reduce overall premature mortality by 25% from 191.09 to 143.32 per 100,000 by 2040 and dramatically decrease racial and ethnic disparities	Increase the % of adult NYers with serious psychological distress who have received counseling or taken prescription medication for a mental health problem up from 44%
Target 3.6: By 2020, halve the number of global deaths and injuries from road traffic	Reduce number of traffic fatalities to zero from 255	Reduce the number of serious injuries due to traffic collisions to zero from 3,766

accidents		
Target 3.b: Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.	Increase % of NYers that feel they have received the medical care they needed in the past 12 months up from 89%	
Target 4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.	All four-year-olds receive access to free, full-day, high-quality pre-kindergarten up from 53,230	
Target 4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	Increase the number of NYC public school graduates attaining associate's or bachelor's degrees	
Target 5.2: Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.	Decrease the % of domestic violence victims turned away from shelters from 48%	
Target 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in	Increase total City spending with Minority and Women-owned Business Enterprises (M/WBEs) to	Build a government workforce reflective of the diversity and inclusion of all New York City communities

political, economic and public life.	\$16 billion over the next ten years	
Target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water	Maintain full compliance with Safe Water Drinking Water Act with 0 violations	
Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	Increase the Combined Sewage Overflow (CSO) capture rate from 78 percent in 2014	Maintain backlog of catch-basin repairs under 1 percent.
Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services	Reduce customer-hours of weather-related utility and transit service outages	
Target 8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries	Outperform National Economic Growth NYC GCP v. US GDP	
Target 8.2: Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on high-value-added and labor-intensive sectors.	Increase the share of private sector jobs in innovation industries from 15 percent today to 20 percent in 2040	
Target 8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through	Spur more than 4.9 million jobs by 2040	

access to financial services				
Target 8.6: By 2020, substantially reduce the proportion of youth not in employment, education or training	Increase workforce participation from 61%	Increase the number of New York City public school graduates attaining associate's and bachelor's degrees		
Target 9.c: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020	Increase % of Myers with affordable, reliable, high-speed Internet service at home to 100% by 2025 up from 78.1%	Increase % of commercial enterprises with access to fast, affordable, reliable connection at 1 gigabits per second (gbps) by 100% by 2025	Increase the percentage of Myers with access to free public Wi-Fi within 1/8th mile from home to cover a crucial mass of public space up from 13.9%	
Target 10.1: By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	Lift 800,000 New Yorkers out of poverty or near poverty by 2025			
Target 10.2: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	Systematically track performance of equity outcomes to ensure OneNYC is making a positive and equitable impact on all New York City communities			
Target 11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.	Accommodate 8.4 million households within the region by 2040, an increase of 1.1 million households units by 2040	Finance new construction of 80,000 affordable housing units and preserve 120,000 units by 2024	Preserve 120,000 of affordable housing by 2040.	Support creation of 240,000 new units by 2024; and an additional 250,000 to 300,000 by 2040
Target 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road	Increase rail transit capacity into CBD between 8-9am by 20%	Double the number of cyclists, tracked by the NYC In-Season Cycling	Ensure the average NYer can reach 1.8 million jobs by transit within 45	Increase the share of Myers that can access at least 200,000 jobs within 45

safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.	by 2040 up from 627,890 (trips, passengers?)	indicator by 2020 from 437 to 844	minutes by 2040, an increase of 25% up from 1.4 m	minutes by transit to 90% up from 83%
Target 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	Increase in number of public cultural and civic events in community districts with the highest rates of poverty and lowest rates of public cultural and civic programming			
Target 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	Increase the percentage of households in the 100-year floodplain with flood insurance policies up from 55%	Increase the square footage of buildings upgraded against flood risk.	Increase the number of homes elevated through the Build it Back Program, 31 underway	
Target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	Reduce the city's greenhouse gas emissions by 80% by 2050 relative to 2005 levels	Achieve best air-quality ranking among major US cities by 2030 up from 4th	Reduce the city's greenhouse gas emissions by 80% by 2050 relative to 2005 levels	
Target 11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	Increase percent of New Yorkers living within walking distance to a park from 79.5 percent to 85 percent by 2030			

Target 11.b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels	Eliminate disaster-related long-term displacement (more than one year) of NYers from homes by 2050	Reduce the Social Vulnerability Index for neighborhoods across the city	Reduce average annual economic losses resulting from climate related events, from \$1.7B
Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Reduce volume of DSNY-collected refuse (excluding material collected for reuse/recycling) by 90 percent relative to 2005 baseline of 3.6M tons	Increase curbside and containerized diversion from a rate of 15.4 percent in 2014	Increase citywide diversion rate (including all streams of waste: residential, commercial, construction and demolition, and fill) from current state of 52 percent
Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Increase the linear feet of coastal defenses completed up from 36,500	Increase the capacity of accessible emergency shelters to 120,000 up from 10,000	
Target 14.5: By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	Increase the acres of coastal ecosystems restored		
Target 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world	Increase number of tax lots remediated since beginning of 2014 to 750 by 2019.		
Target 16.1: Significantly reduce all forms of violence and related death rates everywhere.	Decrease crime rate from 110,023 crimes		

<p>Target 16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all</p>	<p>Decrease the average daily population (ADP) in jail from 11,408</p>
<p>Target 17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>	<p>Increase the rate of volunteerism among NYers to 25% by 2050</p>

