

Report

# Projecting progress

## Are cities on track to achieve the SDGs by 2030?

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October 2016

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# Acknowledgements

The authors would like to thank Stephen Commins (UCLA), Gordon McGranahan (IDS), Shea Rutstein (DHS), Emma Samman (ODI), Joanna Rea (ODI), Helen Dempster (ODI), Clare Cummings (ODI) and Elizabeth Stuart (ODI) for their comments on and peer reviews of earlier drafts of this report. We are also grateful to Steven Lally and Amanda Telias Simunovic for research assistance. Staff from Bogota City Council, Nairobi City County, the

Kenya National Bureau of Statistics and the Municipal Corporation of Greater Mumbai as well as Muchiri Nyaggah (Local Development Research Institute) provided their assessments of the available data on SDG 11: the ‘cities’ goal. Emily Stead provided editorial support and Ben Tritton managed layout and production. Responsibility for the views expressed and for any errors of fact or judgement remains our own.

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# Abbreviations and acronyms

<b>APHRC</b>	African Population and Health Research Center	<b>NUA</b>	New Urban Agenda
<b>DHS</b>	Demographic and Health Survey	<b>ODI</b>	Overseas Development Institute
<b>DRC</b>	Democratic Republic of Congo	<b>OEIWG</b>	Open-Ended Intergovernmental Expert Working Group
<b>FED</b>	Incentive Fund for Social Performance and Results Achievement (Lima)	<b>PPWSA</b>	Phnom Penh Water Supply Authority
<b>GDP</b>	Gross Domestic Product	<b>SDG</b>	Sustainable Development Goal
<b>HIC</b>	High-Income Country	<b>SDI</b>	Shack/Slum Dwellers International
<b>IAEG</b>	Inter-Agency Expert Group	<b>SDSN</b>	Sustainable Development Solutions Network
<b>INEGI</b>	Instituto Nacional de Estadística y Geografía	<b>SPARC</b>	Society for the Promotion of Area Resource Centres (Mumbai)
<b>JICA</b>	Japan International Cooperation Agency	<b>UMIC</b>	Upper-Middle-Income Country
<b>JMP</b>	Joint Monitoring Programme	<b>UN</b>	United Nations
<b>LIC</b>	Low-Income Country	<b>UNDESA</b>	UN Department of Economic and Social Affairs
<b>LMIC</b>	Lower Middle-Income Country	<b>UNDP</b>	UN Development Programme
<b>MCGM</b>	Municipal Corporation of Greater Mumbai	<b>UN-Habitat</b>	UN Human Settlements Programme
<b>MDG</b>	Millennium Development Goal	<b>UNICEF</b>	UN Children's Fund
<b>MICS</b>	Multiple Indicator Cluster Survey	<b>UNISDR</b>	UN Office for Disaster Risk Reduction
<b>MPI</b>	Multidimensional Poverty Index	<b>WHO</b>	World Health Organization
<b>NSDF</b>	National Slum Dwellers Federation (Mumbai)	<b>ZHPF</b>	Zimbabwe Homeless People's Federation
<b>NSO</b>	National Statistical Office		

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# 1. Introduction

The 21st century is becoming the urban century. Urban populations are growing quickly in many developing countries, particularly in Asia and Africa (UNDESA, 2014), which are currently the least urbanised regions to date. Cities have been drivers of economic growth, innovation and opportunity for centuries and, despite technological advances that could make physical proximity less relevant and the congestion and pollution that result from the concentration of people, people continue to choose to live and work together in large and medium-sized agglomerations (Glaeser, 2011).

But as well as being sites of opportunity, cities are home to deep inequalities. In the developing world, access to basic services and livelihoods in urban areas remains precarious for many, with the number of people living in slum settlements set to treble between now and 2050 (UNDESA, 2013). Cities face deeply rooted sustainability challenges too: they produce a high level of pollution, consume large amounts of energy and, given their high concentration of people, they are vulnerable to the human, social and economic loss caused by climate change and natural disasters.

With cities offering both great opportunities and deep challenges, how urbanisation processes are managed is critical. There is a window of opportunity now: how urban growth is managed in the developing world, the type of infrastructure that is put in place and the jobs and city economies that are developed will be crucial to sustainable development for decades to come.

In this context, it is crucial and timely to reflect on how cities can implement an ambitious global agenda like the Sustainable Development Goals (SDGs), including SDG 11 on cities: ‘Make cities inclusive, safe, resilient and sustainable’ (UN, 2015). Agreed in 2015, this ambitious agenda sets 17 goals and 169 targets in areas of critical importance – people, planet, prosperity, peace and partnership – and its implementation is now under way. Further, Habitat III, the major global summit on sustainable urban development that took place in Quito in October 2016, also discussed the means of implementing the SDGs in urban areas, providing an opportunity to align these two major global processes (see Box 1 for a brief overview of cities in global agendas, including Habitat III).

Without a well-managed urban transition in developing countries, it is difficult to see how the SDGs could be

achieved. Further, city governments are responsible for implementing many of these goals. Although the level of decentralisation varies by country, it is often within the remit of local governments to deliver the basic services (e.g. water, sanitation and land-use decisions leading to housing provision, among many others) that are clearly linked to many of the goals.

In short, to achieve the SDGs, local governments need to be on board (Lucci and Lynch, 2016). Yet, with few exceptions (UNSDSN, 2016; Global Taskforce of Local and Regional Governments et al., 2016), little work has been done to date on the implementation of the SDGs at city level. More fundamentally, we know very little about a more basic question: *How likely is it that cities will achieve these goals by 2030 on current trends?*

This report draws on the Overseas Development Institute’s (ODI’s) ‘Projecting Progress: Reaching the SDGs by 2030’ (Nicolai et al., 2015, 2016a, 2016b, 2016c). It explores how likely it is that 20 cities in the developing world will achieve a selection of SDG targets. By providing examples of how cities are likely to fare, projecting forward current trends, this report helps identify priority actions – pointing to areas where progress needs to be accelerated or indeed existing trends must be reversed to achieve the goals. We hope the report’s findings and recommendations will act as a useful tool for local officials, campaigners and citizens to identify those areas where stronger efforts are needed and to reiterate the urgency to act. Similar exercises could be conducted locally using cities’ own data sources.

As part of this exercise, the report also reflects on many of the data limitations faced when monitoring SDG progress at city level (and that we faced in our attempt to create the projections, which need to be treated with caution as a result). It also includes a more thorough assessment of data availability for SDG 11 (on cities) for four cities.

The structure of the report is as follows:

- Section 2 describes the report’s approach and methodology.
- Section 3 discusses SDG projections based on current trends for 20 cities.
- Section 4 provides a more thorough assessment of the data available to monitor progress on SDG 11 for four cities.
- Section 5 concludes providing recommendations for monitoring and implementation of the SDGs at a city level.

## Box 1: Cities in global agendas

The recognition of cities' relevance to sustainable development is hardly new. Habitat I, the first UN Conference on Human Settlements, took place 40 years ago, with governments back then already making qualified commitments for universal water and sanitation and the upgrading of informal settlements. In fact, many of the commitments relevant to cities discussed today as part of the SDGs and, most recently, in UN- Habitat III's New Urban Agenda (NUA) were already agreed in Habitat I, and reiterated in Habitat II.

This suggests that, while there is often agreement on what needs to be done, global urban agendas like UN- Habitat I and II have failed to deliver action. Reflecting on what drives the effectiveness of global urban agendas, Satterthwaite (2016a) suggests that initiatives that have included very simple action-oriented points directed at urban governments have been more successful in stimulating change at the local level (e.g. Local Agenda 21\* and, more recently, the Make my City Resilient initiative). While this may seem common sense, many global agreements on urban issues are still made primarily by national governments and the texts can be complex and long-winded (the outcome document of Habitat II had over 100 pages; *ibid.*).

It is also useful to reflect on how the goals preceding the SDGs, the Millennium Development Goals (MDGs), dealt with urbanisation and targets directed at cities. The MDGs were praised for their simplicity, but they did not make any explicit reference to the role of cities in development or that of local governments in the delivery of the goals. Target 7D, the 'slums target' – set with the aim of achieving a significant improvement in the lives of at least 100 million slum-dwellers by 2020 – was the only explicit urban reference (Lucci, 2014).

While this target has been achieved (UN, 2014), the number of slum-dwellers has continued to grow. The way it was framed was heavily criticised for lacking ambition (many targets sought reductions of 50% by 2015 but this would affect only 10–15% of the slum population by 2020), vague framing (referring to 'improvements in the lives of slum-dwellers' without much specificity) and creating perverse incentives. Many governments sought to decrease the slum populations through displacement and forced evictions rather than by upgrading the quality of the infrastructure *in situ* or consulting with slum-dwellers (Huchzermeyer, 2013; Lucci, 2014).

The SDGs have addressed some of the criticisms made of the MDGs, with many more references to local governments and urbanisation, including a specific goal targeting cities (SDG 11). While SDG 11 is the first point of call for cities' implementation of the SDGs, many other goals include relevant issues (see Lucci, 2014; UNSDSN, 2016; Global Taskforce of Local and Regional Governments et al., 2016 for a more detailed discussion). As with previous global agendas, the SDGs have a broadly accepted set of commitments but are less specific about how targets are going to be achieved in cities, particularly in terms of accessing finance or improving local government capacities and powers to do so.

Habitat III's NUA, agreed in October 2016, the first year of SDG implementation, provides a platform to focus on the means of implementation of the SDGs in urban areas. An outcome document that offered a simple guide for local action on the SDGs directed at city governments could have helped obtain buy-in from city authorities around the world on SDG implementation. Yet, judging by the agreed outcome document,\*\* there is a risk that the conference will see some of the pitfalls of previous global agendas, as it is fairly complex, directed at national governments and in danger of creating competing commitments and monitoring and reporting mechanisms with the SDGs.

However, there is still an opportunity to streamline these agendas and accountability systems and ensure they reach local actors, who ultimately are responsible for delivering many of the commitments made in the SDGs.

\*Local Agenda 21 was the action plan agreed as part of the UN Earth Summit in 1992 to help local governments plan and implement sustainable development. Making Cities Resilient was an initiative launched by the UN Office for Disaster Risk Reduction (UNISDR) in 2010; more than 2,600 cities and municipalities across 98 countries signed up (Satterthwaite, 2016a).

\*\*[www.habitat3.org/bitcache/462d74cfb2e04878ff43c8fcca48037daf73d84f?vid=582559&disposition=inline&op=view](http://www.habitat3.org/bitcache/462d74cfb2e04878ff43c8fcca48037daf73d84f?vid=582559&disposition=inline&op=view)

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# 2. Approach and methodology

This section explains how we constructed the projections to assess how likely it is cities will achieve selected SDGs by 2030 (Section 2.1), as well as the approach used to assess data availability for the cities goal, SDG 11 (Section 2.2).

## 2.1 Projecting progress

Our methodology draws on Nicolai et al. (2015, 2016a), which offered the first systematic attempt to project progress across the SDG agenda at global, regional and country level. We apply the same approach at the city level. However, the focus on cities restricts the scope of analysis, as only very limited internationally comparable data that are measured consistently over time exist at this level. This affects what datasets can be used, the cities that are selected and what targets are examined. We discuss these issues in detail below.

### Data sources and city selection

We focus our analysis only on those cities that have Demographic and Health Survey (DHS)<sup>1</sup> data available that are representative at the city level for at least two points in time. The surveys are particularly relevant as they provide multiple data points for many developing countries over the past 20 years. Specifically, we examine only cities for which DHS reports explicitly refer to city-level data for a range of indicators.<sup>2</sup> By doing so, we can be confident that the data presented provide a good indication of how the cities are progressing. We selected all urban agglomerations in developing countries with populations over 1 million in 2015 (the minimum

threshold to classify as a medium-sized city) that met the following criteria:

- The city had two DHS that were more than five years but less than 15 years apart (on average they were around 10 years apart).
- The most recent survey was conducted in 2010 or later.
- Data were representative at the city level<sup>3</sup> (and city level findings were presented in the DHS final reports for both surveys).
- Only one city, typically the largest, was selected per country.<sup>4</sup>

Figure 1 shows the 20 cities that met these criteria (for more details on which DHS survey years were used and how city sampling units by DHS were defined, see Table A1 in Annex 1).<sup>5</sup>

### Target selection

The SDGs consist of an integrated agenda across 17 goals and 169 targets. Projections for all the targets under all the goals are not feasible for several reasons: not all targets are quantifiable, and, for those that are, only limited internationally comparable data are available. While Nicolai et al (2015, 2016a) were able to create projections for 17 targets (one for each goal), limited data at the city level meant we could cover only eight SDG targets and 10 related indicators.<sup>6</sup> These are listed in Table 1. Note that, in addition to data availability, we also considered the relevance of targets and indicators in urban contexts.

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1 DHS data focus on issues that tend to relate to reproductive health but also include some household-level variables such as housing conditions, providing insights into the past performance of many SDG indicators. They are a main data source for a range of international comparisons, for example the UN Development Programme's (UNDP's) Multidimensional Poverty Index (MPI). Unfortunately, there is not enough relevant data available from other internationally comparable datasets, such as Multiple Indicator Cluster Surveys (MICS).

2 Often, the DHS reports do not provide city-level information for all the indicators that they collected data on. In these instances, we sourced data directly from the DHS micro-dataset.

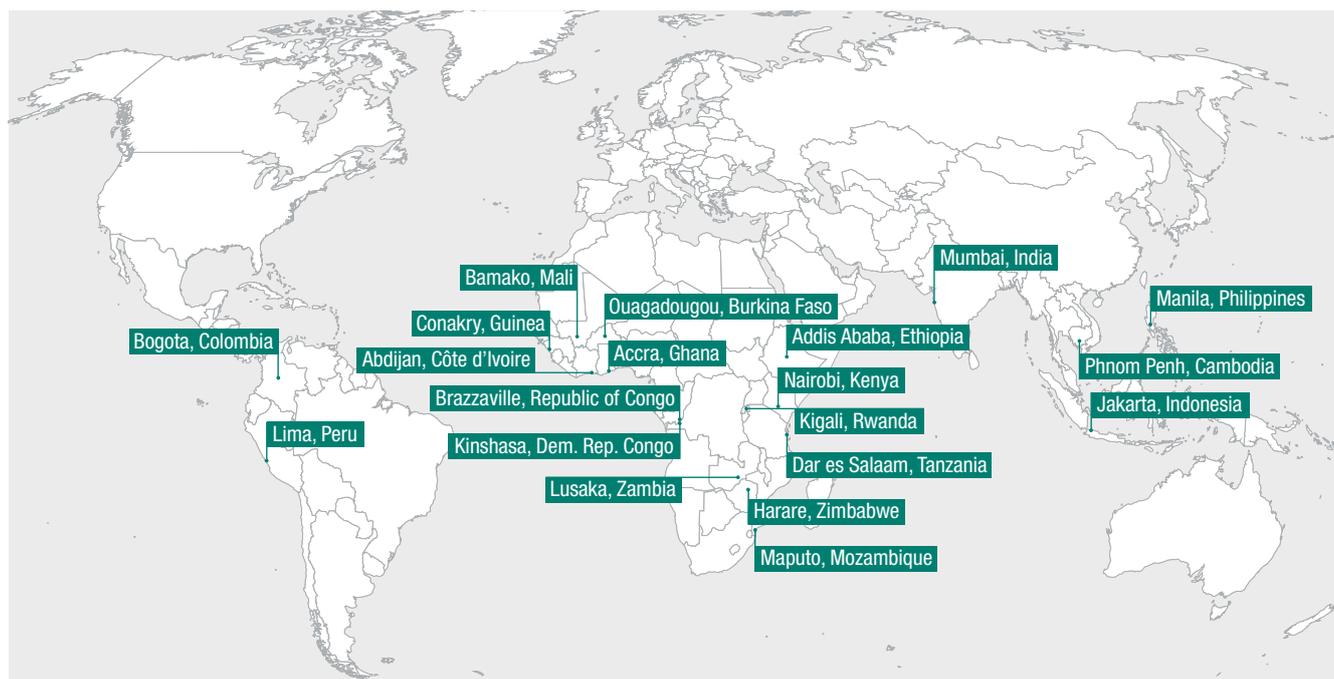
3 In some instances, we included cities where the data were available for the province for which the city constituted the vast majority of the population. For example, data for Accra are based on the region of Greater Accra, which includes the surrounding villages. This was deemed necessary as the boundaries that constitute a city can vary between cities and over time. The exact sampling unit for each of the cities is shown in Annex 1 Table A1..

4 This varied depending on what DHS data were available. Often, data are representative only for the largest city or for the capital city. In most cases, the capital city was also the largest.

5 Note that we made a few exceptions to our criteria. We included Mumbai even though the latest survey is from before 2010 because it is one of the largest cities in South Asia and the only one in the sub-region with two data points. We excluded Port au Prince in Haiti as historical change reflected the damage caused by the earthquake, and Yerevan in Armenia as we did not have meaningful comparators.

6 We did not report grades for cities when data were not available or if the definition of particular indicators changed between surveys. For example, the age group that was categorised as 'secondary school age' varied between some of the surveys, and when this occurred we did not report grades.

**Figure 1: Selected cities for our analysis**



### Steps to calculate the projections

Most of the projections in ODI's global scorecard (Nicolai et al., 2015) were sourced from leading international organisations. However, these projections do not exist at the city level. Therefore, this city scorecard required ODI to develop its own projections for all the targets. This approach is consistent with ODI's regional scorecards (Nicolai et al., 2016a, 2016b, 2016c), which follow the practice of leading international organisations by basing projections into the future on past performance.

We used four main steps to calculate the scores:

1. Calculate current rates of progress based on recent trends: We calculated the average annual change in the relevant indicator over the past decade using the most recent 10 years of data (the formula used is included in Annex 1).<sup>7</sup>
2. Project what would be achieved in 2030 if current trends continue: We determined levels of achievement by 2030 by assuming the current rate of progress would continue to 2030.
3. Determine how much faster progress would need to be to achieve the SDGs: We applied a standard approach to each indicator to determine how much faster the rate of progress would need to be to achieve the relevant SDG.
4. Assign grades based on the projected rate of progress: We assigned grades in order to make it easy to

understand how much faster the rate of progress would need to be for the SDG target to be achieved (Table 2).

Projections of progress to 2030 are 'graded' based on how close to the target cities will be if current trends continue. For example, on target 7.1 (universal access to energy), the percentage of people with access to electricity is 63% in Lusaka and the projection for 2030 is 94%; the SDG target is 100%. The continuation of current trends would place Lusaka more than halfway towards the goal. This results in a B grade, based on the criteria in Table 2. Another example is target 2.2 (end all forms of malnutrition): the percentage of stunted children in Phnom Penh is expected to fall only from 18% to 12% by 2030. This target receives a D grade because the continuation of current trends would place Phnom Penh over a quarter of the way to the goal. Progress will need to be more than three times faster than current trends in Phnom Penh to ensure achievement by 2030.

DHS sample a small number of households that are representative of a wider area, which in this case is the relevant city. As a result, there are significant margins of errors around the estimates for each of the indicators. As such, some of the change in a given indicator could owe partly to sampling error. To address this issue so we can be as confident as possible with the grades we have calculated, we adopt two guiding principles. The first is that, once an indicator reaches a level of 95% or above, an A grade is

<sup>7</sup> For illustrative purposes the formulas included in Annex 1 show data being available in 2015 and there being 10 years between surveys. However, sometimes the most recent data were for earlier than 2015 and the gap between surveys was larger or smaller than 10 years. In these instances, we adjusted the formula accordingly.

**Table 1: Selected targets and indicators using DHS for 20 cities**

SDG	SDG target	Indicator
Goal 2 Zero hunger	2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	Stunting of children under five*
Goal 3 Good health and well-being	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	Under-five mortality
Goal 4 Quality education	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	Net secondary school attendance rate
Goal 6 Clean water and sanitation	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	Access to piped water in premises**
Goal 6 Clean water and sanitation	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	Access to flush toilets***
Goal 7 Affordable and clean energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	Access to electricity in household
Goal 8 Decent work and economic growth	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	Employment rate (listed separately for males and females)
Goal 11 Sustainable cities and communities	11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	Improved quality of flooring  Overcrowding  Here we use two indicators to show some of the nuances of access to adequate housing in urban contexts.*

Note: Further detail behind the definition and choice of the indicators is included in Annex 1.

\* This is based on the standard measure of stunting: a height for age 2 standard deviations below the median according to World Health Organization (WHO) Child Growth Standards.

\*\* Sourced from the WHO/UN Children's Fund (UNICEF) Joint Monitoring Programme: <http://www.wssinfo.org/definitions-methods/watsan-categories/>

\*\*\* Ibid.

given.<sup>8</sup> The second is that, for an indicator to receive an F grade, the need for a complete reversal of current trends to meet the goal must be very clear. We use a rate of change of 50% or more in the wrong direction as the cut-off point after which an F grade starts to be given. As such, an E grade is given if we see little to no positive change in current

trends, and in instances where a rate of change between 0% and 50% in the wrong direction is projected to occur.

As well as scoring the projections, we categorise our results into three groups as a way to understand further the level of transformation needed. We name these groups, respectively, 'reform', 'revolution' and 'reversal':

8 While it could be argued that we are excluding the 'last mile', this was necessary because of the large margins of error around the DHS estimates at city level. Further, in some cases it is not realistic to expect 100% achievement (e.g. on the employment rate). This point requires further exploration and exceeds the scope of this report, but one could use an approach whereby the target is based on the 'best in class' rather than on 100% or near 100% achievement.

**Table 2: SDG scorecard 2030 grading system**

Grading system	A	B	C	D	E	F
Current trends suggest	Will meet the target	More than halfway to target	More than a third of the way to target	More than a quarter of the way to target	Little to no progress	Progress in wrong direction

Source: Nicolai et al. (2015).

- **Reform:** Targets that the city is on course to meet or get more than halfway towards, thereby making considerable progress towards the target by 2030 if current trends continue. These are targets that received an A or B.
- **Revolution:** Targets where progress is heading in the right direction, but current trends get us only less than halfway there. Progress would need to rise at multiples of current rates for the targets to be achieved by 2030. These are targets that received a C, D and E.
- **Reversal:** Targets where current trends would need to be completely reversed to have any chance of them being reached by 2030. These are targets that received an F.

## 2.2 The ‘cities’ goal, SDG 11: Are the data needed available?

In addition to making projections for a selected number of targets, we conducted a data availability assessment for SDG 11 – the goal most obviously linked to cities. We wanted to find out the extent to which cities have the

data needed to monitor progress on this goal. We focused on all the targets of SDG 11, for which conceptually clear indicators with established methodologies and some international standards have been agreed at the global level (Tiers I and II, Table 3)<sup>9</sup> for three of our cities (Bogota, Mumbai and Nairobi, one per region). In addition, in the spirit of universality of the SDGs, we added an example from a developed country city, London.

We focus on SDG 11 to narrow the scope of the exercise, but of course many targets beyond SDG 11 are relevant at the city level. In fact, a recent study suggests that up to 65% of the SDG targets are at risk should local urban stakeholders not be assigned a clear implementing role (Cities Alliance, 2015).

We liaised with city authorities and national statistical offices (NSOs) so they could provide us with their assessment of the available data, and complemented this with online searches of local government statistics portals, city development plans and NSO websites. We present the results in Section 4.

<sup>9</sup> The UN classifies these as Tier I: indicator conceptually clear, established methodology and standards available and data regularly produced by countries; and Tier II: indicator conceptually clear, established methodology and standards available but data not regularly produced by countries. Any Tier II indicator that does not have a tested methodology (11.b.2 in this case) or Tier III indicator for which there are no established methodologies and standards or these are being developed/tested have been excluded (IAEG-SDGs, 2016). In our assessment, we rely on the list of Provisional Proposed Tiers for SDG Indicators of March 2016 (ibid.). As of September 2016, indicators 11.1.1 and 11.7.1 have been reclassified as Tier II and Tier III, respectively.

**Table 3: Targets and indicators for SDG 11**

Target description	Core indicator	Tier
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing	I
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road 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	11.2.1 Proportion of population that has convenient access to public transport, disaggregated by sex, age and persons with disabilities	II
11.3 By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	11.3.1 Ratio of land consumption rate to population growth rate	II
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	11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people (this is also indicator 1.5.1 under SDG 1 target 1.5)	II
	11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services (this is also indicator 1.5.2 under SDG 1 target 1.5)	II
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	11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	II
Same as above	11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	I
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	11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	II
Targets with indicators agreed (but not included in the assessment because there are no established methodologies and standards or are being developed)		
11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically	III
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)	III
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	11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months	III
11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city	III
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*	11.b.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030	III
	11.b.2 Number of countries with national and local disaster risk reduction strategies	II**
11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	11.c.1 Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials	III

\*Indicators for this target are currently under review by member states of the Open-Ended Intergovernmental Expert Working Group (OEIWG). It will submit a final report in December 2016 and a baseline to monitor progress will likely be created by 2017.

\*\*Although classified as Tier II, the methodology has not been tested and no reporting mechanism is in place.

# 3. Projecting progress: are cities on track to meet the SDGs by 2030?

This section presents analysis of how likely it is that cities will achieve the SDGs by 2030. We score how cities would perform against the SDGs in 2030 if current trends continue, and group the targets by the level and type of effort needed – ‘reform’, ‘revolution’ and ‘reversal’ – depending on whether the majority of our cities fall under these categories.

Tables 4 and 5 below provide an overview of our results, which we discuss in more detail below.

## 3.1 Reform: Moving towards the last mile

Several indicators are moving in the right direction. This is good news. More than half the cities in our sample are on track to meet or make it more than halfway to achieving five out of the 10 indicators. For the following targets, the majority of cities are classified as A or B in our scorecard (Table 4):

- Target 3.2 End preventable deaths of children under five years of age
- Target 4.1 Universal access to secondary education
- Target 7.1 Universal access to energy
- Target 8.5 Full and productive employment (male employment only)
- Target 11.1 Access to adequate housing for all (quality of flooring)

Figure 2 provides an example of our analysis for target 7.1 on universal access to energy. With the exception of Harare, Dar es Salaam and Ouagadougou, the cities in our sample are on track to meet this target. Note that inequalities within the city are as important as those between cities. Box 2 illustrates this point in the case of Nairobi.

It is worth noting that some of the indicators used for these targets can on their own give an incomplete picture. Take access to adequate housing, which we measure based on the quality of flooring. This is an important indicator, and 13 out of the 19 cities with data for this indicator are likely to make good progress by 2030. However, it needs to be complemented with other information if it is to give a complete accounting of progress – as multi-storey dwellings

in informal settlements may have concrete flooring but may also suffer from overcrowding. When we factor in overcrowding by projecting progress on target 11.1, the picture changes, as discussed below: many cities are unlikely to meet this target unless rates of progress are significantly accelerated. In fact, all of the cities that got an A for the quality of flooring and that have data for overcrowding as well scored a lower grade for overcrowding.

Finally, it is also worth noting that, on (male) employment, while the majority of cities could achieve this target based on current trends, the indicator used does not provide details of the quality of jobs. Unfortunately, owing to data limitations we had to focus on the employment rate alone. It is well known that informal jobs often offer precarious working conditions and an unstable income stream, and that these make up the majority of employment in many developing country cities. Moreover, when we analyse female employment, the picture is less promising.

## 3.2 Revolution: Slow gains mean falling short

Some targets show slow gains that will leave cities far short of fulfilling the ambition of the SDGs. As evidenced in Tables 4 and 5, the majority of our selected cities scored Cs, Ds and Es on five of our 10 selected indicators, including the following targets:

- Target 2.2 End child malnutrition
- Target 6.1 Universal access to drinking water (piped water in premises)
- Target 6.2 Universal access to adequate sanitation (access to flush toilets)
- Target 8.5 Full and productive employment (female employment)
- Target 11.1 Access to adequate housing for all (overcrowding)

It is well known that access to basic services like water and sanitation and to decent housing are key challenges in developing country cities with a large number of informal settlements, and that women are particularly disadvantaged

in terms of economic empowerment (Hunt and Samman, 2016). The results are also a reminder that stunting remains a huge problem in many developing country cities. Figure 4 shows that most cities in our sample (13 out of 17) will have to make significant efforts to address malnutrition if they are to meet this target by 2030.

The results also show that the choice of indicator matters. In the case of access to water and sanitation, we deliberately chose indicators with a higher level of ambition than the ones commonly used – ‘improved’ access to water and sanitation.<sup>11</sup> We did so as ultimately these measures capture the most effective ways of providing access to water and sanitation in urban contexts (Lucci et al., 2016; Satterthwaite, 2016b). For example, ‘improved’ access to water includes shared facilities, which in a large

informal settlement could mean sharing a standpipe with a large number of households. To overcome this shortcoming, we used ‘piped water in premises’ instead. In the case of improved sanitation, a household with a pit latrine and a slab is treated as equal to one with access to its own flush toilet connected to a sewer. But, while pit latrines can work well in low-density neighbourhoods in rural areas, they can be a problem in highly populated informal settlements with little space for pit latrines and where it might be difficult to empty them (Satterthwaite, 2016b). For this reason, we used access to a flush toilet instead of ‘improved’ sanitation. Of course, cities would perform better if less ambitious indicators than the ones proposed here were used, but these would mask some of

**Table 4: Total number of cities in need of reform, revolution or reversal**

Target and associated indicators	No. of cities in need of reform	No. of cities in need of revolution	No. of cities in need of reversal	No. of cities with data (out of 20)
2.2 End child malnutrition	2	13	2	17
3.2 End preventable deaths of children under 5 years of age	15	3	0	18
4.1 Ensure all girls and boys complete secondary education	7	6	0	13
6.1 Achieve universal access to drinking water based on indicator: access to piped water in premises	8	10	1	19
6.2 Achieve universal access to adequate sanitation based on indicator: access to flush toilets	5	12	0	17
7.1 Ensure universal access to modern energy	17	3	0	20
8.5 Achieve full and productive employment for all women and men based on indicator: male employment (M)	12	3	0	15
8.5 Achieve full and productive employment for all women and men based on indicator: female employment (F)	6	13	0	19
11.1 Ensure access for all to adequate housing based on indicator: quality of flooring material	13	2	4	19
11.1 Ensure access for all to adequate housing based on indicator: overcrowding	2	7	2	11

*Note: In the case of ‘reform’ and ‘revolution’, we highlight the targets where the majority of cities fall under that category. In the case of ‘reversal’, given that only a minority of cities fell under this category, we highlight those that did so. Green = reform, purple = revolution, red = reversal.*

<sup>10</sup> For details on the definition, see <http://www.wssinfo.org/definitions-methods/watsan-categories/>. Note there are plans to improve the water and sanitation indicators in the future (UNICEF and WHO, 2015).

**Table 5a: How cities fare on the SDGs**

				SDG 2	SDG 3	SDG 4	SDG 6	SDG 6
	Size	Country	Income level	End stunting	Reduce child mortality	Increase net secondary school attendance	Increase access to piped water in premises	Increase access to flush toilets
Mumbai	Mega	India	LMIC				A	E
Manila	Mega	Philippines	LMIC		A		E	E
Jakarta	Mega	Indonesia	LMIC		A		E	
Phnom Penh	Medium	Cambodia	LMIC	D	A	C		A
Kinshasa	Mega	DRC	LIC	C	B	B	E	C
Dar es Salaam	Large	Tanzania	LIC	E		A	E	A
Abidjan	Medium	Côte d'Ivoire	LMIC	F	D		A	E
Nairobi	Medium	Kenya	LMIC	E	B	B	F	E
Addis Ababa	Medium	Ethiopia	LIC	D	A		C	D
Ouagadougou	Medium	Burkina Faso	LIC	E	B	E	A	E
Bamako	Medium	Mali	LIC	E	A	B	E	E
Accra	Medium	Ghana	LMIC	C	A	E	E	E
Lusaka	Medium	Zambia	LMIC	E	B	A	E	E
Conakry	Medium	Guinea	LIC	B	B	C	A	A
Brazzaville	Medium	Rep. of Congo	LMIC	C	B		E	E
Harare	Medium	Zimbabwe	LIC	F	E	E	E	A
Kigali	Medium	Rwanda	LIC	D	A	A	A	E
Maputo	Medium	Mozambique	LIC	E	D	A	A	A
Lima	Large	Peru	UMIC	A	A		A	
Bogota	Large	Colombia	UMIC	E	A	E	A	

Green = reform, purple = revolution, red = reversal, grey = data not available to project progress.

the deprivations that are particular to the provision of basic services in urban areas.

In addition, as before, our findings for access to housing, based on a measure of overcrowding, and for female employment (as opposed to quality of flooring and male employment, as discussed in Section 3.1) highlight the need for a dashboard approach that looks at a range of complementary indicators and breakdowns for relevant categories like gender. Results for targets on universal access to decent housing and employment vary significantly depending on what aspects are measured.

In short, cities will need to speed up current rates of progress by more than two times in order to meet the above targets by 2030. Achieving these will truly require what we class as a ‘revolution’ in effort and approach, as current trends are far too slow to get even close to achievement. The next section provides some examples of policies that have been deemed successful in driving progress in these areas.

### How can cities bring about the much-needed ‘revolution’ on current trends?

While what works on accelerating progress in different policy areas will very much depend on particular contexts, it is useful to draw on examples that show significant policy change can be achieved over a 15-year span. We take each of the areas discussed above in turn.

#### Child malnutrition

Rising trends in stunting in a significant number of cities in this report warn of the dangers of chronic malnutrition. Lima is the only exception in our sample, as it is projected to meet target 2.2 if current reductions in stunting continue. Thus Peru’s experience can offer valuable insights. In fact, fighting stunting is part of a larger government strategy to fight under-nutrition, the National Strategy for Social Development and Inclusion, known as ‘Inclusion for Growth’. There is also an Incentive Fund

**Table 5b: How cities fare on the SDGs**

				SDG 7	SDG 8	SDG 8	SDG 11	SDG 11
	Size	Country	Income level	Universal access to electricity	Increase employment rate (M)	Increase employment rate (F)	Improve quality of flooring	Reduce over-crowding
Mumbai	Mega	India	LMIC	A				
Manila	Mega	Philippines	LMIC	A		E	A	
Jakarta	Mega	Indonesia	LMIC	A	A	B	A	
Phnom Penh	Medium	Cambodia	LMIC	A	A	A	A	B
Kinshasa	Mega	DRC	LIC	A	A	B	E	E
Dar es Salaam	Large	Tanzania	LIC	E	A	A	A	E
Abidjan	Medium	Côte d'Ivoire	LMIC	A	D	E	A	E
Nairobi	Medium	Kenya	LMIC	A	A	C	A	F
Addis Ababa	Medium	Ethiopia	LIC	A	A	D	A	C
Ouagadougou	Medium	Burkina Faso	LIC	E	A	D	F	
Bamako	Medium	Mali	LIC	A	A	E	F	C
Accra	Medium	Ghana	LMIC	A	A	C	A	
Lusaka	Medium	Zambia	LMIC	B	E	E	A	
Conakry	Medium	Guinea	LIC	A	E	E	F	
Brazzaville	Medium	Rep. of Congo	LMIC	A	A	A	F	E
Harare	Medium	Zimbabwe	LIC	E		E	A	
Kigali	Medium	Rwanda	LIC	A	B	A	E	
Maputo	Medium	Mozambique	LIC	A	A	E	A	F
Lima	Large	Peru	UMIC	A		C	A	C
Bogota	Large	Colombia	UMIC	A		C	A	B

Green = reform, purple = revolution, red = reversal, grey = data not available to project progress.

for Social Performance and Results Achievement (FED) to incentivise progress (SUN Movement, 2015).

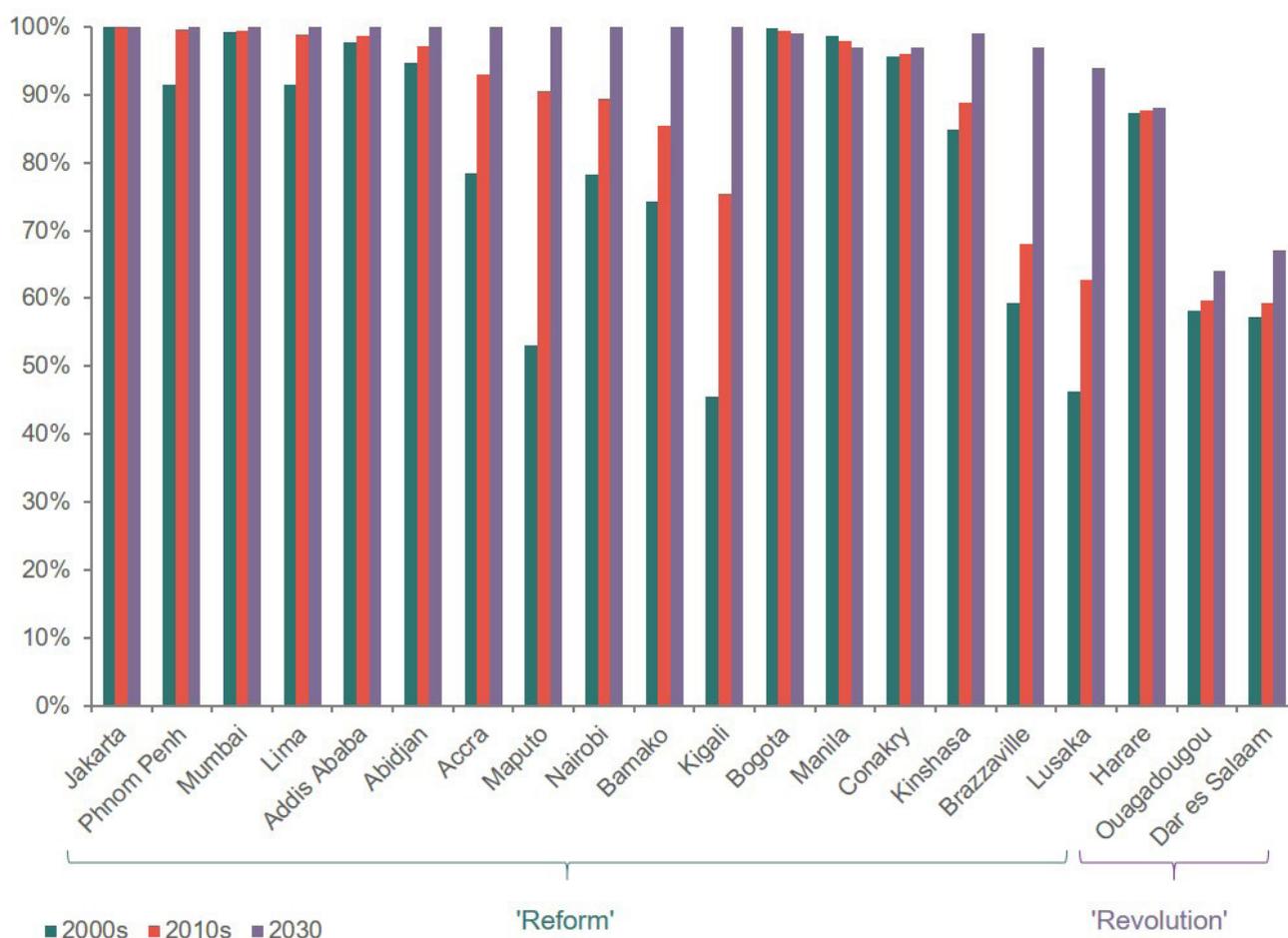
Different sectors (health; education; housing; women and vulnerable groups; and development and social inclusion) as well as decentralised bodies (regional authorities and municipalities) have been brought on board to advance this nutrition agenda. Policy coherence is apparent across the different levels of government (national, regional and local), with stakeholders at each level being able to define the aims, actions and follow-up mechanisms that will help deliver adequate nutrition. Implementation is decentralised and different incentive structures are in place: municipal incentive plans, FED agreements and budget support (SUN Movement, 2015). Progress on reducing malnutrition is tracked through results from Peru's DHS reports, our primary data source for this study, as well as the reports of administrative systems related to the delivery of health and education services.

## Access to water

The reform of the Phnom Penh Water Supply Authority (PPWSA) to increase people's access to safe drinking water stands out as one important intervention on the path to progress in the water sector. While the DHS does not have data for this indicator, PPWSA data state that in 1993 only 20% of residents enjoyed access to the water supply system. By 2012 this had grown to 85% (JICA, 2013). The success of PPWSA lay in having a leadership that pushed for operational efficiency; change at the local political level; sufficient autonomy to be able to implement reforms; and donor backing and shared objectives between line ministries, employees and donors (Das et al., 2010).

Massive improvements in operational efficiency were made by an internally driven set of incentives, penalties and disciplines, and a high emphasis on training. The utility has generated change not only within the company but also among consumers and civil society (Das et al., 2010).

**Figure 2: Access to electricity in our selected cities**



Source: Own calculations based on DHS.

The availability of finance from the international financial institutions strengthened the autonomy of the municipal service because it made it less dependent on central government. The strategy of cost recovery was implemented not only through increasing tariffs but also by focusing on billing rates (the proportion of customers that receive a bill) and collection rates (the proportion of bills that are actually paid). The successful implementation of these plans led to less reliance than anticipated on tariff increases. This reduced the price obstacles for the poor to manageable proportions (ibid.). In addition, PPWSA’s implementation of the programme Water for the Poor aimed to ensure that even those who could not afford to pay the full cost could still access clean water (PPWSA, 2016).

### Access to sanitation

The example of community-built toilets in Mumbai offers useful lessons for sanitation. While individual flush toilets are the preferable long-term solution, even if they are not truly adequate communal toilets can provide a solution in the medium term, particularly in high-density informal settlements, where official provision is lacking. In the case

of Mumbai, the alliance of three organisations (the Society for the Promotion of Area Resource Centres (SPARC), the National Slum Dwellers Federation (NSDF) and Mahila Milan (Women Together)) proposed a model in which communities constructed and funded the maintenance of toilets while the government provided construction materials and mains infrastructure. Prior to this, the Municipal Corporation of Greater Mumbai (MCGM) provided one toilet seat for every 1,488 slum-dwellers; of these toilets, only a fifth were functional (Burra et al., 2003).

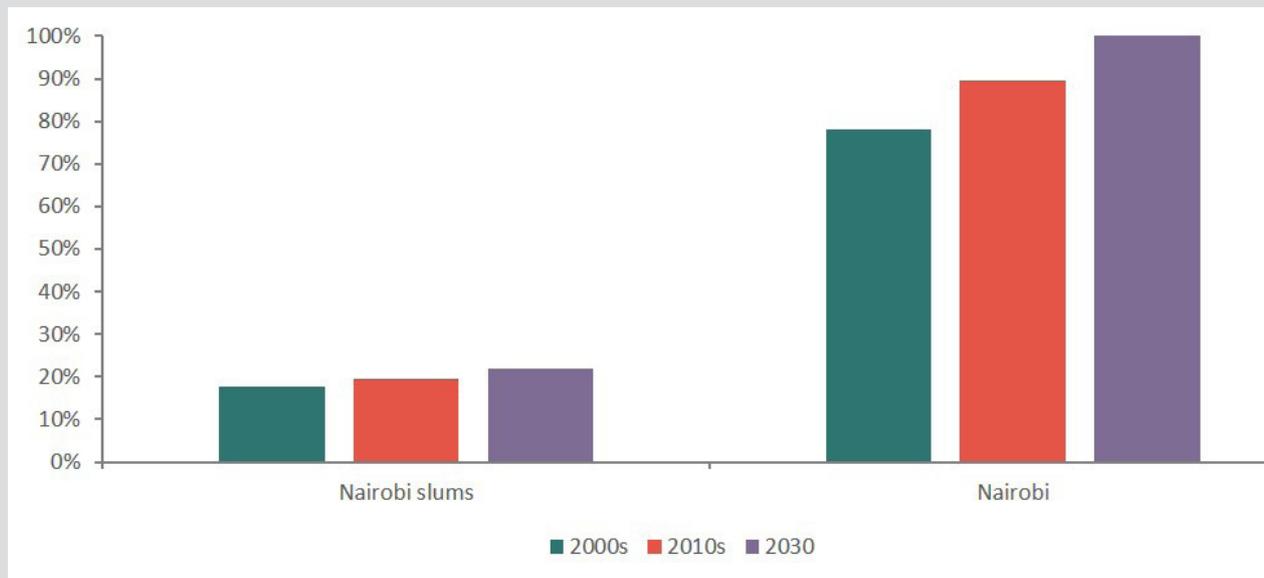
The concept of city-financed but community-managed toilet blocks with separate facilities for men, women and children and provision for maintenance worked to serve nearly 900,000 low-income urban dwellers across the Mumbai Metropolitan Region. Community toilets were cheaper per household, and could include large tanks to ensure regular water supplies (Patel, 2004; Patel and the SPARC Team, 2015). They also gave marginalised slum communities a voice in the policy-making process. Slum sanitation began to figure in the municipal government’s budgets (Patel and the SPARC Team, 2015; Lucci et al., 2015) and the alliance of SPARC, NSDF and Mahila Milan

## Box 2: Leaving no one behind in cities – an example from Nairobi

It is not just trends at city level that matter: what happens within cities is equally important. The SDGs, through a commitment to ‘leaving no one behind’, have made it clear that they need to reach the poorest and most marginalised to be considered successful. In part, this emphasis seeks to address some of the shortcomings of the MDGs (Lucci and Lynch, 2016).

A critical requirement to ensuring no one is left behind is to address intra-urban inequalities. Take the example of Nairobi, where about 38% of the population is estimated to live in slum settlements.\* In the case of access to electricity, if present trends continue Nairobi is projected to have universal access by 2030, as marked by an A grade for the city. However, this projection of average rates of progress masks differences within the city. Slum settlements within Nairobi score an E grade – if present trends continue for this subpopulation only 22% will have access to electricity (Figure 3).\*\*

Figure 3: Access to electricity in Nairobi city and informal settlements



However, this divergence does not hold for all indicators. For instance, in the case of under-five mortality, both Nairobi and slums within Nairobi score a B grade, meaning they are both projected to make more than half the progress needed to reach the target. This is all the more impressive given that slum settlements start from a much lower base (135 per 1,000 live births in slum settlements versus 95 per 1,000 live births for the city in the early 2000s) and so have more ground to make up.

\*Correspondence in July 2016 with UN-Habitat staff on latest estimates available at city level.

\*\*For details on the methodology and data used for this section, see Annex 1.

has strengthened its partnership with local government. City authorities now recognise they need to be involved in funding and supervising the construction of community toilets and equally in their maintenance, working alongside community cooperatives (Patel and the SPARC Team, 2015).

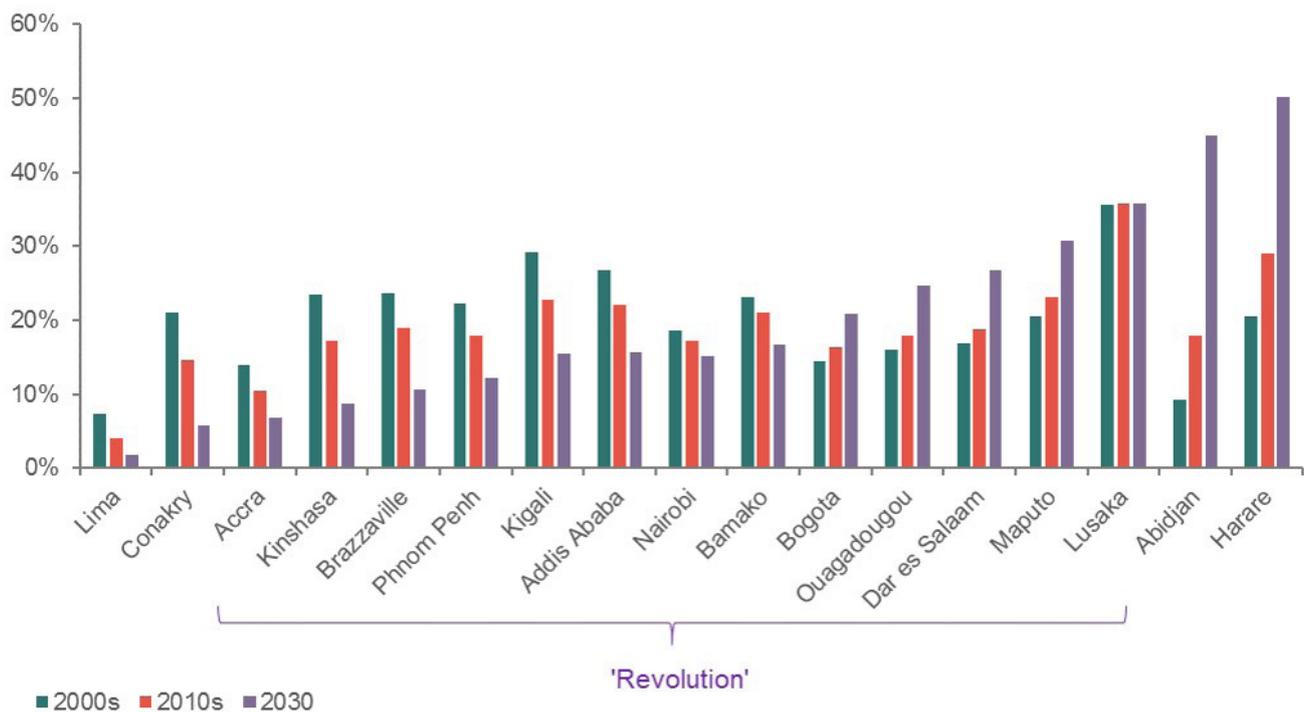
While these toilets represented huge progress they still do not qualify as improved sanitation as they are shared. This is another example of some of the nuances required in measuring progress on access to sanitation in dense informal settlements.

## Full and productive employment (female employment)

Two thirds of the cities in our report require an accelerated rate of progress on female employment to reach target 8.5. Of course, a number of factors can enable or constrain women’s economic empowerment – from education to unpaid care and gender norms, among many others (Hunt and Samman, 2016), with implications for national and subnational policy. Here we provide an example of policies focused on supporting women with care activities, as these can be a barrier to accessing employment.

Mexico’s Estancias Infantiles para Apoyar a Madres Trabajadoras (Day-care Support for Working Mothers) is unique among Early Childhood Care and Education

**Figure 4: Incidence of stunting for children under five in our selected cities**



Source: Own calculations based on DHS.

(ECCE) programmes in that it aims mainly to increase women’s labour market participation, and in so doing, boosts children’s development. Launched in 2007 and using third-party providers that normally operate out of homes and churches, Estancias covers up to 90% of the cost of care for children between the ages of one and four. Most of the children it serves are urban and from the lowest income quintile, and thousands of them have disabilities.

Estancias has had significant impacts on low-income mothers’ employment and income – for instance, the proportion of beneficiary mothers who were employed increased 18% and the average number of hours they worked each week increased by six (Ángeles et al., 2014). Impacts were particularly strong for women who were not working before joining the programme. Qualitative research has also found some impact on intra-household care allocation (Samman et al., 2016). Because Estancias provides employment for more than 40,000 women, it is also promoting women as ‘micro entrepreneurs’. Furthermore, by mandating training in business management and childcare practices, it is developing providers’ capacities, which is likely to harness future income potential (Ángeles et al., 2014).<sup>12</sup>

### Access to adequate housing

Many cities are likely to require an accelerated rate of progress by 2030 to stop overcrowding, which is often common in informal settlements. Ultimately, overcrowding results from a lack of affordable housing. In our sample, Bogota is one of the few cities that could achieve this target. Colombia, as with many other Latin American countries, has a long tradition of urban planning and ‘integrated’ slum-upgrading. This type of intervention is often considered best practice as it focuses on the specific needs of particular settlements and assesses the links between deprivations in different sectors (e.g. between land tenure and access to utilities).

While other cities in our sample do not perform well on this indicator, there are examples of changes in local authorities’ attitudes towards informal settlements. For example, in Maputo, the Chamanculo C project was influenced by the Brazilian experience of multi-sectoral upgrading and focuses on community-building, economic livelihoods and services. The project consists of activities integrating the social development of the community and the strengthening of local associations that provide basic services to those living in the selected neighbourhoods.<sup>13</sup> Similarly, the Harare Slum Upgrading Programme was set up as a five-year (2010–15) participatory programme

<sup>11</sup> It is also worth noting that Bogotá’s development plan (Estrategia del Plan Distrital de Desarrollo 2016-19) includes a programme on women’s economic empowerment (‘Mujeres protagonistas, activas y empoderadas en el cierre de brechas de género’) acknowledging that this is an area that requires further attention.

involving the City of Harare, the Zimbabwe Homeless People's Federation (ZHPF) and Dialogue on Shelter to profile, document and initiate incremental upgrading of slums in and around Harare. These have helped create the city's first slum database. This partnership is particularly noteworthy, given that both the ZHPF and Dialogue on Shelter led the first social movements against government policies to evict slum dwellers (Lucci et al., 2015).

While we recognise slum-upgrading policies are needed to improve living conditions in existing informal settlements, interventions seeking to expand the provision of affordable housing for low-income communities are equally needed to avoid the formation of new slums.

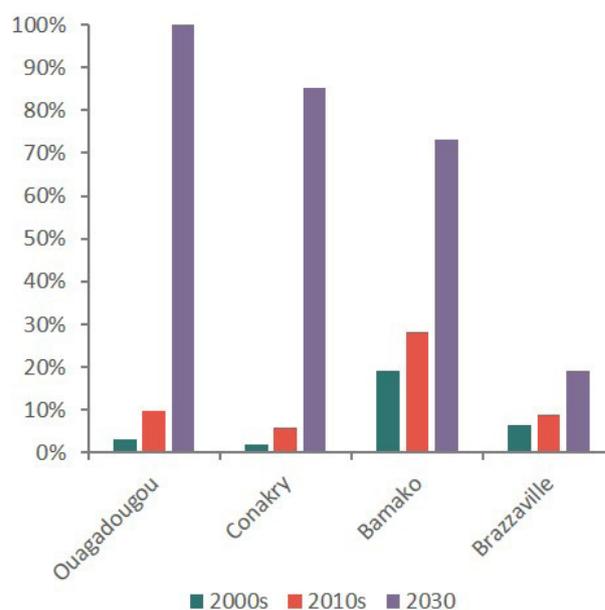
### 3.3 Reversal: Changes in direction are needed

Only a few cities in our sample will need to reverse current trends before progress can be seen on delivering certain SDG targets. Four indicators across eight cities, all in Africa (Tables 4 and 5) scored F based on the fact that their projections for 2030 show a deterioration from current levels, meaning a complete turnaround is needed.

The highest number of Fs – four – is associated with medium-sized African cities on target 11.1 (access to adequate housing for all), based on trends in quality of flooring. These include Ouagadougou, Conakry, Bamako and Brazzaville (Figure 5). Box 3 discusses an intervention targeting the quality of flooring in Mexico, as this is cited as a narrow but effective programme in the literature on urban development.

Nairobi and Maputo also get Fs for the housing target, but this is based on the overcrowding indicator (Table 5).

**Figure 5: Proportion of households with poor quality flooring – cities with F grades**



Source: Own calculations based on DHS.

Two medium-sized African cities score Fs on target 2.2 (end child malnutrition): Harare and Abidjan. It is worth noting that Nairobi also scores an F on the drinking water target based on access to piped water in premises. In these cases, a complete reversal of current trends is required to meet the associated targets.

#### Box 3: Improving quality of flooring – targeted interventions with wider impact

While improvements in access to decent housing require a number of interventions (better supply of affordable housing, upgrading existing slum settlements) and what is appropriate will depend on context, Mexico's policy targeting quality of flooring offers an immediate and effective response to a specific housing deprivation. Of course, just improving flooring or focusing on this indicator would be short-sighted: we need a dashboard approach that covers the different infrastructure needs of a slum settlement.

In 2000, the Mexican state of Coahuila launched the *Piso Firme* (Solid Floor) programme to replace dirt floors with cement ones. It provided over 34,000 home flooring upgrades by 2005 (Cattaneo et al., 2009; Glassman and Temin, 2016). The success in Coahuila and the governor's strong influence at the federal level led to a national commitment by then President Calderon to eliminate dirt floors in target areas across Mexico.

By 2005, the national government had installed cement floors in nearly 300,000 houses out of 3 million that had reported dirt floors in the 2000 national census in these areas (Cattaneo et al., 2009). By 2012, the number had risen to 2.7 million (INEGI, 2015; Glassman and Temin, 2016). The programme's financial support came from both state and federal budgets. The *Piso Firme* intervention did not simply help improve the quality of flooring in households; it had wider impacts on reducing poverty and improving child and maternal health (Cattaneo et al., 2009). These positive outcomes were confirmed by an independent impact evaluation funded by Coahuila state and the federal Secretariat for Social Development (ibid.).

12 <http://www.avsi-usa.org/urbanupgrading.html>

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# 4. The ‘cities’ goal, SDG 11: Are the data needed available?

This section focuses on the ‘cities’ goal, SDG 11, and explores the extent to which three of our selected cities – Bogota, Mumbai and Nairobi – have readily available data on it. London was added to the analysis to highlight data availability in a developed country city (see Section 2.2. for more details on the approach used).

The focus on SDG 11 owes to its obvious link to city-level policy implementation and is to narrow the scope of the exercise. In practice, many more targets beyond SDG 11 are relevant at the city level (Global Taskforce of Local and Regional Governments et al., 2016). Section 4.1 presents an overview of data availability for this goal, while Sections 4.2 discusses challenges and opportunities in monitoring the respective targets.

## 4.1 Overview

Table 6 summarises data availability for six of the selected SDG 11 targets for the four cities. All three of the selected developing country cities have data readily available for only two of these six; London has data for three.

The indicators for which data are readily available include two targets: target 11.1 on access to adequate housing (the proportion of the urban population living in slums, informal settlements or inadequate housing) and target 11.6 on the environmental impact of cities – air quality indicator only. But even for these indicators where the data already exists, there are issues around comparability, accessibility and quality, which we revisit below. Note that on the waste indicator for target 11.6, data are available for London and Bogota but sparse for Nairobi and Mumbai. These two cities tend to record solid waste generation better than solid waste collection and adequate final discharge.

For one target – 11.2 on access to public transport – the existing information is incomplete. Most cities have information on the number of passengers and trips by different transport modes; what is less readily available (we only found them in the case of London) are measures on *convenient access* to transport (e.g. average walking time or distance to nearest public transport access point,

number of services available within each catchment, etc.) and the levels of disaggregation suggested by the indicator.

Finally, for the remaining three targets, data on the specific indicators can be made available in the near future once these cities and countries compile and process the relevant data systematically using existing or new data sources. This applies to targets 11.3 on enhancing sustainable urbanisation and 11.5 on reducing the impact of natural disasters. For example, some of the data for 11.3 – that is, both population data and land consumption data through satellite images from various open sources – are available (IAEG-SDGs, 2016). These will need to be processed further once an international standard is agreed. Similarly, data for 11.5 can become available through country inventories of national disaster losses once monitoring begins on the Sendai Framework for Disaster Risk Reduction. For target 11.7 seeking to provide universal access to public spaces, the UN Human Settlements Programme (UN-Habitat) has developed and tested tools for conducting city inventories of public spaces. Once an international standard is agreed, data will be collected on many more cities (UN-Habitat, 2016; IEAG-SDGs, 2016).

This data assessment for a series of SDG 11 targets highlights a number of data gaps, which we summarise below.

### Comparability

In many cases, the definitions and the exact indicator local governments use that relate to the corresponding targets are slightly different. Of course, it makes sense to allow for contextual difference; the use of different indicators needs to serve the purposes of particular cities and policy-making in those cities.

However, there is value added in having – at least for some of the indicators – a minimum common base that allows for comparing cities at similar development stages. Take the example of slums and informal settlements included in indicator 11.1.1: their definitions often vary by country, and, although UN-Habitat produces internationally comparable data on this indicator, these are not publicly available beyond the national level

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(partly because sample sizes are not big enough to be representative of slums and informal settlements).

### Access to data

Although in some cases countries have portals with city level data – for example Kenya Open Data Portal – data on many of the SDG 11 indicators are not easily available through user-friendly websites. In Mumbai, the data we found were often held by different local government agencies and across many departments within these agencies. Accessing city-level data is a challenge, especially for those outside of government.

Further, in some cases the data exist, for example on informal settlements, but are not publicly available. There are no practical reasons why tables based on census data, often disaggregated by different geographical categories and included on governments' statistical websites, could not include readily available information on slums and informal settlements.

### Quality and disaggregation of data

In many instances, there is only one data point, and the data are not disaggregated to the level required for measuring progress on SDG 11. For instance, on target 11.2, on access to public transport, the data are unlikely to be disaggregated by sex, age and persons with disabilities.

For other indicators, such as the number of people living in slums and informal settlements, there are questions as to whether the instruments used to collect the data include these marginal communities. For example, census data may undercount these communities for political or practical reasons (e.g., in unsafe or unhygienic environments, enumerators may collect the data on these neighbourhoods superficially; Carr-Hill, 2013; Lucci et al., 2016).

Further, in the case of household surveys (also used to produce UN-Habitat's data on slums and informal settlements), the sampling frames are often not large enough to be representative of cities and of the settlements. This means these estimates can have large margins of error and, for smaller cities, may not be possible to produce.

## 4.2 Data collection and analysis: Key challenges and opportunities

This section presents the broader challenges and opportunities in producing the data we need to monitor progress on the SDGs in cities.

### Capacity and resources

Ultimately, monitoring the SDGs at a local level will require improvements in the capacity to produce, coordinate and analyse data. Data production is often the

remit of NSOs, which disaggregate the information for different locations. Ministries also produce administrative data, which are broken down for different areas (sometimes this information is also gathered, validated and disseminated through NSOs). But cities also produce their own data on a number of issues for which they are responsible (e.g. waste, transport, land use).

Take the example of London. It has a well-resourced unit that gathers the data that different departments need to inform their policy-making and the London Plan (the Mayor's Spatial Development Strategy), and shares this information with the public through a data portal. In Bogota, the planning unit within the municipality serves a similar function and has a planning document ('Plan Distrital de Desarrollo') formulated every four years which provides strategic guidelines and standardises information with a quality information system (Segplan). In Mumbai and Nairobi, in contrast, we did not find a coordinating unit for data-gathering and analysis; rather, the datasets sit with different sectoral agencies and are often not publicly available. Ultimately, improvements in staff and in their capacity to gather and analyse data will be required to strengthen planning functions at the city level.

In addition to making the most of the available data, some SDG targets will 'require new kinds of data production on cities'.<sup>13</sup> In particular, spatial data is becoming a growing need, and 'NSOs need to build up from scratch the capacity to collect and analyse this data'.<sup>14</sup>

### Non-traditional or unofficial sources of data

Non-governmental sources of information can also be very useful, particularly where there are data gaps or the quality of the data is contested. For example, Shack/Slum Dwellers International's (SDI's) Know Your City portal and Map Kibera's exercises on data collection are extremely valuable sources of data on slum populations and living conditions. The verification and validation of official data by non-official sources like these is instrumental in holding policy-makers to account.

Similarly, perceptions and polling data from Gallup, the World Values Survey, Global Barometer, etc. can be very useful to address issues around disaggregating data (especially where official sources fail to do so) as well as around the quality of services being provided to marginalised communities by the state.

A key challenge lies ahead in incorporating these rich sources of data into the performance monitoring, reviewing and reporting framework of the SDGs. Statistical offices could become hubs to gather, assess and manage information taken from several institutions to ensure quality standards are taken into account. In Colombia, the National Administrative Department of Statistics has been working on 'Smart Data' – an innovation group looking

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13 Interview with local official, Nairobi county government, 2016.

14 Interview with UN-Habitat staff member, 2016.

**Table 6: Summary data availability assessment – an example for four cities\***

Target description	Core indicator	Nairobi	Mumbai	Bogota	London	Comments
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1: Proportion of urban population living in slums, informal settlements or inadequate housing	Yes	Yes	Yes	Yes	Comparability issues and adjusting indicators for HICs.
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road 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	11.2.1 Proportion of population that has convenient access to public transport, disaggregated by sex, age and persons with disabilities	Limited	Limited	Limited**	Yes	Limited: Related indicators available (e.g. number of people/trips by different transport modes).
11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	11.3.1 Ratio of land consumption rate to population growth rate	Possible	Possible	Possible	Possible	Possible: Data on land consumption via satellite images and population are available. Countries can produce the data based on established and tested methodologies. An international standard needs to be agreed soon.
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	11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people (this is also indicator 1.5.1 under Goal 1 target 1.5)	Possible	Possible	Possible***	Possible	Possible: Data on disaster losses are often collected through national-level inventories. An international standard on this is due.
Same as above	11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services (this is also indicator 1.5.2 under Goal 1 target 1.5)	Possible	Possible	Possible	Possible	
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	11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	Limited	Limited	Yes	Yes	Limited: Publicly available for two, the other two do not have details on solid waste collection and adequate final discharge.
Same as above	11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	Yes	Yes	Yes	Yes	
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	11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	No	No	No	No	
Total indicators with readily available data (out of 8 indicators for 6 targets with agreed indicators at international level)		2	2	3	4	
Total targets with readily available data (out of 6 targets with agreed indicators at international level)		2	2	2	3	

**Table 6: Summary data availability assessment – an example for four cities\* (continued)**

*\*The assessment focuses on those six targets that have two Tier I and six Tier II indicators (i.e. they are conceptually clear with established methodologies and some international standards, see Section 2.2. for more details on the approach used). \*\* While there are no indicators of ‘quality’ of mobility, the municipality is looking to produce this information and disaggregate it by groups with different characteristics, including age (correspondence with Bogota’s planning unit). \*\*\* IDIGER (Instituto Distrital de Gestión de Riesgos y Cambio Climático) has some indicators of risk.*

### Box 5: How is London doing on SDG 11?

The SDGs are a universal agenda, applicable to both developed and developing country cities. Based on readily available data for targets under SDG 11, we carried out projections using the same methodology applied in Section 3 for a few selected targets of SDG 11 – housing, waste and air quality – in London.

Unsurprisingly, the city needs to redouble efforts to ensure affordable housing (Table 7). Based on historical trends, homelessness, even if a small percentage of the total population, is projected to continue to grow rather than decrease. It more than doubled between 2004 and 2016, from 2,807 to 8,096, representing 0.04% the population and 0.09%, respectively. On this trajectory, it would reach over 30,000 people in 2030, or 0.29% of the population.

The city also gets a bad grade on air quality, which is unsurprising: the new mayor has recognised this as a key challenge and made it a priority of his administration (King’s College London, 2016). The city needs to redouble its efforts to achieve its own target of reducing annual mean nitrogen dioxide to 40  $\mu\text{g}/\text{m}^3$  by 2015. On current trends, this target will not even be met by 2030, 15 years after the target date set by the city (Figure 6).

On waste progress has been faster; based on current trends the city is on track to achieve the target.

at how to leverage different data sources usefully – for example using satellite data to measure land consumption rates to monitor SDG 11 (Lucci, 2016).

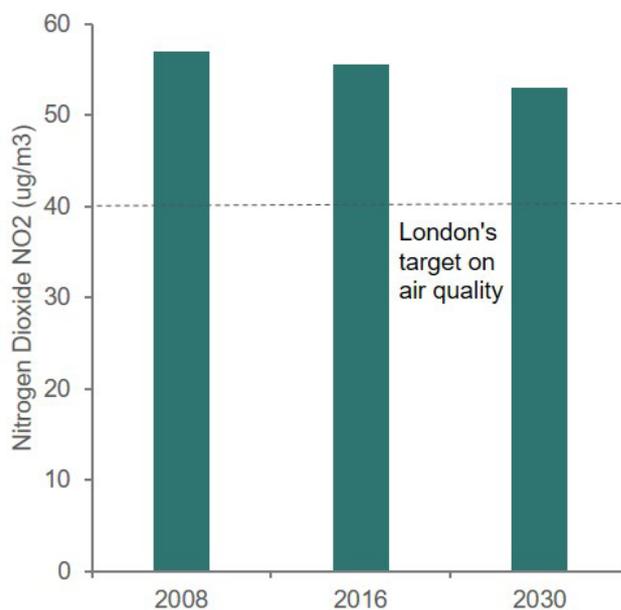
### Aligning city development plans with SDGs

While monitoring the SDGs may appear a challenging exercise, requiring a range of new indicators and data collection, a number of targets are already monitored or meant to be monitored at city level. For example, Greater Mumbai’s Development Plan for 2034 aims for regular monitoring of the economy, demography and indices of competitiveness; the nature and extent of physical development and housing; and outputs of and resources allocated for implementation. Annex 2 provides an example for a developed country city, London, mapping the SDG targets against those included in the current London Plan and sectoral policies. It shows the London Plan has related targets for four out of our six SDG 11 targets. It also has one target related to SDG target 11.4 on preserving cultural heritage. The methodology and standards for the UN’s proposed indicator on this is still being developed.

Cities can also make use of available networks to strengthen their data capacities and share experiences of SDG implementation. For example, CityNet, a regional network of local authorities for the management of human settlements, has an active presence across the Asia-Pacific region – and in fact the MCGM hosted a satellite office on MDGs. There is now an SDGs cluster within CityNet working to integrate the SDGs into the core policies and action plans of member cities. Other networks, like United Cities and Local Governments, Cities Alliance, C40 Cities Climate Leadership Group and 100 Resilient Cities, can

also offer useful platforms to share experiences on SDG implementation.

**Figure 6: Projections on London’s air quality**



Source: Own calculations based on King’s College London (2016).

**Table 7: Projections for London on selected SDG 11 targets**

Target and related indicator	Grade
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums (Adapted as getting to zero on homelessness)	F
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 annual mean nitrogen dioxide (ug/m <sup>3</sup> ) to 40 ug/m <sup>3</sup> )	E
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 to 0% the percentage of municipal waste that goes directly to landfill and recycle or compost at least 45% of municipal waste by 2015, 50% by 2020 and 60% by 2031)	B

*Note: Green = reform, purple = revolution, red = reversal.*

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# 5. The way forward

While the contribution of local governments to SDG implementation is crucial to their success, there has been only very limited analysis of SDG implementation at city level so far. This report has looked at how likely it is that 20 cities will achieve a number of selected targets based on current trends. Our analysis shows that, while half of the targets analysed are within reach, the other half will require a ‘revolution’ if they are to be achieved by 2030, requiring rates of progress more than twice as fast as historical ones. These targets include:

- Target 2.2 End child malnutrition
- Target 6.1 Universal access to drinking water (access to piped water in premises)
- Target 6.2 Universal access to adequate sanitation (access to flush toilets)
- Target 8.5 Full and productive employment (female employment)
- Target 11.1 Access to adequate housing for all (overcrowding)

In addition, four indicators (access to adequate housing for all based on quality of flooring and overcrowding; child malnutrition; access to drinking water) across eight cities, all in Africa, need a clear ‘reversal’ of current trends.

This report also reflected on the data limitations at city level. Two conclusions can be drawn from the analysis: 1) city-level data needs to be improved and 2) local government monitoring systems and capacities, to measure progress on and implement the SDGs, will need to be strengthened. To do so, this report has three key recommendations:

## 1. Statistical offices’ and cities’ information systems should improve the data available, through both quick wins and long-term investments.

Some data improvement can be easily achieved through minor additions or amendments to existing household surveys. For example, ensuring consistency on how the questions are framed over time would make it easier to access trend data (in many cases we were not able to compare progress over time due to inconsistencies in the data). Furthermore, questions can be added to existing surveys to get a more nuanced picture of the quality, accessibility and affordability of basic services in dense urban settlements.

It is also important that large household surveys are representative at city level, so this analysis can be replicated for other cities. Small sample sizes within the available data also mean margins of error are high. Disaggregation beyond city level was often not possible for the cities for which we had data; this is particularly problematic when addressing intra-city inequalities. In order to tackle the deprivations of marginalised groups such as slum-dwellers, we need to better understand their specific deprivations. Surveys need to have a large enough sample size to represent various subpopulations of interest. They could, for instance, oversample these groups; otherwise, slum-specific censuses could be conducted. Further data on slums – citizen-generated or perceptions-based data – can fill critical gaps about the quality of services and can be easily disaggregated.

## 2. Governments and city administrations should invest more in the statistical capacity at city level.

Our assessment of data availability for SDG 11 also highlights the need to improve monitoring systems and statistical capacities to measure progress on the SDG in the country and the city. This will also require strengthening national and subnational coordination and arrangements for data-sharing between government agencies as well as making it more open to the public. For instance, improving data accessibility through open data portals could help to strengthen governments’ accountability and, equally, citizens’ capacity to hold governments to account.

## 3. Donors and central governments should work to strengthen local governments’ capacities.

Local governments have a major role to play in the SDG agenda. They are often responsible for delivering many basic services required to meet the SDGs. If we are serious about realising this agenda, they need to be a central part of it. In many rapidly urbanising developing countries, local governments’ limited capacities and lack of resources are huge challenges. We will only have a chance of realising this agenda by strengthening local governments’ capacities and increasing the resources available to them. This includes central governments, who often need to devolve the powers and finance required for local governments to deliver on the SDGs; and donors, who need to get better at supporting rapidly growing cities in developing countries.

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# Annex 1: Approach and methodology

## Selection of cities

We rely on representative city-level DHS data to project progress on eight targets for 20 cities. Our selection includes four mega-cities (over 10 million people), three large cities (between 5 and 10 million) and 13 medium-sized cities (between 1 and 5 million). Seventeen out of these 20 are capital cities. Five are ranked in the top 30 largest urban agglomerations in the world in 2015 (Mumbai: fifth largest, Manila: 18th, Kinshasa: 23rd, Jakarta: 27th, Lima: 30th) (UNDESA, 2014).

The majority of cities – 14 out of 20 – are African; four are Asian; and two are in Latin America and the Caribbean. There are nine low-income countries (LICs) (all in Africa), nine lower-middle-income countries (LMICs) (four in Asia and five in Africa) and two upper-middle-income countries (UMICs) (both in Latin America and the Caribbean).

## Caveats in relation to specific indicators

Some of the indicators listed in Table A1 require additional clarification regarding their inclusion. These are outlined one by one below.

- **Net secondary attendance rate:** This is the best DHS indicator with respect to secondary school education. It does not provide an indication as to whether students complete secondary school or what the quality of their education is but it does provide a crude indication as to whether participation in secondary education has been increasing among students in the official age group for this level of education.
- **Access to piped water in premises:** This is more ambitious than water from an ‘improved source’,<sup>15</sup> which is often referred to as an indicator of progress with regard to clean drinking water. The JMP defines an improved drinking water source as one that ‘by the nature of its construction and when properly used, adequately protects the source from outside contamination, particularly faecal matter’. The following sources of drinking water are considered improved: piped water into premises, or yard/plot; public tap or standpipe; tube well or borehole; protected dug well; protected spring; rainwater; and bottled water (if water for cooking and personal hygiene is from an improved source). In 2008, the JMP introduced a four-rung ladder to track progress on these indicators in a more refined manner. In the case of water, it identified ‘piped water on premises’ and ‘other improved drinking water sources’ as two categories of improved water sources and added two categories of unimproved services (unimproved drinking water sources and surface drinking water). We chose to focus on access to piped water in premises as other improved sources include shared facilities, which tend to be shared by a large number of households in dense informal settlements, and therefore may not be an appropriate indicator of ‘improved’ access in urban contexts. Note that WHO/UNICEF are looking to improve the indicator on access to water for the SDGs.
- **Access to flush toilets:** This is more ambitious than use of ‘improved sanitation facilities’, which is often referred to as an indicator of progress in terms of access to sanitation. In the case of sanitation, the JMP identifies as improved facilities those that hygienically separate human excreta from human contact. Improved sanitation includes flush toilet to piped sewer system, septic tank or pit latrine; ventilated improved pit latrine; pit latrine with slab; and composting toilet. Sanitation facilities (even improved) shared by two or more households and all public facilities are considered unimproved. In 2008, the JMP introduced a four-rung ladder to track progress on these indicators in a more refined manner. In the case of sanitation, there is one category for improved sanitation and there are three categories for unimproved services (shared, unimproved and open defecation). The rationale behind the inclusion of access to flush toilets as an indicator is to show that, while progress has been strong in terms of using improved sanitation facilities, access to flushing toilets has not been improving as fast in cities and ultimately these are a more effective way of providing sanitation services (e.g. pit latrines can be unhygienic in dense informal settlements where there is no space to empty them properly). Note that often there is a lack of consistency in the questions asked in different survey years, as the multiple choice answers in DHS vary greatly. This means that in some cases it is difficult to compare trends over time and findings need to be treated with caution. Often, surveys do not distinguish between improved and traditional types of pit latrines and in some cases information is not available on whether toilets are shared or not. Note that WHO/UNICEF are looking to improve the indicator on access to sanitation for the SDGs.

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<sup>15</sup> <http://www.wssinfo.org/definitions-methods/watsan-categories/>

- **Improved quality of flooring:** Adequate housing is a far more comprehensive notion than the type of floor used in dwellings. However, this indicator provides a minimum benchmark by reporting whether households have some type of flooring material other than dirt, dung or leaves. 'Improved quality flooring' includes wood, tiles, cement, carpet or linoleum.
- **Overcrowding:** A dwelling unit is considered to provide a sufficient living area for household members if there are fewer than four people per habitable room. The indicator used for overcrowding looks only at the total number of people without accounting for their age and only at the number of rooms without accounting for their size.

**Table A1: Cities in the scorecard with details on DHS sampling unit and survey years used**

City	DHS sampling unit	Survey Year 1	Survey Year 2	City classification (UNDESA)	Country	Country income classification (World Bank)	Regional classification
Mumbai	Mumbai	1999	2006	Mega	India	LMIC	South Asia
Manila	National Capital Region	2003	2013	Mega	Philippines	LMIC	South East Asia
Jakarta	DKI Jakarta	2003	2012	Mega	Indonesia	LMIC	South East Asia
Phnom Penh	Phnom Penh	2005	2014	Medium	Cambodia	LMIC	South East Asia
Kinshasa	Kinshasa	2007	2014	Mega	DRC	LIC	Sub-Saharan Africa
Dar es Salaam	Dar Es Salaam	2004	2010	Large	Tanzania	LIC	Sub-Saharan Africa
Abidjan	Abidjan	1999	2012	Medium	Côte d'Ivoire	LMIC	Sub-Saharan Africa
Nairobi	Nairobi	2003	2014	Medium	Kenya	LMIC	Sub-Saharan Africa
Addis Ababa	Addis Ababa	2000	2011	Medium	Ethiopia	LIC	Sub-Saharan Africa
Ouagadougou	Ouagadougou	2003	2010	Medium	Burkina Faso	LIC	Sub-Saharan Africa
Bamako	Bamako	2006	2013	Medium	Mali	LIC	Sub-Saharan Africa
Accra	Greater Accra	2003	2014	Medium	Ghana	LMIC	Sub-Saharan Africa
Lusaka	Lusaka	2002	2014	Medium	Zambia	LMIC	Sub-Saharan Africa
Conakry	Conakry	2005	2012	Medium	Guinea	LIC	Sub-Saharan Africa
Brazzaville	Brazzaville	2005	2012	Medium	Rep. of Congo	LMIC	Sub-Saharan Africa
Harare	Harare	1999	2011	Medium	Zimbabwe	LIC	Sub-Saharan Africa
Kigali	City of Kigali	2005	2015	Medium	Rwanda	LIC	Sub-Saharan Africa
Maputo	Maputo City	2003	2011	Medium	Mozambique	LIC	Sub-Saharan Africa
Lima	Lima (Metropolitana)	2000	2012	Large	Peru	UMIC	Latin America
Bogota	Bogota	2000	2010	Large	Colombia	UMIC	Latin America

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## Calculations to assign a score

Here we provide more details on the four steps to calculate the projections:

### 1. Calculate current rates of progress based on recent trends

Current rates of progress were calculated by using the most recent 10 years or so of data.<sup>17</sup> The exact time period between surveys varied by city depending on when DHS data were available. The average annual change over the past decade or so was determined using the following formula:

$$\text{Average annual change} = \left( \frac{X_{2015} - X_{2005}}{X_{2005}} \right) \left( \frac{1}{10} \right)$$

whereby:

$X_{2005}$  represents the relevant indicator for each goal in 2005 (or first survey)

$X_{2015}$  represents the relevant indicator for each goal in 2015 (or most recent survey)

### 2. Project what would be achieved in 2030 if these current trends continue

Levels of achievement by 2030 were determined by assuming that the current rate of progress would continue to 2030.

This is calculated by the following formula:

$$X_{2030} = X_{2015} \times (1 + \text{average annual change})^{15}$$

whereby:

$X_{2030}$  represents the relevant indicator for each goal in 2030

### 3. Determine how much faster progress would need to be to achieve the SDGs

A standard approach was applied for each indicator to determine how much faster the rate of progress would need to be to achieve the relevant SDG.<sup>18</sup> This was calculated<sup>19</sup> as:

$$\text{Rate of progress towards SDG} = \frac{X_{2030} - X_{2015}}{X_{\text{GOAL}} - X_{2015}}$$

whereby:

$X_{\text{GOAL}}$  represents what the indicator would need to be in 2030 for the target to be achieved

### 4. Assign grades based on the projected rate of progress

Grades were assigned based on how much faster the rate of progress would need to be for the SDG target to be achieved. Table 2 in Section 2 explains the basis of each of the grades.

## Leaving no one behind

The data for slums are sourced from the Nairobi Cross-Sectional Slums Survey of 2000 and 2012 (APHRC, 2012). The projections were conducted using the same method as the rest of the report. The projections for the slum populations assume that the same share of households will be living in slums in 2030 as in 2012 – therefore these should only be seen as a rough illustration.

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17 For illustrative purposes the formulas included in this section show data as available in 2015. However, sometimes the most recent data were from earlier than 2015. In these instances, the formula was adjusted accordingly.

18 When estimating the rate of progress for goals that aim to reduce the indicator of interest, such as child mortality, the denominator in this formula should be rewritten as follows:  $X_{2015} - X_{\text{GOAL}}$

19 This formula assumes a constant rate of progress. There may be reasons to believe progress will not be constant in the future. For example, it may become harder to 'reach the final mile' – that is, moving from 90% to 100% of the population being covered. If this is the case the projections in this report are too optimistic. On the other hand, it may be that progress will become more rapid, such as if new technologies are adopted. If this is the case the projections in this report are too pessimistic. Given it is not possible to predict whether progress will be faster or slower in the future, we assume a constant rate of progress.

# Annex 2: SDG 11 targets in the London Plan

SDG 11 targets		One London targets				
11.1	By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	Maintain at least 96 per cent of new residential development to be on previously developed land	Over 95 per cent of development to comply with the housing density location and the density matrix	No net loss of open space designated for protection in LDFs due to new development	Average completion of a minimum of 42,000 net additional homes per year	Completion of 17,000 net additional affordable homes per year
11.2	By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road 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	Use of public transport per head grows faster than use of private car per head	Zero car traffic growth for London as a whole	Increase in share of all trips by bicycle from 2 per cent in 2009 to 5 per cent by 2026	A 50 per cent increase in passengers and freight traffic transported on the Blue Ribbon Network from 2011-2021	
11.3	By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	n/a				
11.4	Strengthen efforts to protect and safeguard the world's cultural and natural heritage	No net loss of Sites of Importance for Nature Conservation	Reduction in proportion of designated heritage assets at risk as a % of the total number of designated heritage assets in London			
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	Restore 15km of rivers and streams from 2009-2015 with an additional 10km by 2020				
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	At least 45 per cent of waste recycled/composted by 2015 and 0 per cent of biodegradable or recyclable waste to landfill by 2026	Annual average % carbon dioxide emissions savings for strategic development proposals progressing towards zero carbon in residential developments by 2016 and in all developments by 2019	Production of 8550 GWh of energy from renewable sources by 2026	Increase in total area of green roofs in the CAZ	Meeting the EU limit values of fine particulate matter (PM10 40 ug/m <sup>3</sup> ) by 2011 and nitrogen dioxide (NO2 40 ug/m <sup>3</sup> ) by 2015
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	n/a				

SDG 11 targets		One London targets
11.a	Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	n/a
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	n/a
11.c	Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	n/a

Sources: Greater London Authority (2016a, 2016b).



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This material has been funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies.