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The Urban SDG Monitoring Series

Monitoring SDG Indicator 11.1.1

**Global monitoring of slums remains a
key concern for achieving the right to
adequate housing**

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Background

Achieving a progressive realization of the right to adequate housing for all requires protracted efforts at all levels and ensuring proper integration of legal, policy and planning frameworks. Achieving wider urban economic and social integration requires knowing and recognition of all spaces including urban slums, informal settlements and areas facing inadequate housing challenges.

From MDGs to SDGs, the global community has appreciated and witnessed the emergence of urbanization as a key development pattern. Today, the importance of urbanization for attainment of collective and inclusive sustainable development now features prominently in the post 2015 development agenda - *“Transforming our world: the 2030 Agenda for sustainable development”*,

including through the endorsement of a goal on cities (Goal 11) – **“make cities and human settlements inclusive, safe, resilient and sustainable”**¹.

¹ Tracking Progress Towards Inclusive, Safe, Resilient and Sustainable Cities and Human Settlements SDG 11 Synthesis Report - High Level Political Forum 2018



A woman peeps through a window of her house in Madagascar. 2008. © UN-Habitat / Flickr

“ Post 2015 development agenda
Transforming our world: the 2030 Agenda for sustainable development. ”

11 SUSTAINABLE CITIES AND COMMUNITIES



Goal 11; the Urban SDG; make cities and human settlements inclusive, safe, resilient and sustainable .

Monitoring the right to adequate housing within the SDGs (Indicator 11.1.1) now focuses on tracking three complimentary aspects: slums, informal settlements and inadequate housing. This provides universality in coverage of this indicator.²

While MDGs tracked populations of those who lived in slums under target 7D, the SDG indicator now covers more than just slums. The key for universal monitoring of all these global indicators rests in expertly defining the concepts and approaches that delineates what constitutes a slum or slum area at the global level or what informality or inadequate housing constitutes.

Although many people agree that when they see an urban settlement they can tell whether it's a slum or non-slum, area based definitions have been difficult to apply for many years. For MDGs monitoring, we defined a slum household definition instead of an area based definition.

For monitoring purposes during the MDGs, UN-Habitat used a definition that was based on identifying slum households in any given urban area namely:

A slum household is a group of individuals living under the same roof in an urban area who lack one or more of the following:



1. **Durable housing** of a permanent nature that protects against extreme climate conditions.



2. **Sufficient living space** which means not more than three people sharing the same room.



3. Easy **access to safe water** in sufficient amounts at an affordable price.



4. Access to **adequate sanitation** in the form of a private or public toilet shared by a reasonable number of people.



5. **Security of tenure** that prevents forced evictions.

² Details on the three definitions are available at the SDGs metadata repository at the following link <https://unstats.un.org/sdgs/metadata/?Text=&Goal=11&Target=11.1>



A busy street in Mathare slum Nairobi, Kenya 2016 © Julius Mwelu UN-Habitat.

Building on the MDG methodology, and the need to ensure the new indicator is universal, modifications were introduced for SDGs to cover components of housing inadequacy and informal settlements in the measurement for target 11.1. The new SDG aspects on Informal Settlements and Inadequate Housing apply to all countries (developed and developing countries). Integrating these two aspects helps to capture the status of housing conditions in both developed and developing countries thus addressing the fundamental principle of *leaving no one behind* in regards to the right to adequate housing.

Technological advancements today allow for many new ways to map and identify human settlements. Some ongoing initiatives include; aggregated census slum households , a-priori satellite imagery classification, field classification, spatial and machine learning models,etc.

The combination of these methods can provide precise information on the area physical characteristics, area social characteristics, and geo-spatial information related to the local context generating results comparable across cities and countries.









With the addition of inadequate housing component, experts agree that it is important that clear definitions for assessing this are agreed. In addition,

to the components that define slums, qualifiers that measure accessibility, affordability and cultural adequacy are included in defining inadequate housing. Affordability as a qualifier for defining adequate housing is for example defined as - a house is considered adequate if it is affordable to the household members, i.e. the net monthly expenditure of household members does not exceed 30% of the total monthly income of the household members.

Other measures of inadequate housing, which are also common used to identify slums and Informal Settlements, include: access to water, access to sanitation, sufficient living area (overcrowding), structural quality (durability and location) and security of tenure ³.

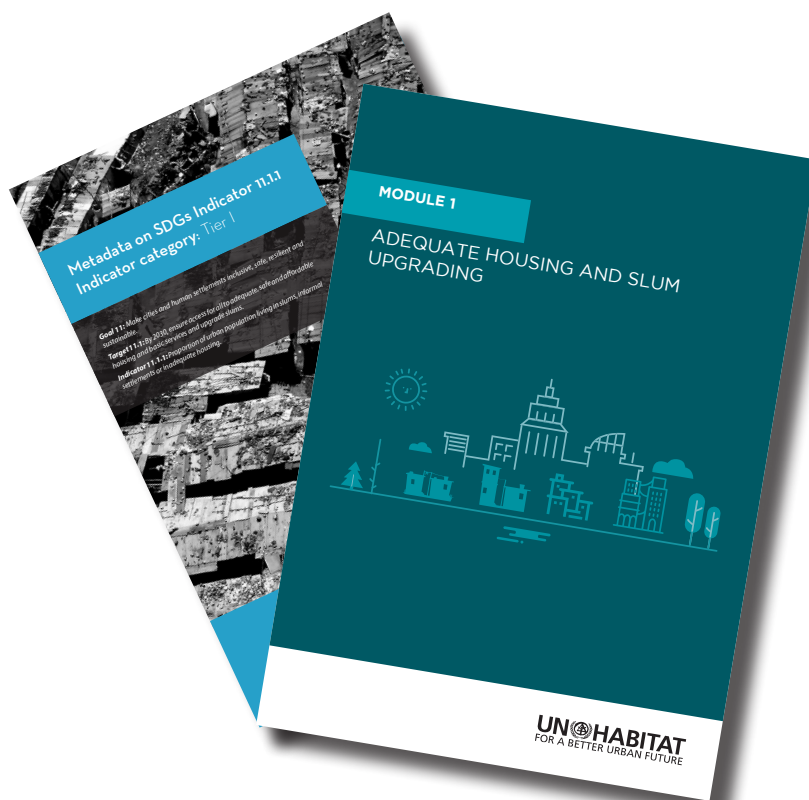
³ <https://unhabitat.org/tools-and-guides/>

Criteria used in defining slums, informal settlements and inadequate housing

	Slums	Informal settlements	Inadequate housing
 Access to water	✓	✓	✓
 Access to sanitation	✓	✓	✓
 Sufficient living area, overcrowding	✓		✓
 Structural quality, durability and location	✓	✓	✓
 Security of tenure	✓	✓	✓
 Affordability			✓
 Accessibility			✓
 Cultural adequacy			✓

In the SDGs monitoring dispensation, National Statistical Offices (NSOs) are responsible for the collection, analysis, and compilation of data in their countries. Final compilation and reporting at the global level will be led and guided by custodian agencies such as UN-Habitat in the case of SDG indicator 11.1.1. Regular monitoring and reporting on this indicator will be possible for intervals of 3-5 years based on routine data sources such as censuses and household surveys that are collected in periods of 3-5 year gaps, with the census coming in every 10 years.

The Global Urban Observatory (GUO), has developed step-by-step modules/ tools that guide any member states and partners on procedures for calculation of SDG indicator 11.1.1. This module can also be used by academia and civil society to monitor and report on slums/ informality and inadequate housing.



Reporting

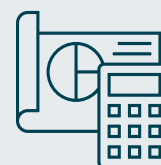
To report on SDG indicator 11.1.1, a variety of data sets are used, such as: National Population and Housing Censuses, Demographic and Health Surveys, Multiple Indicator Cluster Surveys, Living Standard Measurement Surveys, Urban Inequities Surveys, Households Expenditure and Income Surveys.



Computing

To compute this indicator, data producers will need to work out two main components:

- a). Slum Households / Informal settlements households and
- b). Inadequate housing households.



Tools

The tool developed for this indicator was reviewed and agreed upon by local and international stakeholders.

This is now available here: <https://unhabitat.org/tools-and-guides/>.



Where are we in terms of latest estimates

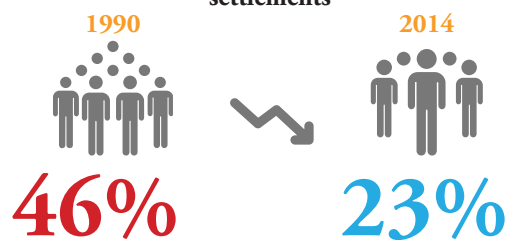
Slums and informal settlements:

Between 1990 and 2014, the proportion of the global urban population living in slums decreased from 46% to 23%, but with many developing countries experiencing rapid urbanization, the absolute numbers of people living in slums was bound to increase. The bulk of those who continue to live in slum-like conditions are in three major regions-Latin America and Caribbean (110 million), Sub-Saharan Africa (228 million) and East and South-eastern Asia (589 million). An increased focus and attention to the slums in the last 15 years ensured that millions of people globally moved out of slums conditions, but this gain has been offset by internal population growth in slums and rural-urban migrations.

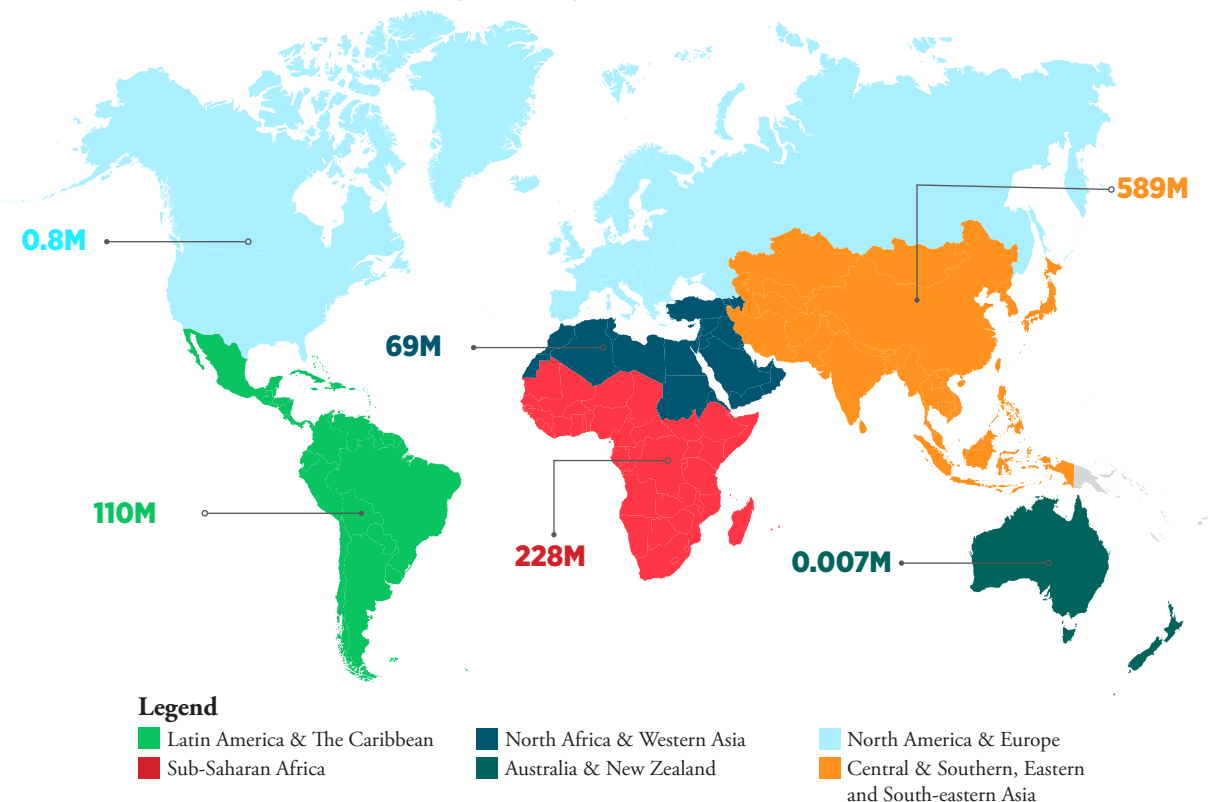
Inadequate housing:

The rate at which adequate/affordable housing is supplied and provided on the global market is way lower than the rate of the urban population growth, a fact that raises policy questions on how to improve living conditions of people living in slums and at the same time mobilize investments to achieve adequate housing and hence the viability of achieving SDG target 11.1 by 2030.

Global urban population living in slums & Informal settlements



Population (Per region) living in slums and informal settlements



About **1 billion** people still live in slum conditions lacking access to adequate housing

Policy lessons and opportunities

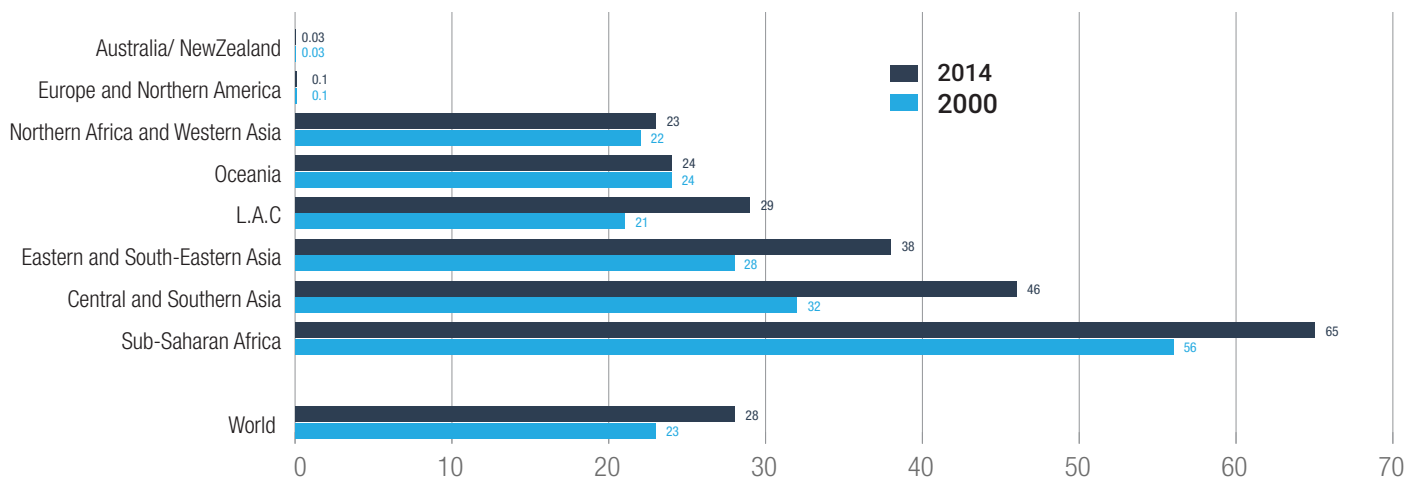
Participatory slum upgrading approach is one of the best approaches that has been identified to be effective in improving living standards of slum households and moving them out of slum-like conditions. The approach requires wider stakeholder engagement that places slum communities at the center of interventions to guarantee sustainability and better results.

Global initiatives such as the Participatory Slum Upgrading Programme, the Global Housing Strategy and other community led projects have contributed to the crafting and testing of methodologies developed for monitoring and reporting on indicator 11.1.1. The programmes have also offered national and subnational governments opportunities to build their monitoring capacities to formulate more informed policies.



Housing and Slum upgrading © UN Habitat / Julius Mwelu / Flickr.jpg

Proportion of urban population that live in slums



What lessons have we learnt so far?

The next high-level political forum (HLPF) on sustainable development under the auspices of the Economic and Social Council, will be held in July 2019. The theme will be "Empowering people and ensuring inclusiveness and equality" and SDGs under review will be Goals 4, 8, 10, 13, 16 and 17¹. The interlinkages of Goal 11 with other goals and with other development agendas such as the New Urban Agenda and the Sendai Framework are extensive and wide-ranging. The SDG indicators under review have a direct connection to urban policies and a clear impact on cities and human settlements hence slums and housing issues will be tackled in almost all the future HLPFs.

¹ SDGs knowledge platform online <https://sustainabledevelopment.un.org/index.php?menu=4444>

The Global Urban Observatory unit is ready and now well adapted to working with other partners in developing, sharing and production of data, information, knowledge and expertise at all levels on the plight of slum dwellers. This includes collaborations with teams from the academia, international organizations and highly qualified experts in the sector of slum spatial modelling. Some of the latest thinking on slums mapping and slum area identification were discussed and presented at the **Slum Area Spatial Modeling Workshop** held in Nairobi in January 2019. "Slum area model covariate. Mapping land cover and land use at city scale level using VHRRS data".



GUO's Next Phase

As part of its continued support to Member States, GUO's next phase of work on this target on housing will focus on:



Building capacities of national stakeholders to increase their understanding of the slums indicator and how to monitor and report on slums, adequate housing and informality;



Improving information flows between all levels for better urban decision-making;



Expanding the work on use of remote sensing to assist in identifying slums and informal settlements;



Disseminating widely the set of global tools developed;



Stimulating broad-based consultative processes to help identify and integrate urban information needs;



Sharing tutorials on how to compute the proportion of people living in slums, informal settings or inadequate housing.

GUO has also worked closely with the European Commission (EC) and OECD in assessing the feasibility of adopting a global definition of cities/urban areas and rural areas in support of the global monitoring of SDGs and NUA urban targets. Specifically, GUO and its partners have been testing and disseminating the Degree

of Urbanization (DEGURBA)² methodology developed by the EC.

Interesting results have been published in a series of articles called "**Testing the Degree of Urbanization at a global**

level"³ whose aim is to analyze whether DEGURBA is applicable to all countries of the world to accurately identify cities, smaller settlements and rural areas.

² The Degree of urbanization (DEGURBA) is a classification that indicates the character of an area. The latest update of the classification is based on 2011 population grid and the 2014. Local Administrative Units (LAU) boundaries. The next major update will be based on 2020 Census results. More details here: <https://www.eea.europa.eu/data-and-maps/data/external/degree-of-urbanisation-degurba>

³ The articles are available at the European Commission official website at the following link <https://ghsl.jrc.ec.europa.eu/CFS.php>

Key 2018/19 articles published on slum monitoring:

1. Slum: Comparing municipal and census basemaps. AA Pedro, AP Queiroz - Habitat International, 2019 – Elsevier.
2. Spatial data for slum upgrading: Volunteered Geographic Information and the role of citizen science. S Hachmann, JJ Arsanjani, E Vaz - Habitat International, 2018.
3. Causes of delays in slum reconstruction projects in India. Mona N. Shah, Saurav Dixit, Ricken Kumar, Ratika Jain & Kunal Anand, 16 Jan 2019.
4. Institutionalizing participatory slum upgrading: a case study of urban co-production from Afghanistan, 2002–2016. Matthew French, Abdul Popal, Habib Rahimi, Srinivasa Popuri, Jan Turkstra.
5. Development of a cellular automata model using open source technologies for monitoring urbanisation in the global south: The case of Maputo, Mozambique. JJ Arsanjani, CS Fibæk, E Vaz - Habitat International, 2018.
6. Participatory Project Management and success of Slum Upgrading Projects In Korogocho Informal Settlements Nairobi City County, Kenya Dorothy Karimi Njeru, Gladys Kimutai, 2018.
7. Enacting participatory, gender-sensitive slum redevelopment? Urban governance, power and participation in Trivandrum, Kerala. G Williams, U Omankuttan, J Devika, B Aasen - Geoforum, 2018.
8. Assessing urban sustainability of slum settlements in Bangladesh: Evidence from Chittagong city. N Uddin - Journal of Urban Management, 2018.
9. Textural segmentation of remotely sensed images using multiresolution analysis for slum area identification. RA Ansari, KM Buddhiraju - European Journal of Remote Sensing, 2019 - Taylor & Francis.
10. Urban Slum Morphology and Socio-economic Analogies: A Case Study of Kibera Slum, Nairobi, Kenya. J Mukeni - Urbanisation, 2018 - journals.sagepub.com.
11. The history, geography, and sociology of slums and the health problems of people who live in slums. Ezeh A, Oyebode O, Satterthwaite D, Chen YF, Ndugwa R, Sartori J, Mberu B, Melendez-Torres GJ, Haregu T, Watson SI, Caiaffa W, Capon A, Lilford RJ. Lancet. 2017 Feb 4;389(10068):547-558. doi: 10.1016/S0140-6736(16)31650-6. Epub 2016 Oct 16. Review.
12. Improving the health and welfare of people who live in slums Lilford RJ, Oyebode O, Satterthwaite D, Melendez-Torres GJ, Chen YF, Mberu B, Watson SI, Sartori J, Ndugwa R, Caiaffa W, Haregu T, Capon A, Saith R, Ezeh A. Lancet. 2017 Feb 4;389(10068):559-570. doi: 10.1016/S0140-6736(16)31848-7. Epub 2016 Oct 16. Review.

GUO Products.

Reports 2018/19

1. The sustainable development Goals Report 2018.
2. The Quadrennial Report 2018
3. SDG 11 Synthesis report 2018
4. UN Economic and Social Council



Guide books

1. City definition
2. National Sample of Cities
3. Training Modules and Metadata
4. Global Urban Observatory Guide



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Daniel Githira
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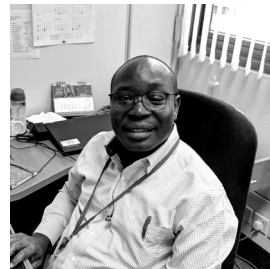
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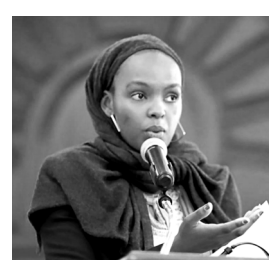
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