Capacity Development on SDGs Indicators' Monitoring and Reporting

Indicator 11.1.1: Adequate housing and slum upgrading

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Tier I indicator

Goal 11

Sustainable cities and communities

Target 11.1

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

Indicator 11.1.1

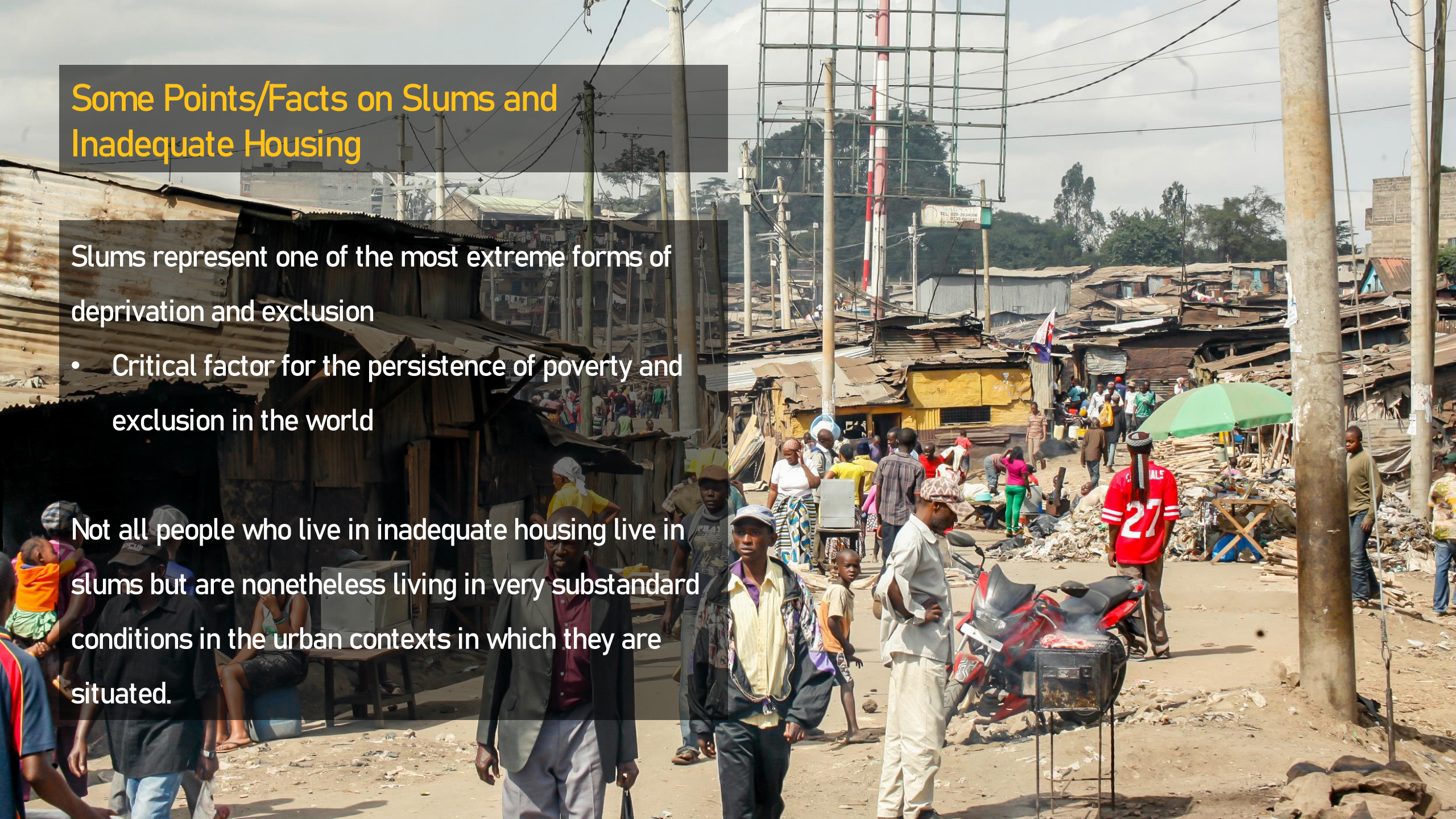
Proportion of urban population living in slums, informal settlements or inadequate housing.

Tier Classification

Tier I

Integrates the elements of MDG 7 Target 7D with the SDGs broader spectrum of housing informality and inadequacy.

Many countries ready to report on the progress



Some Points/Facts on Slums and Inadequate Housing

Slums represent one of the most extreme forms of deprivation and exclusion

- Critical factor for the persistence of poverty and exclusion in the world

Not all people who live in inadequate housing live in slums but are nonetheless living in very substandard conditions in the urban contexts in which they are situated.

Some Points/Facts on Slums and Inadequate Housing

39% (2000) - 30% (2014) decrease of urban population living in slums

2.4B people worldwide live without improved sanitation. 2B are affected by water stress

Female headed and children headed households are often most vulnerable to inadequate housing conditions

1/4 of worlds urban population is estimated to live in slums

100M people worldwide are Homeless

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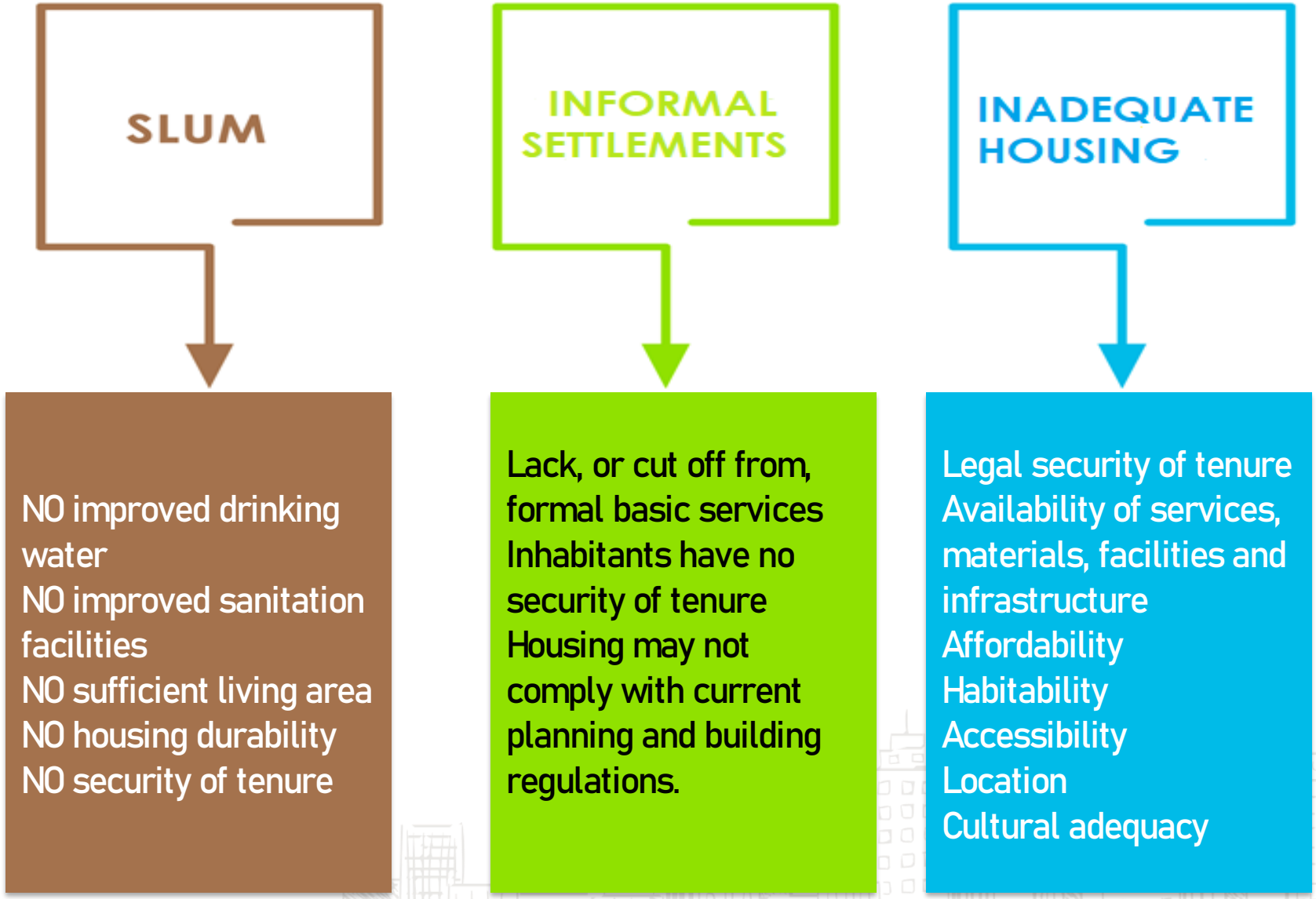
Concepts for Indicator 11.1.1



Criteria for Defining Slums and Informal Settlements

	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			✓

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Slums and Informal Settlements

The 3 criteria of informal settlements are essentially captured in the definition of slums, which sustains the combination of both (slums/informal settlements).

	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			✓

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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			✓

From the 7 criteria of adequate housing, 3 are not covered by slums / informal settlements: housing affordability, accessibility and cultural adequacy

Affordability is the most relevant and easier to measure.

Housing affordability = Suitable means of measuring inadequate housing in a more encompassing manner

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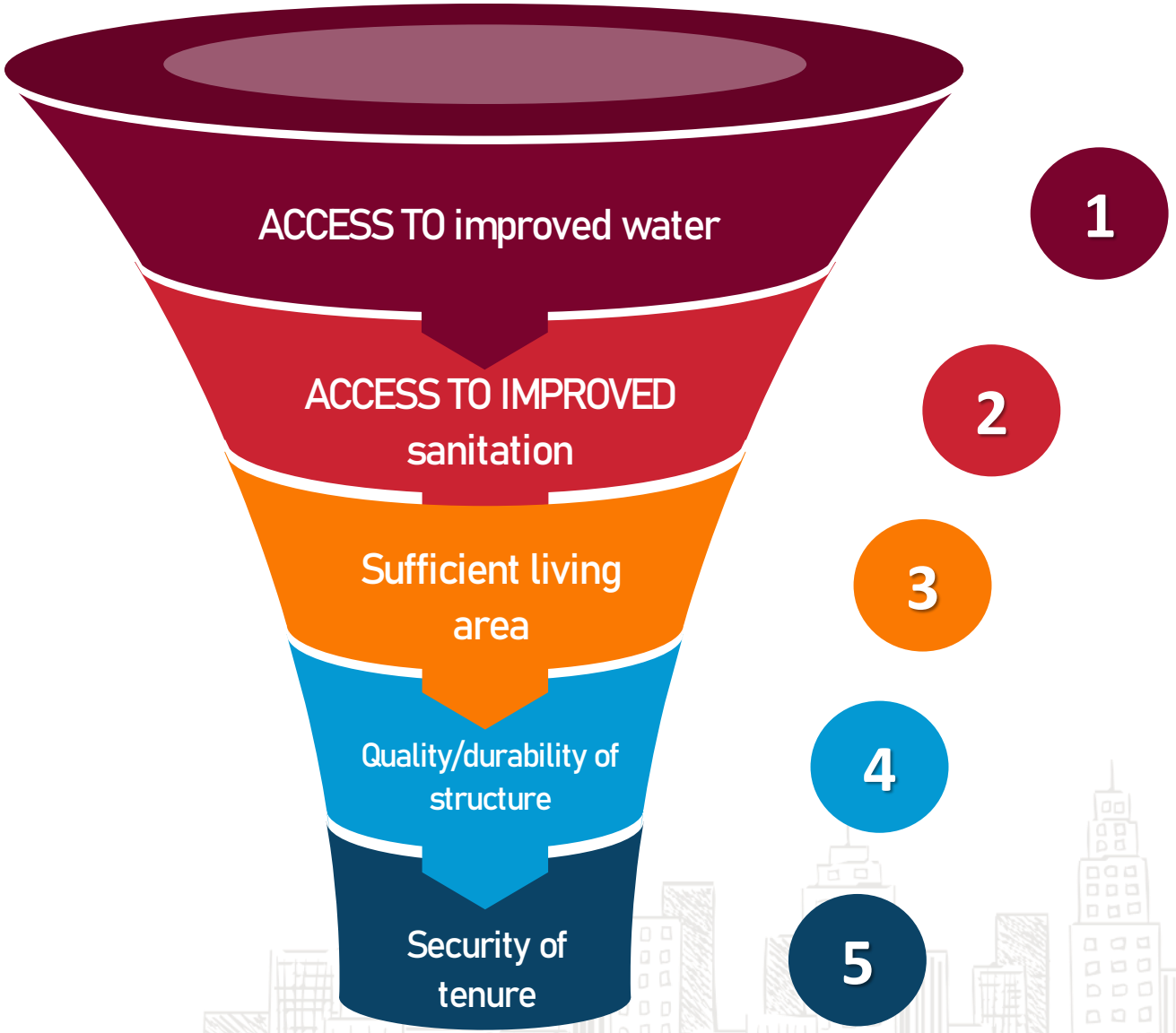
Slum/Informal Settlements Components for 11.1.1

Lack of :



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Security of Tenure:	Formal title deeds to both land and residence. Formal title deeds to either one of land or residence. Agreements or any document as a proof of a tenure arrangement.
Improved water:	Protected from outside contamination (faecal matters): piped water into dwelling, public tap/stand pipe serving no more than 5 households, protected spring, rainwater collection, bottled water, bore hole, protected dug well.
Improved sanitation:	The excreta disposal system is considered adequate if it is private or shared by a maximum of two households. ▪ public sewer; ▪ septic tank or pit; ▪ pour-flush latrine; ▪ Ventilated improved pit latrine. • Pit latrine with slab/covers the pit entirely, composting toilets/latrines
Structural quality/durability of Housing and location:	NOT BUILT or RESIDING on or near a hazardous site. The following locations should be considered: ▪ housing in geologically hazardous zones (landslide/earthquake and flood areas); ▪ housing on or under garbage mountains; ▪ housing around high-industrial pollution areas; ▪ housing around other unprotected high-risk zones (e.g. railroads, airports, energy transmission lines). NOT in temporary and/or dilapidated structures. The following factors should be considered when placing a housing unit in these categories: ▪ quality of construction (e.g. materials used for wall, floor and roof); ▪ compliance with local building codes, standards and bylaws.
Sufficient living area / Overcrowding:	Not more than three persons per habitable room (minimum of 4m2 in area).


Slum Households/ Informal settlements

Component for Inadequate Housing for 11.1.1

Affordability:
A house is considered affordable if the household's expenditure on housing alone does not exceed 30% of the total net monthly income of the household

Methodology: Data Sources & Software

Demographic and Health Surveys (DHS)
&
Multiple Indicator Cluster Survey (MICS)

National Population
&
Housing Census

European Union survey on Income
&
Living Standards

Household Expenditure
&
Income Survey

Software

- SPSS Version
- Stata Version
- R+

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Part A:
Computation of Slum/Informal Settlements Households

Step 1 : Collect all Primary Data

- Collect all primary data sources for the country. Household survey data are preferred whenever they are available and on condition that they have the relevant variables for computing this component.
- DHS, MICS or other national household based surveys or census are preferred.

Example:

Name	Date modified	Type	Size
_census_13022013	2/12/2013 11:38 PM	SPSS Statistics Data Document	398,642 KB
_01_census_households	2/12/2013 1:23 AM	SPSS Statistics Data Document	96,300 KB

Step 2 : Review and assess available data

- Review and assess the complete sets of available data at the national level with all relevant variables.
  - Vary over years which would allow you to compute trends in your analysis.
- Examine each dataset for existence of all relevant variables for computing this indicator such as access to sanitation, water, security of tenure, housing durability, etc..

Step 3 : Select Appropriate Region

- Examine and select the correct household population that you need to analyse.
- This can be broken down by regions, urban-rural or even by cities using the respective variable of interest.
- These can be either at
  - City
  - Urban
  - Rural
- National Urban or Rural Aggregates

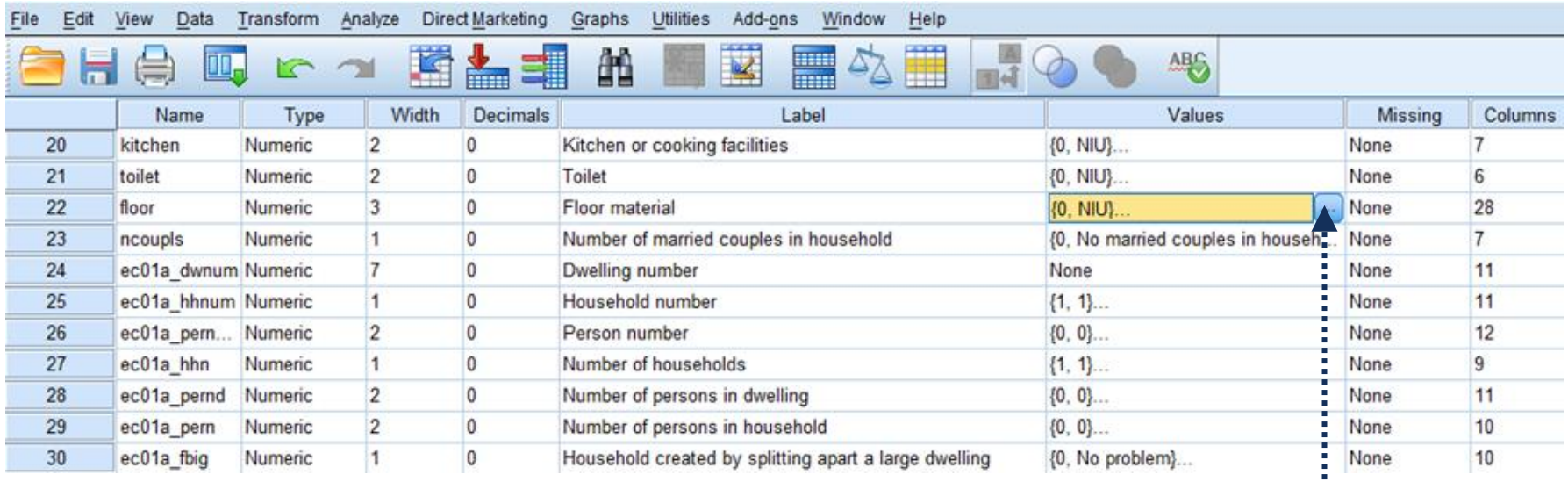
Step 4 :
Apply Relevant Analysis Program to generate tables results tables with relevant disaggregation

Example of Floor Materials

File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Add-ons Window Help

	Name	Type	Width	Decimals	Label
20	kitchen	Numeric	2	0	Kitchen or cooking facilities
21	toilet	Numeric	2	0	Toilet
22	floor	Numeric	3	0	Floor material
23	ncoupls	Numeric	1	0	Number of married couples in household
24	ec01a_dwnum	Numeric	7	0	Dwelling number
25	ec01a_hhnum	Numeric	1	0	Household number
26	ec01a_pern...	Numeric	2	0	Person number
27	ec01a_hhn	Numeric	1	0	Number of households
28	ec01a_pernd	Numeric	2	0	Number of persons in dwelling
29	ec01a_pern	Numeric	2	0	Number of persons in household
30	ec01a_fbig	Numeric	1	0	Household created by splitting apart a large dwelling
31	ec01a_mign	Numeric	1	0	Number of migrant records in the input data file (for entire
32	ec01a_prov	Numeric	2	0	Province
33	ec01a_dwtype	Numeric	2	0	Type of dwelling
34	ec01a_vacc...	Numeric	1	0	Occupation status of the dwelling

Review the response categories for the questions on housing durability



	Name	Type	Width	Decimals	Label	Values	Missing	Columns
20	kitchen	Numeric	2	0	Kitchen or cooking facilities	{0, NIU}...	None	7
21	toilet	Numeric	2	0	Toilet	{0, NIU}...	None	6
22	floor	Numeric	3	0	Floor material	{0, NIU}...	None	28
23	ncoupls	Numeric	1	0	Number of married couples in household	{0, No married couples in househ...	None	7
24	ec01a_dwnum	Numeric	7	0	Dwelling number	None	None	11
25	ec01a_hhnum	Numeric	1	0	Household number	{1, 1}...	None	11
26	ec01a_pern...	Numeric	2	0	Person number	{0, 0}...	None	12
27	ec01a_hhn	Numeric	1	0	Number of households	{1, 1}...	None	9
28	ec01a_pernd	Numeric	2	0	Number of persons in dwelling	{0, 0}...	None	11
29	ec01a_pern	Numeric	2	0	Number of persons in household	{0, 0}...	None	10
30	ec01a_fbig	Numeric	1	0	Household created by splitting apart a large dwelling	{0, No problem}...	None	10

Where possible the various responses categories are grouped and interpreted according to the definitions for slums (Not all surveys or census data use the same categories to define durable housing using floor material).

Click on this button to preview the response categories for the questions

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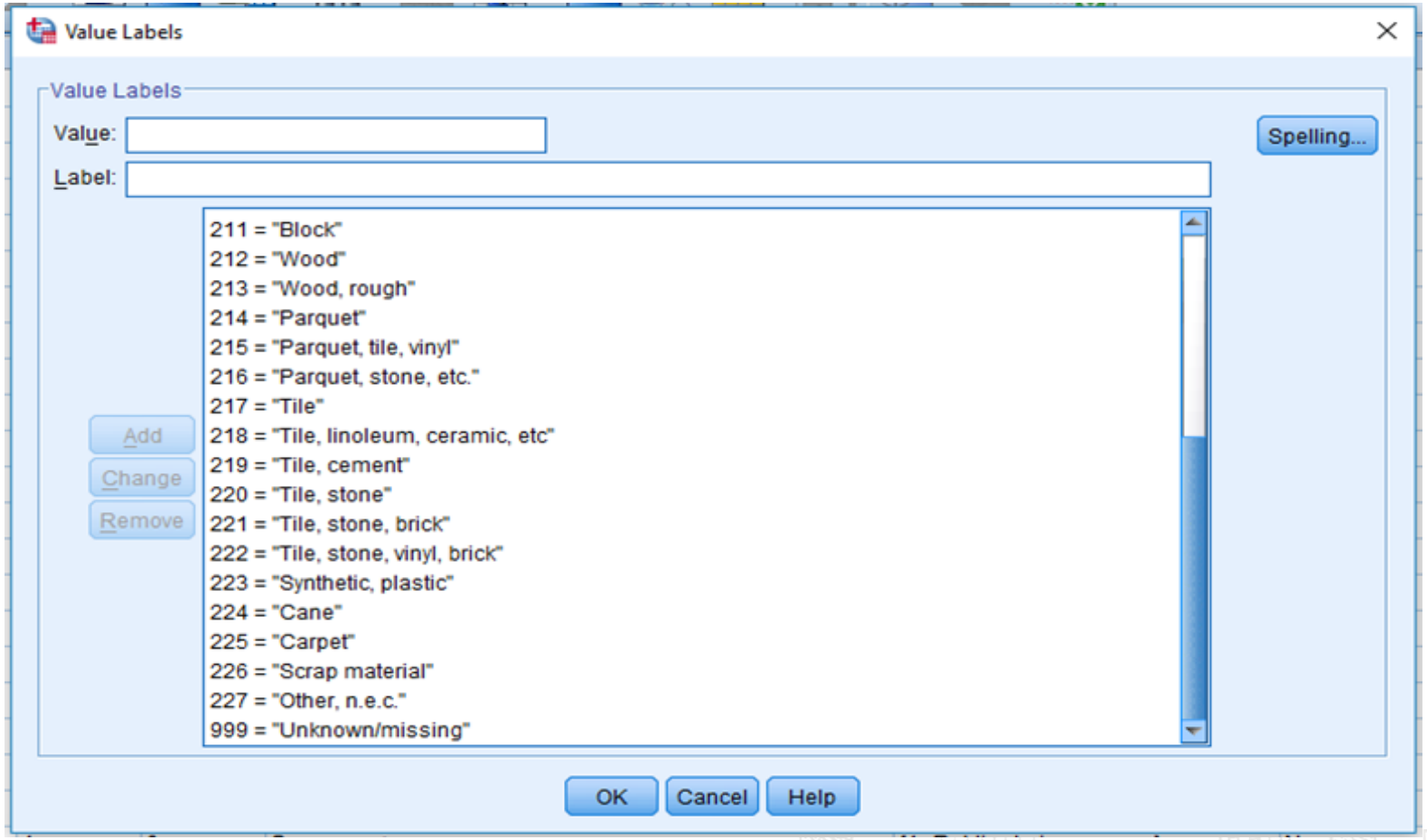
Various responses on adequate floor materials



Applying syntax to generate frequency tables

To create the new indicator, we have to group the question responses into two categories using the following syntax

This should be done for the response categories for the questions on access to improved water, improved sanitation, sufficient living area, improved housing and lack of security of tenure for slums.

```
**********durable floor**********.
*fre EC10A_FLOOR.

recode EC10A_FLOOR (1,3,4=1)(else=0) into floor1.
var lab floor1 "durable house".
val lab floor1 1"Improved Housing" 0"Unimproved Housing".
```

The syntax will also tabulate the frequencies into tables as shown below.

DURABLE HOUSING

Original Indicator

EC10A_FLOOR Predominant materials of the floor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Fitted-groove wood, parquet, boards, or finished wood	738630	16.1	16.1	16.1
	2 Unfinished boards	356370	7.8	7.8	23.9
	3 Ceramic, tile, vinyl, or marble	1692950	36.9	36.9	60.8
	4 Brick or cement	1596820	34.8	34.8	95.5
	5 Cane	10580	.2	.2	95.8
	6 Dirt	137370	3.0	3.0	98.8
	7 Other materials	40010	.9	.9	99.6
	9 NIU (not in universe)	16460	.4	.4	100.0
	Total	4589190	100.0	100.0	

New Indicator

floor1 durable house

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00 Unimproved Housing	560790	12.2	12.2	12.2
	1.00 Improved Housing	4028400	87.8	87.8	100.0
	Total	4589190	100.0	100.0	

Step 5: Repeat 'step four' for all the elements of slums and obtain the respective new tables.

- The new indicators should be coded as follows.

New variable	Codes	
Water1 =	1: Improved water	2: Unimproved water
Toilet1 =	1: Improved sanitation	2: Unimproved sanitation
Living1 =	1: Sufficient Living Area	2: Overcrowding
Floor1=	1: Durable Housing	2: Non-Durable Housing
Secure1=	1: Secure Tenure	2: Unsecure Tenure

Step 6: Using the new variables with focus only on urban households, identified in 'Step 4', we compute the slum household by the respective deprivation

- Shelter Deprivation measures the number of components a household does not have i.e.:

  1: One Shelter Deprivation - household has 4 components and is only missing 1 other component.

  2: Two Shelter Deprivation - household has 3 components and is missing 2 other components.

  3: Three Shelter Deprivation - household has 2 component and is missing 3 other components.

  4: Four Shelter Deprivation - household has 1 component and is missing 4 other components.

  5: Five Shelter Deprivation - household has NONE of the required components

Shelter Deprivation

Slum = One Shelter Deprivation + Two Shelter Deprivation + Three Shelter Deprivation + Four Shelter Deprivation + Five Shelter Deprivation

```
recode class (0=0) (1 thru 4=1) (5 thru 10=2) (11 thru 14=3) (15=4) into classgrp.
var lab classgrp "Slum stratification grouped".
val lab classgrp
 0 "Non-slum household"
1 " One shelter deprivation"
2 " Two shelter deprivations"
3 " Three shelter deprivations"
4 " Four shelter deprivations".

recode classgrp (0=0)(1,2,3,4=1) into slumthre.
var lab slumthre "Slum".
val lab slumthre 0"Non-slum" 1"Slum".
```

Shelter Deprivation

Example: 4 components considered

Housing conditions	Percentage of households by number of housing deprivation
Lack sanitation only	1.3%
Lack water only	3.0%
Lack durable housing only	7.8%
Lack Living area only	9.3%
Lack water and sanitation	.2%
Lack water and living area	.9%
Lack water and Durable housing	1.5%
Lack sanitation and living area	.4%
Lack sanitation and durable housing	1.0%
Lack living area and durable housing	2.7%
Lack water and sanitation and living area	.1%
Lack water and sanitation and durable housing	2.0%
Lack water and living area and durable housing	.9%
Lack sanitation and living area and durable housing	.5%
Lack water and sanitation and living area and durable housing	.2%
Non-slum household	68.3%
Total	100.0%

Housing conditions	Percentage of households by number of housing deprivation
One shelter deprivation	21.4%
Two shelter deprivations	6.7%
Three shelter deprivations	3.5%
Four shelter deprivations	.2%
Non-slum household	68.3%
Total	100.0%
Slum households	31.7%

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Part B:
Computation of Inadequate Housing Households

However, housing adequacy is measured by the affordability criterion only

Affordability: A house is considered affordable if the household's expenditure on housing alone does not exceed 30% of the total monthly income of the household

$$\textbf{Percentage of households living in inadequate housing} = \left[\frac{\textbf{Number of HHDs spending more than 30\% of income on } \textit{housing}}{\textbf{Total } \textit{HHDs}}\right] \textbf{ (expressed in \%)}$$

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Monitoring and reporting Process

Data sources

National Statistical Agencies

Capacity Development

- UN-Habitat
- UN Environment
- SDI Shack/Slum Owners International
- Cities Alliance – Cities without slums

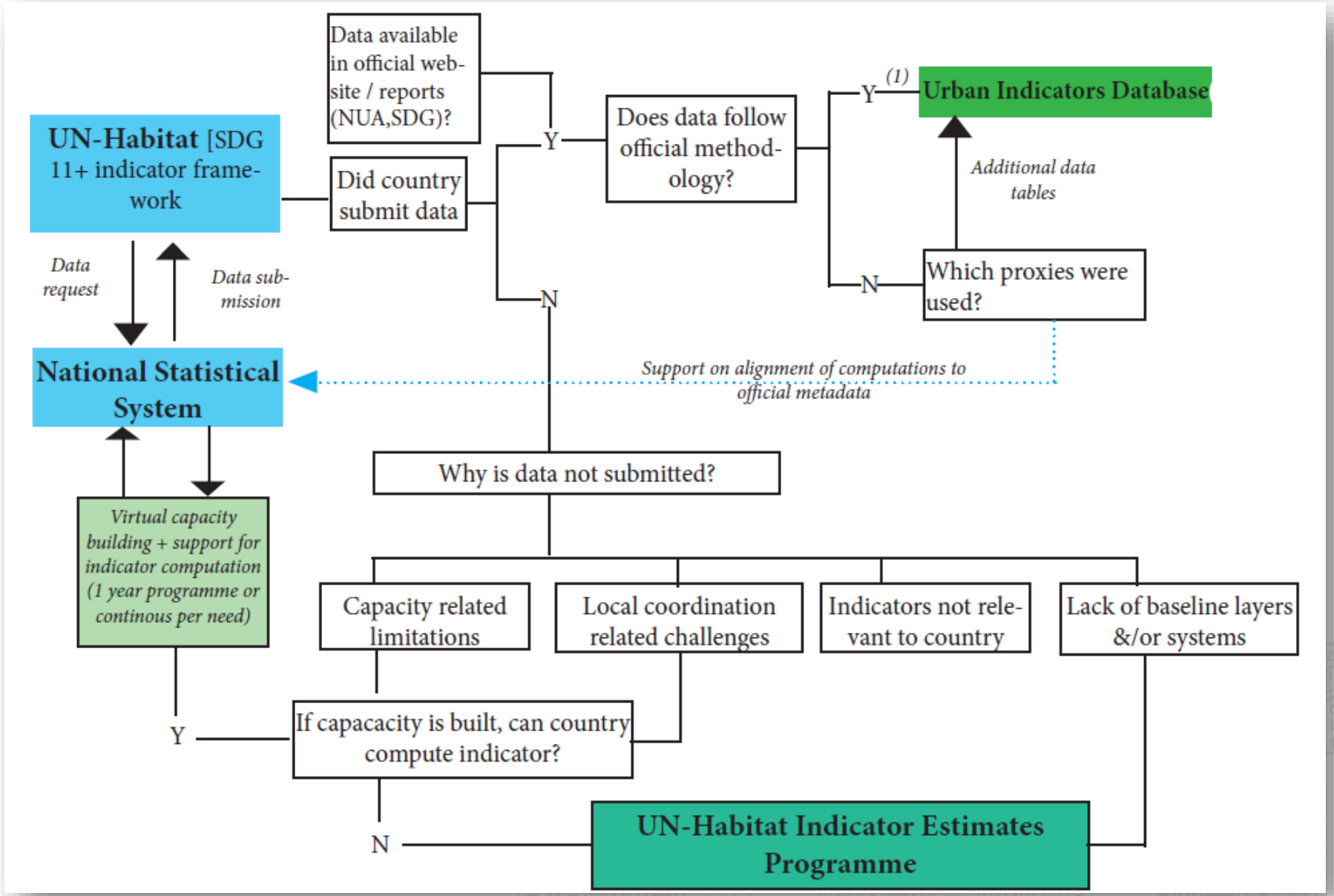
Data Release

Regular intervals of 3-5 years, allowing for three-five year reporting points until 2030.

Challenges

1. Lack of appropriate tools
    - Many global data collection exercises, including censuses, do not track populations living in places identified as slums
    - Most surveys, that use sampling frames taken from censuses are unable to distinguish between slum and non-slum clusters in urban areas.
2. Data management capacities
3. Lack of routine data on security of tenure

SDG 11.1.1 Data Collection Process from Countries



Information requested from countries

- % of population living in slums and informal settlements
- % of population with inadequate housing
- Reasons for not reporting
  - Multiple data requirements not all fully covered by data available
  - No data are available to calculate the SDG indicator
  - Out of scope of official statistics
  - Indicator is not relevant for the country
  - Lack of understanding of methodology
  - Lack of technical capacity
  - Lack of data collection systems for generating required data (e.g. GIS)
  - Other (please specify)

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SDG 11.1.1 Data Collection Template

Country Data

SDG Indicator 11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing

Component 1: Proportion of urban population living in slums or informal settlements

Country:	

	% Urban Population living in HHD with One Shelter Deprivation					% Urban Population living in HHD with Two Shelter Deprivations							% Urban Population living in HHD with Three Shelter Deprivations					% Urban Population living in HHD with Four Shelter Deprivations		% Urban Population Living in Slum HHD	Data Source	Year	Comments
	Lack Water only	Lack Sanitation only	Lack Durable housing only	Lack Sufficient living area only	One shelter deprivation	Lack Water & Sanitation	Lack Water & Sufficient living area	Lack Water & Durable Housing	Lack Sanitation & Sufficient Living area	Lack Sanitation & Durable Housing	Lack Sufficient living area & Durable Housing	Two shelter deprivations	Lack Water & Sanitation & Sufficient	Lack Water & Sanitation & Durable Housing	Lack Water & Sufficient Living area & Durable	Lack Sanitation & Sufficient Living area	Three shelter deprivation	Lack Water & Sanitation & Sufficient Living area & Durable Housing	Four shelter deprivation				
National Urban					0.0							0.0					0.0		0.0				
Capital city_Name					0.0							0.0					0.0		0.0				
City/town 1_Name					0.0							0.0					0.0		0.0				
City/town 2_Name					0.0							0.0					0.0		0.0				
City/town 3_Name					0.0							0.0					0.0		0.0				
City/town 4_Name					0.0							0.0					0.0		0.0				
City/town 5_Name					0.0							0.0					0.0		0.0				

Prepared by:	
Name	
Title	

Country Data

SDG Indicator 11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing

Component 2: Proportion of urban population living in inadequate housing

Country:	

	Percentage of urban population living in households where net monthly expenditure on housing or total housing costs (net of housing allowances) exceed 30% of the total monthly income of the household or total disposable	Data Source	Year	Comments
National Urban				
Capital city_Name				
City/town 1_Name				
City/town 2_Name				
City/town 3_Name				
City/town 4_Name				
City/town 5_Name				

Prepared by:	
Name	
Title	
Organization	
Date:	

Country:	

If indicator or component cannot be calculated, please indicate reasons:

Preciser Indicator/component that cannot be computed	

Reasons	Code	Select appropriate code
Multiple data requirements not all fully covered by data available	1	
No data are available to calculate the SDG indicator	2	
Out of scope of official statistics	3	
Indicator is not relevant for the country	4	
Lack of understanding of methodology	5	
Lack of technical capacity	6	
Lack of data collection systems for generating required data (e.g. GIS)	7	
Other (please specify)	8	

If you used a proxy indicator, please provide the definition and related methodology	
Any additional comments	

SDG Indicator 11.1.1 Reporting Form

This is a tool to compile national official estimates for SDG Indicator 11.1.1: *"Proportion of urban population living in slums, informal settlements or inadequate housing.*

Background

In 2015, the international community adopted the 2030 Agenda for sustainable development as a commitment to eradicate poverty and achieve sustainable development by 2030 world-wide, ensuring that no one is left behind. The related Sustainable Development Goals (SDGs) include a stand-alone goal on cities – SDG 11 *"Make cities and human settlements incluse, safe, resilient and sustainable"*, acknowledging that well-planned urban development is a key driver for sustainable development.

As the custodian agency and as part of the monitoring and reporting on SDG 11, UN-Habitat is collecting data regarding one of the SDG 11 indicators – SDG 11.1.1 *"Proportion of urban population living in slums, informal settlements or inadequate housing"*. Specifically, we would like your country to fill this template to provide the information on indicator 11.1.1 as calculated using the internationally approved methodology (https://unstats.un.org/sdgs/metadata/files/Metadata-11-01-01.pdf). The information provided by your country will be verified, compiled and provided to UNSD along with regional and global aggregates for publication in the SDGs indicators global database. Providing reliable and accurate information will be key in ensuring integrated and sustainable urban development in your country.

Instructions

The tool is an Excel spreadsheet with 4 sheets.
Users input data in Sheet 2 - % Urban Slum Population ; Sheet 3 - % Urban Population in Inadequate Housing; and Sheet 4 - Reasons for not reporting

The calculations should be based on the the following:

- Metadata for indicator 11.1.1 (https://unstats.un.org/sdgs/metadata/files/Metadata-11-01-01.pdf)
- Step by step module for compuation for indicator 11.1.1 (https://unhabitat.org/sites/default/files/2020/06/indicator_11.1.1_training_module_adequate_housing_and_slum_upgrading.pdf)

A. OPEN SHEET 2 - % Urban Slum Population

This sheet gathers data on the proportion of urban population living in slum households (HHDs), i.e. population living in HHDs that lack any of the following: 1) Improved water; 2) Improved sanitation; 3) Sufficient living area; 4) Durable housing (type of materials used for floor, roof or walls); and 5) Security of tenure. But due to lack of data on security of tenure, only the 4 components are often used to characterize a slum HHD.

1. Enter your country name in row 5

2. Enter the names of capital city and other cities/towns for which you are able to compute the indicator in rows 9-15. Add additional rows if you have more cities

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