Capacity Development on SDGs Indicators' Monitoring and Reporting

Indicator 11.2.1: Proportion of the population that has convenient access to public transport by sex, age and persons with disabilities

Capacity Building Webinar,
Series of SDG Webinars for the Arab Region
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DATA AND ANALYTICS
KNOWLEDGE AND INNOVATION BRANCH

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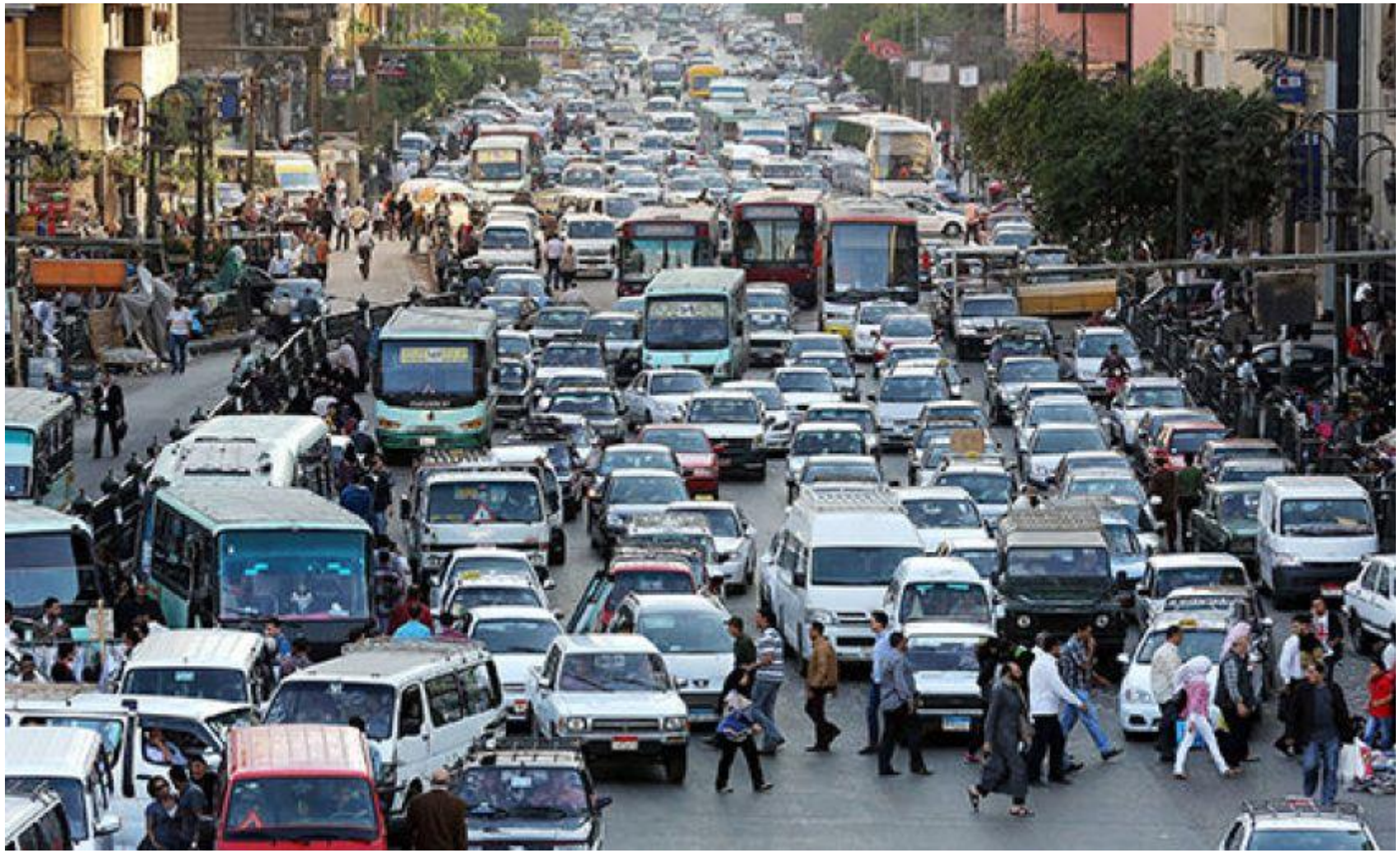
Outline

- Background and rationale for monitoring indicator
- Indicator components and concepts and computation
- Data Sources
- Data and reporting for ESCWA



What is being measured?

The Target…

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, and children, persons with disabilities and older persons**

Key aspects:

- Increase use of public transportation systems, **promote reduced reliance on private transport**
- **Improve** public transport **access to areas with a high proportion of transport-disadvantaged groups**

To be tracked by measuring …

Proportion of the population that has **convenient access to public transport** by sex, age and persons with disabilities **(SDG Indicator 11.2.1)**

The broad purpose is to ensure sustainable development to which everyone and every place has equal opportunity for advancement

Definition of Terms and Concepts

- Passenger service available to the public,
- Shared by strangers without prior arrangement.
- It includes cars, buses, trolleys, trams, trains, subways, ferries

- 0.5 km distance from an officially/formally recognized transport stop

- **1000m walking distance to high capacity transport systems and rapid transit e.g Metro stations**
- **Alternative modes that promote access can also be integrated to determine ease of access to stops e.g 2km proposed for cycling**

- Physically, visually or hearing- impaired, temporary disabilities, elderly, children etc

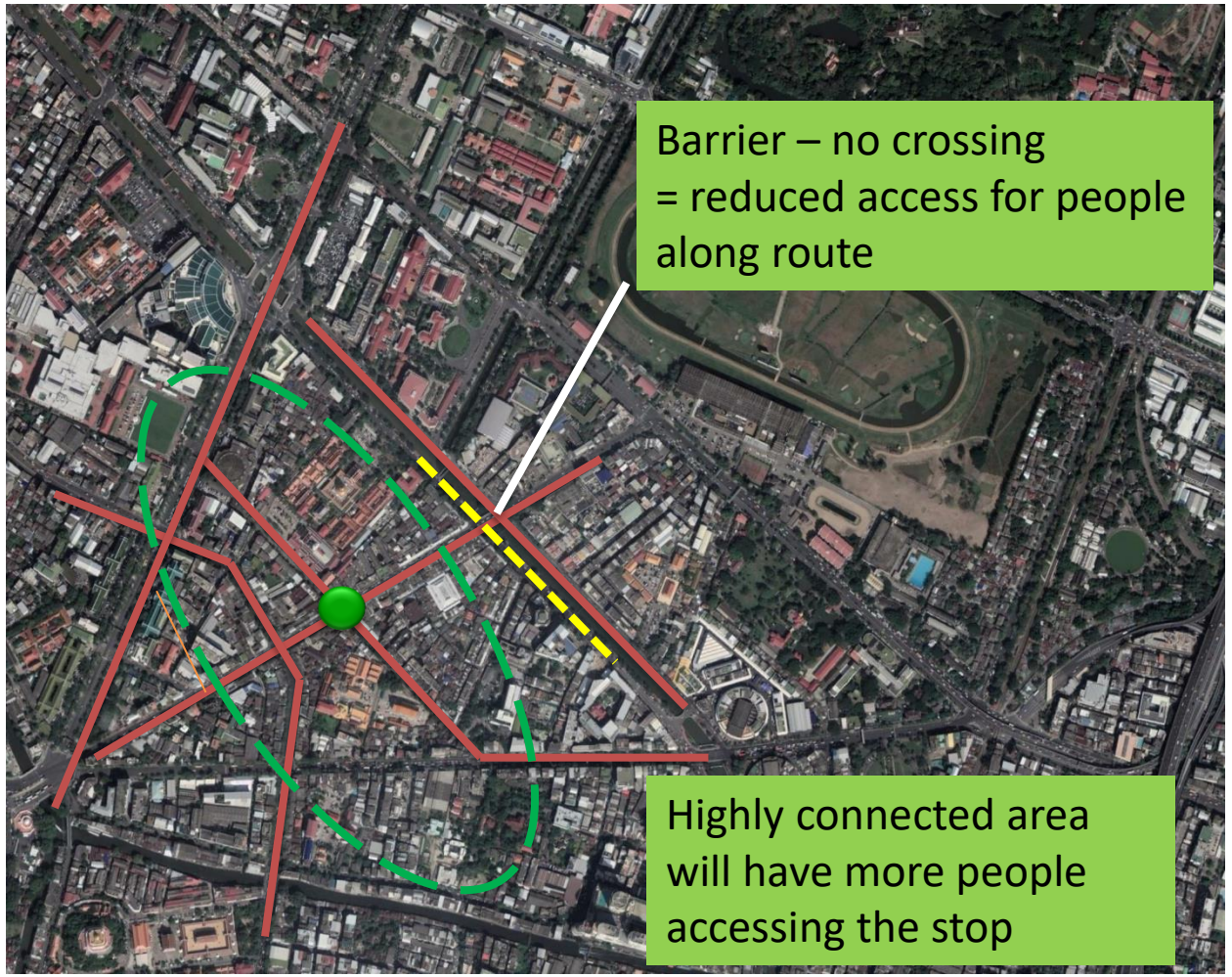
- Frequency service during peak travel times
- Stops at a safe & comfortable station

Access to service is not enough for decision making

- **For decision making,** more is needed ….
  - A service within walking distance is not necessarily considered as accessible if waiting times are high, services run on low frequency *
- Data can be collected on extended transit system performance indicators
  - Frequency of service
  - capacity
  - safety/security or comfort
  - Amount of time spend on transport network

- Cities/ countries should **collect as much information as required** for global reporting, **local decision making** towards sustainable and inclusive development

Access to public transport stop: Real-life situation



- Multiple barriers exists in every network

- **SO** … highest accessibility is for those close to stop, with easy access to network (*no barriers, provisions for special needs, etc)*

Workflow:
A. Data Availability

Indicator is measured through a hybrid of spatial and statistical methods

FIRST:

Get data on location of all public transport stops

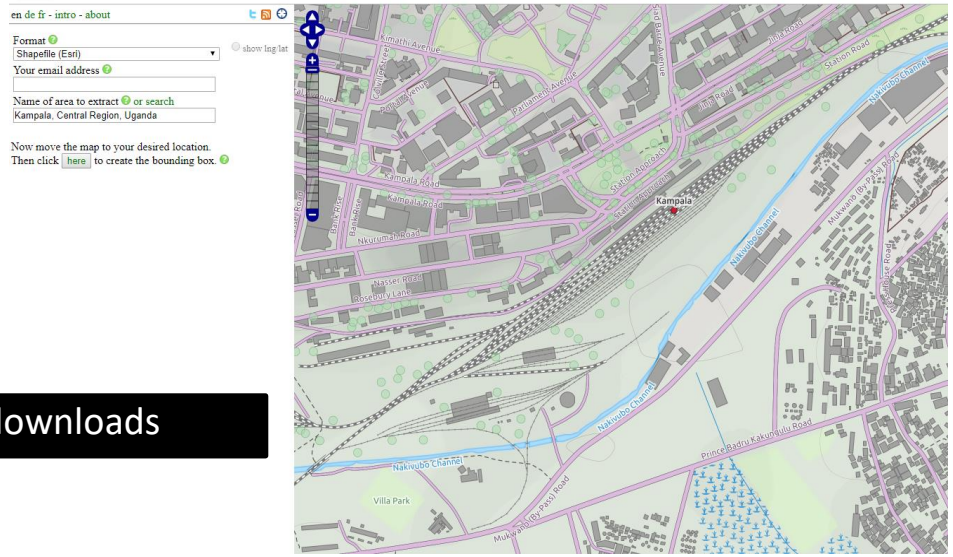
City level data – from city authorities; surveys etc

Primary data collection through stops mapping

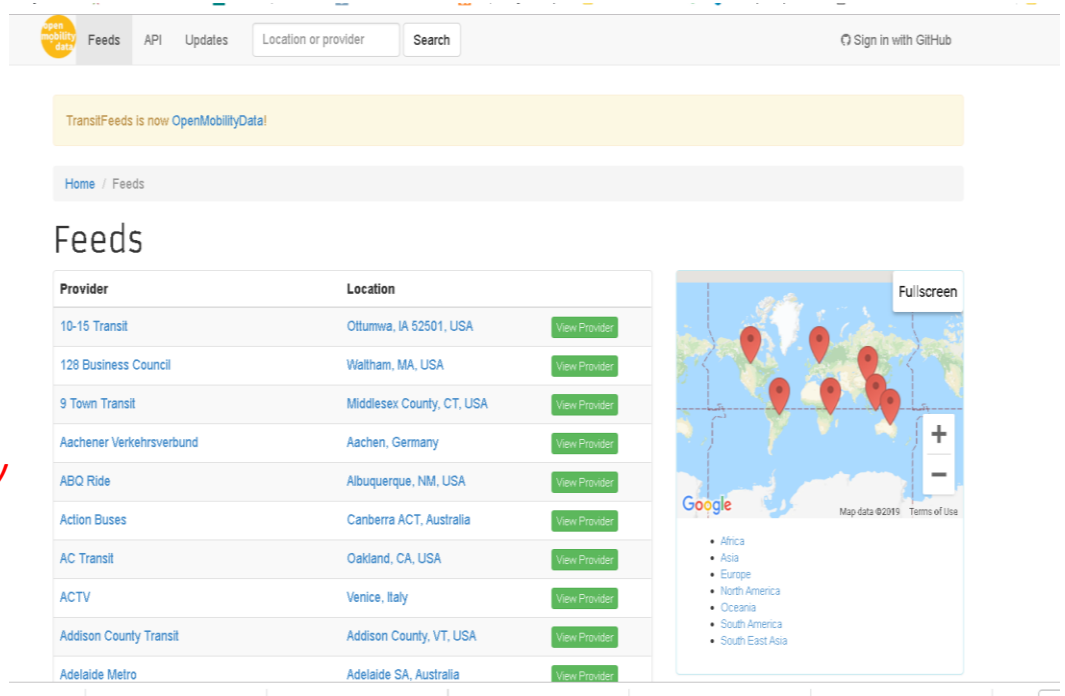
General transit feed specification (google data format) where data exists

Google streets data

Note: Open source data availability varies significantly for each city



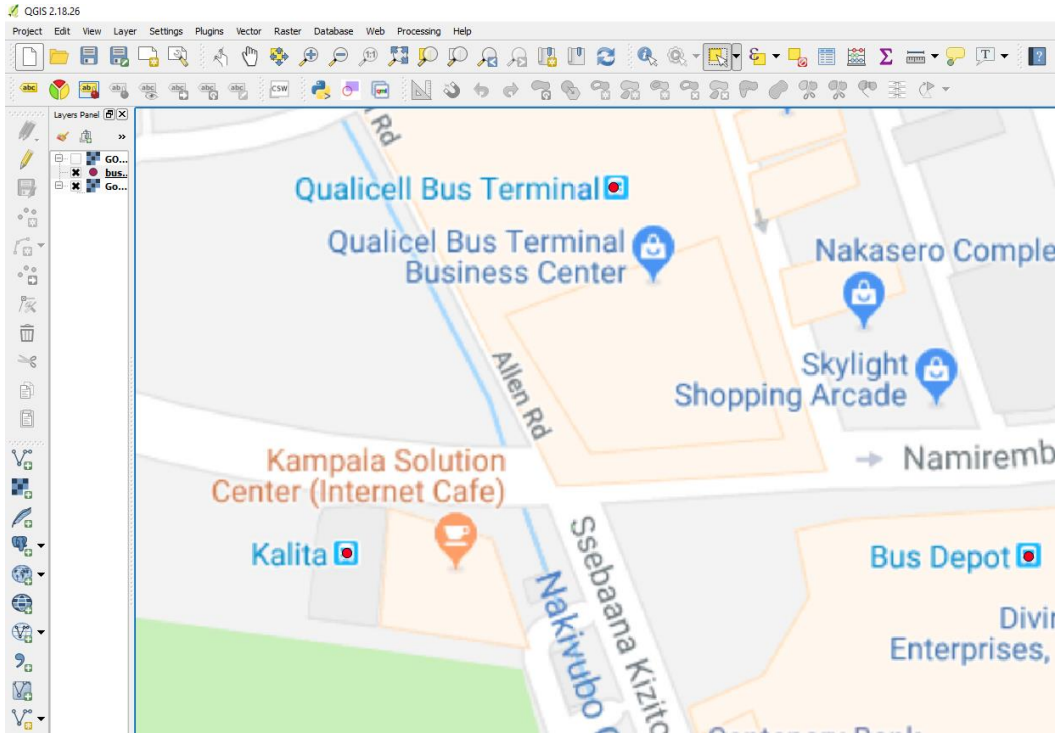
OSM downloads



General Transit Feed Specifications (data mostly available for developed regions – location of stops, frequency of service, etc)

Data Generation Options

Extraction from satellite imagery, google streets tiles



Other Sources

-WhereIsMyTransport

-ITDP

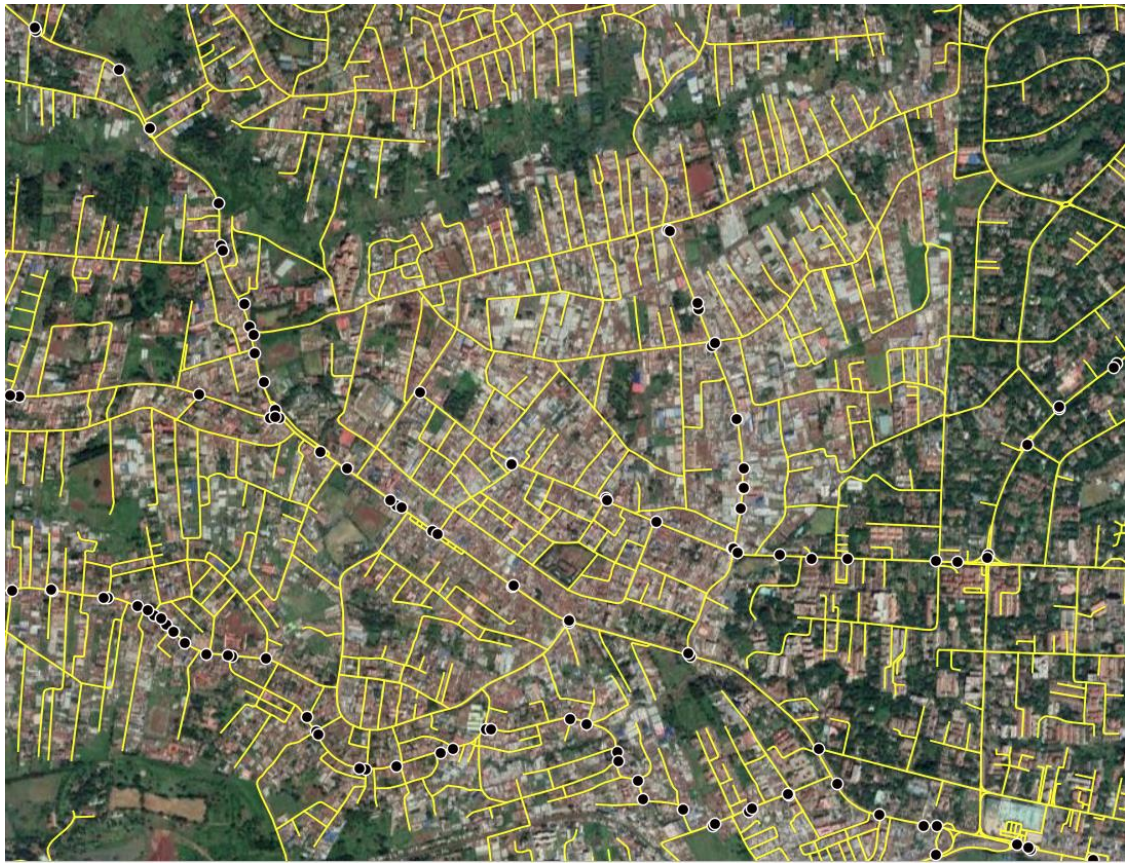
-WB

Visual interpretation from high resolution imagery offer a good data source where general public transport structure is known

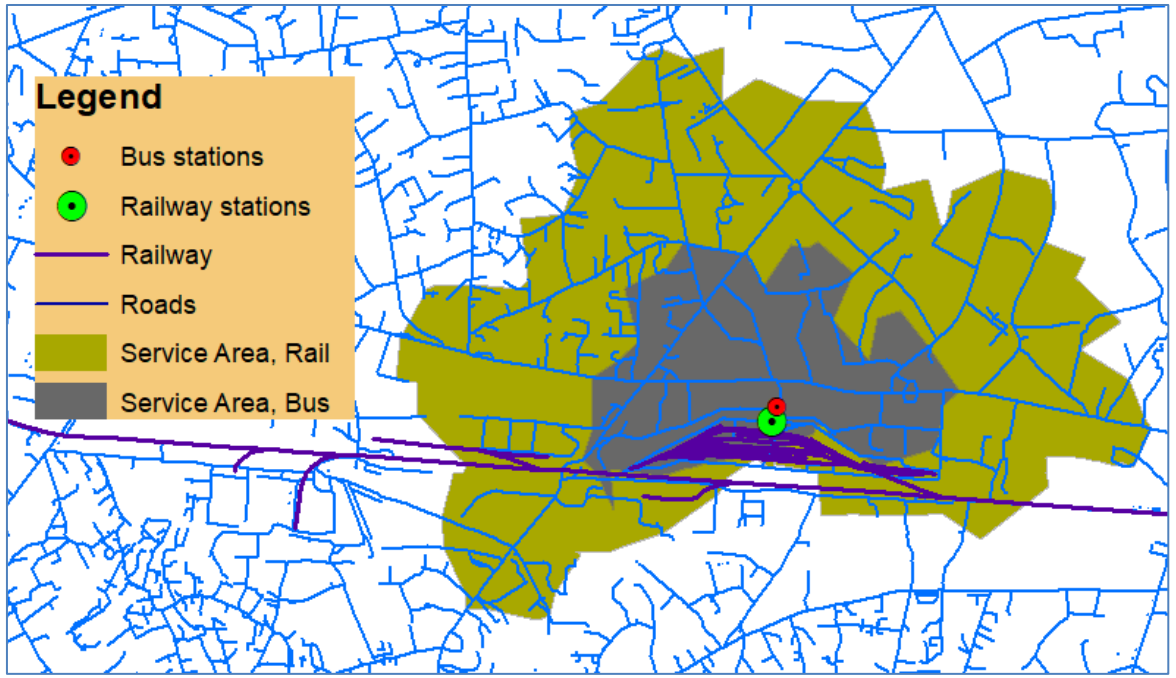
B. Create Service Areas

Get data on streets:

- City authorities
- OSM
- Generate (digitize)

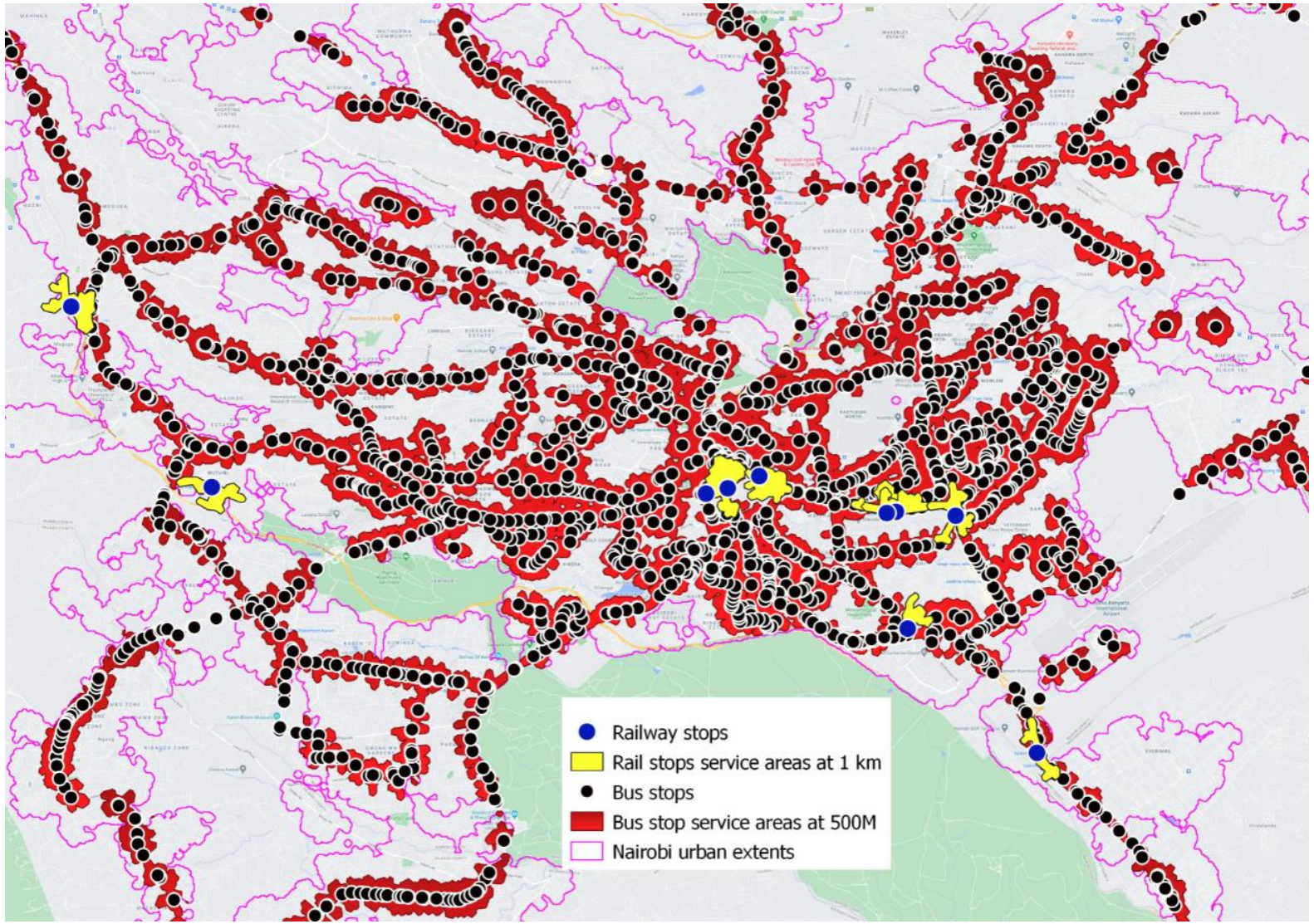


– **Create service area for each step**, measured by 500 m walking distance for small capacity systems, 1000m for high capacity systems (use GIS tools)



A merge of both bus stop and high capacity transport systems service areas helps identify the total population with access to different public transport modes

Merge Service Areas



- Areas in red and yellow are within public transport service areas
- Human settlements within the areas covered by the SA are considered to have convenient access to public transport

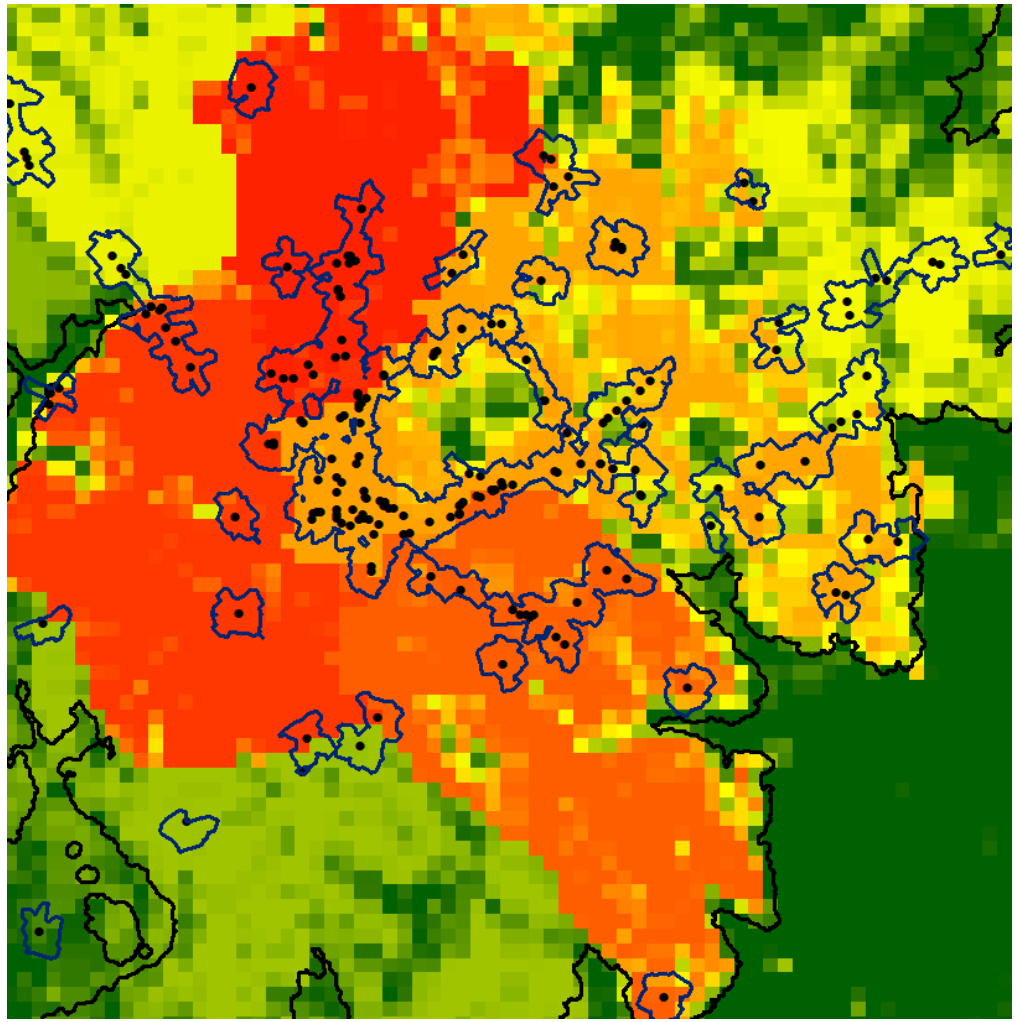
Note:

- Remember to validate data from open sources;
- Identify barriers to accessing stops – e.g. where streets are not walkable, where pedestrian crossings/ bridges are missing on major highways
- Merge Service areas for all spaces to avoid double counting (GIS network analyst tools)

C. Integrate population data

- The National statistics office has data at household level that can be aggregated to determine population in the created service areas by total, gender, age, persons with disabilities
- Gridded population datasets offer option where such lacks – HRSL, WSF, GPW4, GHS-POP, WorldPop
- You can create population grids at national or city level using available high quality data and extracted built up areas
- There is a major challenge of disaggregating the indicator by different groups where high resolution population data is lacking

How many people live in the enclosed area?



D. Compute Indicator

$$\%\ with\ access\ to\ public\ transport = 100x \frac{Population\ with\ convenient\ access\ to\ public\ transport}{City\ population}$$

Data Disaggregation requirements

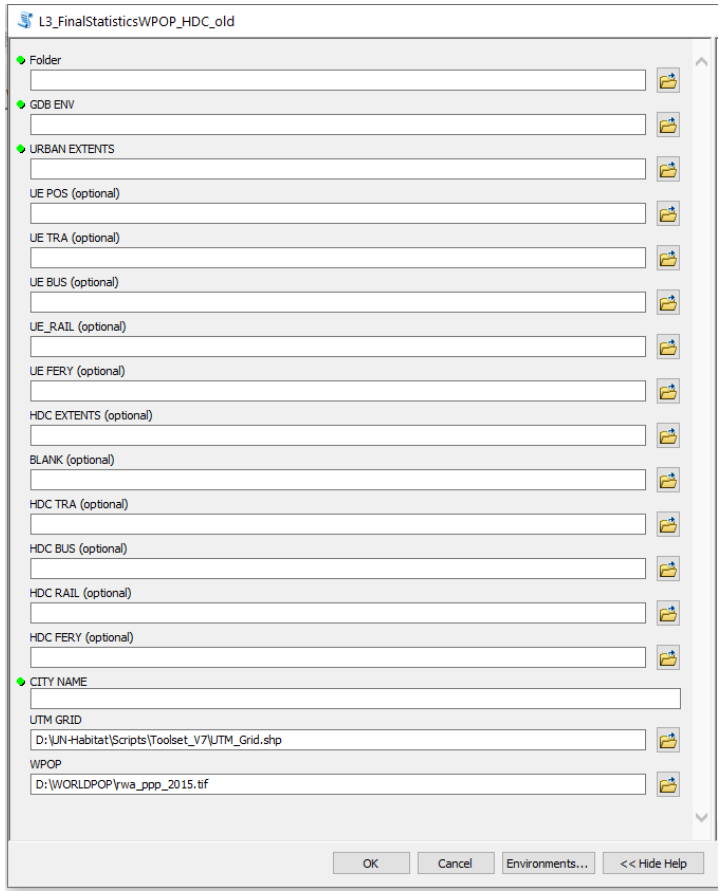
- Required Disaggregation
  - Age
  - Gender
  - Indicators of vulnerability and disability

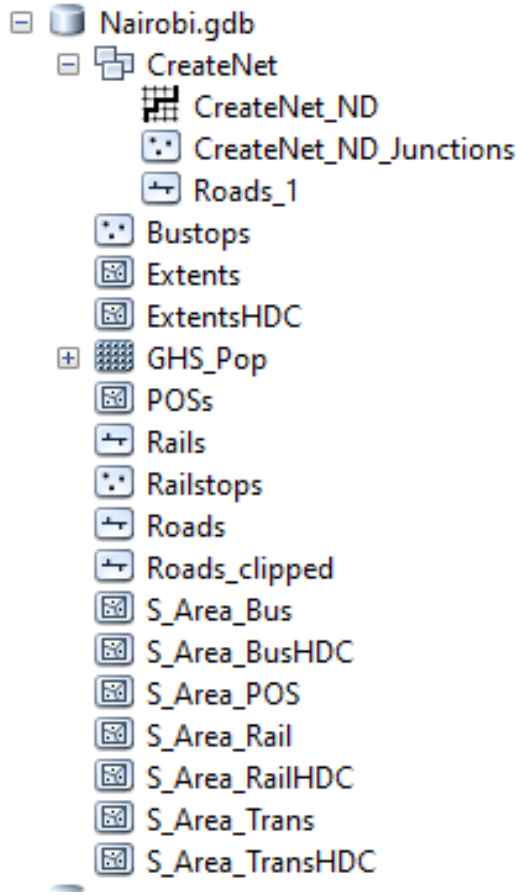
- Disaggregation requires detailed data that breaks out variables across the groups of interest … which is a difficult task requiring huge resources

- Inter-agency collaboration on transportation data collection ongoing – Countries, World Bank, ITDP, EC, UN-Habitat, etc

UN-Habitat Support Activities

- Capacity building
- Development of geo-processing tools/ scripts
- Generate some data for validation by countries





- Manage the urban indicators database

- Work with partners to improve data methodologies

Data and Reporting for Arab States

UN-Habitat's Support

Link with NSOs – data survey questionnaire, follow-up meetings, technical sessions, meetings

1.In sheet 2 (modal split), please fill in details regarding the prevalent types of tranport modes in each city, as well as the existing public transport modes
2.Open sheet 3 (access to public transport) and enter your Country Name in row 5
3.Enter the names of the capital city and other cities/urban areas for which you are able to compute the indicator from row 9 downwards.
4.For each category of location (row 9 onward), Columns C-K require input data from both official documents and GIS sources. Disaggregated population data (such as grid level population) may be useful in populating columns J and K. Cells M to O will be populated automatically.
5.Enter data sources and year data collected in columns P, Q and R and any comments in Column S. Multiple data sources and years can be added to the respective cells where such is applicable. Please also add any relevant data links to the comments column.
6.Go to row "Prepared by": Enter your name and/or organisation.
7.Go to row "Date": Enter the date the estimate was prepared.
8.If your country is not collecting data or reporting on the indicator (or if select cities are not being reported on), please fill the information in sheet 4 (Reasons for not reporting)

Country Data

SDG Indicator 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

City level data reporting

	Modal split: % share of population that uses transport modes for major movements (eg home to work, home to shopping, home to recreation areas, etc)				
	Walking	Cycling	Public Trans	Private C	others (specify)
City/urban area 1_Name					
City/urban area 2_Name					
City/urban area 3_Name					

	Means of public transport available in city*						
	Buses (formally manage d and regulate	Buses (informal ly manage d not	Informal publicly shared taxis (incl minivans)	Tram or light rail	Trains	Rapid transit (metro , sub-way	Ferries
City/urban area 1_Name							
City/urban area 2_Name							

* public transport means does not include privately hired taxis

Country Data

SDG Indicator 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

City level data reporting

Country:

a) National Indicator Value

	% urban population with convenient access to public transport (within 500m to low capacity systems	Year	Population data source	PT stops source(s)	Comments
National Average					

b) City Specific Indicator Values

	Total city/urban area	Total urban population	Total population within 500 m walking distance service area to low capacity	Total population within 1000 m walking distance service area to high capacity	Total combined population within all 500m and 1000m walking distance service areas	Total population within 500 m walking distance service area to INFORMAL PT	% population with convenient access to low capacity PT systems	% population with convenient access to high capacity PT systems	% total urban population with access to public transport	% city population with convenient access to INFORMAL public transport	Year	Population data source	PT stops source(s)	Comments
City/town 1_N...								#DIV/0!	#DIV/0!	#DIV/0!				
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Reasons	Code	Select appropriate code
Multiple data requirements that cannot be addressed by the available data	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)		
Other (please specify)	7	
If you are using a proxy indicator, please provide the definition and related methodology		

https://data.unhabitat.org/pages/guidance

Data and Reporting for Arab States

UN-Habitat's Support

Contacted NSO – All Arab States Included:

List of NSOs That Provided Feedback

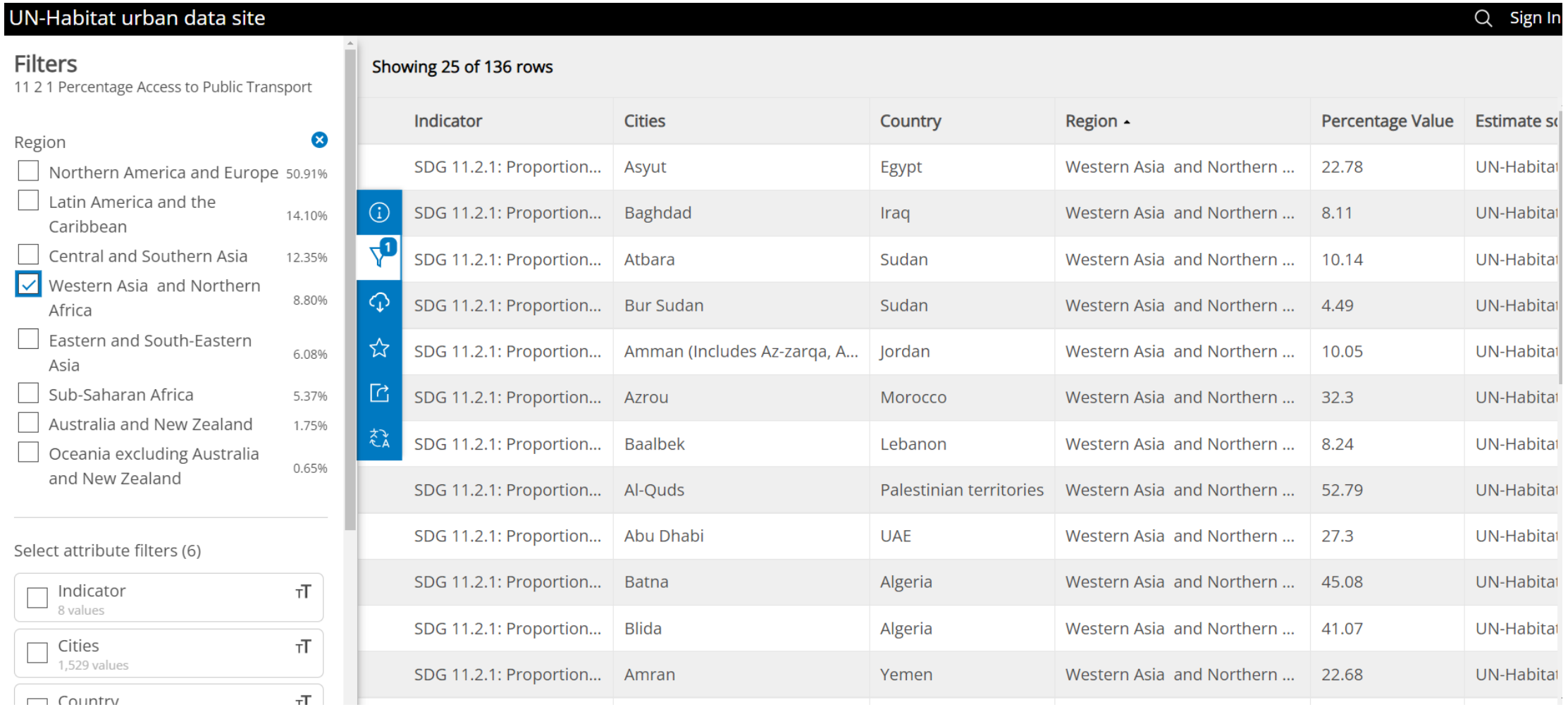
1. Azerbaijan
2. Belgium
3. Bosnia and Herzegovina
4. Bulgaria
5. Colombia
6. Croatia
7. France
8. Guinea
9. Iceland
10. Japan
11. Lithuania
12. Mauritius
13. Mexico
14. Moldova
15. Mongolia
16. Mozambique
17. Netherlands
18. State of Palestine
19. Peru
20. Portugal
21. Romania
22. Serbia
23. Slovakia
24. Suriname
25. Ukraine
26. Venezuela
27. Viet Nam

DAS Prepares Summary of Country Responses

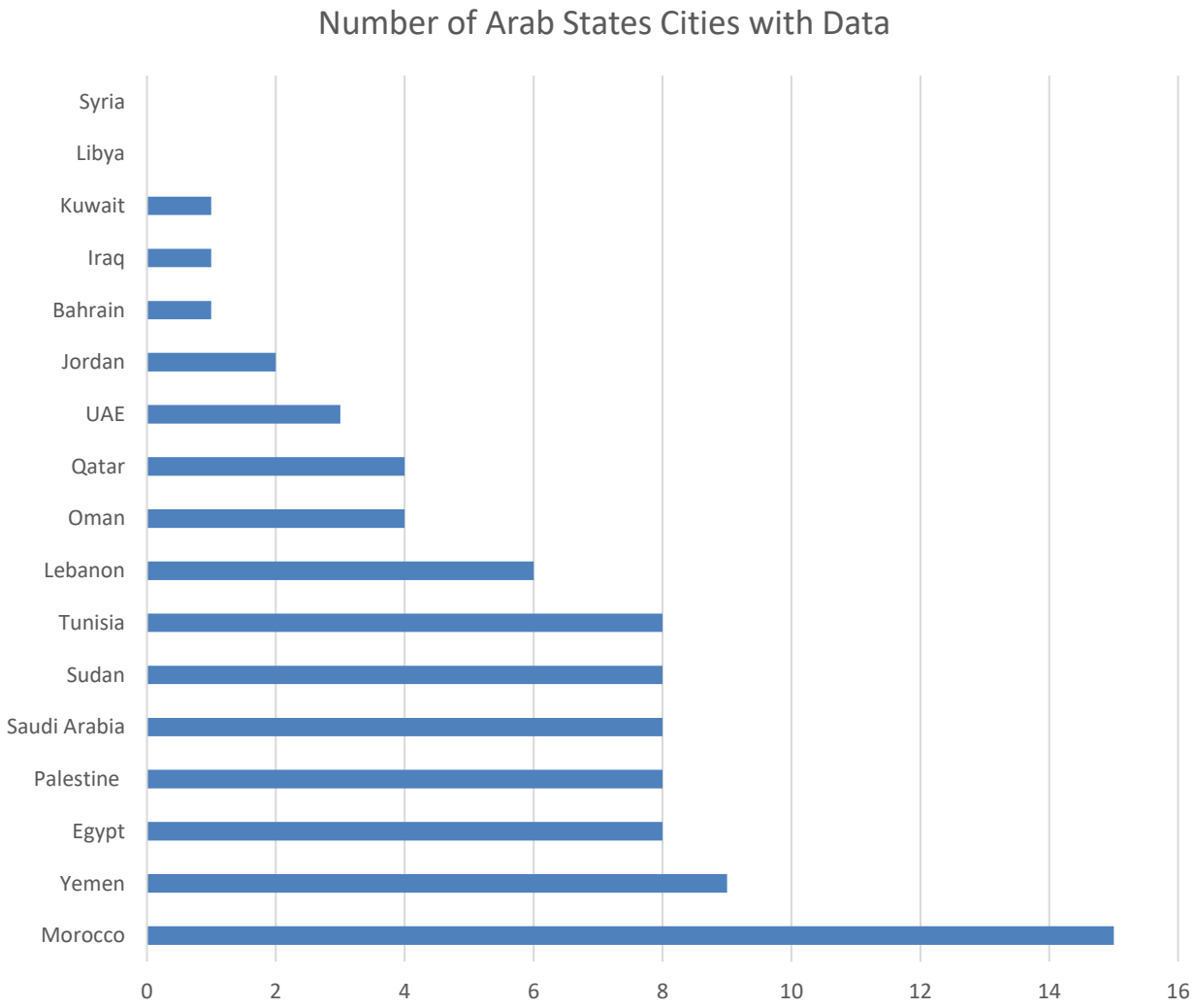
		Country specific data submission/availability challen and response on course of action	
Country	Data received + Validation of findings	Bosnia & Herzegovina	
Indicator	Bosnia & Herzegovina	Reasons for not reporting / data challenges	UN-Habitat response and recommendations
11.1.1		Lack of technical capacity coupled with lack of data collection systems for generating required data	We understand capacity limitatior that may hinder reporting on the indicator. We are happy to help in efforts that would enable reporting the indicator.This indicator has 2 components; one on slums and inf settlements and the other on housi affordability as per the metadata (https://unstats.un.org/sdgs/metac iles/Metadata-11-01-01.pdf). Bosn and Herzegovina can therefore rep housing affordability which is val European countries.

Data and Reporting for Arab States

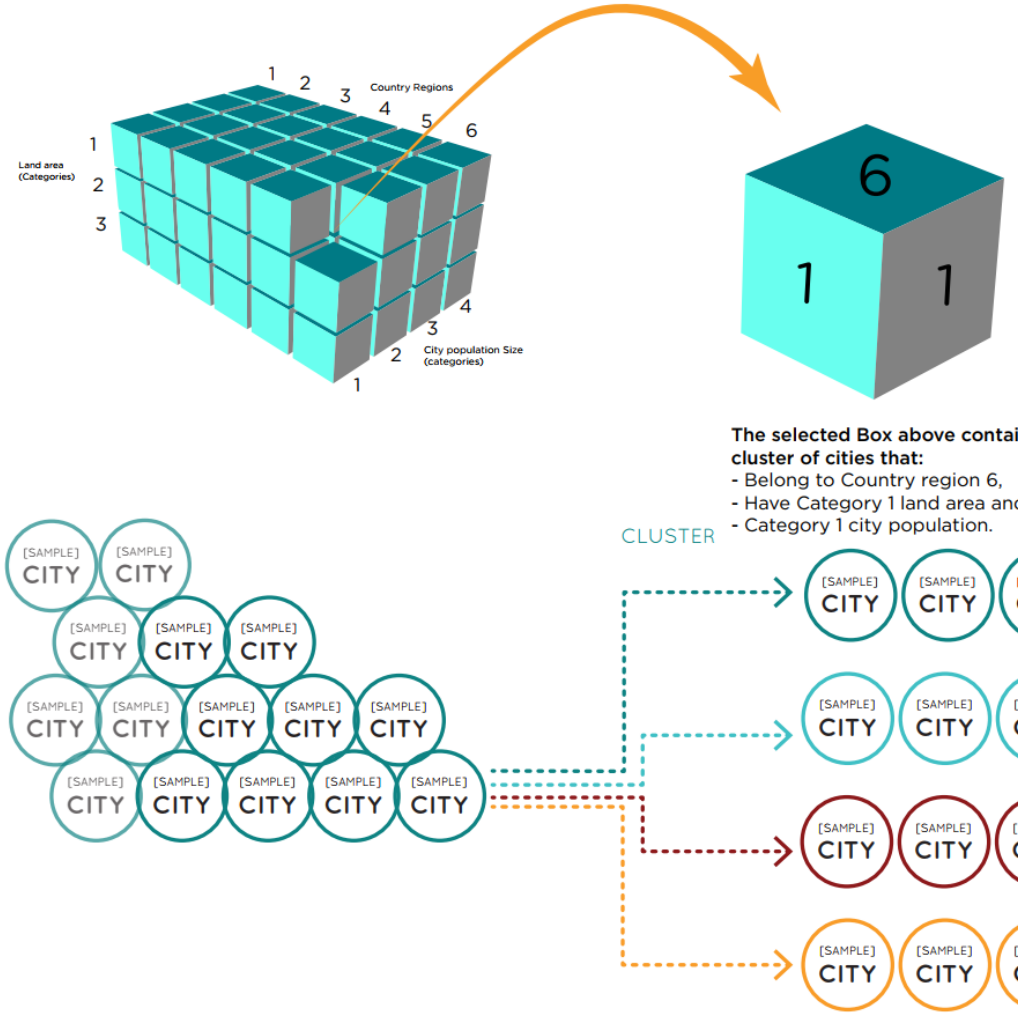
- Country/city generated data (), and UN-Habitat supported country/city data (UN-H Urban Indicators' Database)
- Link: https://data.unhabitat.org/datasets/11-2-1-percentage-access-to-public-transport/explore



Data and Reporting for Arab States



- Statistics based on the DEGURBA City definition approach
- Reporting at the national level requires application of the National Sample of Cities



Focal Persons in the Region

- NSO Contact list with contacts for all countries
- Contacts include:
  - Agency/ Office name
  - Name
  - Job title
  - Unit/Division
  - E-mail
  - Phone number
  - Organization's website
  - Is this person a contact person for all SDG related matters or for a specific SDG Goal or indicator only? (Please specify below)
  - Please indicate what types of communications the contact person prefers to be informed about. Check all that apply.
  - Any additional information
- Most countries with several contacts

	Country/Territory	Agency/Office Name	Salutation	Contact Person's First Name	Contact Person's Last Name	Job Title	Unit/Division	Email	Phone Nur
81	Egypt	Central Agency for Public Mobilization and Statistics (CAPMAS)	Mr.	Khairat	Mohamed Barakat	President		pres_capmas@capmas.gov.eg	00202-2402
82	Egypt	Central Agency for public Mobilization and statistics (CAPMAS)	Mr.	Emad	Alaswad	Researcher	SDGs / Population Statistics Sector	dev.emad@gmail.com	2010227414
83	Egypt	Central Agency for public Mobilization and statistics (CAPMAS)	Mr.	Moheb	Victor	Statistician	SDG Unit	moheb_v@capmas.gov.eg	201004758
84	Egypt	Central Agency for public Mobilization and statistics (CAPMAS)	Ms.	Reem	Elsybaey	Senior statistician	SDG Unit	Reem_i@capmas.gov.eg	201022641
121	Iraq	Central Statistical Organization	Mr.	azher	alallaq	statistician senior	human development	azherazher2000@yahoo.com	964770850
122	Iraq	Central Statistical Organization	Ms.	Rana	Khalil	Chief statistician	Department of Human Development Statistics	eatheer@ymail.com	964773667
123	Iraq	Central Statistical Organization	Ms.	Zainb	ALaameri	Senior Chief Statistical	SDGS	stamony_23@yahoo.com	009647901
134	Jordan	Department of Statistics (Dos)	Mr.	Mohammad	Ayasrah	Statistician	Sustainable Development Unit (SDU)	ayasrah@dos.gov.jo	962778051
135	Jordan	Department of Statistics (Dos)	Mr.	Mohammad	Khalaf	Director of SDGs Unit at Dos	SDG's Unit	mohammad.khalaf@dos.gov.jo; mohd.khalaf30@Gmail.com	009627958
	Kuwait	Central Statistical Bureau	Ms.	Monya	AlQabandi	Assistant Undersecretary for	Statistical Sector	malqabandi@csb.gov.kw	

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Thank You