



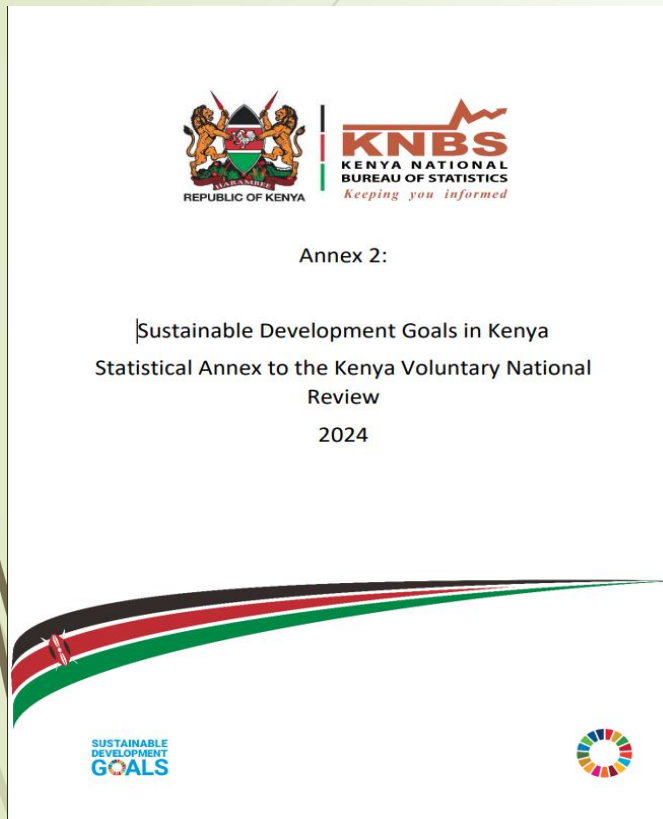
Harnessing the power of Geospatial Information for Monitoring of SDGs

Kenya



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2024 National Indicator Framework (NIF)



- Third Voluntary National Review (VNR)
- The NIF was collaboratively developed with various members of the National Statistical System (NSS) to reflect national priorities and ensure ownership
- The 2024 NIF contains 168 indicators for the country, an increase from 128 indicators in 2016
- Two alternative data sources have been used to provide data for an indicator or a data point, namely Citizen Generated Data (CGD) and geospatial.



- These indicators align with the 17 SDGs outlined in the 2030 Agenda and were selected based on data availability.
- The framework is reviewed and updated annually, after the dissemination of the annual Economic Survey, which is the main data source for NIF, plus available data from surveys and censuses that have been disseminated at the time of updating.

CGD was also used to fill data gaps for SDG

- Indicator 4.1.1 on proportion of children and young people in grades 2/3 achieving at least a minimum proficiency level in reading and mathematics, by sex;
- Indicator 5.3.1 on proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18.



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At the same time, some SDG indicators that used Geospatial data namely,

- Indicator 11.2.1: Proportion of population that has convenient access to public transport;
- Indicator 11.3.1: Ratio of land consumption rate to population growth rate and
- Indicator 11.7.1 Average share of the built-up area of cities that is open space for public use for all were computed using geospatial data.



Monitoring SDGS

- Kenya is one of the 13 pilot countries under UN-Habitat and European Commission led to conduct the pilot project: *Application of the DEGURBA approach to generate comparable urban data in selected countries*
- DEGURBA is a globally harmonized method adopted by UN Statistical commission in March 2020, following consultations with member states in 2018 – 2019



Access to public transport

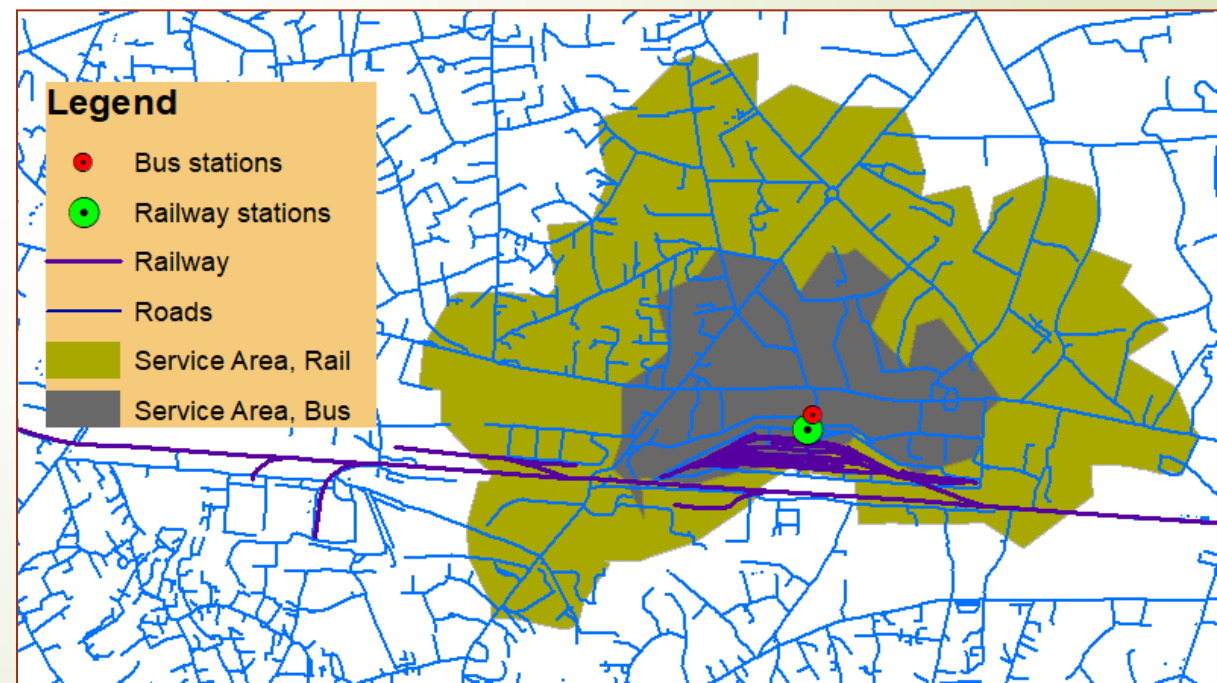
Indicator 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

Indicator is measured through a hybrid of spatial and statistical methods

Step 1: Get data on location of all public transport

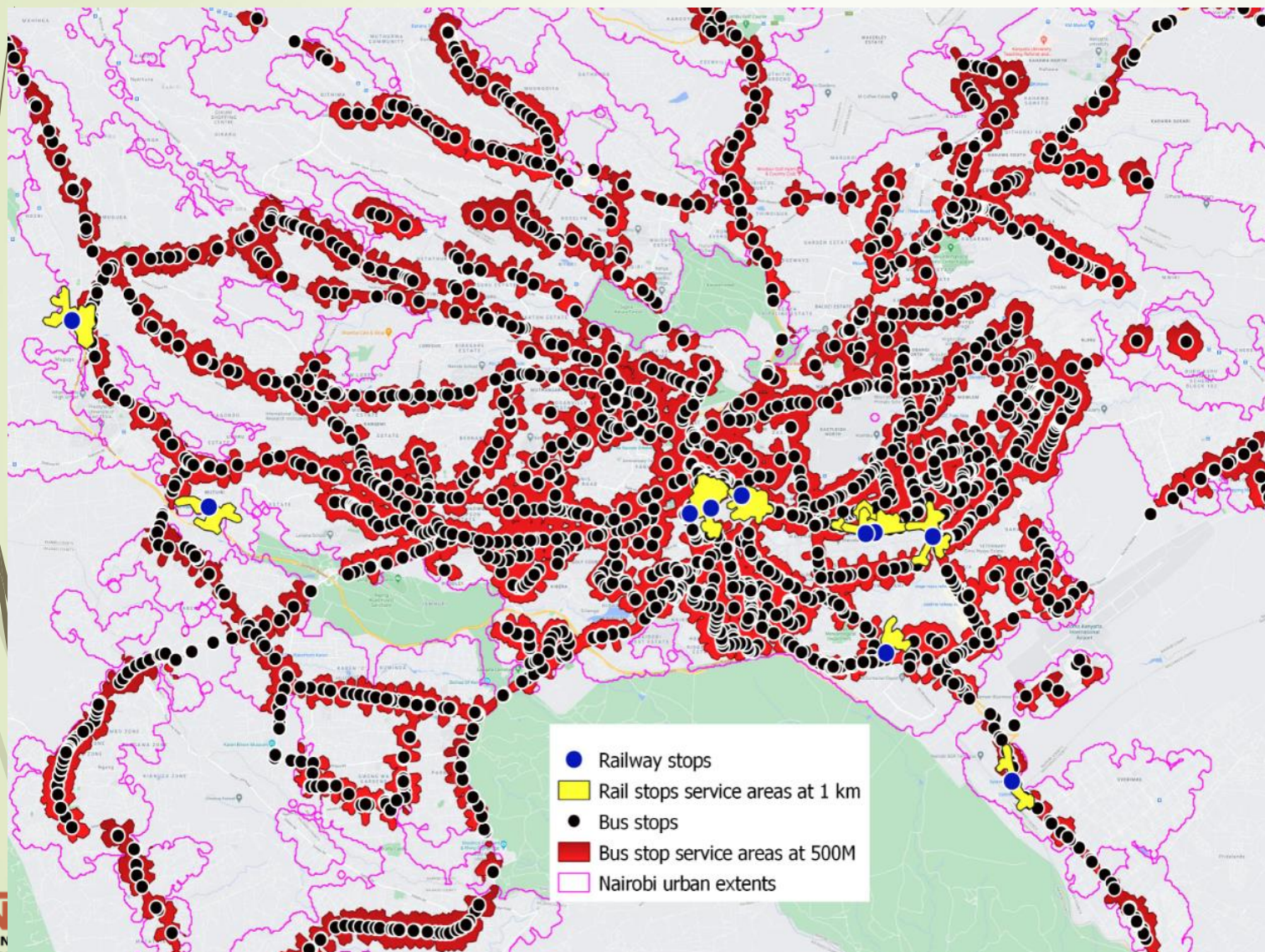
- Roads, railway lines
- Bus stops, harbors/ferry terminus, Railway terminus

Step 2: Create the service area for each means measured by *500 m* walking distance for *small capacity systems*, *1000m* for *high capacity* systems (use GIS)





Indicator 11.2.1: Service Areas Generation



- 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



Computing the Indicator

- By integrating population data with the service area
- Use the results from DEGURBA tool
- Overlaying the service area over the DEGURBA results GHS_DUG_GRID_L2
- Calculate the statistics

$$\text{Population access to transport} = \left\{ \frac{\text{Total population within (500m and 1 km) – transport service area}}{\text{Total city urban population}} \right\} * 100$$



Results ~ Proportion of Population with Convenient Access to Public Transport in the four Kenyan Cities

City	Urban Population	Per cent
Nairobi	4,355,802	66.0
Mombasa	1,143,190	20.0
Nakuru	478,067	16.0
Kisumu	367,443	10.0



Indicator 11.7.1 Access to public open spaces

- 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.
- **Public Space** – “all places **publicly owned or of public use**, accessible and enjoyable by all for free and without a profit motive” (The Charter of Public Space). Officially constitutes-
 - **Streets ,Public Open Spaces,Public facilities, Public commercial spaces**

Indicator 11.7.1 measures only streets and public open spaces

Proportion of urban population with convenient access to public open spaces

$$= \left\{ \frac{\textit{Total population within (400m walking buffer to POS)}}{\textit{Total city urban population}} \right\} * 100$$



Proportion of Population with Convenient Access to Public Open Spaces

City	Urban Population	Per Cent
Nairobi	4,355,802	16.4
Mombasa	1,143,190	10.0
Nakuru	478,067	67.1
Kisumu	367,443	6.3



Thank you

Q&A