

Urban mobility in African cities

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Urban Mobility

Content



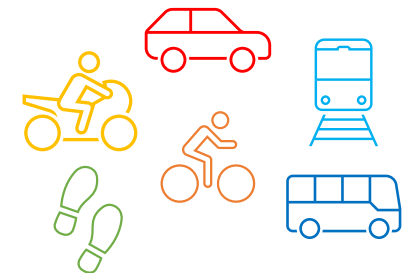
Urban Mobility

Global Outlook on Urban Mobility

Urban mobility in African Cities

Active mobility in African Cities

Urban Mobility in the context of Nairobi



Urban Mobility



- More than movement and encompasses the social, cultural, historical, economic, political and technological dimensions of any city.
- A dynamic process of systemic unfolding (MaaS)
- Varied between individuals and groups – when related to gender, physical capabilities, income and social status etc.
- The places of necessity that can be reached and the potential life that an individual can build/achieve are all in one way or the other linked to mobility and how we spatially organize our cities.



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Urban Mobility

- Essential for the functioning of the city
- Urbanization, climate change, and other (mega) trends are “mobilities-inflected”
- Taken-for-granted mobilities that only become ‘visible’ during disruptions (walking, cycling)
- Historical path dependencies that dictate contemporary mobilities
- Land use patterns that generate varied levels of accessibility



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Global Outlook on Urban Mobility



11 SUSTAINABLE CITIES AND COMMUNITIES

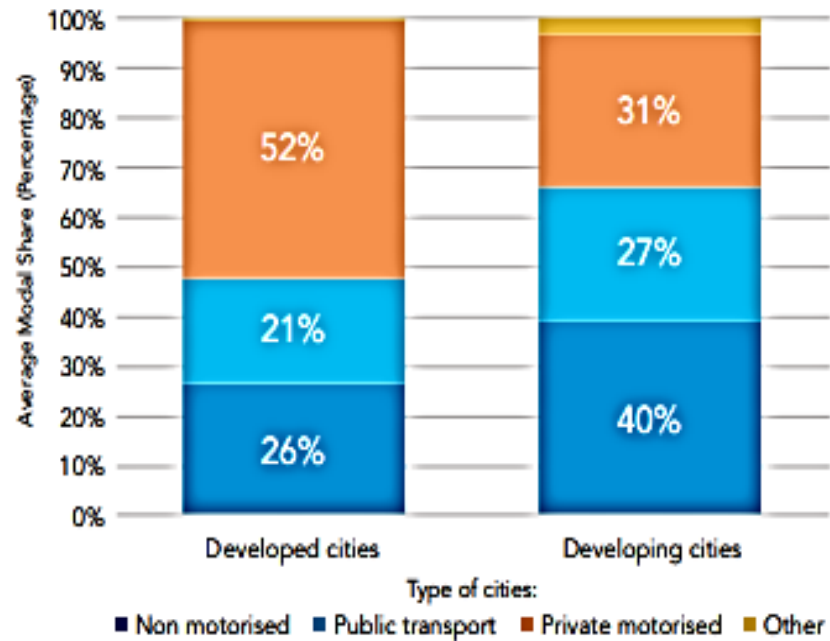


SDG Target 11.2: “[T]o provide access to safe, affordable, accessible and sustainable transport systems for all [...] with utmost attention to the needs of the vulnerable, women, children, the elderly and persons with disabilities.”



New Urban Agenda has dedicated 7 paragraphs to mobility (Par 100 and Par 113-118), all targeted towards safe, accessible, inclusive, and sustainable urban mobility.

Global Outlook on Urban Mobility



The average modal split in developed cities is higher for private motor vehicles while non-motorized mobility accounts for a higher percentage in developing cities.

Source: UITP, *Mobility in Cities Database*

(2017 World Bank Mobility Report)

Accessibility



- The spatial design of any city inevitably creates a centre and periphery therefore, accessibility is varied across city inhabitants

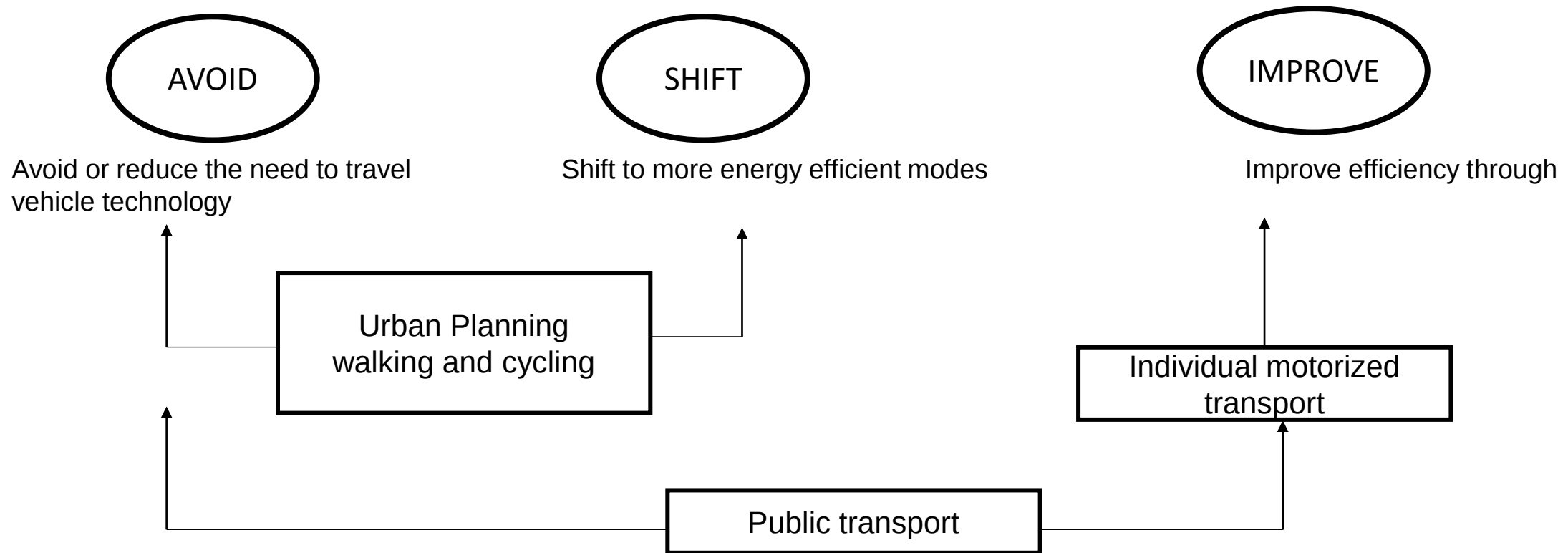
Depends on various factors

- a.) Land use – the spatial organization of functions in a city
- b.) Temporal – time of day and opening hours
- c.) Individuals and groups – income, gender, age, physical capability
- Suburbanization distorts the urban landscape and generates use of motorized mobility to reach places of necessity
- Heterogeneity of space (Spatial justice case in Los Angeles Metropolitan Authority and Bus Riders Union Soja 2013) *(Soja, E. W. (2013))*

Sustainable Urban Mobility



ASI Framework



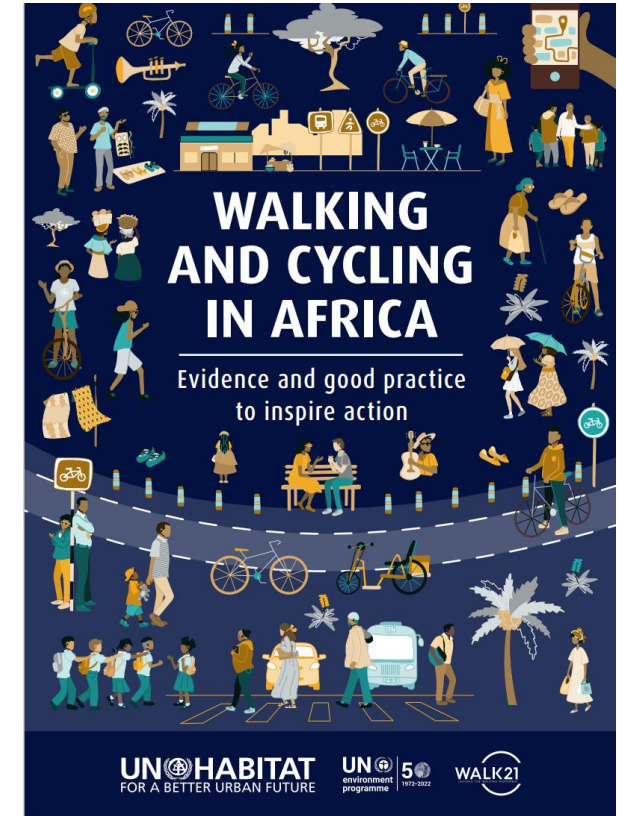
Source: Dalkmann, H., & Brannigan, C. (2007); GIZ



Urban Mobility in an African Context

Urban Mobility in an African Context

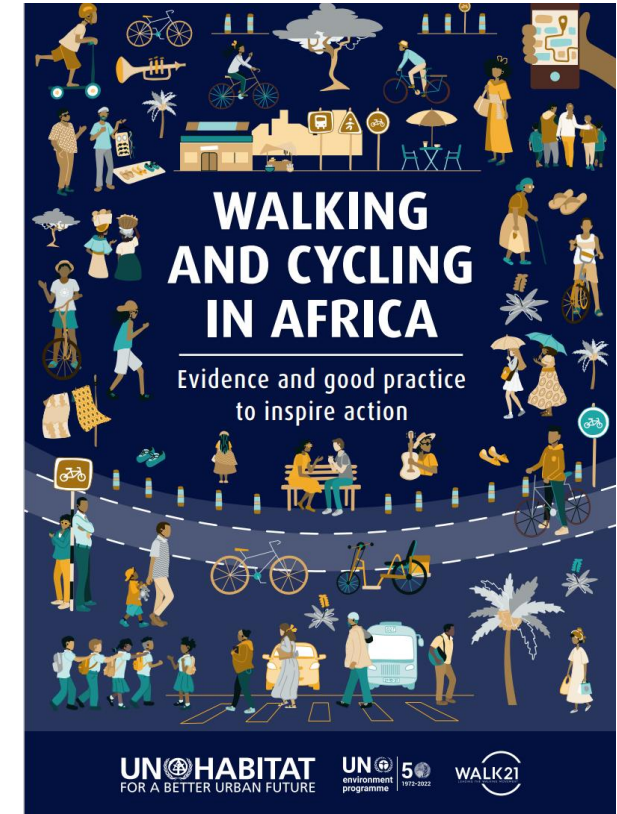
- Walking is a **daily mode** for the majority (78%) of Africans
- However it is one of **the riskiest mode** of mobility with pedestrian deaths averaging the highest in many cities
- Africa has only 3% of the world's registered vehicles, but 20% of global road traffic deaths. **261 pedestrians and 18 cyclists are killed every day** making it the least safest space to walk and cycle.
- African region has 26.6 deaths per 100,000 populations, the highest among all regions (Kenya 27.8, Uganda 29, Ethiopia 26.7, **Namibia 30.4**, Germany 4.1, France 5.5)



[walking_and_cycling_in_africa.pdf \(unhabitat.org\)](https://unhabitat.org/walking_and_cycling_in_africa.pdf)

Urban Mobility in an African Context

- The **victims of traffic casualties** are primarily pedestrians and cyclists (e.g. Kenya 37% pedestrians / 2.4% cyclists; Uganda 40% pedestrians / 6% cyclists, Ethiopia 36,7% pedestrians; Germany 15.3% / cyclists 12.3%; **Namibia 33% pedestrians / 1% cyclists**)
- Much of that is linked to the **neglect of the infrastructure needs** for pedestrians' and cyclists' safety.
- 95% of roads in Africa (123 case cities) fail to provide an **acceptable level of service for pedestrians**. 93% fail to provide an acceptable level for cyclists.



[walking_and_cycling_in_africa.pdf \(unhabitat.org\)](https://unhabitat.org/walking_and_cycling_in_africa.pdf)

Urban Mobility in an African Context

Walking and cycling in most African cities is not only **unsafe** but also incredibly **uncomfortable** (Poor quality of infrastructure).

Pedestrians and cyclists are often forced to **share space with vehicles** moving at very high speeds.

A **lack of adequate facilities** exposes people to high risk of injury or death.

iRAP data from 9 African countries in 2019 showed that:

- 74%** of the roads surveyed in these African countries have no sidewalks.

- 92%** of the assessed roads have no crossings

- 48%** are poorly signed or maintained

- 55%** of roads are categorised as one-star for pedestrians

- 40%** are categorized as 2-star

- Only **4%** of are categorized as 3-star.



Source: Dorcas Nthoki Nyamai

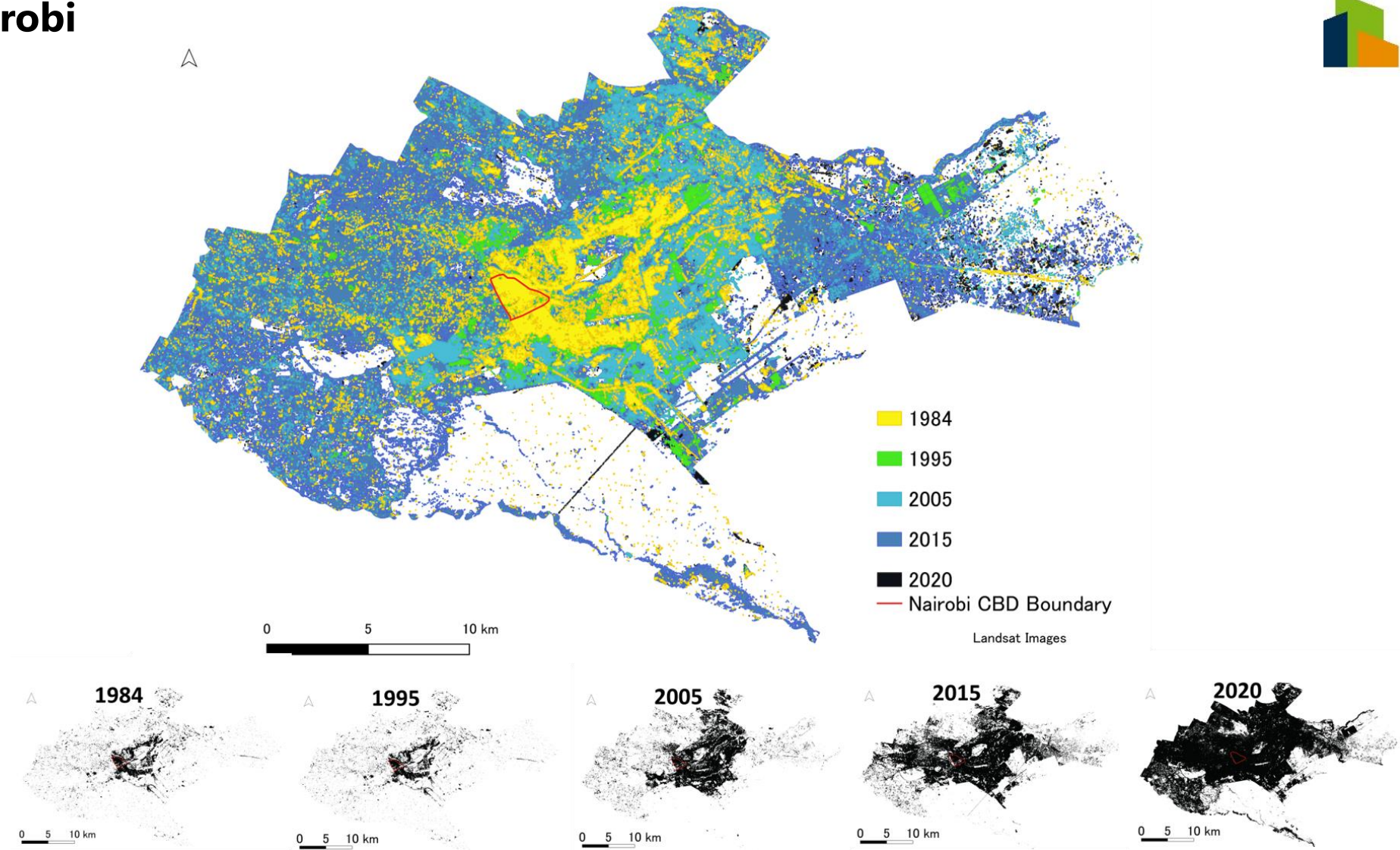


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Urban Mobility in Nairobi

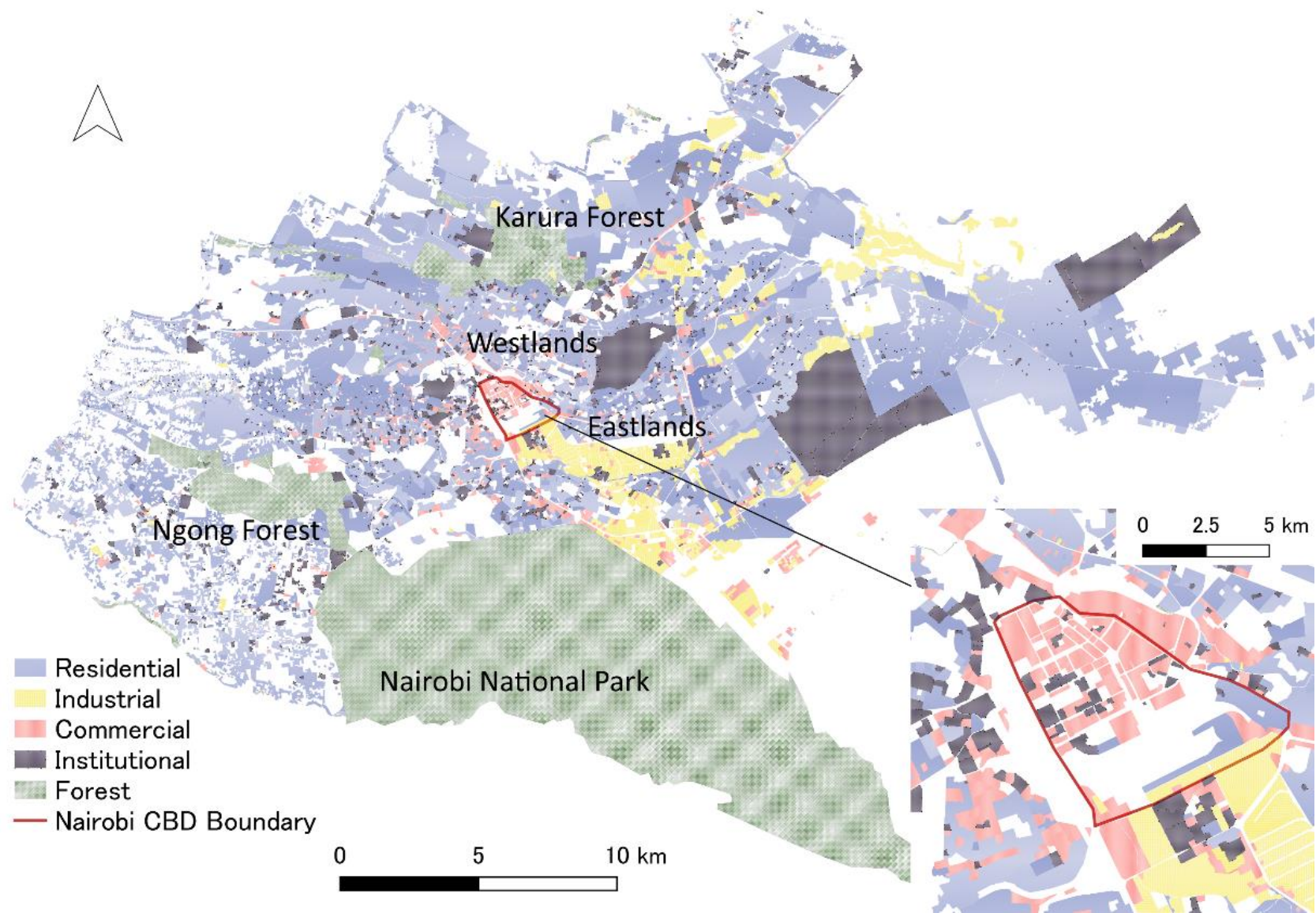
Urban Growth in Nairobi



Spatiality of access



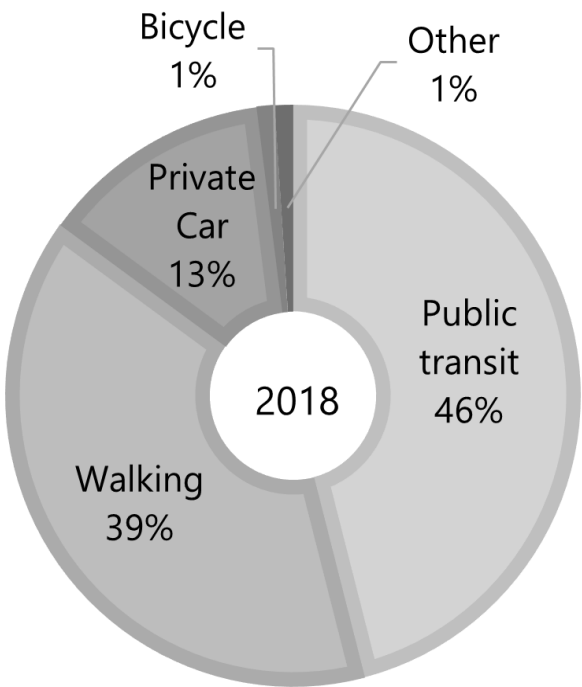
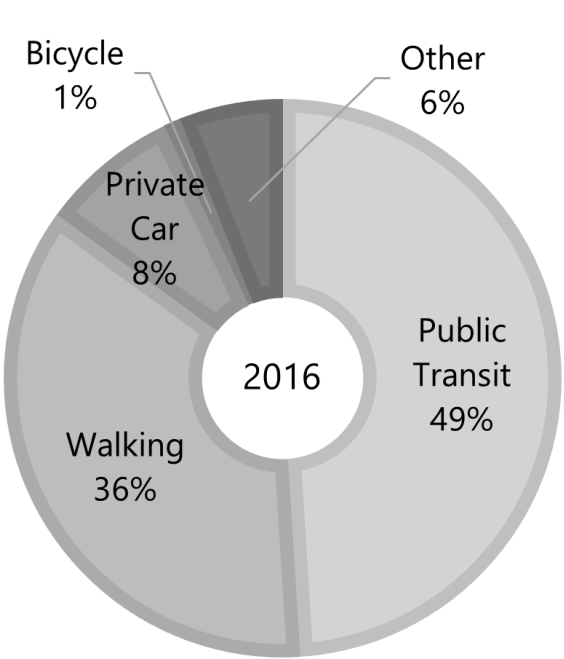
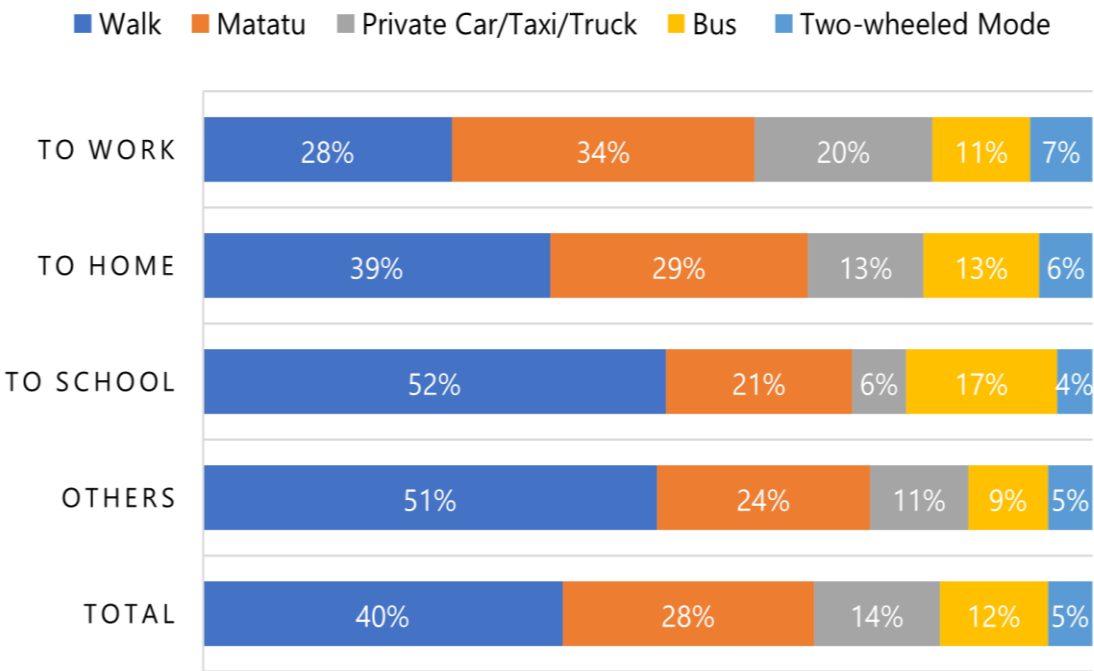
Land Use Nairobi



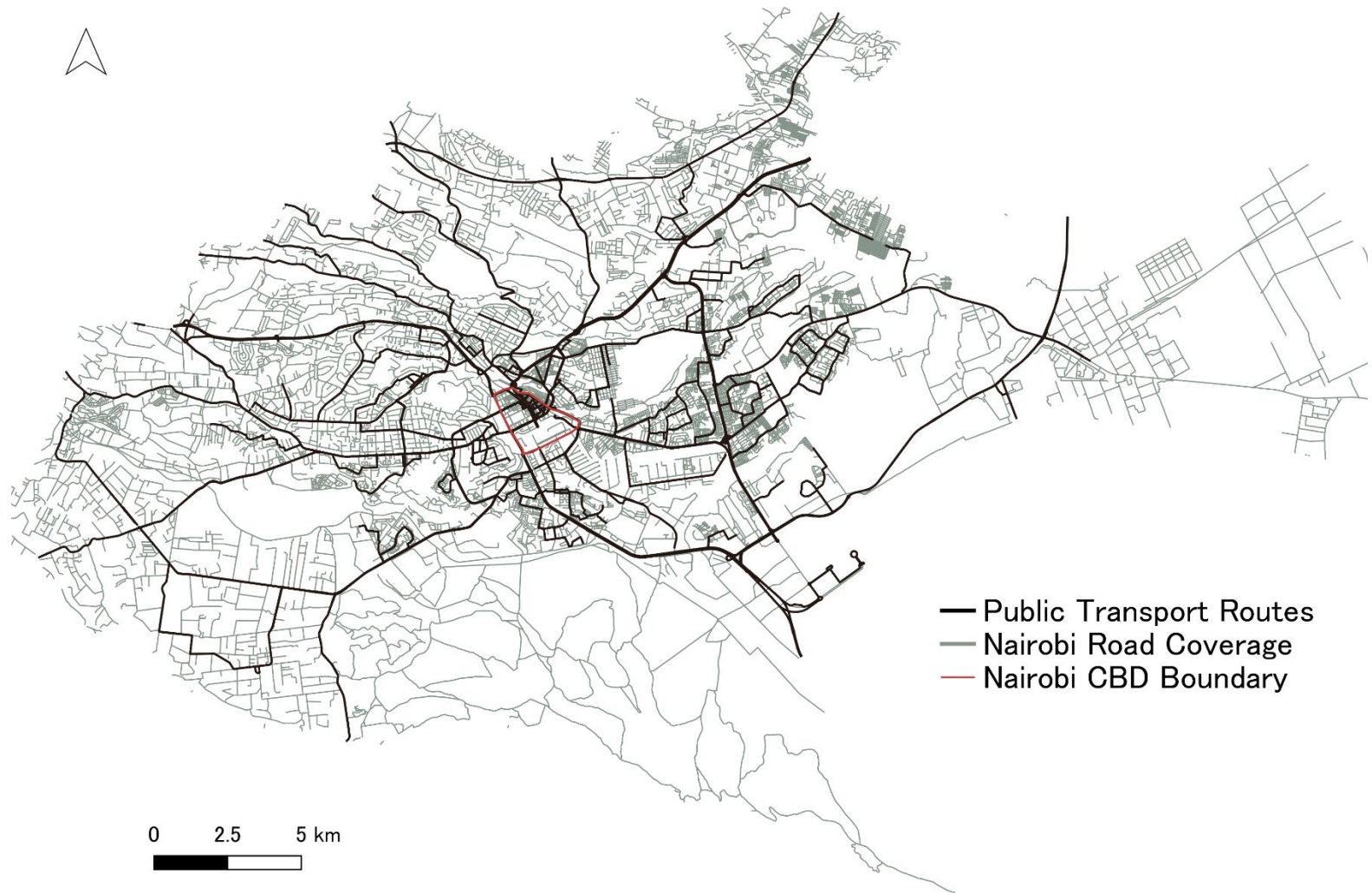
Modal Share in Nairobi

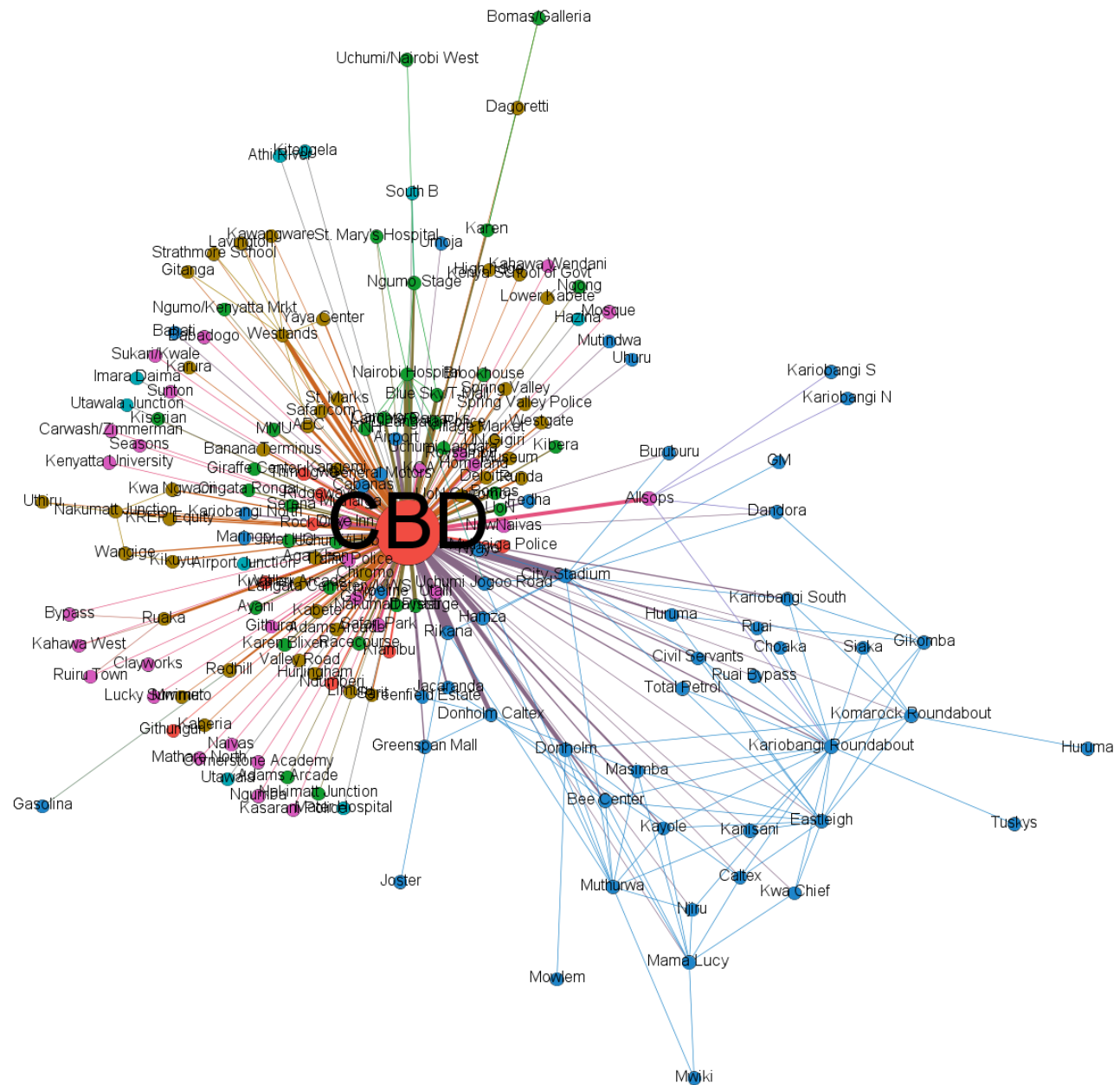


2014

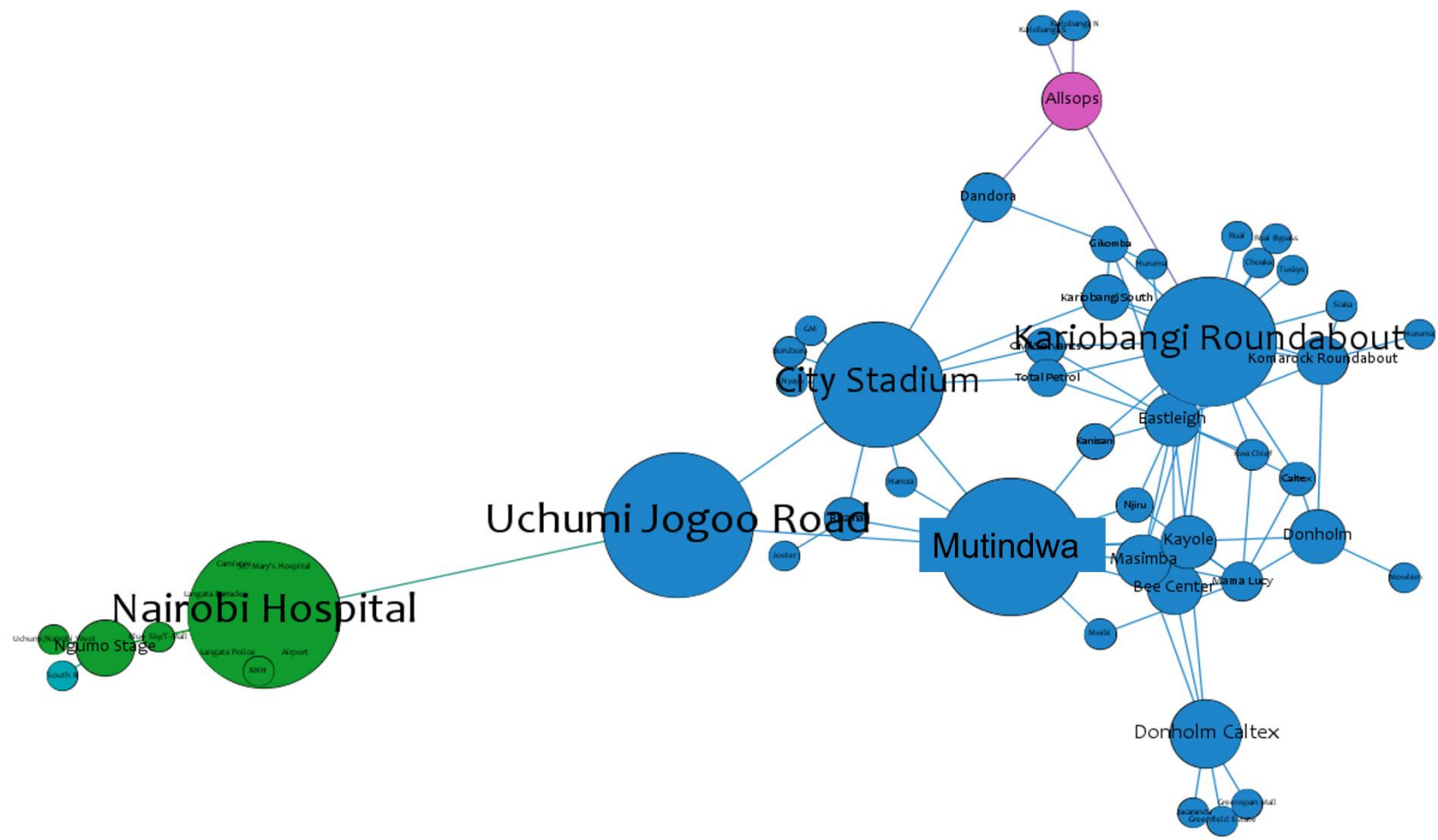


Public Transport Network in Nairobi





Public Transport Network in Nairobi



Active mobility in Nairobi



Nearly **47% (2.27 million)** of all daily trips in Nairobi are made on foot (CDKN, 2021).

It is however the riskiest mode of mobility. Pedestrian deaths account for **over 60%** of all road crashes annually as recorded by the National Transport and Safety Authority (NTSA).

The pedestrian deaths are mainly as a result of inadequate, unsafe and divested infrastructure.



Active mobility in Nairobi



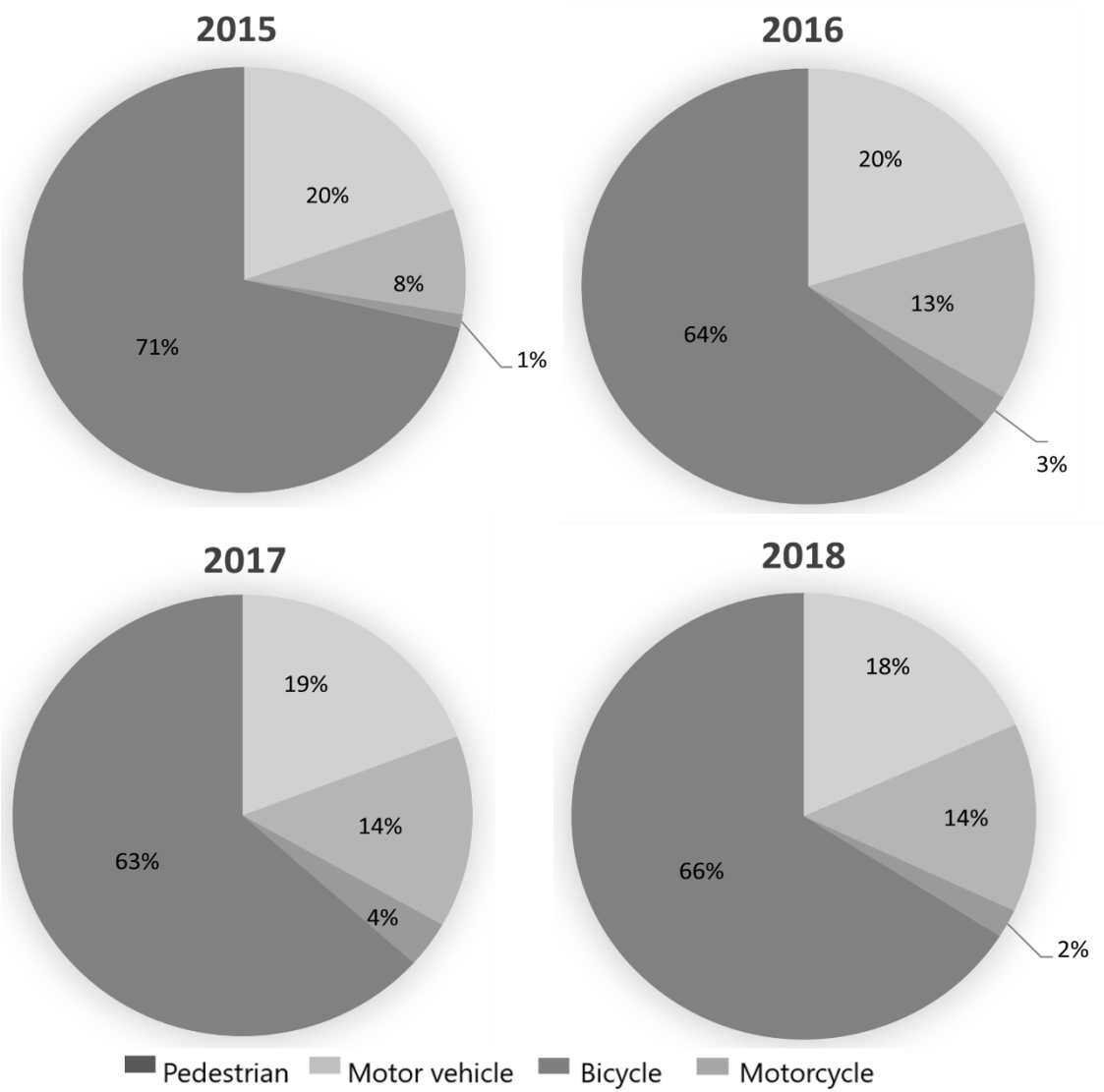
- In most cases, the needs of pedestrians are subaltern to the needs of motor vehicle users although only 12.9% of households in Nairobi own personal vehicles.
- Pedestrians are mostly channelled through elevated footbridges that provide indirect access to desired destinations.



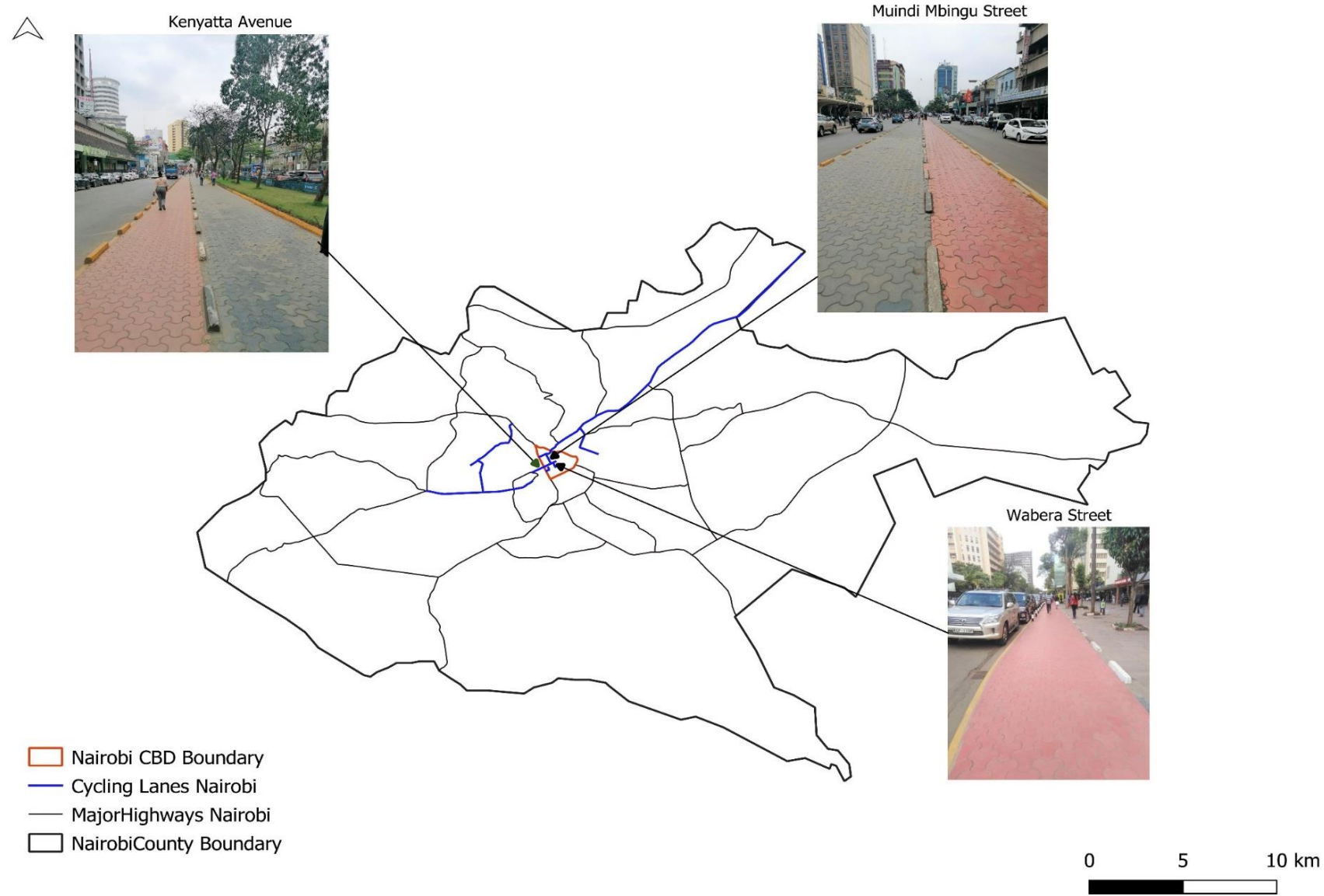
Recorded Annual Road Fatalities

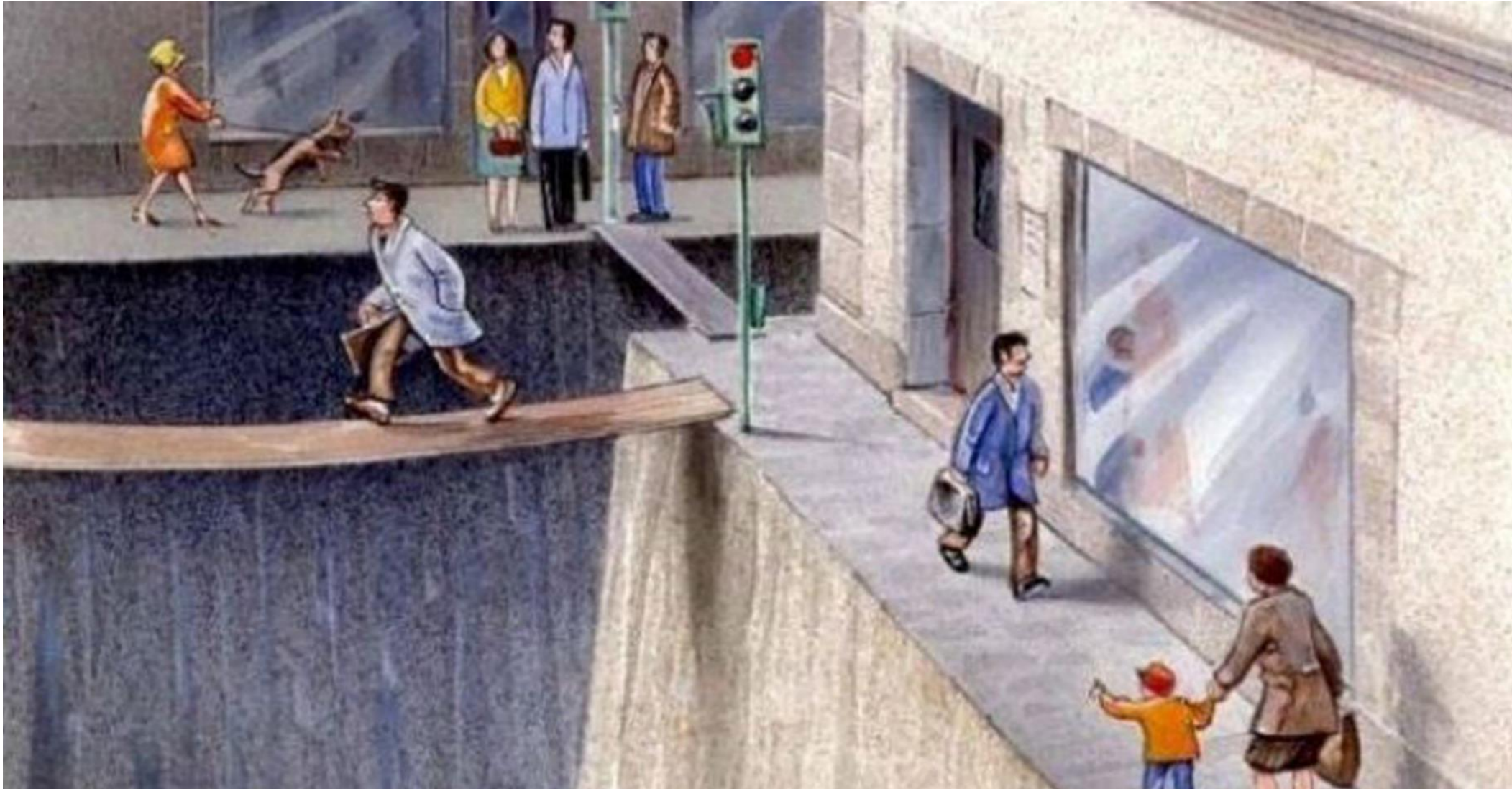


Recorded annual road fatalities in Nairobi



Active mobility in Nairobi





Source: [The Urban Observer](#)



Further reference

Nyamai, D., Schramm, S. (2022). Accessibility, mobility and spatial justice in Nairobi, Kenya. *Journal of Urban Affairs* <https://doi.org/10.1080/07352166.2022.2071284> .

Thank you for your attention!

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Urban Mobility