

Smart transport for Africa's urban future



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ITDP

Institute for Transportation
& Development Policy



TO LET



Lighting up our tomorrow

MAHA
Good Morning... You



KBT 426A

KBT 065L

W

Can we just build more flyovers?

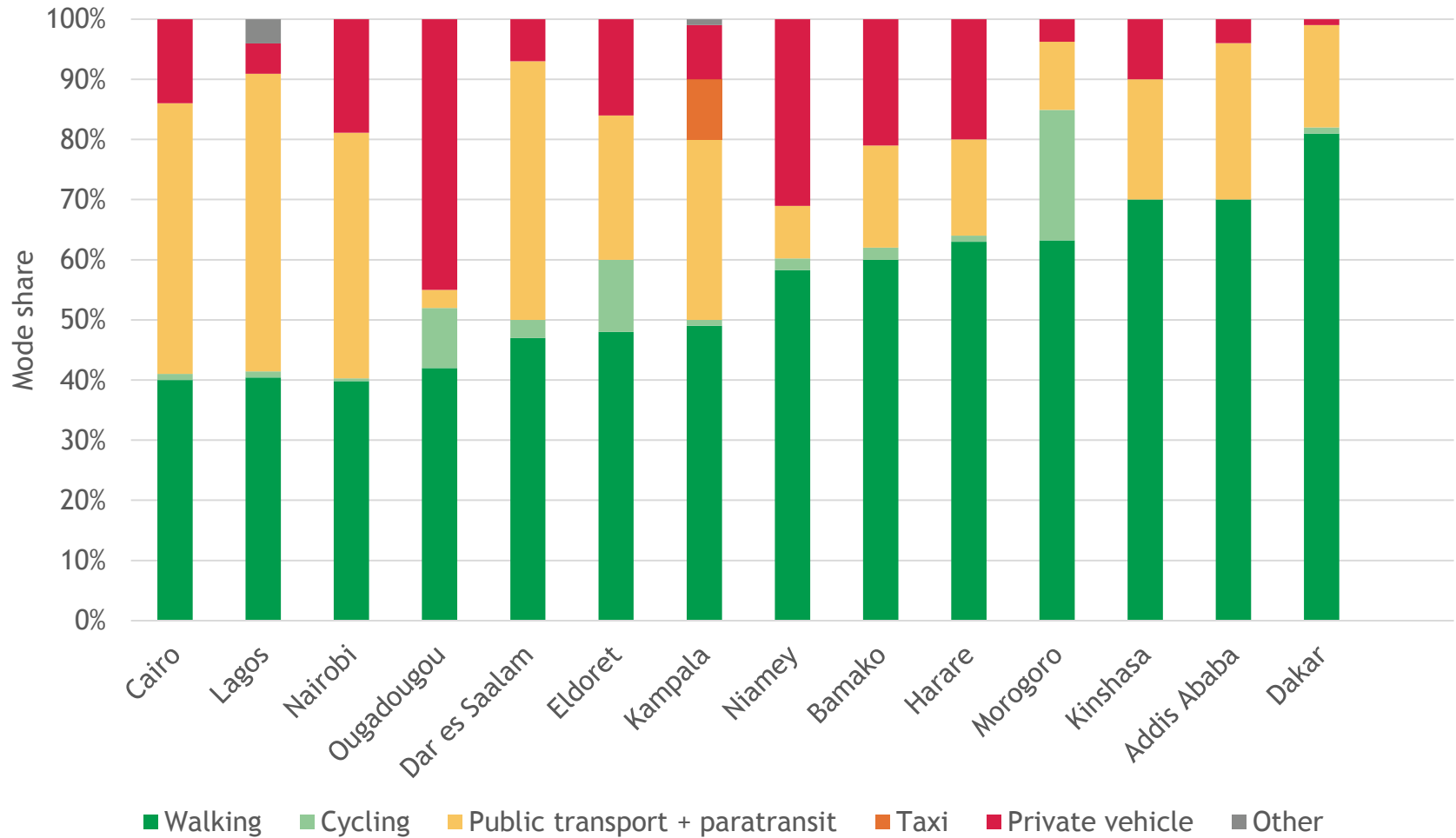
- Short-term benefits
- Attract more vehicles, making congestion worse
- Compete with public transport

Induced and Latent Demand

Congestion



How the majority travels





How we usually plan streets



A more equitable approach

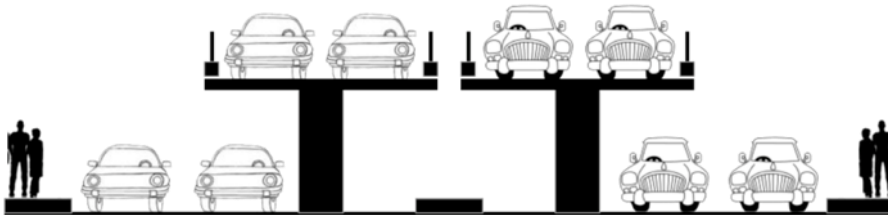


Using road space efficiently

3-lane carriageway



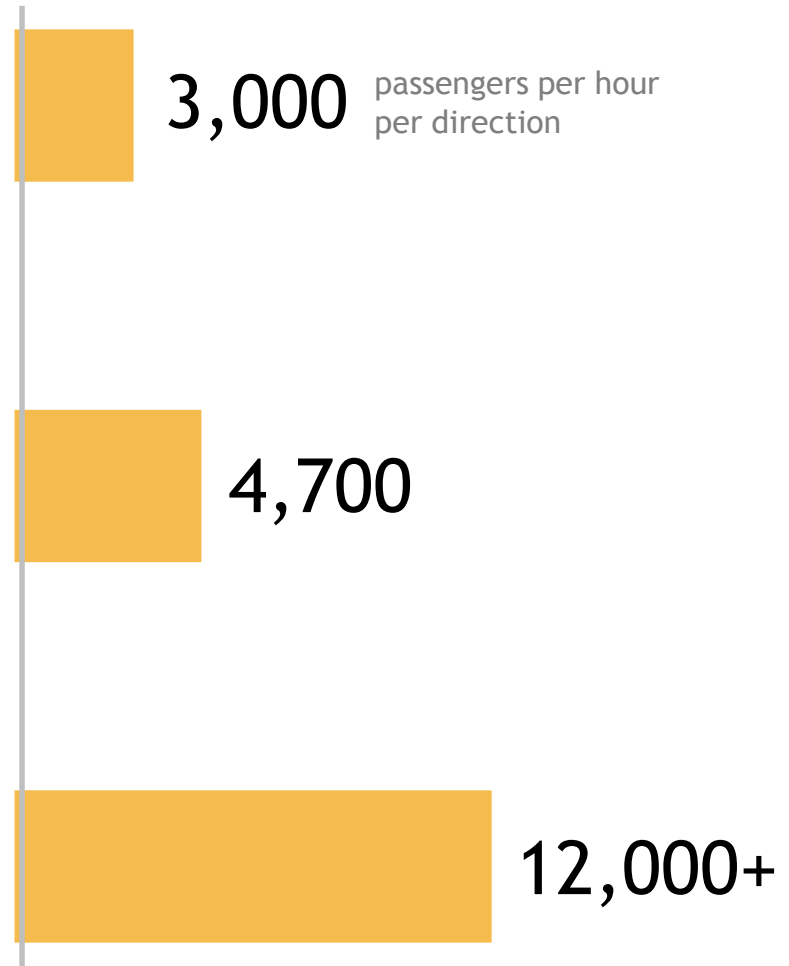
2 lanes + elevated road



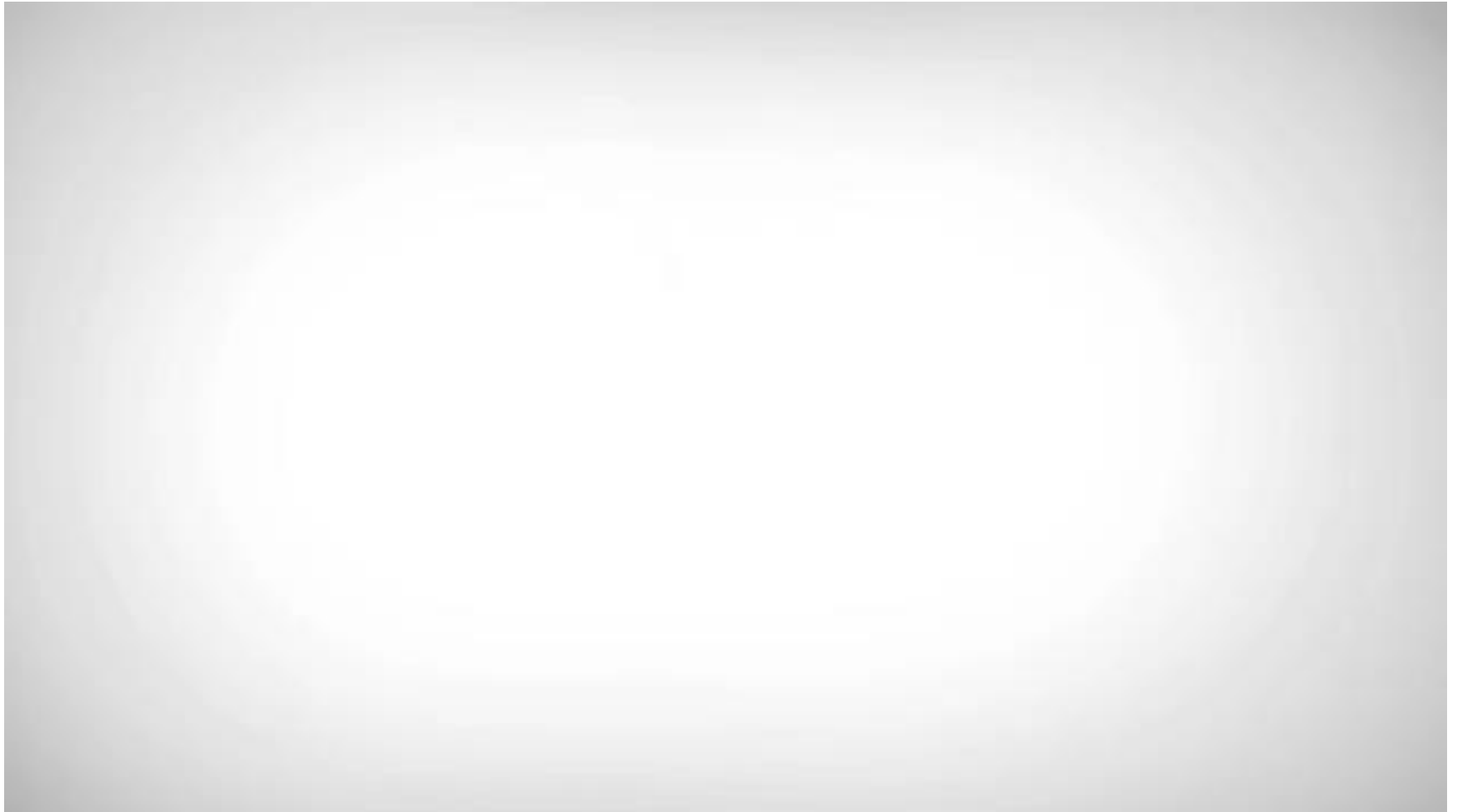
Dedicated lanes for bus rapid transit



Passenger capacity:



Note the difference?



La diferencia se nota. #1mas

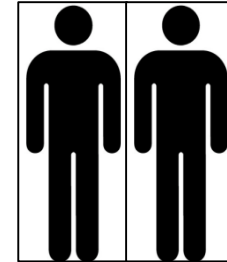
Rapid Transit to Resident (RTR) ratio



Km of
mass transit



Urban
population
in millions

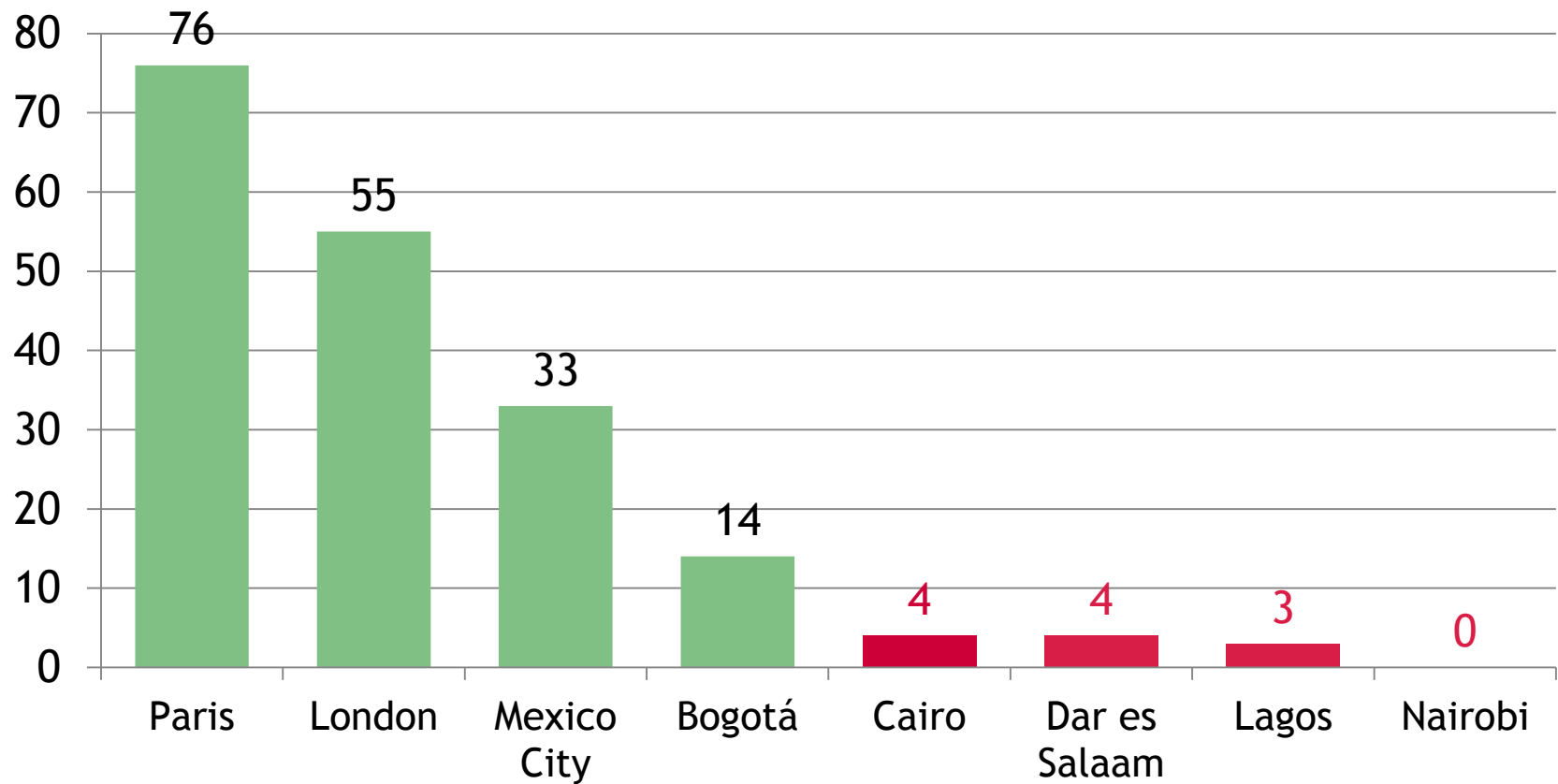


$$\text{RTR} = \frac{\text{km of mass transit}}{\text{Urban population in millions}}$$

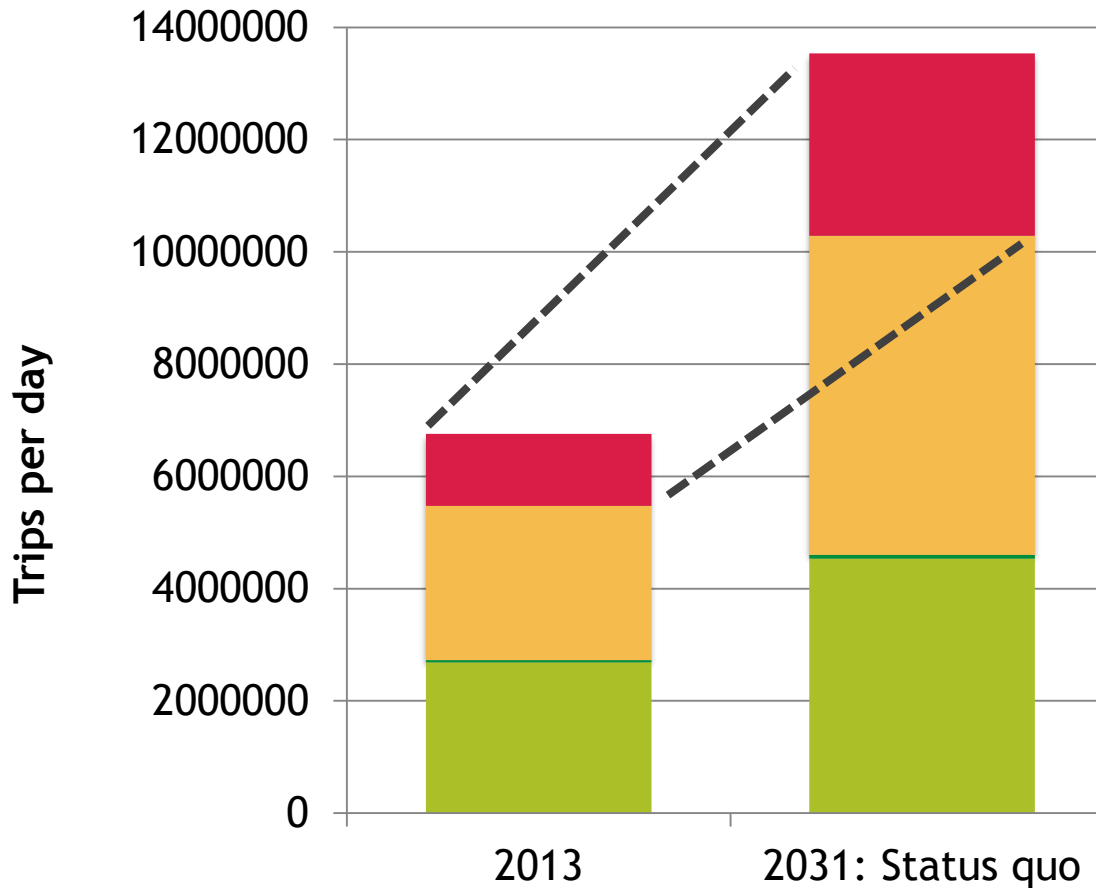
$$\text{Brazil 2014} = \frac{929 \text{ km subway, BRT, LRT}}{89.2 \text{ million people}} = \text{RTR } 10.4$$

Comparing RTR across cities

Rapid Transit Ratio (RTR) -
km of rapid transit per million urban residents

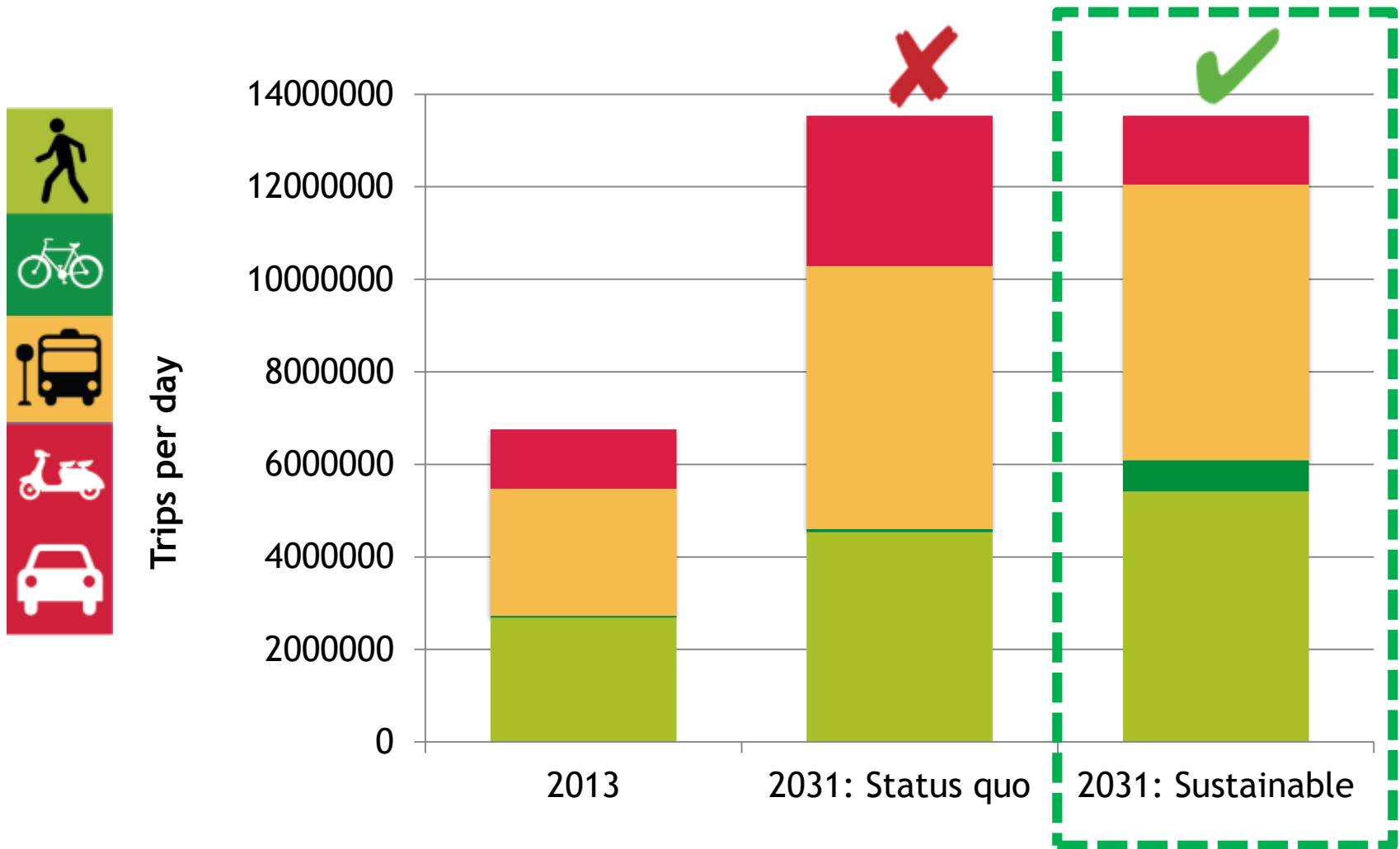


Nairobi: Status quo



At the current growth rate, trips by cars and 2Ws will more than double by 2030

Nairobi: A better scenario



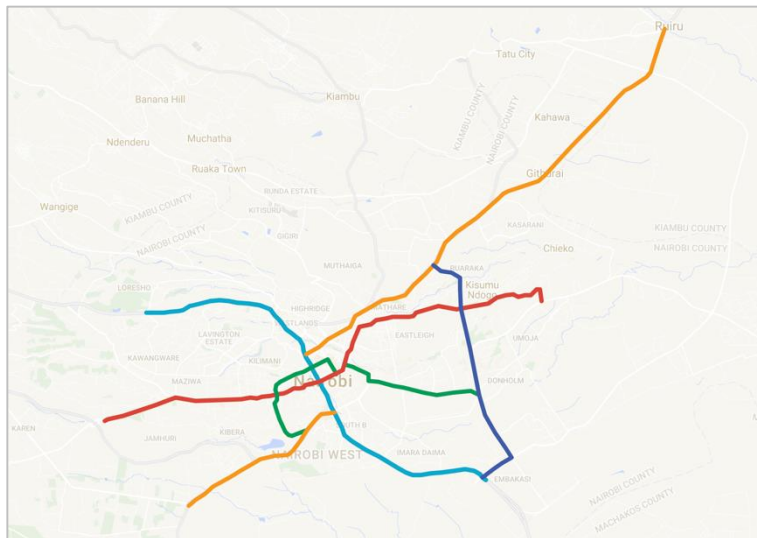
A sustainable Nairobi: How do we get there?



**100 km of
rapid transit**

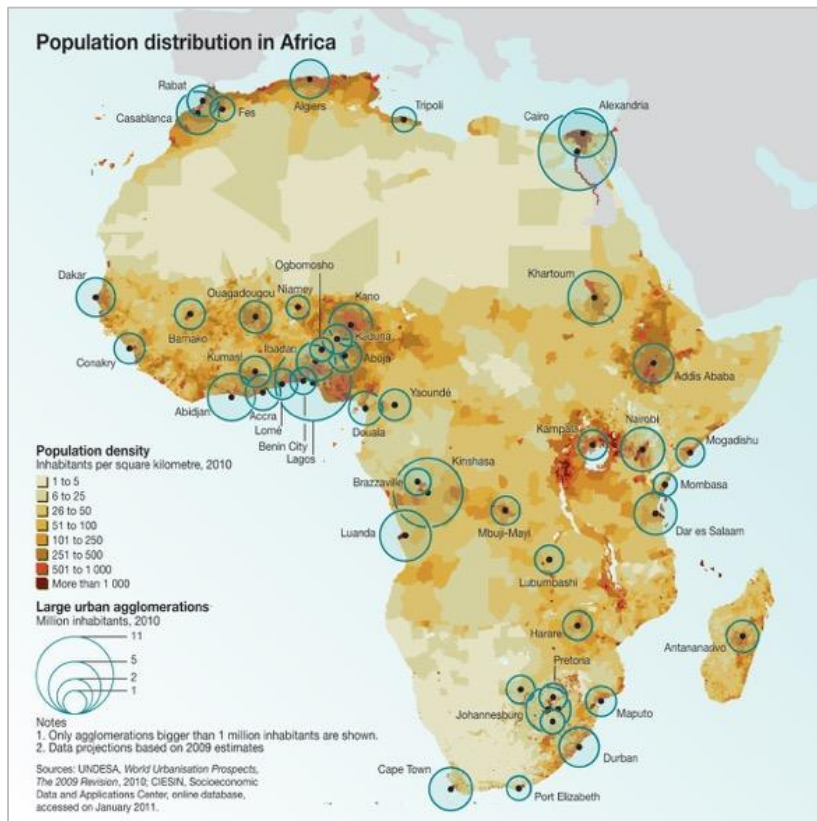


**250 km of
complete streets**



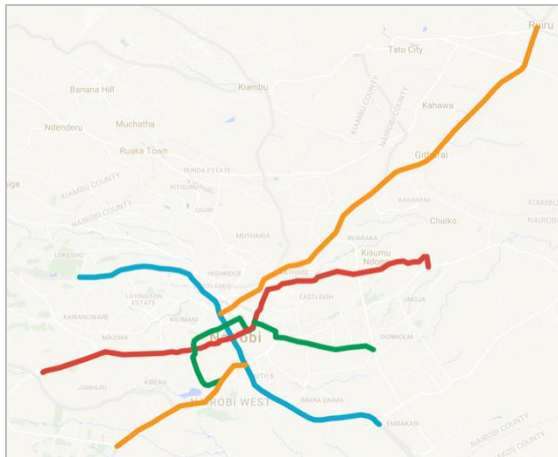
Plus: New city buses, parking management, etc.

Rapid transit across the continent

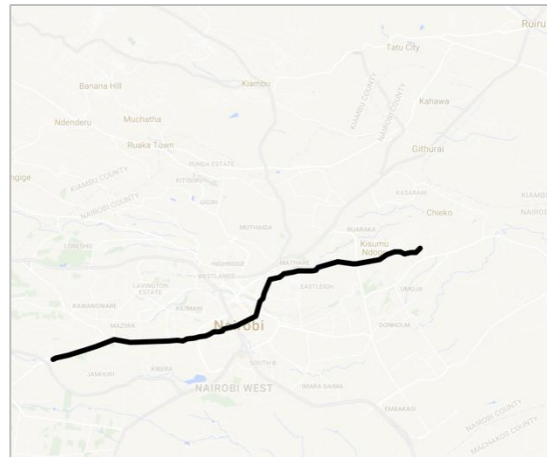


In order to stabilise growth in personal vehicle use, Africa's major cities need **3,700 km of mass rapid transit** over the next 15 years

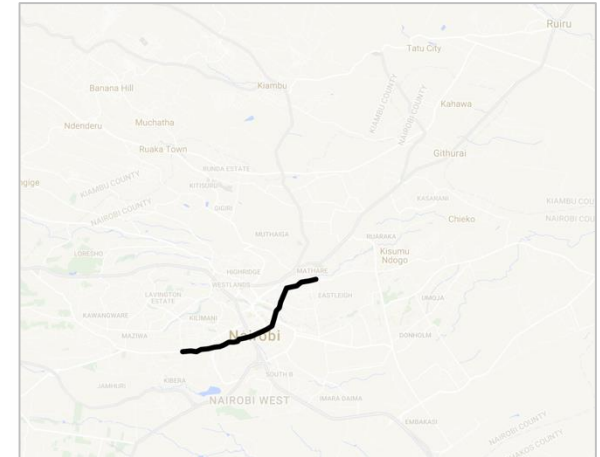
What can be built with \$1 billion?



86 km of BRT

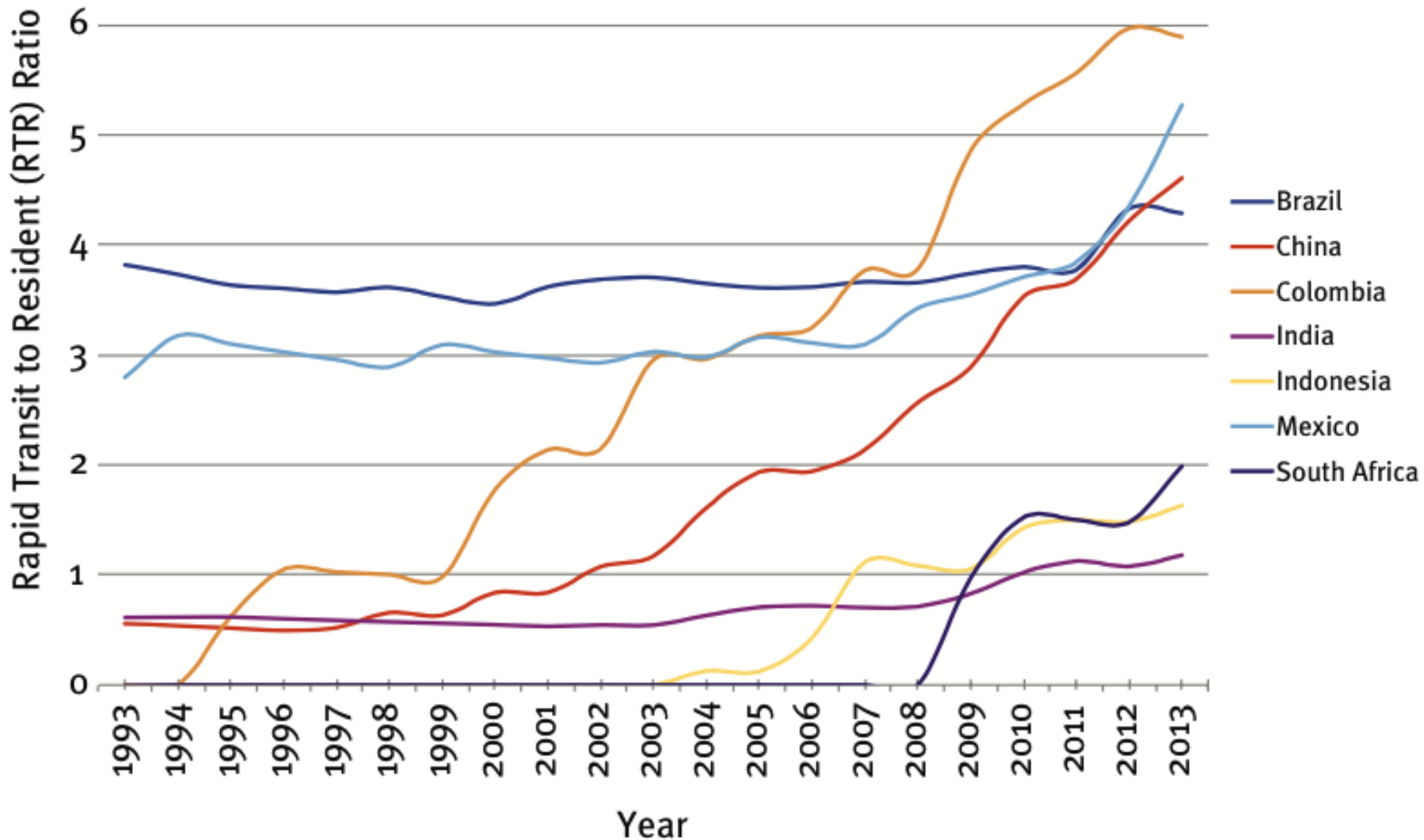


22 km of LRT



9 km of metro

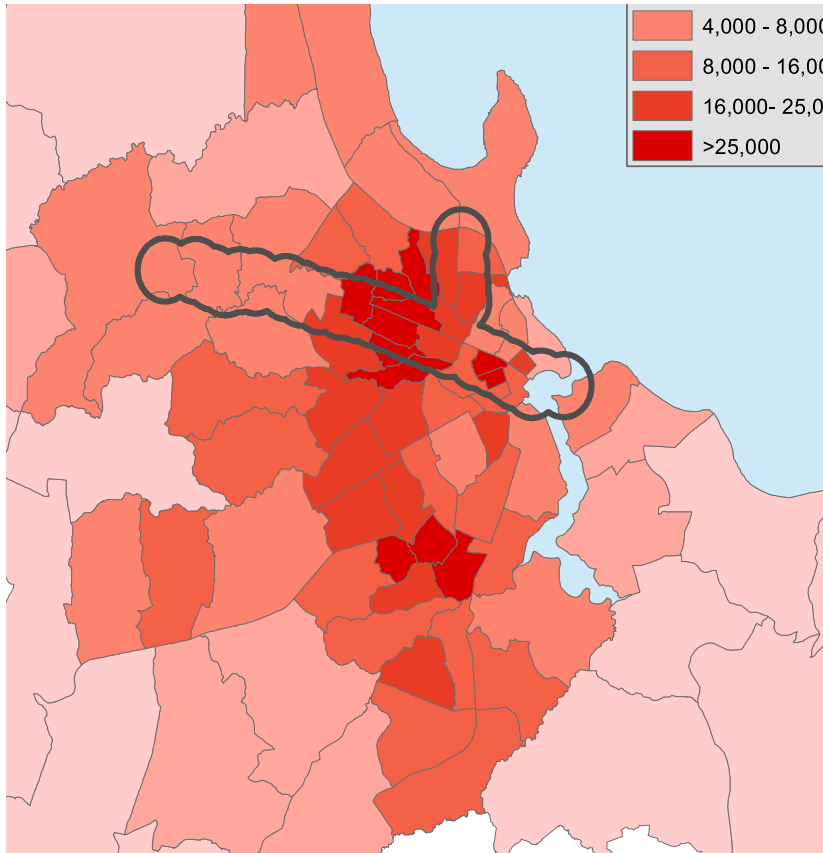
Rapid transit worldwide



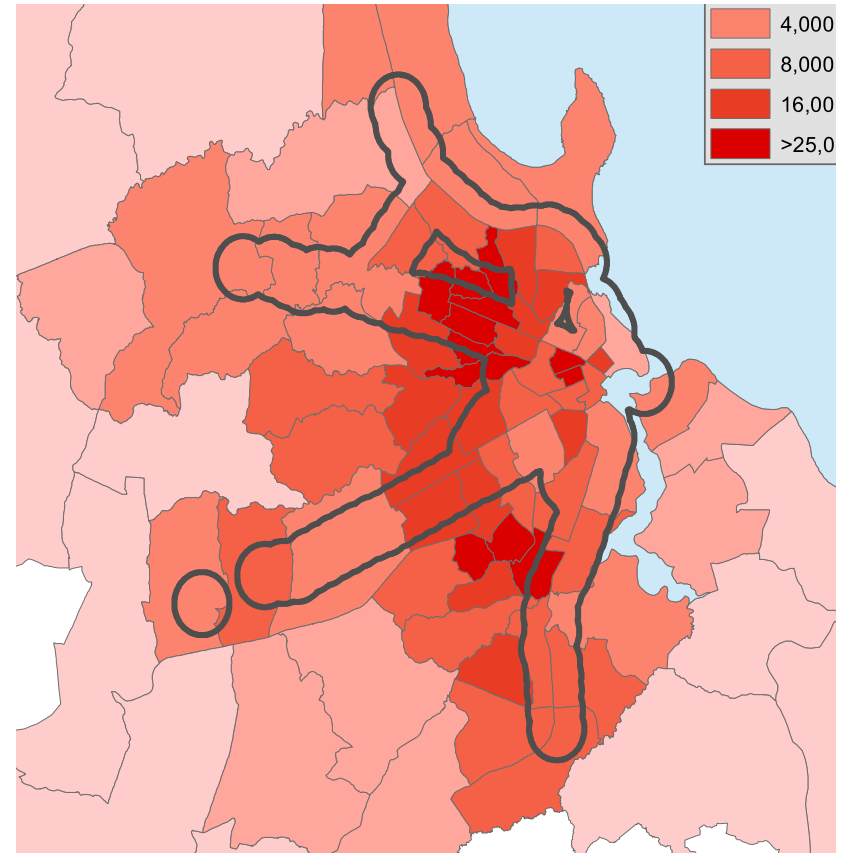
DART BRT, Dar es Salaam



Rapid transit coverage in Dar es Salaam



After BRT phase 1
8% of residents near
rapid transit



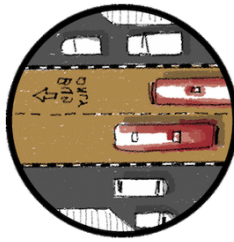
After BRT phases 1-4
33% of residents near
rapid transit

Building high quality BRT



Dedicated Right-of-Way

Bus-only lanes fully segregated from mixed traffic



Busway Alignment

Bus-only lanes aligned to the middle, not the curb, of a road



Off-Board Fare Collection

Turnstile-controlled or proof-of-payment fare collection system



Intersection Treatments

Mixed-traffic is prohibited from making turns across the busway



Platform-Level Boarding

Station platforms level with bus floors when boarding and alighting





Bus Rapid Transit:

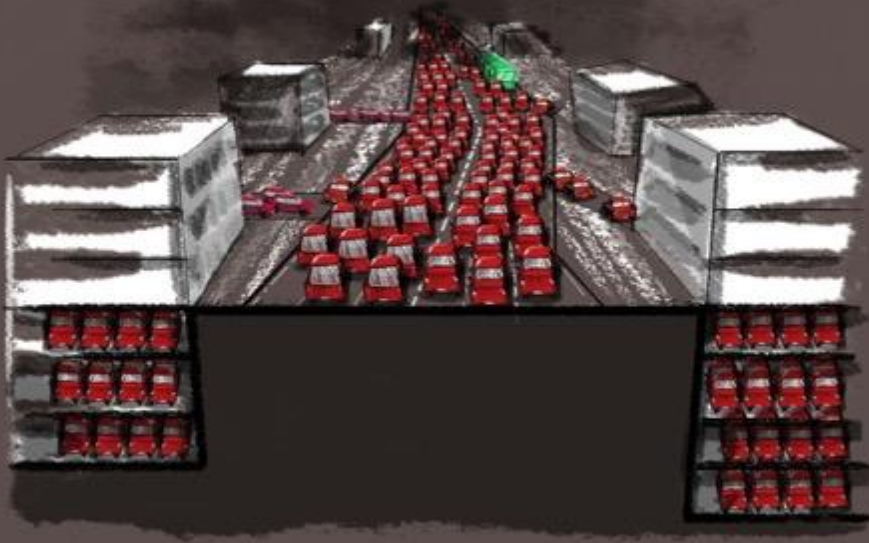
- High quality
- High capacity
- High speed
- Customer oriented

Not an old bus running in a bus lane!

BRT as an opportunity for the industry



Cities for cars



Build roads

Add traffic jams

Add pollution

Add road deaths

Cities for people



Add transit

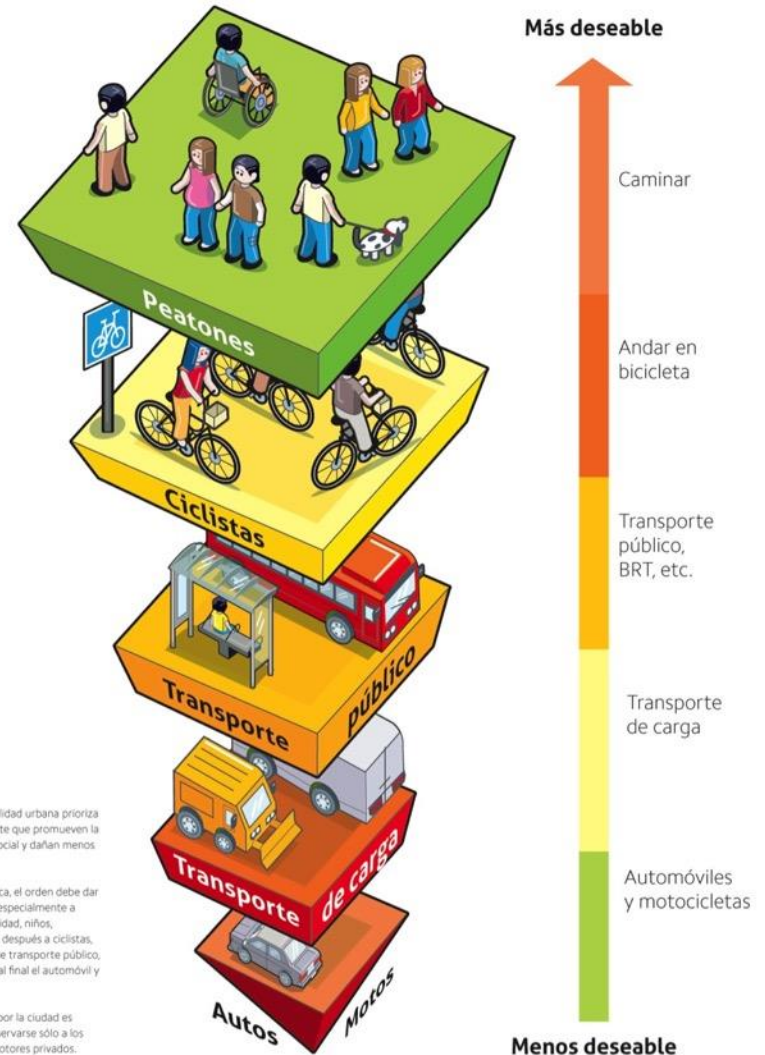
Add density

Cut parking

Better quality of life!

Turn the pyramid upside down!

Distribute road space and allocate budgets to give priority to walking, cycling, and public transport over private motor vehicles



La jerarquía de la movilidad urbana prioriza los modos de transporte que promueven la equidad, el beneficio social y dañan menos al medio ambiente.

Como muestra la gráfica, el orden debe dar prioridad a peatones (especialmente a personas con discapacidad, niños, adultos mayores, etc.), después a ciclistas, seguidos de usuarios de transporte público, transporte de carga y al final el automóvil y motocicletas.

El derecho a moverse por la ciudad es universal y no debe reservarse sólo a los propietarios de automotores privados.

Thank you

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