From Barriers to Solutions

Active and Walkable Cities

Presenter Name | Organisation | Designation
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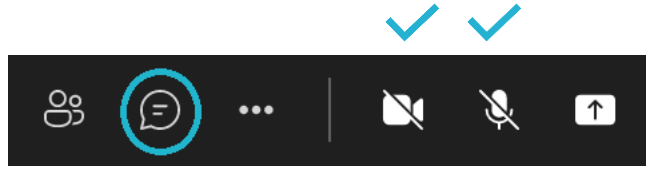
Some General Notes on this Session



Make sure you are muted and your camera is turned off

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Include your questions in the chat, we will pose them in the Q&A at the end of the session

Please introduce yourself in the chat (name, organization, city)

Contents

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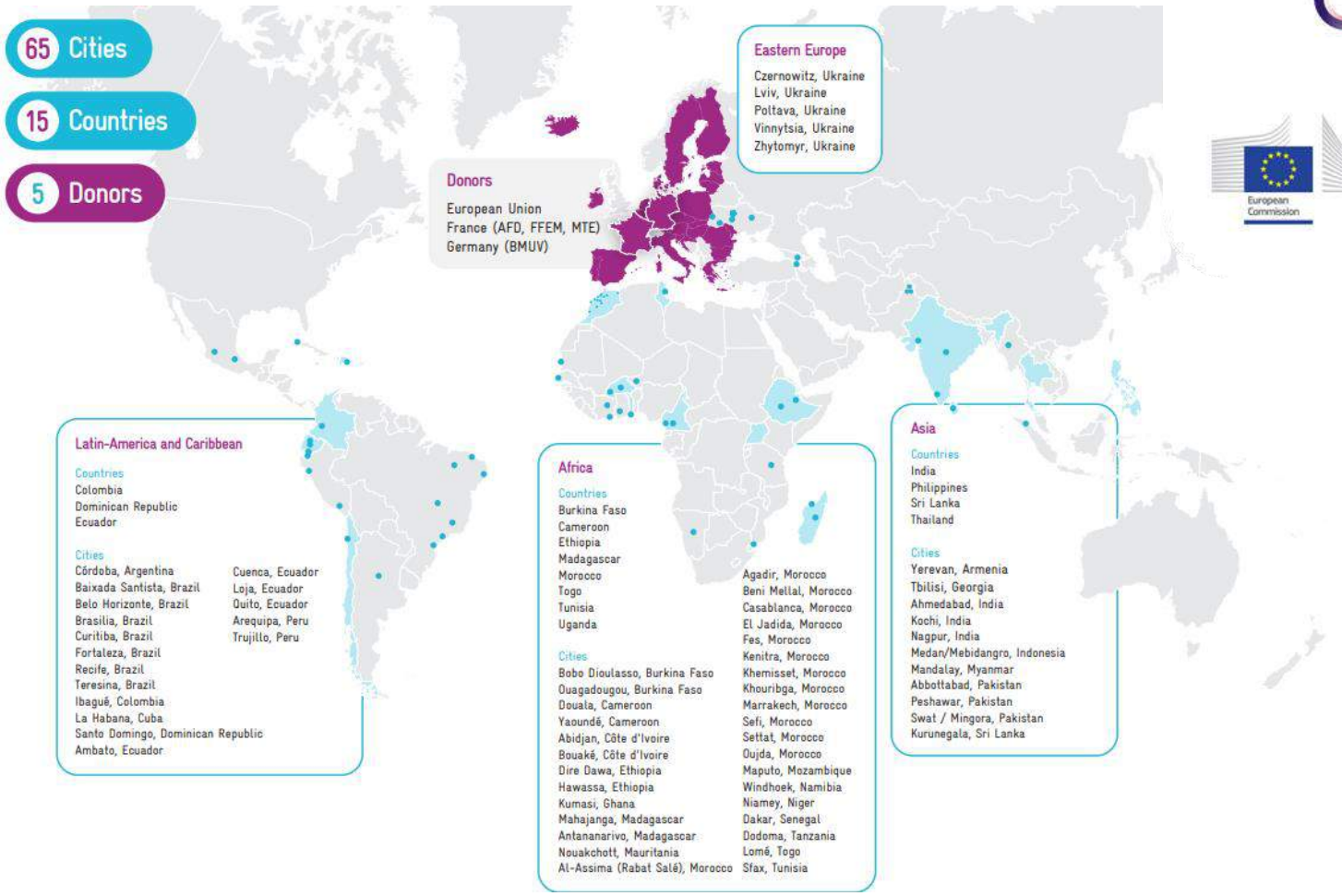
Mastering Mobility Series

Objectives of the session

After participating in this webinar, you should be able to:

- → Communicate the benefits of active mobility
- → Identify core concepts, tools, and approaches to increasing active modes of transport in your city
- → Learn how other cities have achieved this

MobiliseYourCity - a truly global Partnership with members on 4 continents



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Speakers

ICEBREAKER

source: unsplash – loli mass

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Why Walking and Cycling?

8 key benefits of walking and cycling

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Monterrey, Mexico

#1 Walking is the foundation of a city

Everyone is a pedestrian at some point in their journey.

And walking constitutes a high mode share in many cities.

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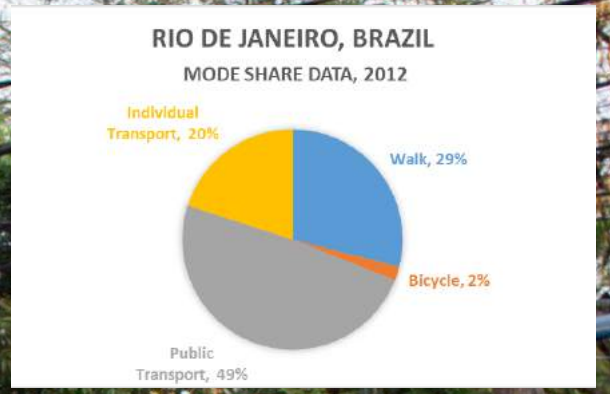
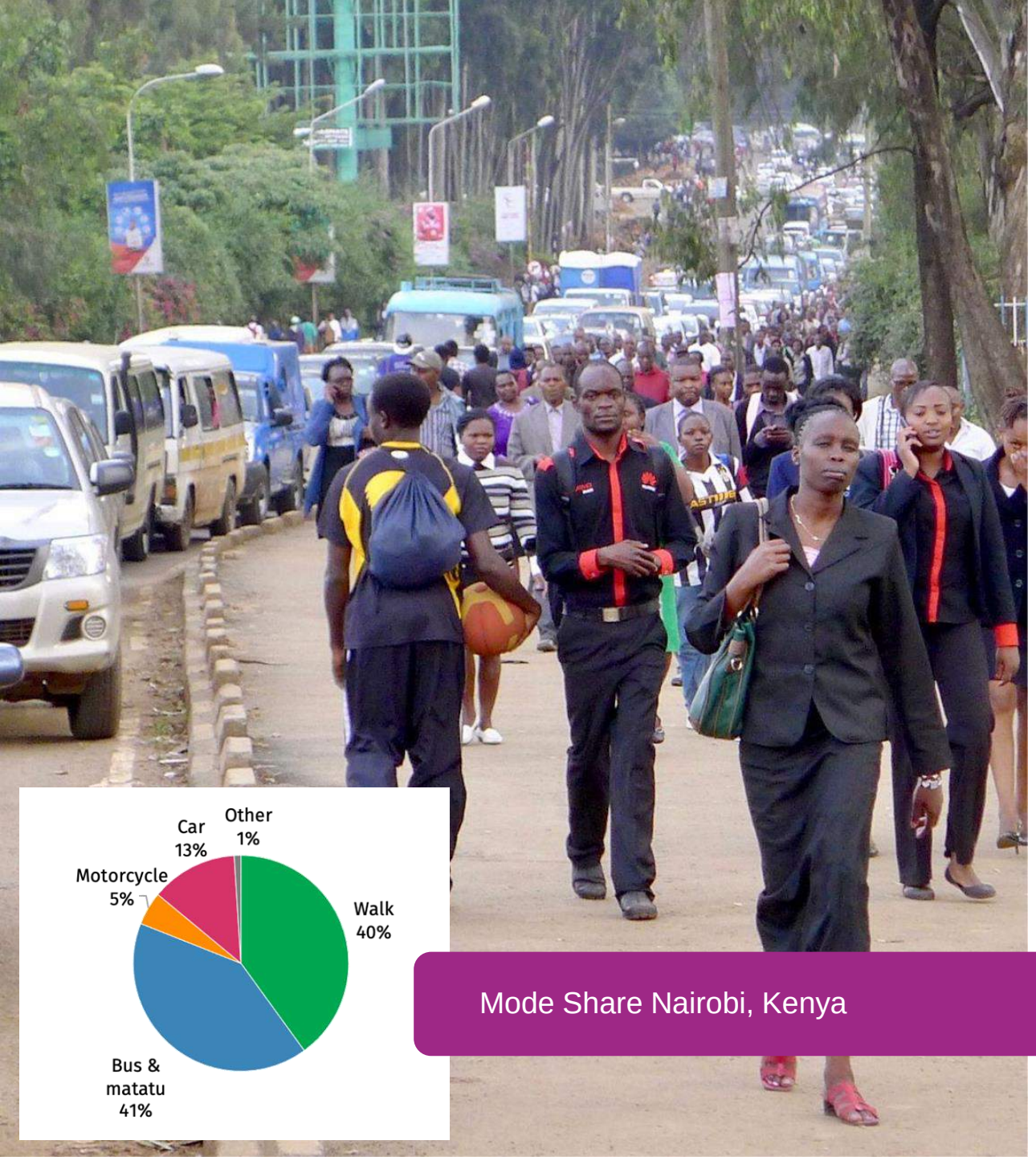
Many Brazilian cities range from 30 - 40% mode share for walking and cycling



Mode Share Rio de Janeiro, Brazil



Mode Share Nairobi, Kenya

Many cities in countries in Africa have a very high mode share for walking

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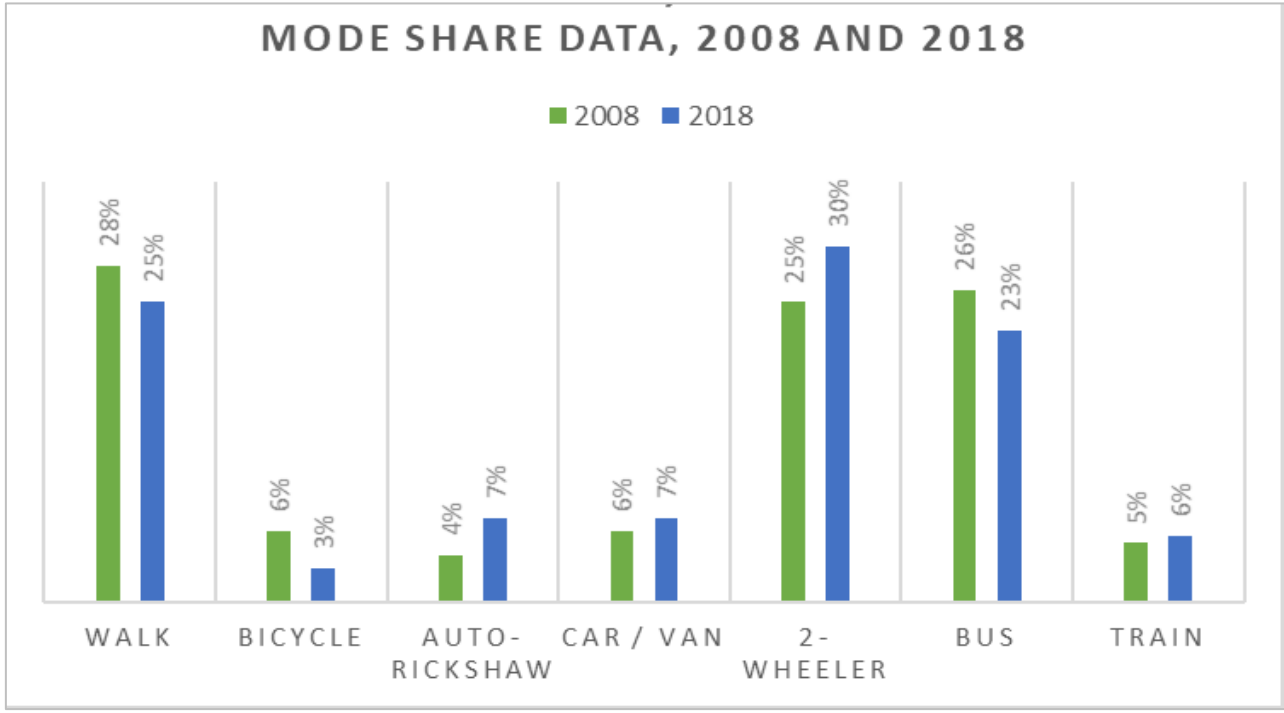
As do many cities in India, but we are seeing walking and cycling mode share decline over time, too



#2 - Many trips in a city are short trips

- Almost half of all car trips in U.S. cities are less than 3 miles (~5kms).
- Over 30% of European car journeys cover distances of less than 3 km; 50% cover less than 5 km.

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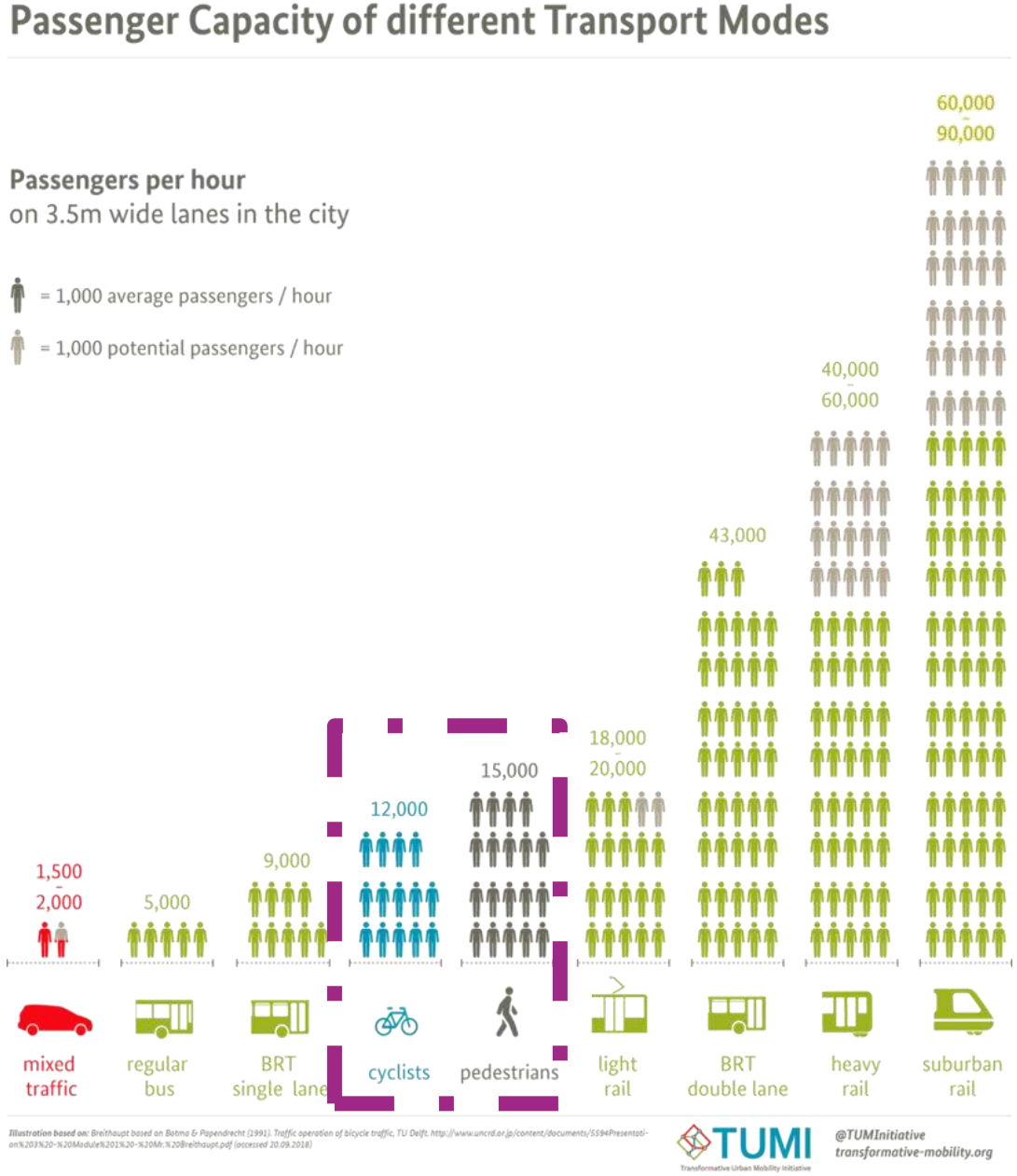
#3 - Walking and cycling are space and cost-efficient

- Costs to the individual are much lower for walking and cycling
- Costs to the city are much lower to provide and maintain infrastructure for walking and cycling
- Walking and cycling move more people per the same amount of space than cars



#4 - Walking and cycling do not contribute to air and noise pollution

- The global cost of air pollution is estimated at $2.9 trillion, or 3.3% of global GDP

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#5 - Walking and cycling are inclusive and equitable

- The most affordable forms of transport
- Available to older and younger alike

#6 - Walking and cycling promote health and well-being

Noncommunicable diseases (NCDs) kill 41 million people yearly, equivalent to 71% of all deaths globally.
77% of all NCD deaths are in low- and middle-income countries.

#7 - Walking and cycling generates local economic development

- In Seoul, South Korea, after Yonsei-to, once a heavily-congested four-lane road, was redesigned as a pedestrian-priority and bus-only corridor, commercial businesses saw an 11% increase in revenue-generating transactions

- Cities in Germany, Denmark, France, and the United Kingdom have also reported retail sales increases following pedestrianization and cycle-supportive redesigns.

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#8 - Walking and cycling are resilient forms of transport

- Pandemic
- Natural disasters
- Climate events

After the earthquake in Mexico City, cycling was one of the ways that first responders were able to get around the city

Barriers and Challenges

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Transportation systems are designed for the male, non-disabled commuter and the motorized trip

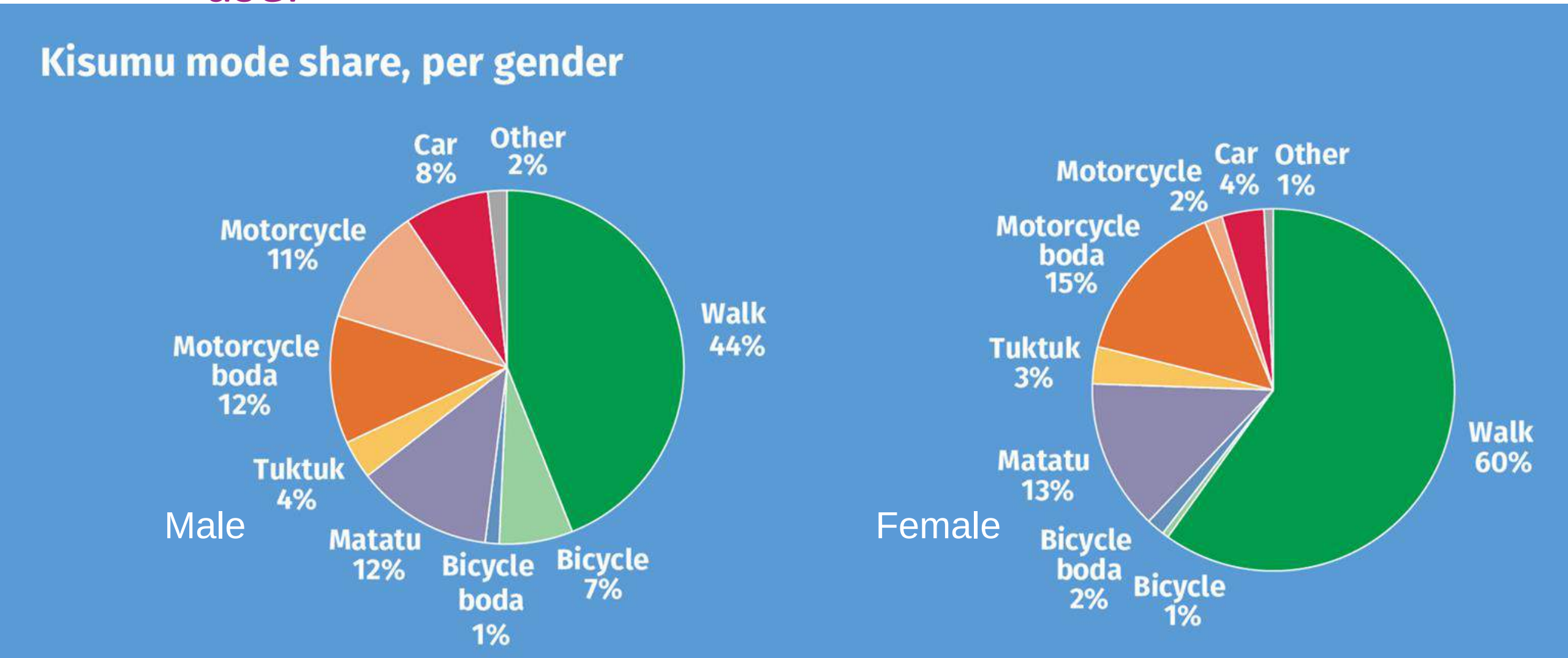
47% of all trips in Santiago are for caregiving activities

→ source: Lake Sagaris, Pontificia Universidad Católica de Chile

Just 16% of all trips in the US are commuting trips

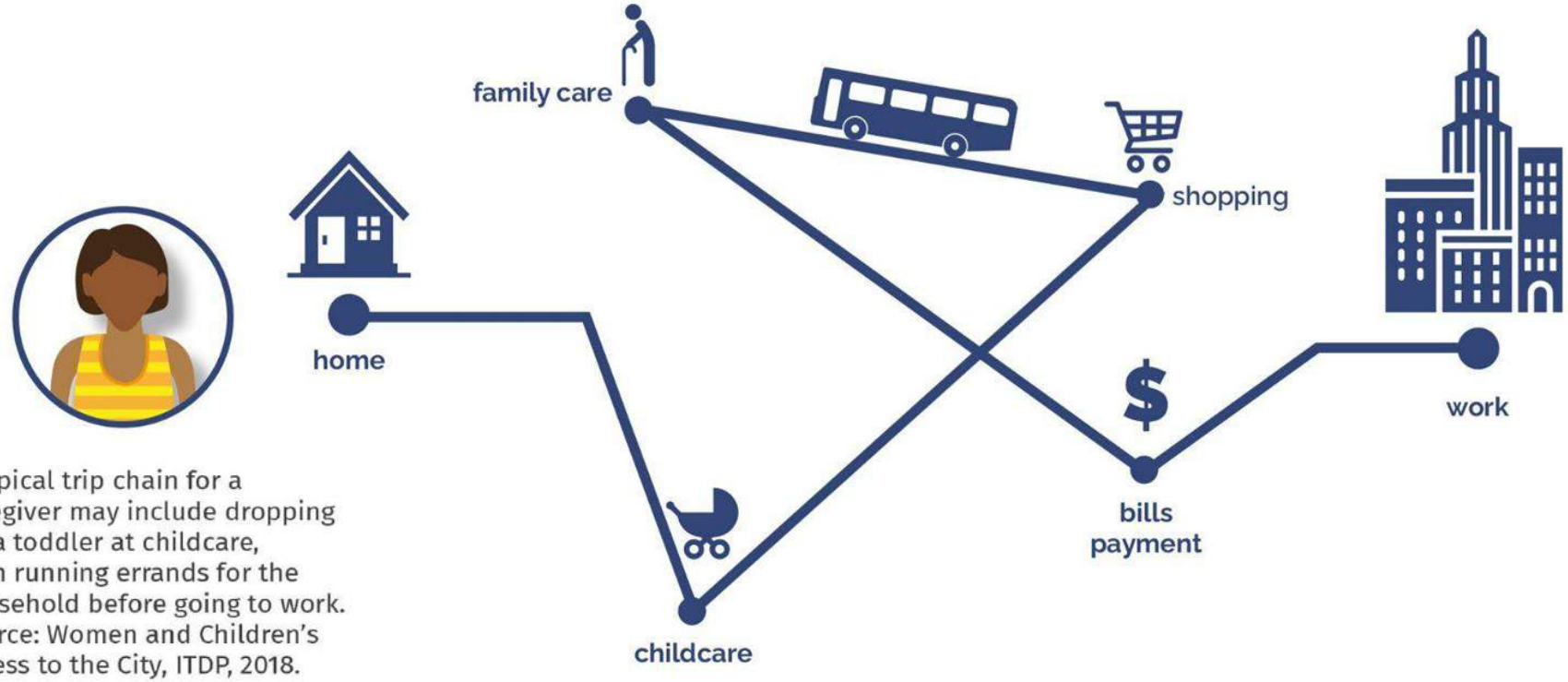
→ source: Steven E. Polzin and Alan E. Pisarski, Commuting in America 2013

Just a note that you need to disaggregate by user



Different people experience public space differently and have different trip characteristics

Trip chaining, combining multiple destinations in one trip, is common among women and caregivers



A typical trip chain for a caregiver may include dropping off a toddler at childcare, then running errands for the household before going to work. Source: Women and Children's Access to the City, ITDP, 2018.

Street space prioritises cars

Salmiya, Kuwait

Yichang, China

Kampala, Uganda
source: Carlos Pardo

Street dedicated for walking and cycling

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When there is, it is often discontinuous, narrow, obstructed, or poorly maintained

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Air and noise pollution creates a poor, unhealthy, and stressful environment

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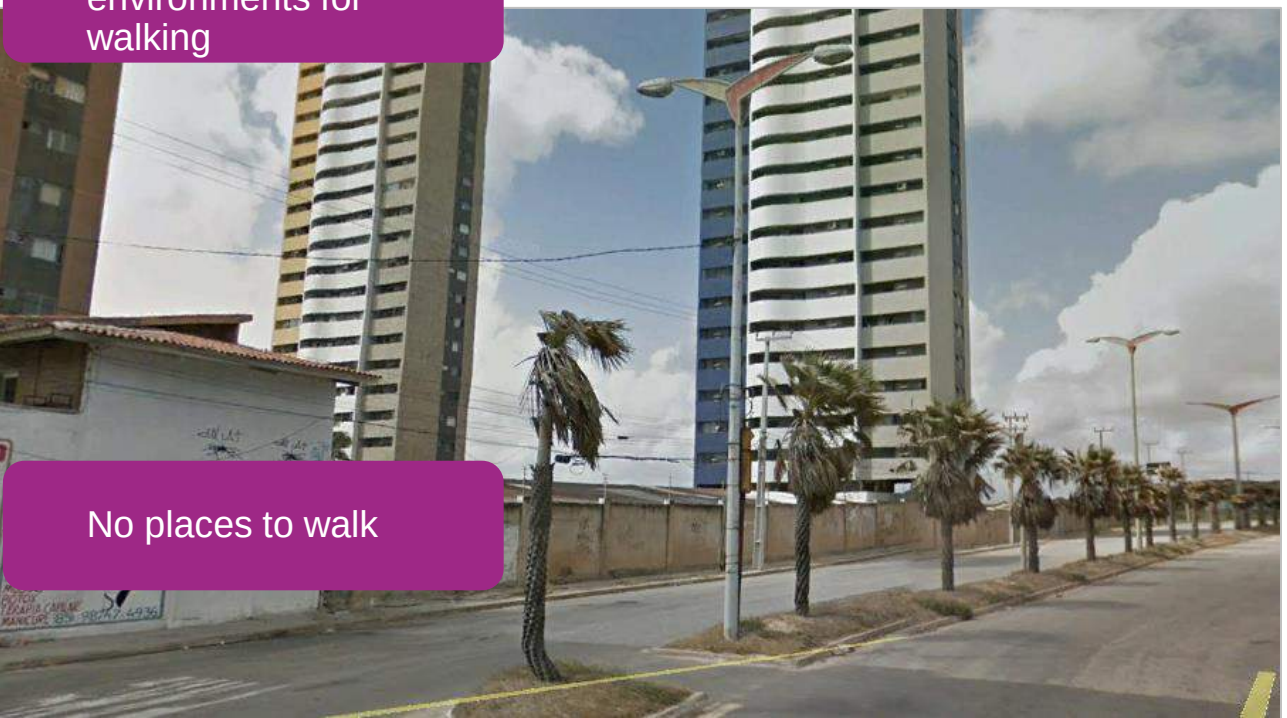
Chaotic and dangerous crossings, fast traffic

Hostile environments for walking



No places to walk

Disconnect between Landuse and Urban Mobility

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Lack of basic services

- Stormwater management
- Sewage
- Garbage disposal
- Basic street network

Nairobi, Kenya

Naundero, Pakistan

source: unsplash – jamal dawood

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Co-identifying Barriers and Challenges

Interactive Session

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CO-IDENTIFYING BARRIERS AND CHALLENGES SLIDE

source: unsplash – prashanth pinha

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What are the solutions?

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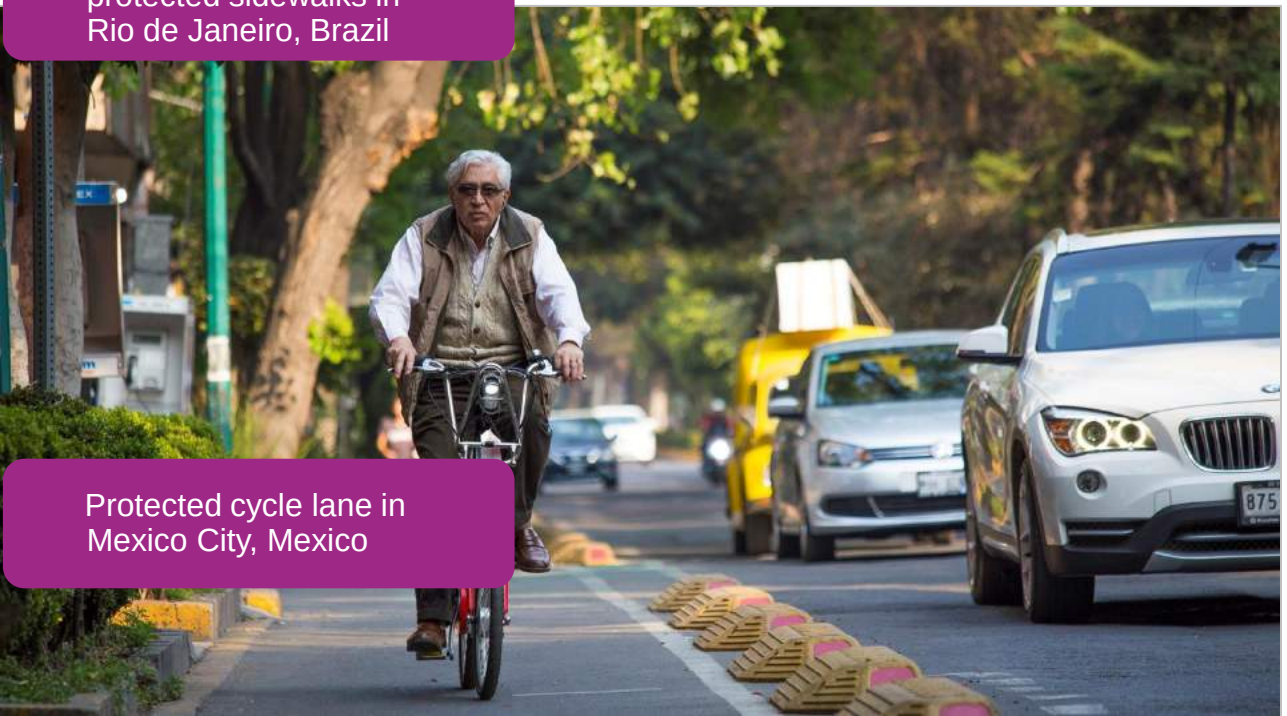
The basics!

- A fine grain street grid served by basic utilities, including water, sewage, stormwater management

Pedestrian and cycle only paths between main roads in Guangzhou, China create a fine grain grid.

Stormwater drainage in a kampung in Jakarta, Indonesia

Wide crossing to protected sidewalks in Rio de Janeiro, Brazil



Protected cycle lane in Mexico City, Mexico

Dedicated, protected, networks for both walking and cycling

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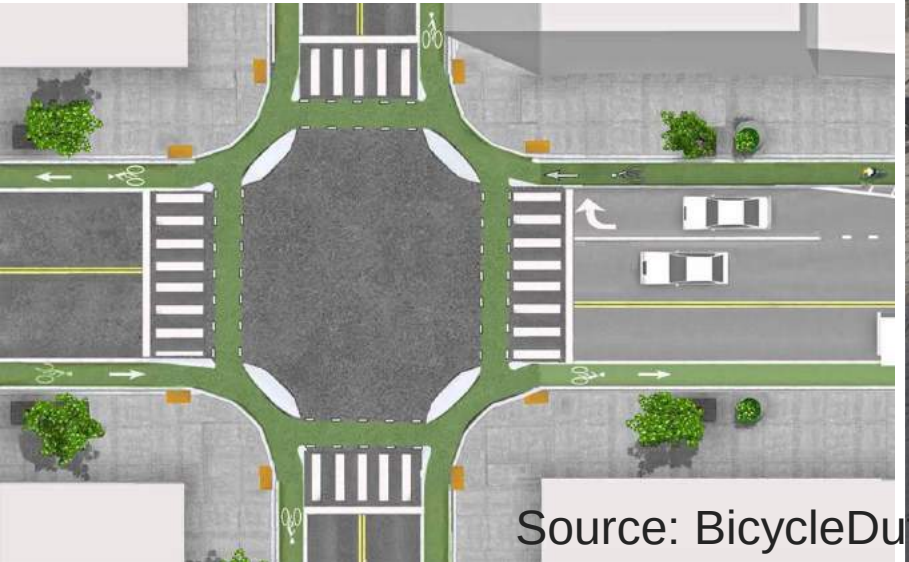
Fortaleza, Brazil

- 257.5 km of cycle lanes in 2019, a 280% increase from 2013
- A 153% increase in number of cyclists between 2012-2017
- 40% decrease in overall road crash deaths and injuries between 2014-2018

Crossings and intersections need to be safe by design

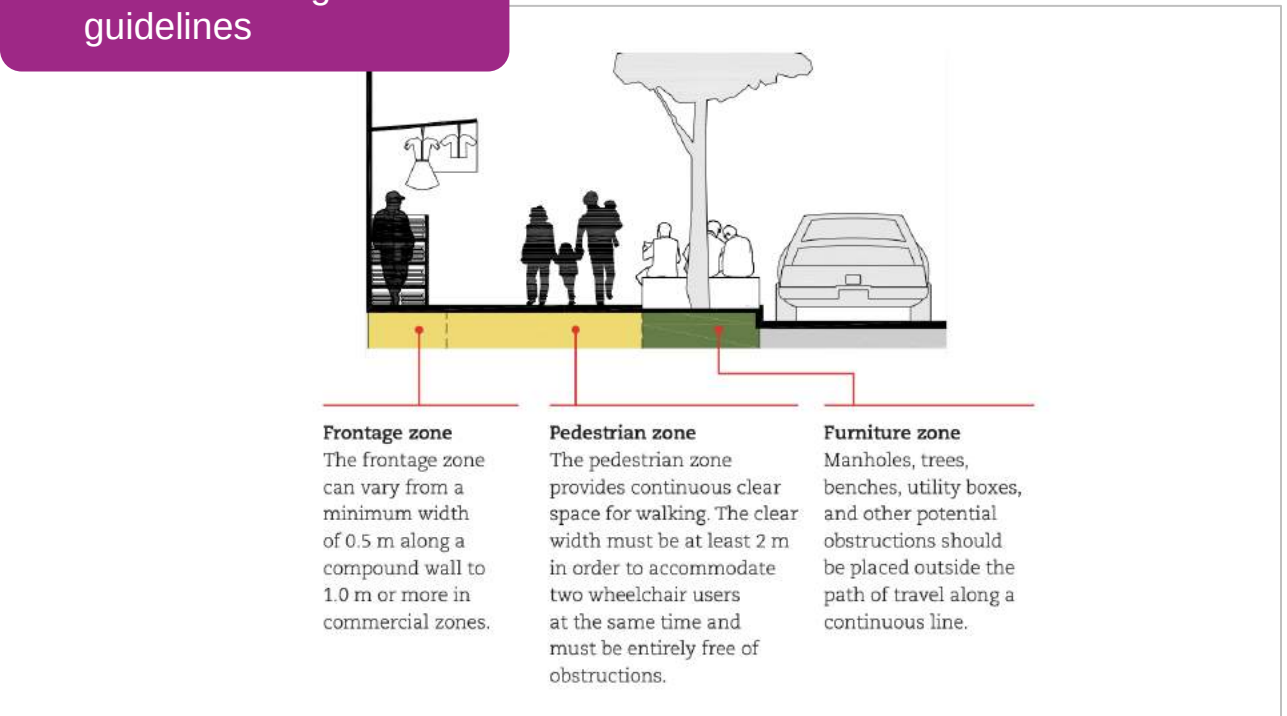
Fortaleza, Brazil



Source: BicycleDutch

DP road, Pune

Sidewalk design guidelines



Sufficiently wide

Monterrey, Mexico

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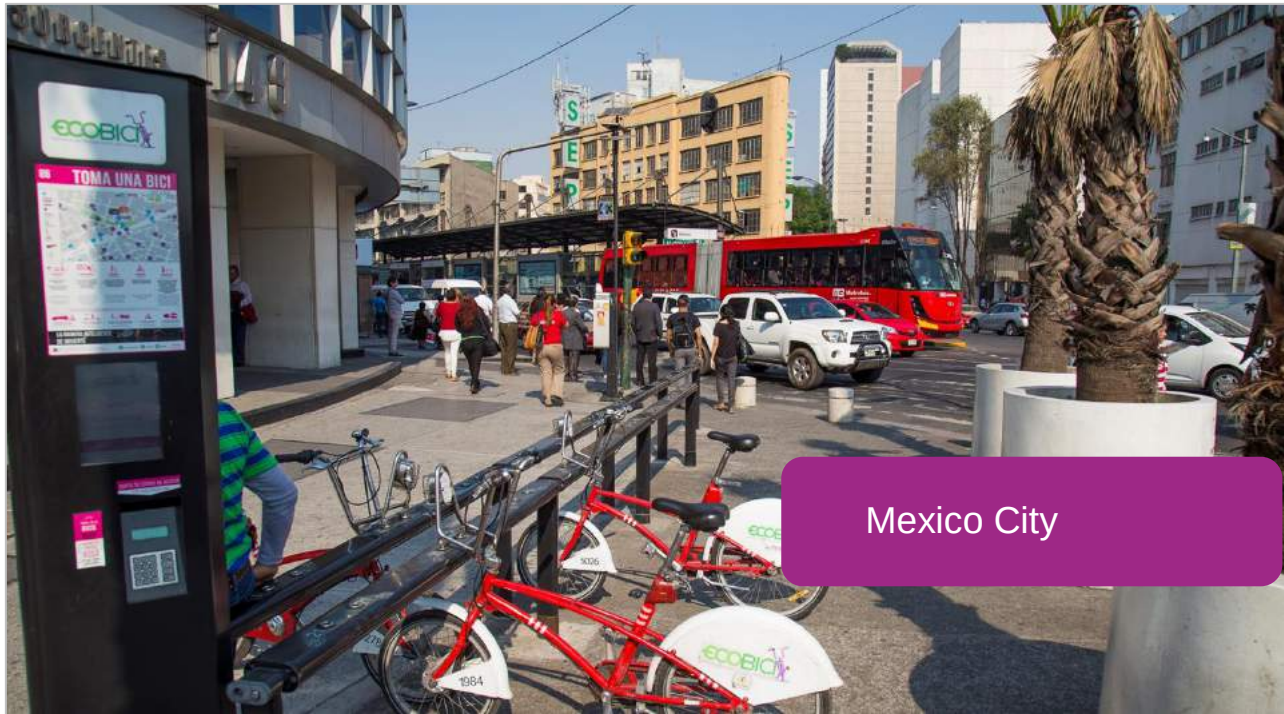
Parking for people and bikes

Pune, India

Wide and comfortable (shading, seating)

JM Road Pune

Bike share and bike lanes in Mexico City integrated with public transport



Mexico City

Wide, well-lit sidewalks with active frontages

Chennai, India

→ Nairobi, Kenya

Wide, protected, shade, activities nearby, seating

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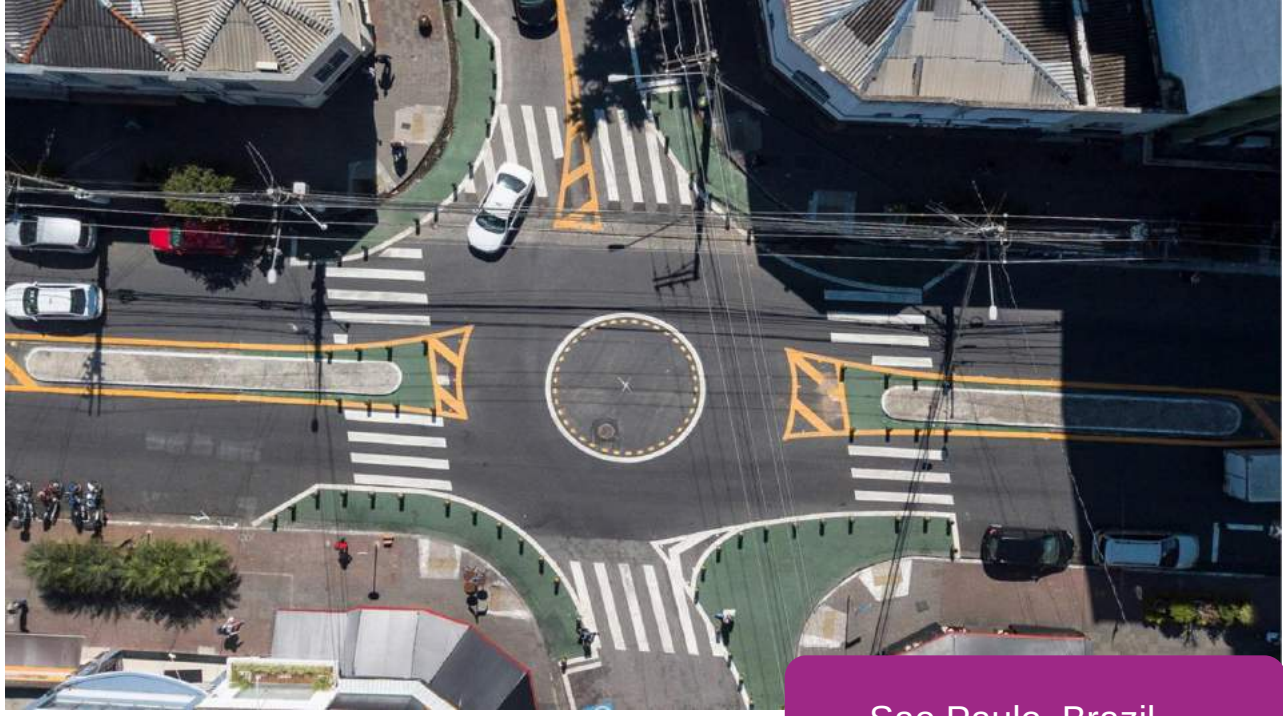
Slow down traffic and reclaim space from cars

- **Sao Paulo, Brazil's** tactical urbanism efforts reclaimed space for people, making crossings safer and slowing down cars. This has led to them becoming permanent and replication.
- **Buenos Aires, Argentina** extended the curb with planters and bollards, tightening the turning radius for cars, slowing them down, and giving more space to pedestrians.



Sao Paulo, Brazil

Buenos Aires, Argentina

New protected bike lane in Jakarta, Indonesia

Tactical Urbanism: Belo Horizonte

Reclaim space for cycling and walking

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Destinations within walking and cycling distance

- Visually active frontages
- Activated Streets

Buenos Aires, Are

Guangzhou, China

Promote walking and cycling

- Bike share
- Car free days
- Tactical urbanism
- Outreach and educational activities

Ciclovía in Bogotá, Colombia

Macleta, women's cycling school in Santiago de Chile

Active and walkable cities are cities for our future

Case Studies

Kisumu, Kenya

Addis Ababa, Ethiopia

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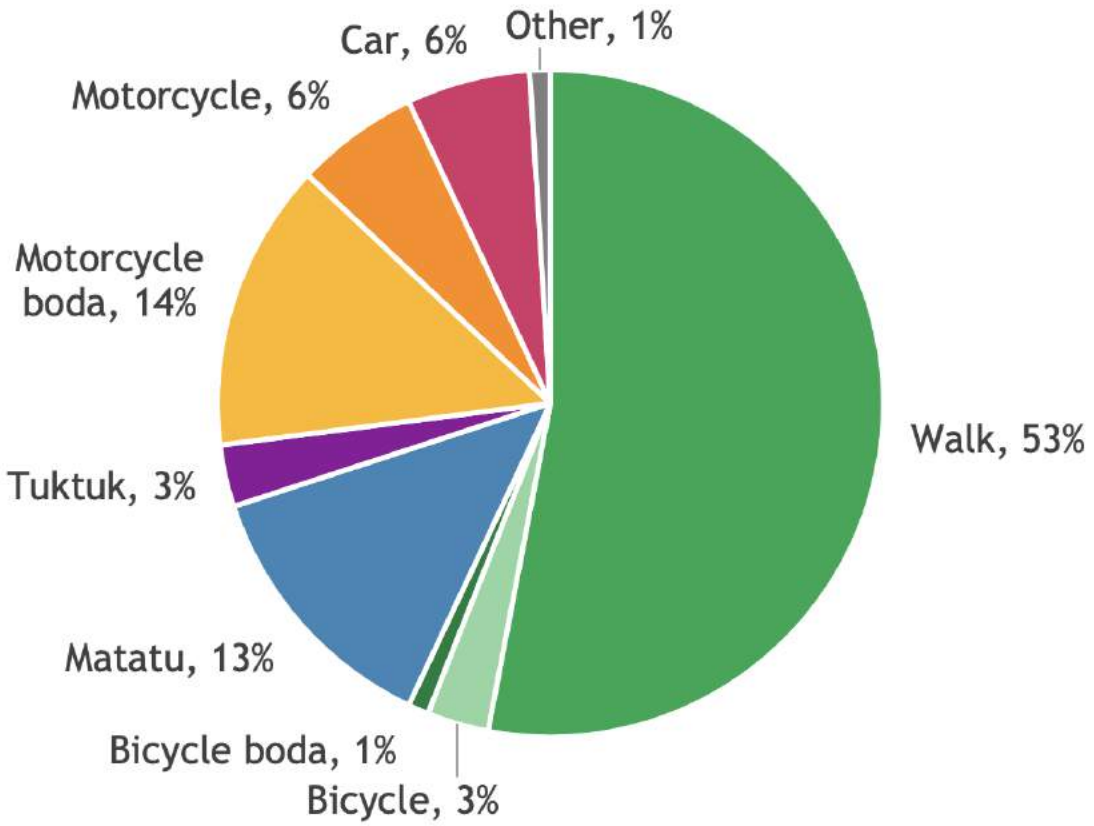
CASE 1:
Kisumu, Kenya



Mode Share, Kisumu Kenya

How Kisumu residents travel

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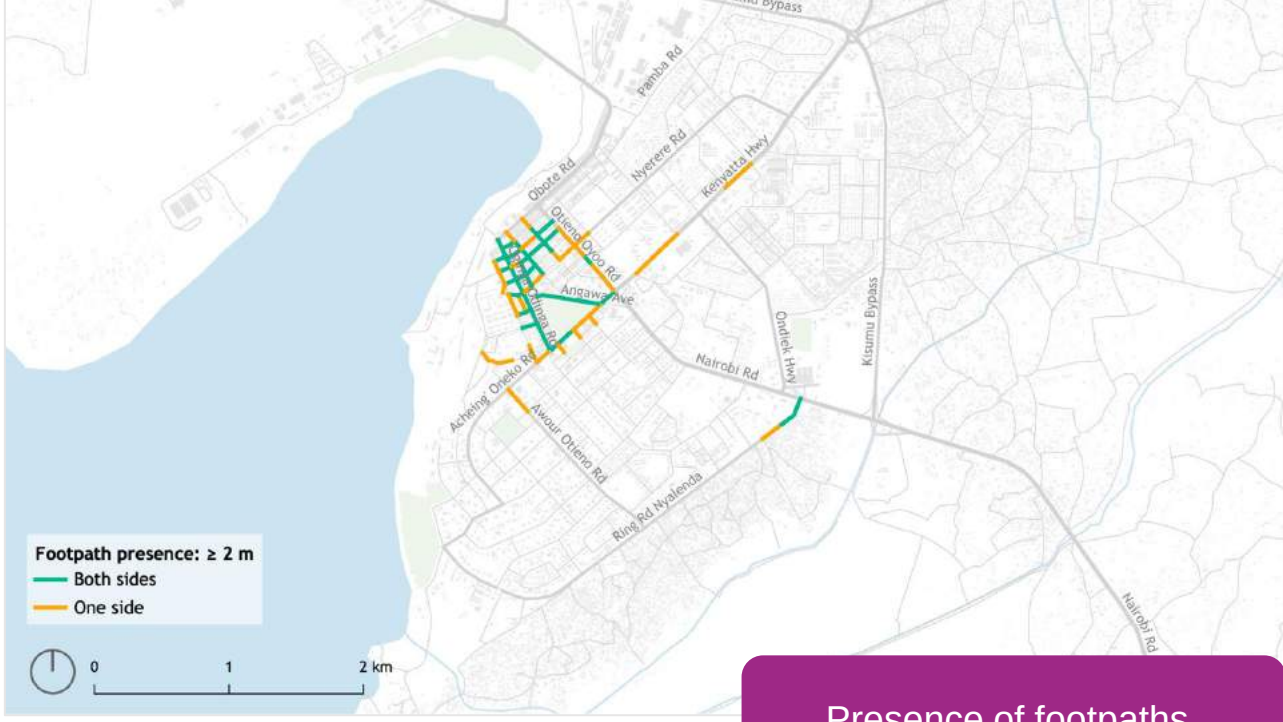
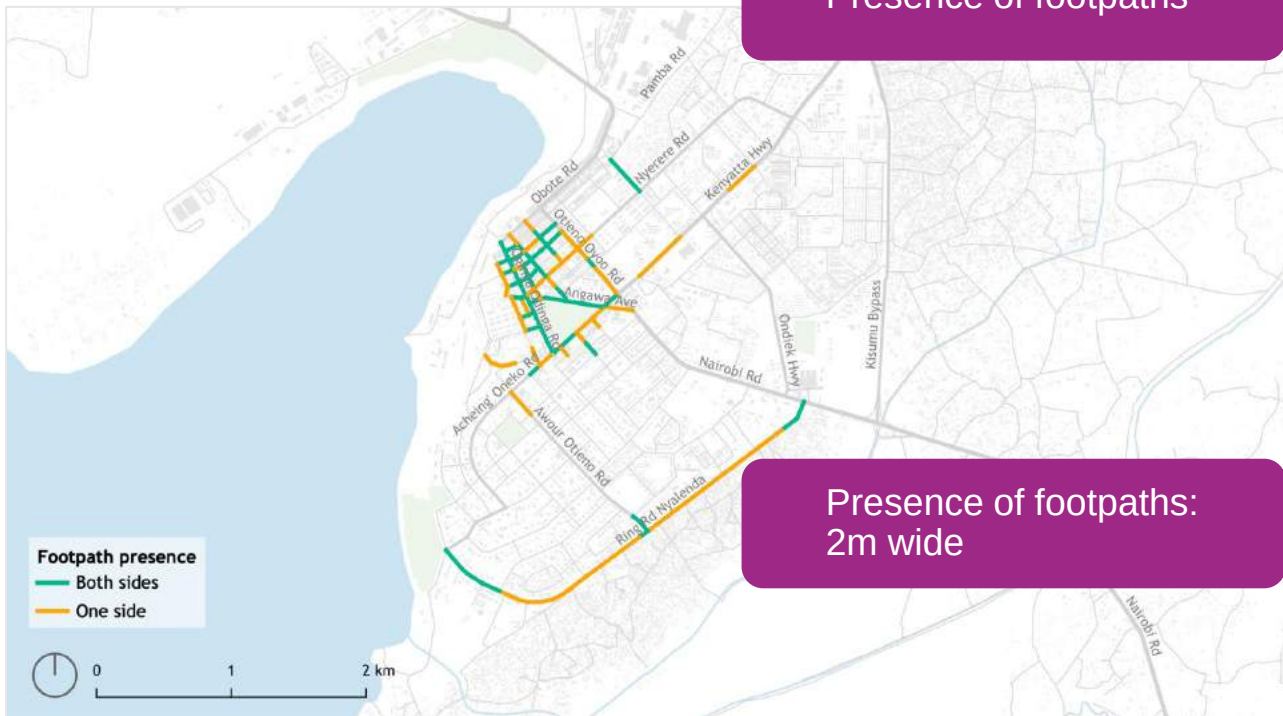
Well-paved carriageways but lack of footpaths

Limited extent of existing footpaths



Presence of footpaths



Presence of footpaths: 2m wide

Crossing difficulties for young children

Lack of designated crossing facilities and pedestrian refuge islands

- Pedestrian crossing points can be made safer by installing traffic calming features, signals, pedestrian islands, curb extensions

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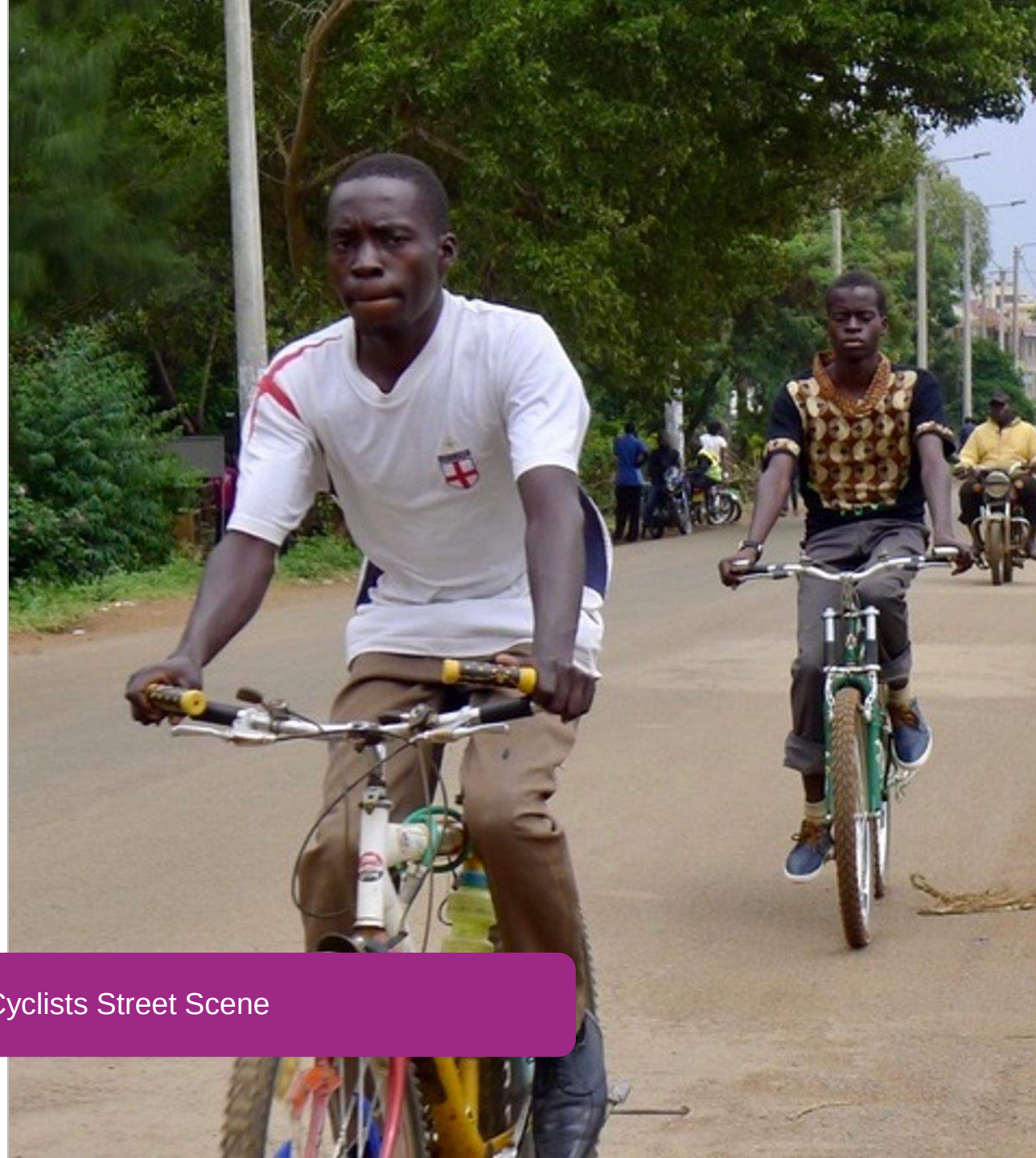
Cyclists on the carriageway due to lack of dedicated cycle facilities

- Separate cycleways should be designed to limit motorist and cyclist conflict



Cyclists Street Scene

Children waiting for public transport

Provision of public transport stations

- Include a safe space for children to walk, cycle, and access public transport

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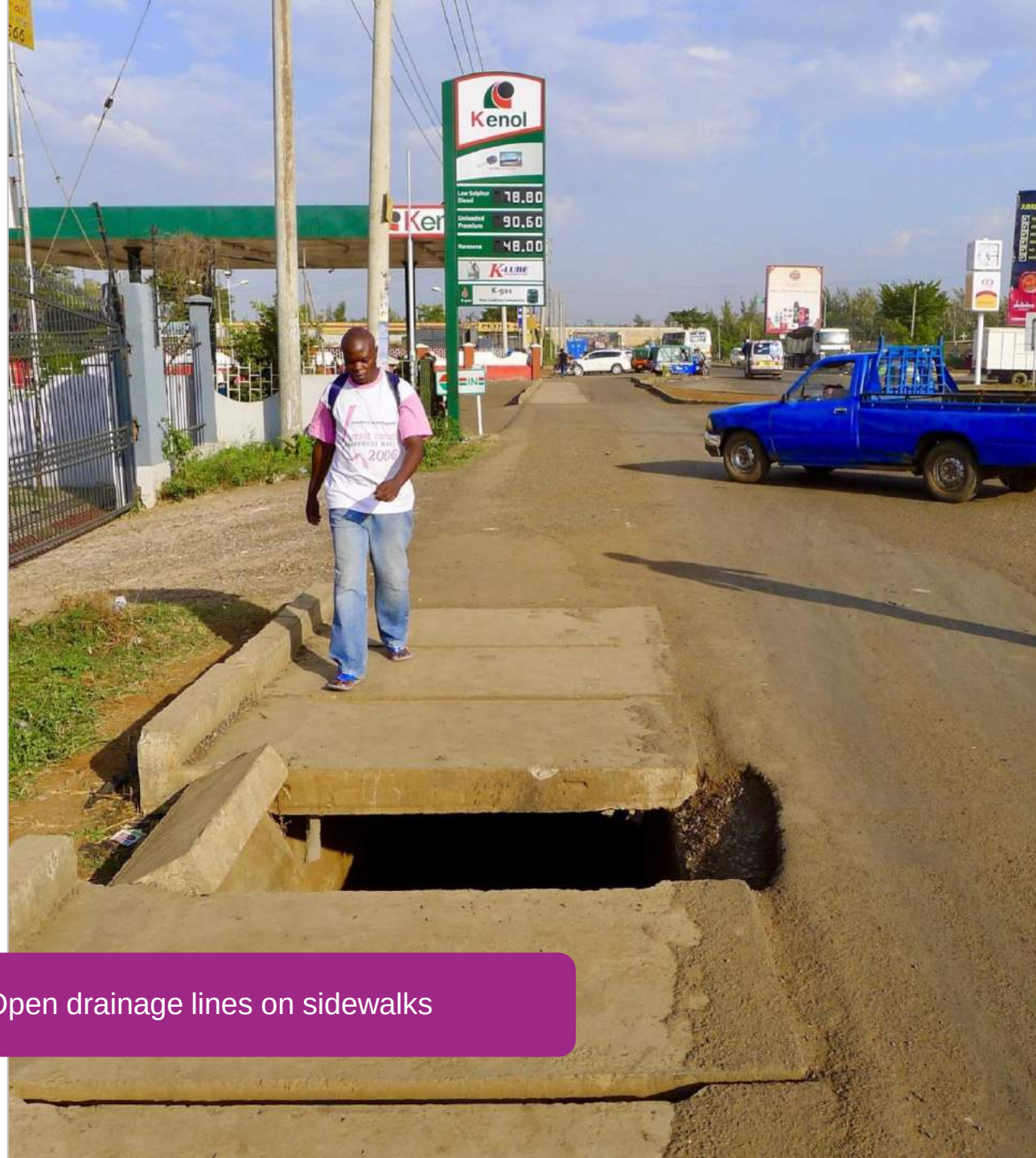
Maintenance of utility services

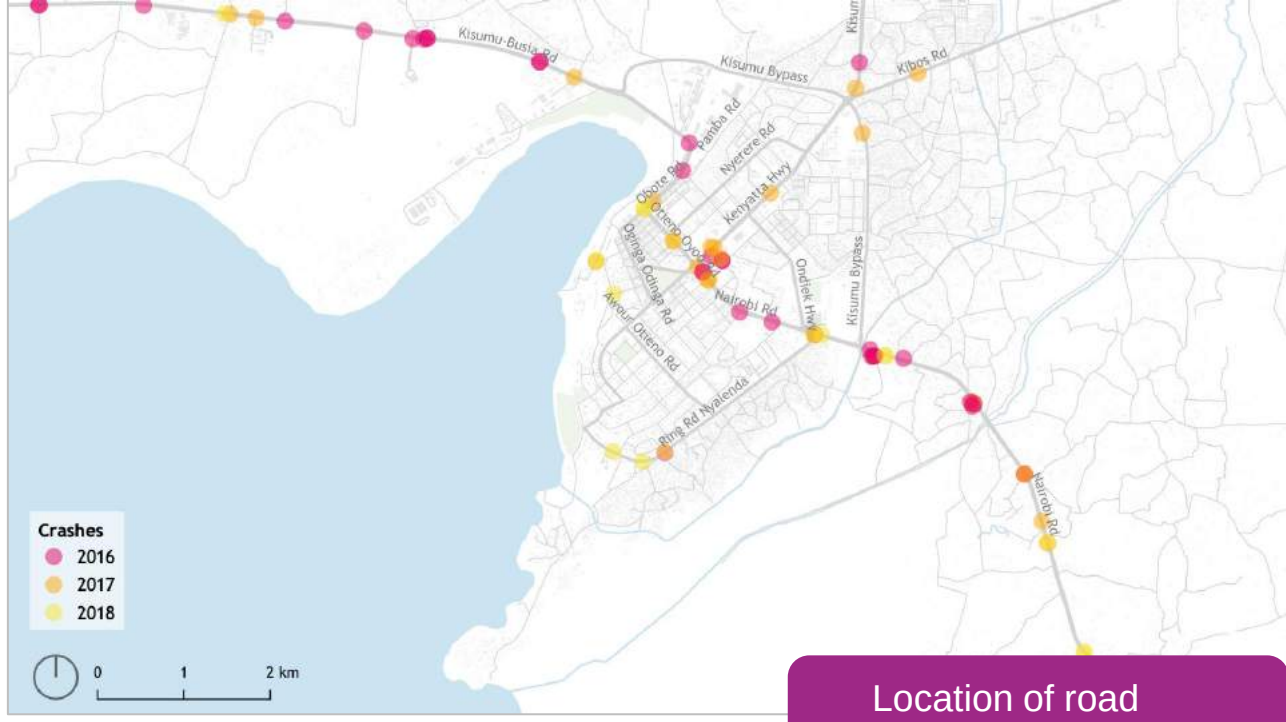
- Utility lines need to be reconstructed and maintained as open drains pose a threat to pedestrians and cyclist



Open drainage lines on sidewalks

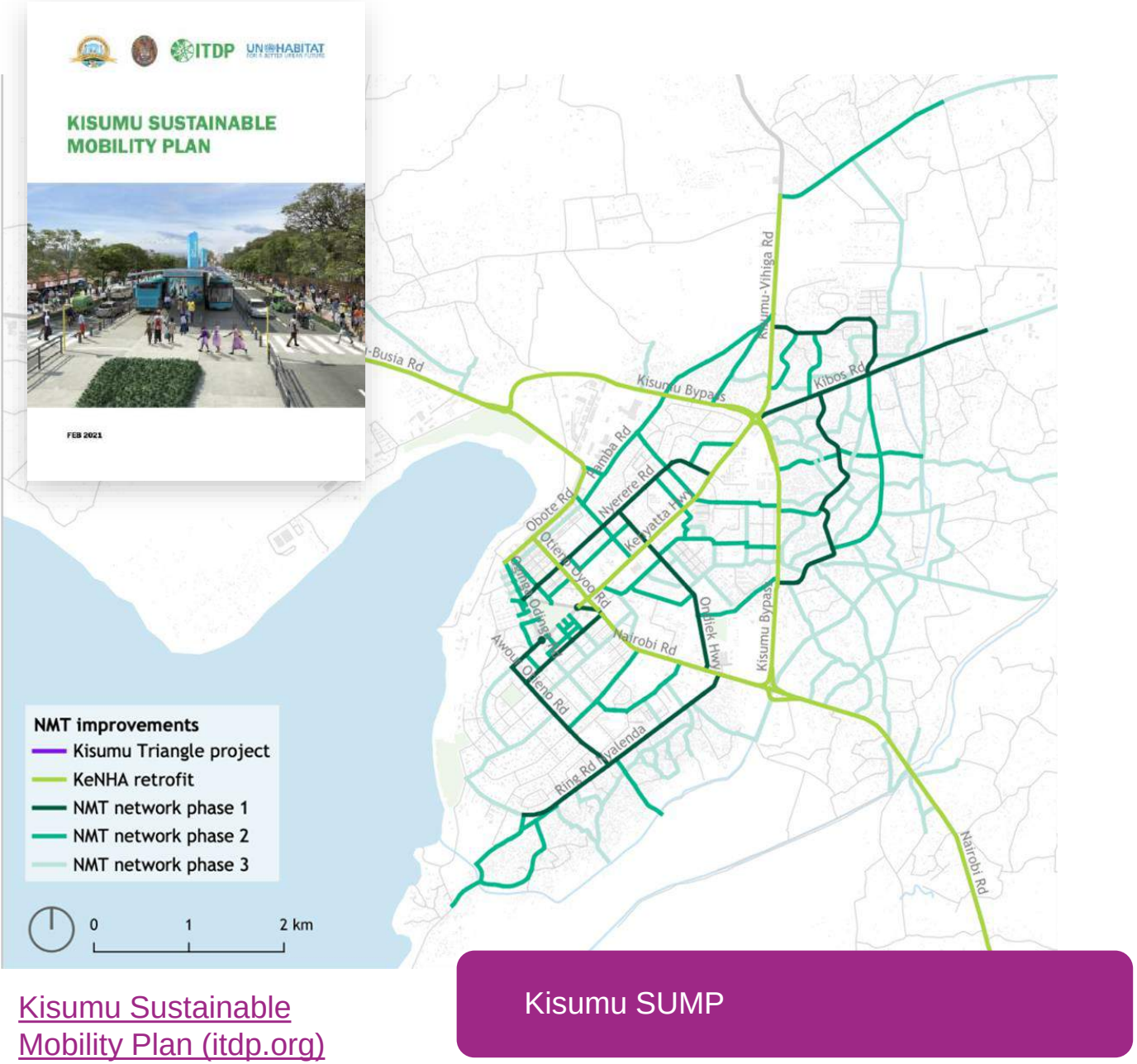
Traffic crash black spots on recently upgraded corridors

- For Intersections that have more registered crash data, traffic calming are necessary to bring down fatality rates



Location of road crashes 2016-2019

View of upgraded corridor



Kisumu SUMP

Kisumu Sustainable Mobility Plan

- Complete pedestrian realm: 100 km
- Cycle tracks:
  31 km
- Greenway:
  3.7 km
- Highway safety retrofits: 28 km
- School zone safety improvements

[Kisumu Sustainable Mobility Plan (itdp.org)]

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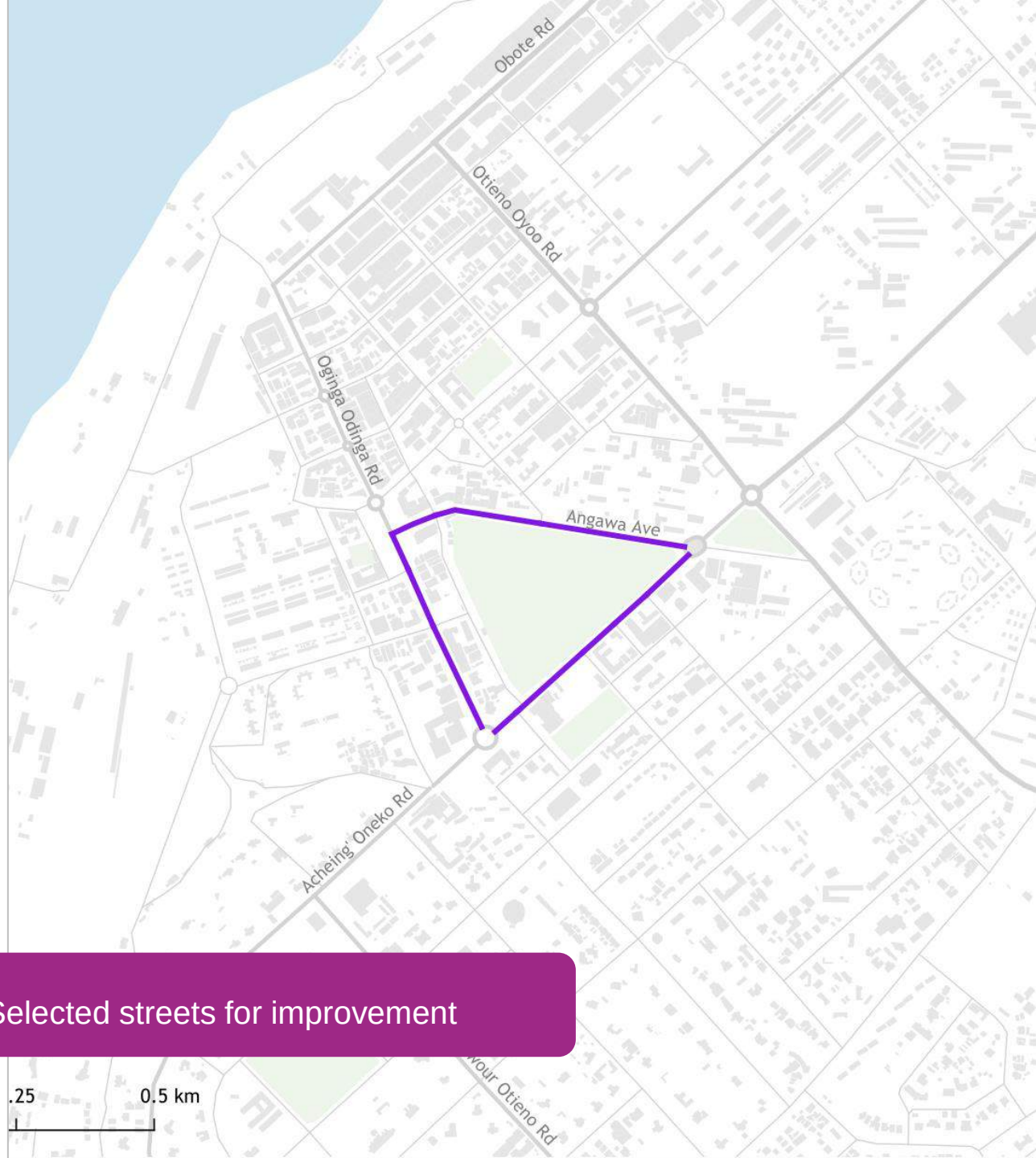
Kisumu Triangle Project

- KES 241 million (USD 2.2m)
- Financed through World Bank Kenya Urban Support Project
- New footpaths, crossings, street furniture, landscaping, drainage retrofit, public toilets



Selected streets for improvement

Stakeholder Engagement

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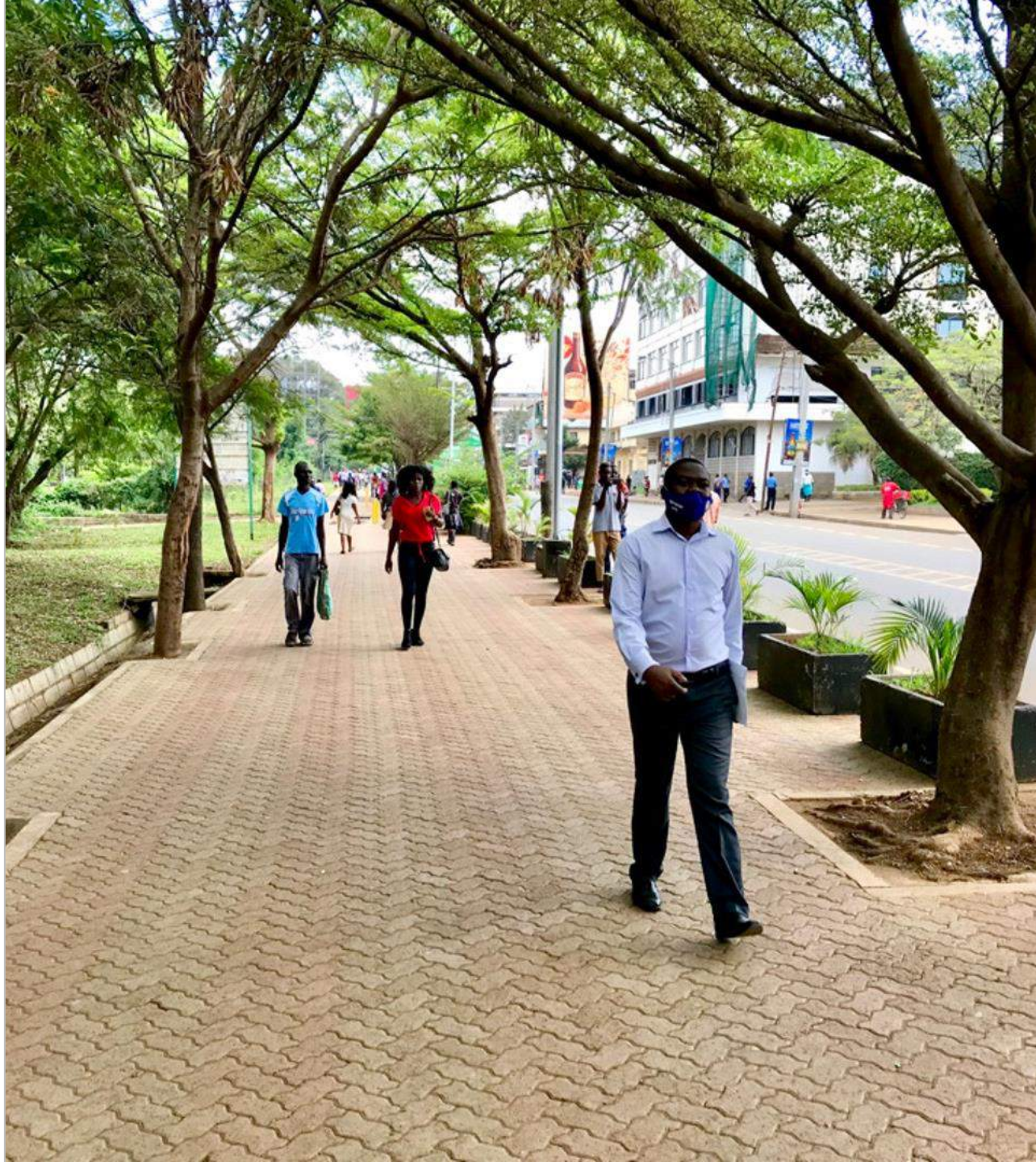
Trees for shading



Street Vendors

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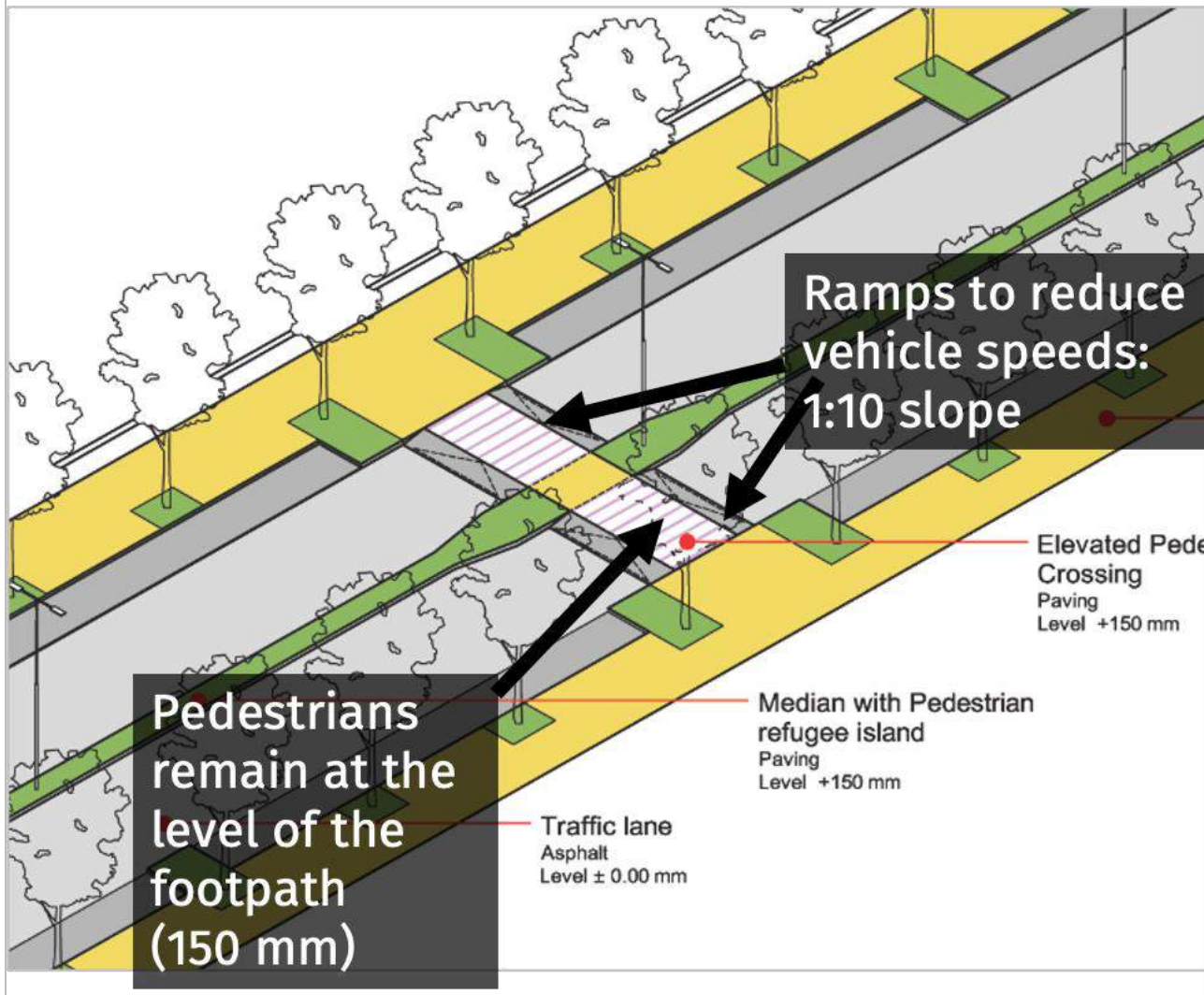
Raised zebra crossing



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Tabletop Crossings

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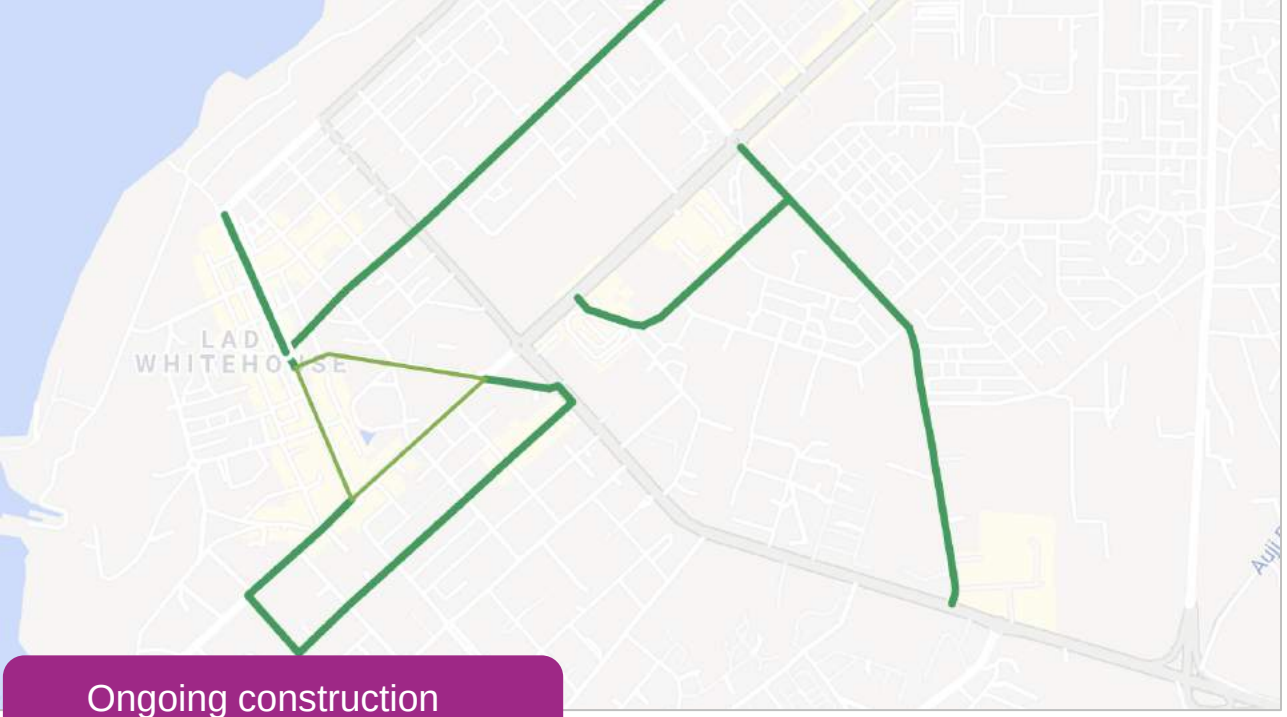
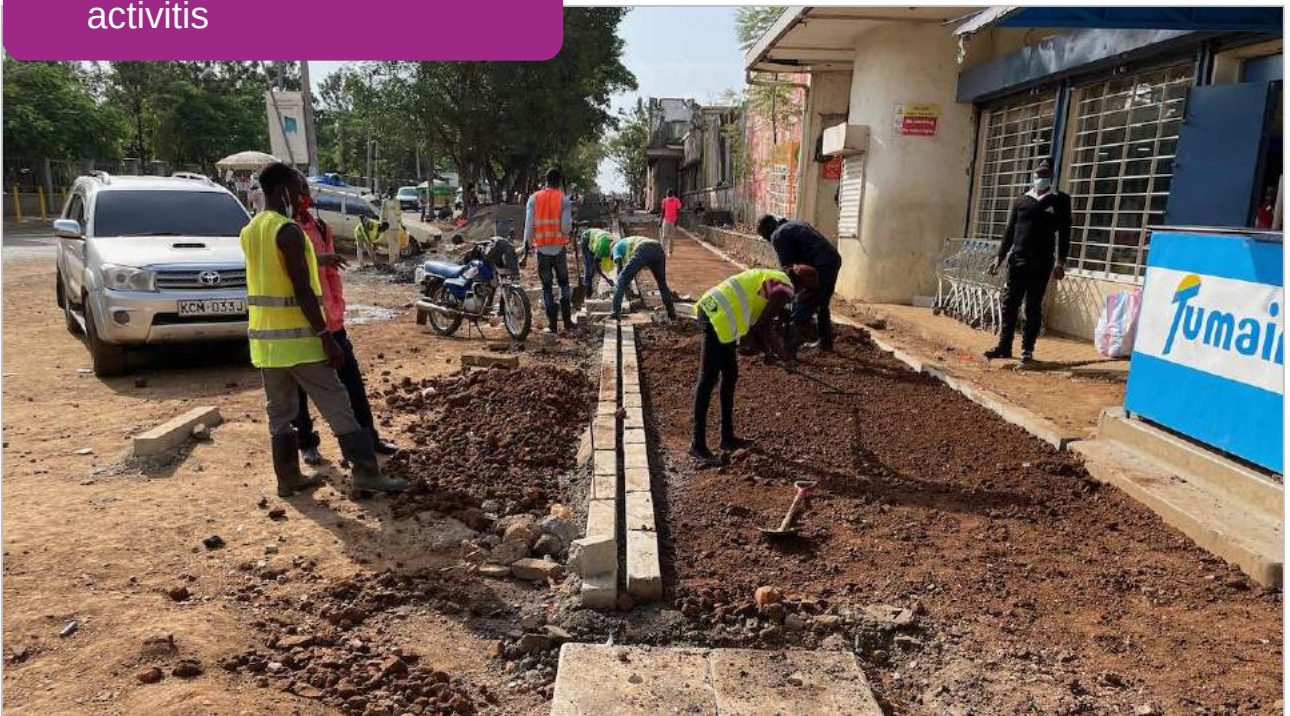
Bollards



Ongoing construction activitis



Phase 2 under construction

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CASE 2:

Addis Ababa, Ethiopia

Street Scene – Addis Ababa

Lack of designated cycle lanes

- Cyclist riding on the carriageway experience inconvenience and safety hazards from faster-moving traffic

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Despite the dominance of walking, the quality of pedestrian facilities is poor in many parts of the city.

High dependence of walking and public transport as mode share – yet inadequate infrastructure

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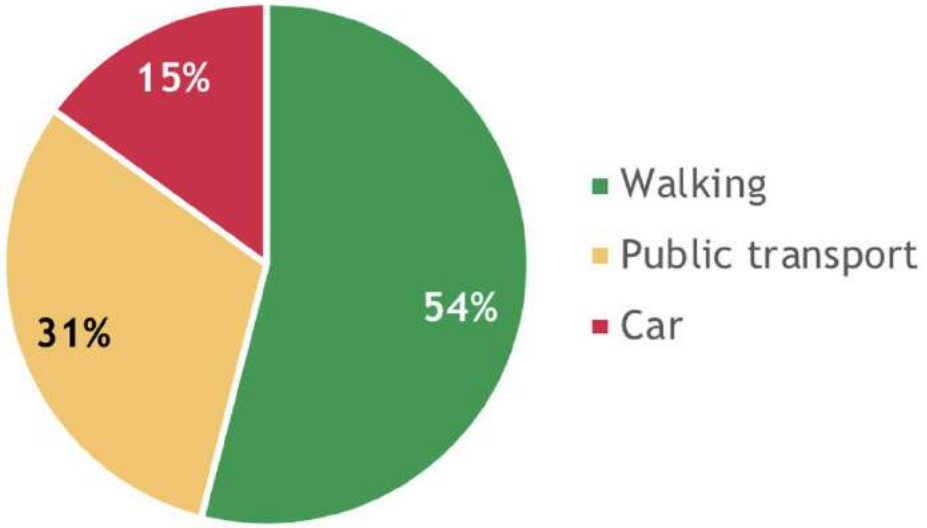
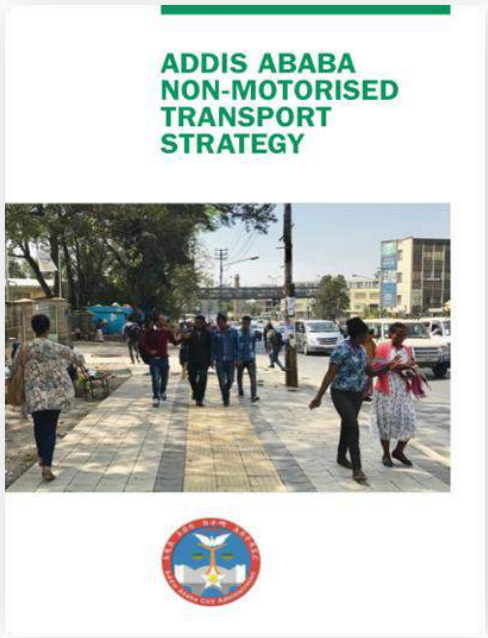
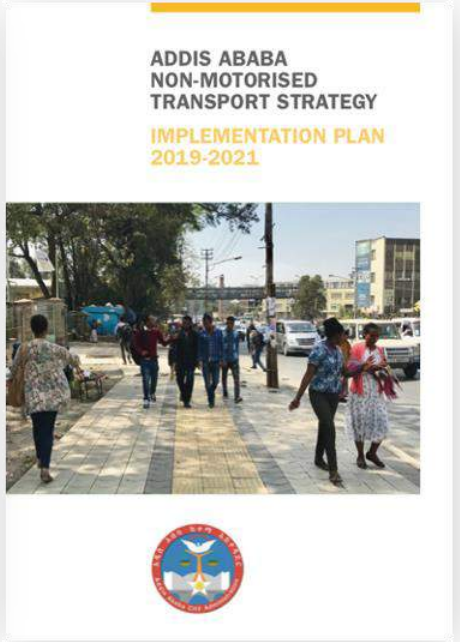
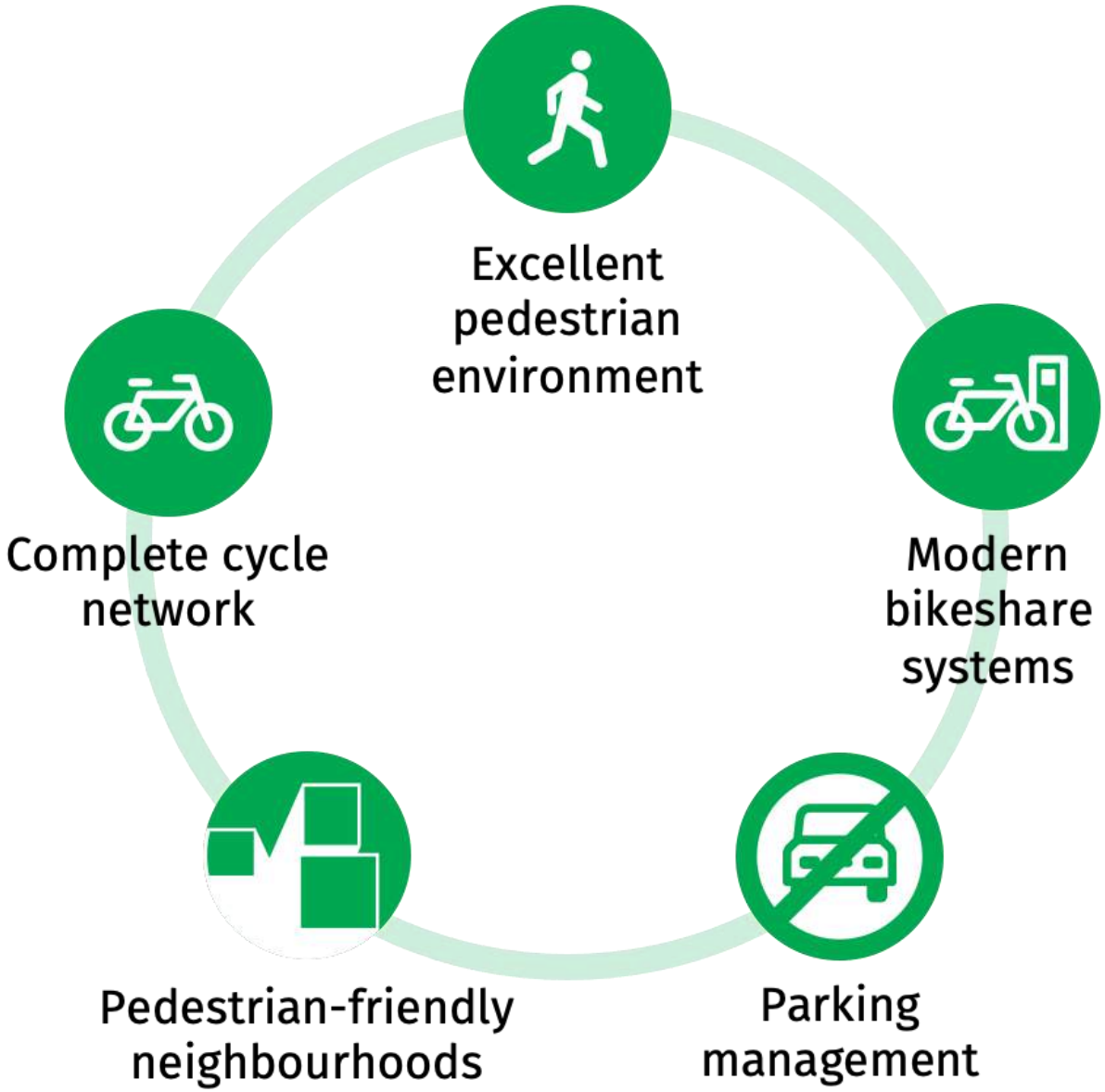
Addis Ababa NMT Strategy

- The NMT Strategy was launched in Apr 2019
- The Implementation Plan was launched in Dec 2019









Addis Ababa NMT Strategy

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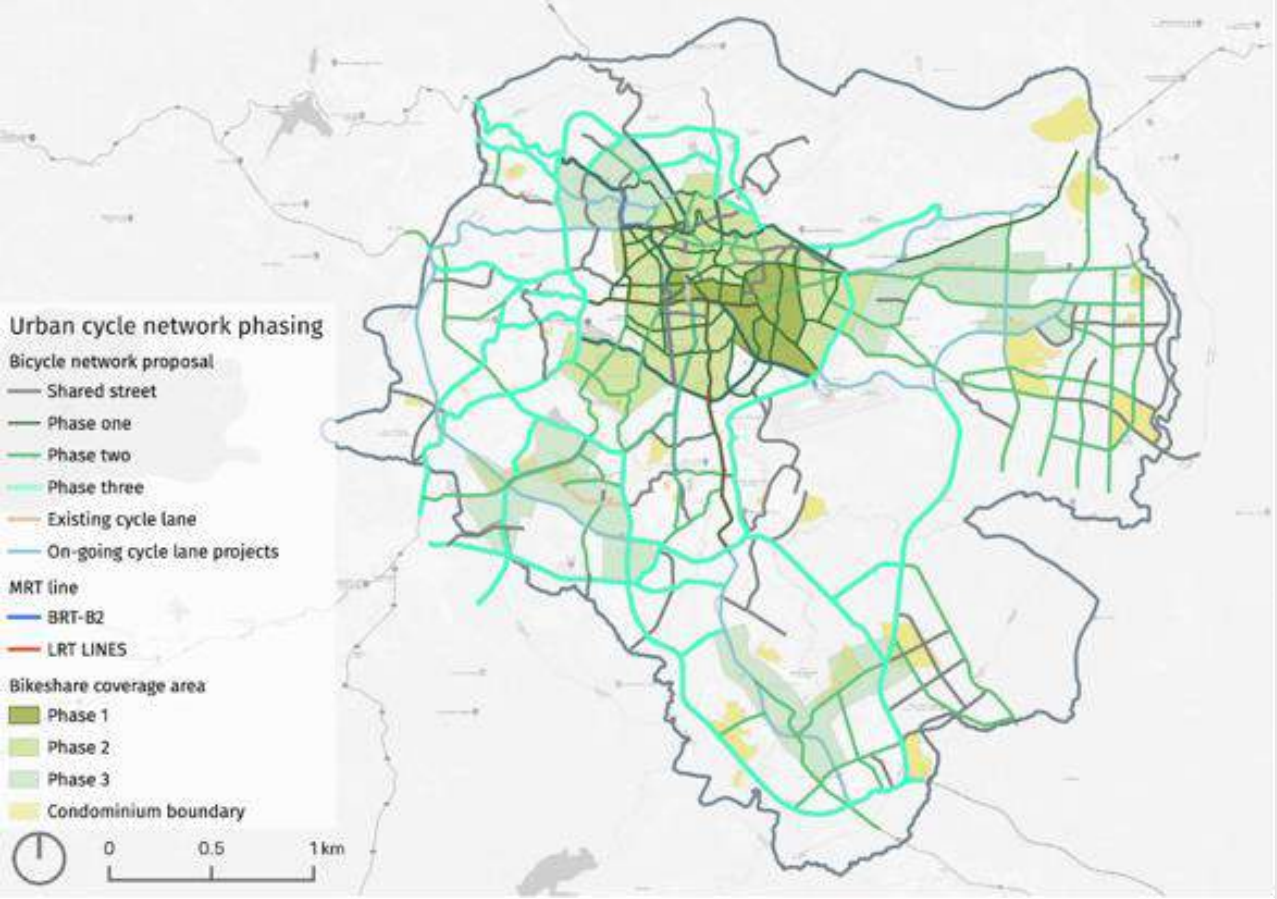
Addis Ababa NMT Strategy targets

Initiative	10-year goal
Pedestrian network	600 km of streets have a continuous pedestrian realm
Bicycle network	200 km of streets have cycle tracks
Bicycle sharing	10,000 cycles
Public transport access	Safe at-grade crossings with signals or traffic calming at all BRT & LRT stations
Parking management	30,000 parking spaces managed through an IT-based parking system
Vendor management	Comprehensive vending management system implemented
Street design standards	Revised geometric design standards prioritise pedestrians
Review of building control & planning regulations	Regulations reformed to encourage pedestrian friendly built form and compact development along rapid transit lines
Outreach & communications	Regular open streets events Active marketing campaigns transform image of NMT City residents have access to information about on-going projects
Institutional development	Capacity building - NMT implementing Agencies



Cycle network plan

Phase	Length (km)
Existing cycle facilities	5.1
Ongoing projects	60.4
Phase 1	90.8
Phase 2	145.2
Phase 3	155.0
Total	456.5

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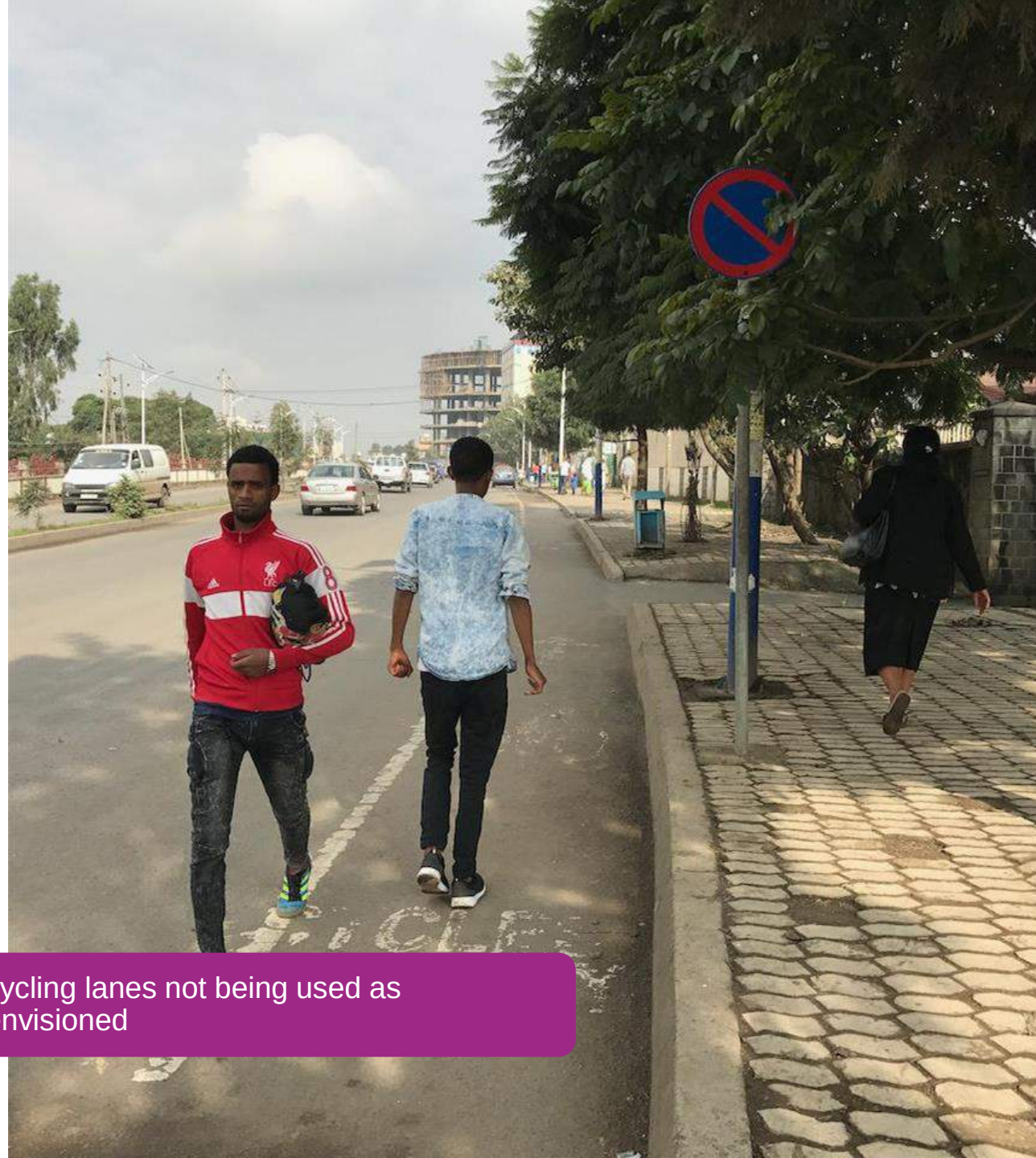
Easy Bike Lanes



cycling lanes not being used as envisioned

Temporary bike lane created from removable bollards

Jemo-Lebu tactical bike lane

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Jemo-Lebu after upgrade

Spherical concrete bollards for cyclists safety

Straight, project unidirectional cycleway

Bole-Goro project (under construction)

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Churchill Ave

Street opened for public with NMT infrastructure

Car-Free Days

Addis Ababa bikeshare

- 10.3 sq km coverage area
- 103 stations
- 730 cycles
- Proposed business model: service contract with quality incentives

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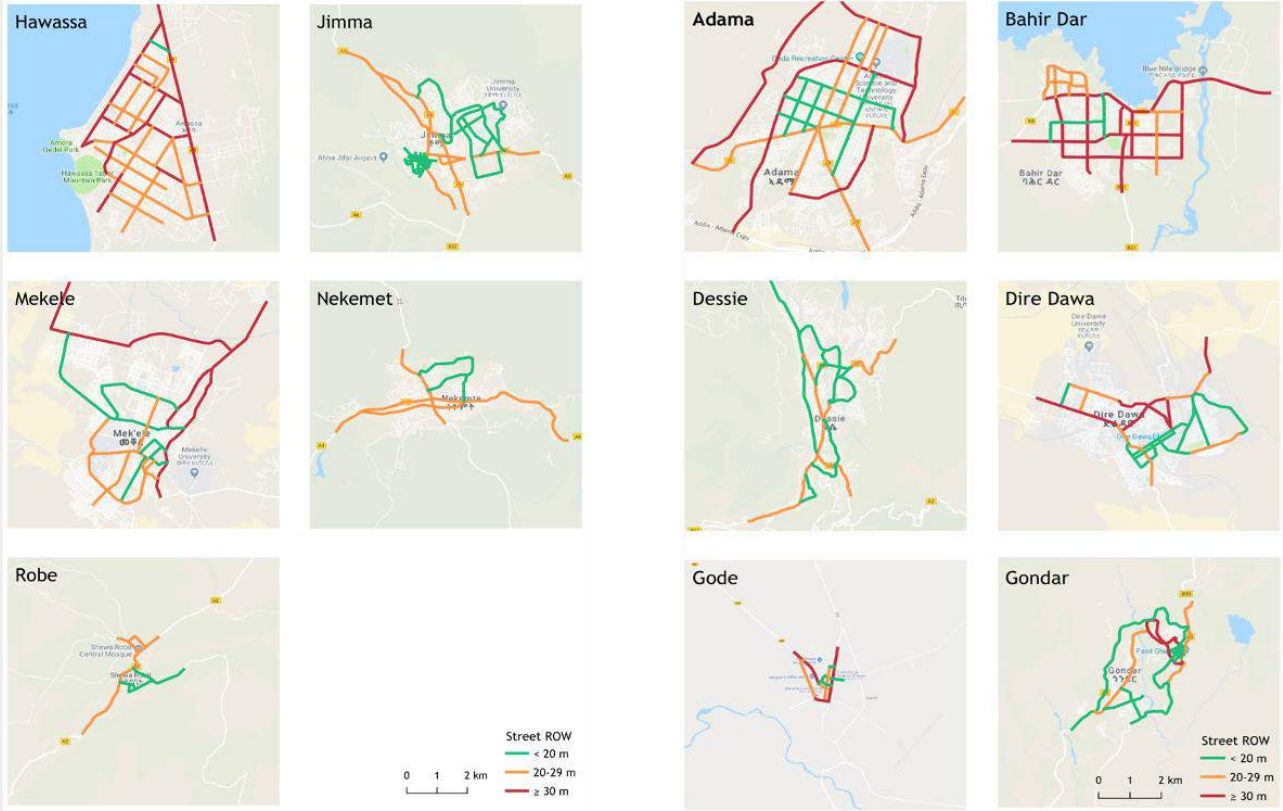
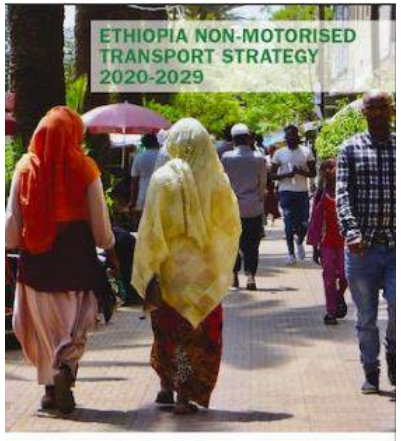
Scale-up to secondary cities: National NMT Strategy





National NMT Steering Committee

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Co-creating Solutions

Interactive Session

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CO-CREATING SOLUTIONS SLIDE

source: unsplash – patrick perkins

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Questions, Feedback and Farewell?

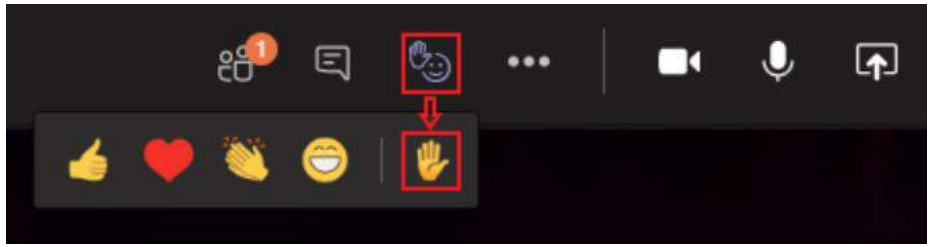
Q&A

Chat

- Post your questions in the chat and we will include them in the Q&A

Speak

- Select “Show reactions” in the meeting controls, and then choose “Raise your hand”. Everyone in the meeting will see that you've got your hand up.



✓ Learn

✓ Exchange

✓ Connect

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