CLIMATE & TRANSPORT

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ITDP

IMPACTS & PROGRESS

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Houston

6th 1,000-year U.S. flood… in two years

Climate → transport

Estimated Loss:

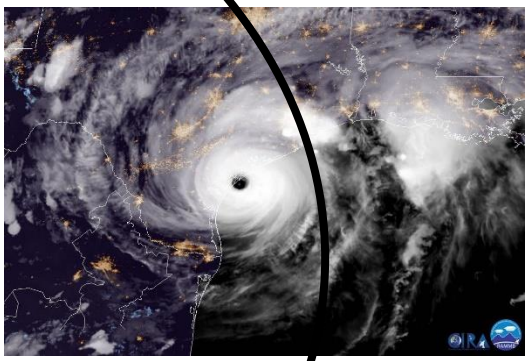
- 70 lives
- 500,000 cars
- $170 billion assets

Transport → climate → transport

1. High-Carbon, Low-Resilience
- Car dependence → GHGs
- Oil & gas industry → GHGs
- Sprawl → Impermeable surface



2. Climate Change
- Warmer Gulf of Mexico
- Larger, wetter, more frequent storms



3. Catastrophic Flooding

Transport, land & life:
- 70 lives lost
- $170 billion damage
- 500,000 cars lost
- Infrastructure impassable

GHG MITIGATION POTENTIAL?

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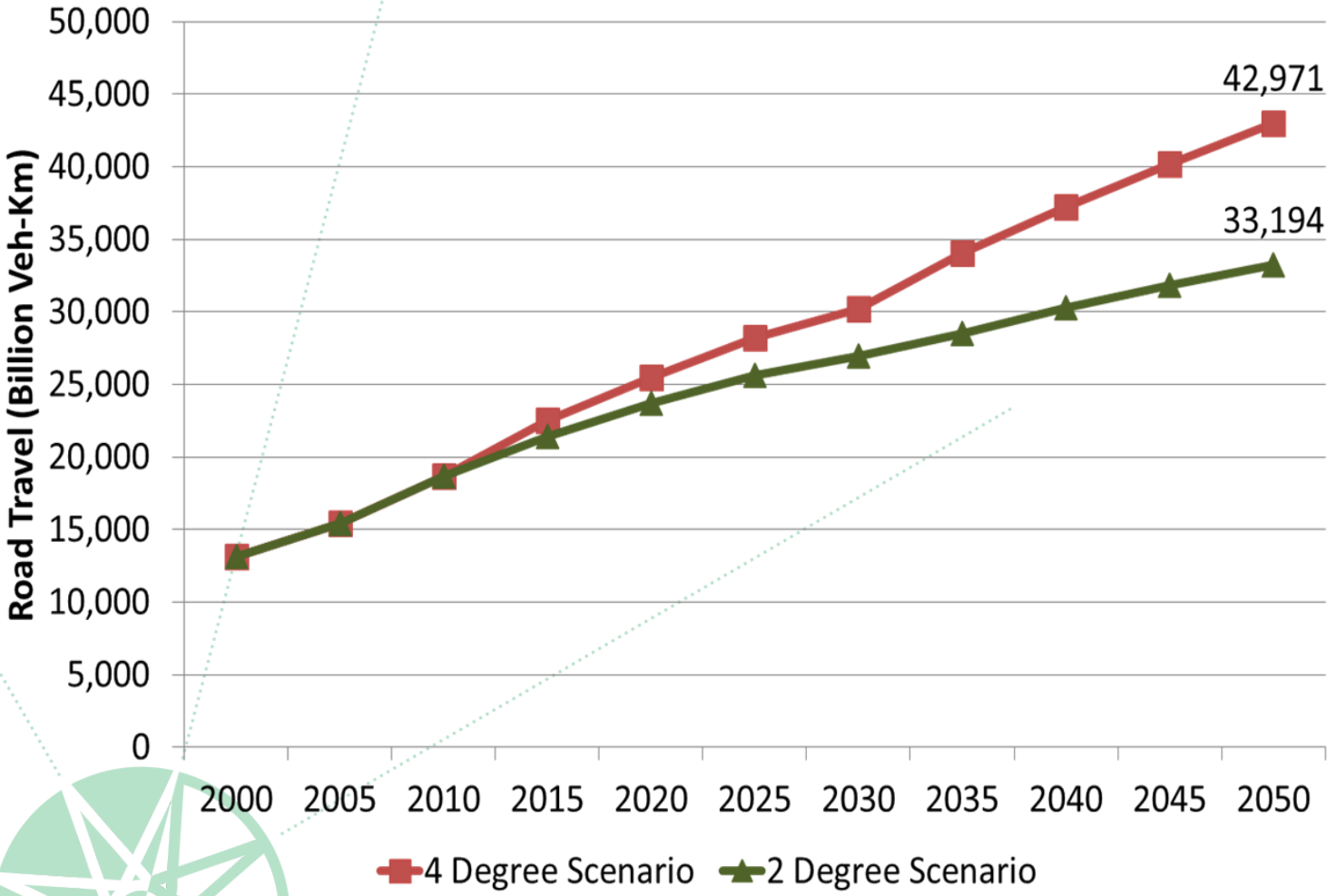
Urgency: Rapid Transit

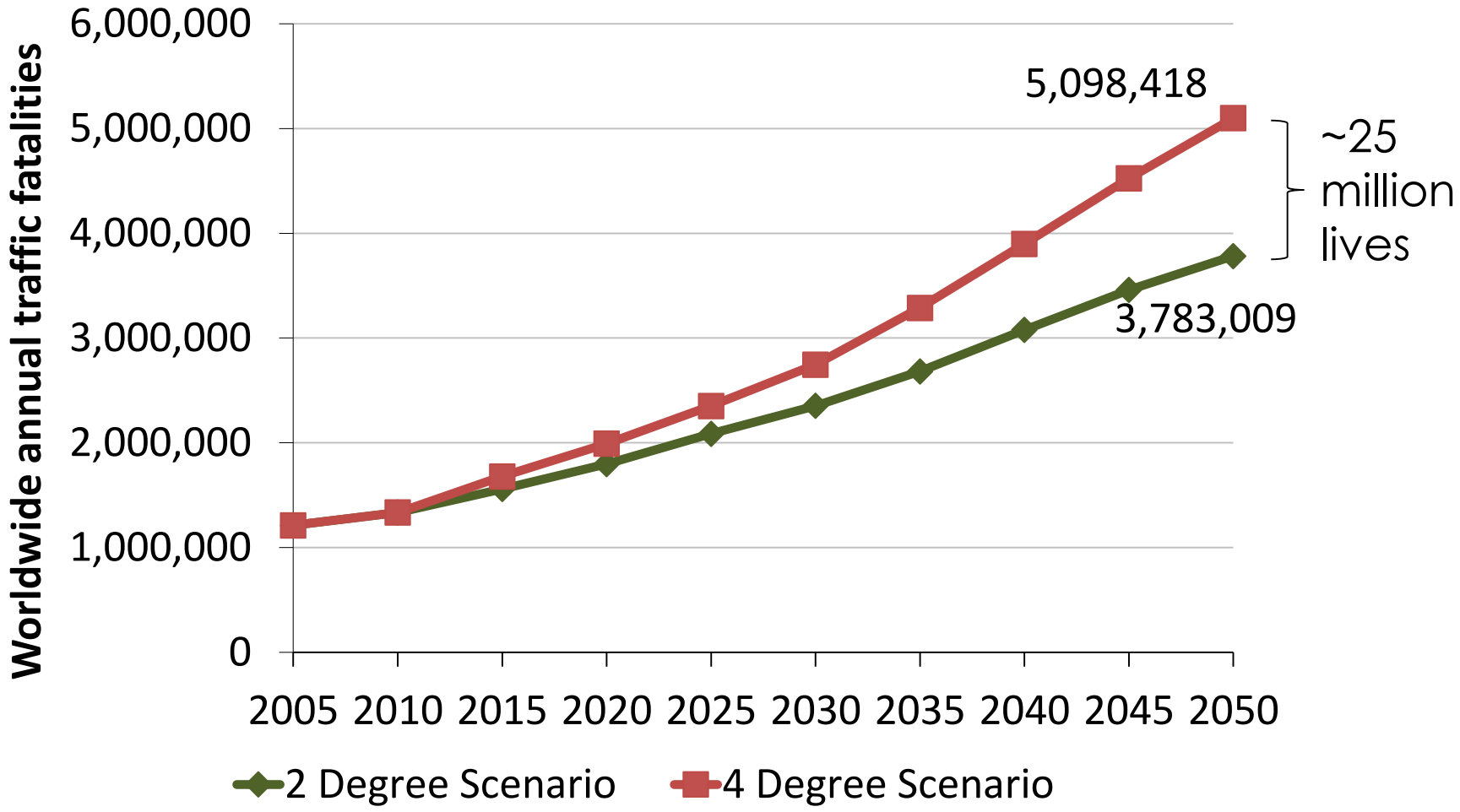
Goal: **23%** VKT reduction to limit global warming to 2C.



20,000 km additional rapid transit

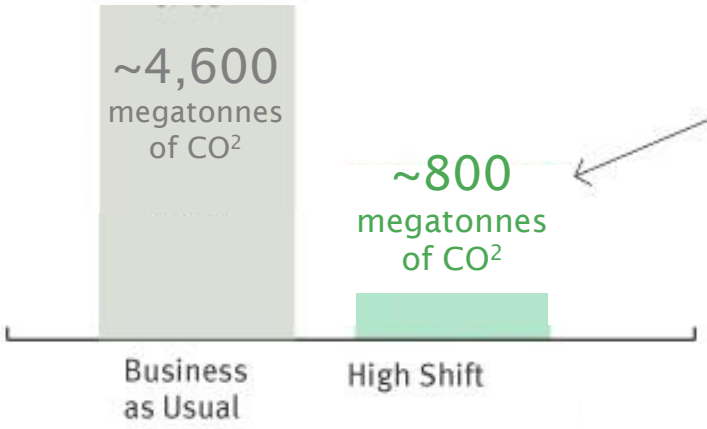
Co-benefits of 23% Less VKT

Save ~25 million lives. $Trillions. Better accessibility, equity.



Source: Duduta and Hidalgo (2013)

2050 EMISSIONS
FROM URBAN TRANSPORT



We could avoid

~3.8 gigatons

of global C02 emissions,

an 83% reduction in urban transport emissions over BAU

2015-2050 CUMULATIVE
COSTS OF TRANSPORT

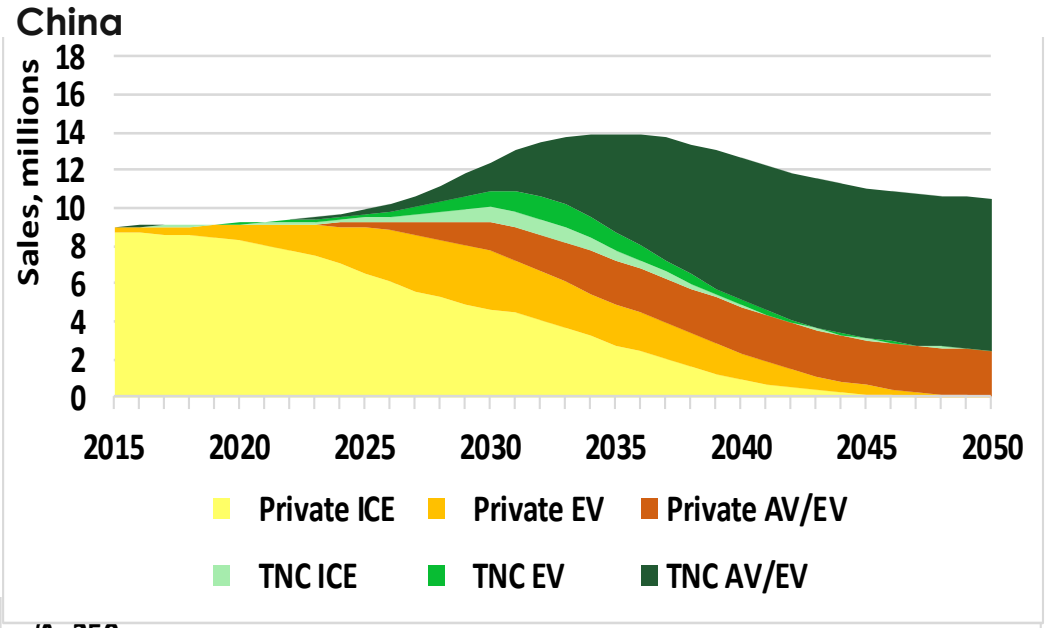
And save cities

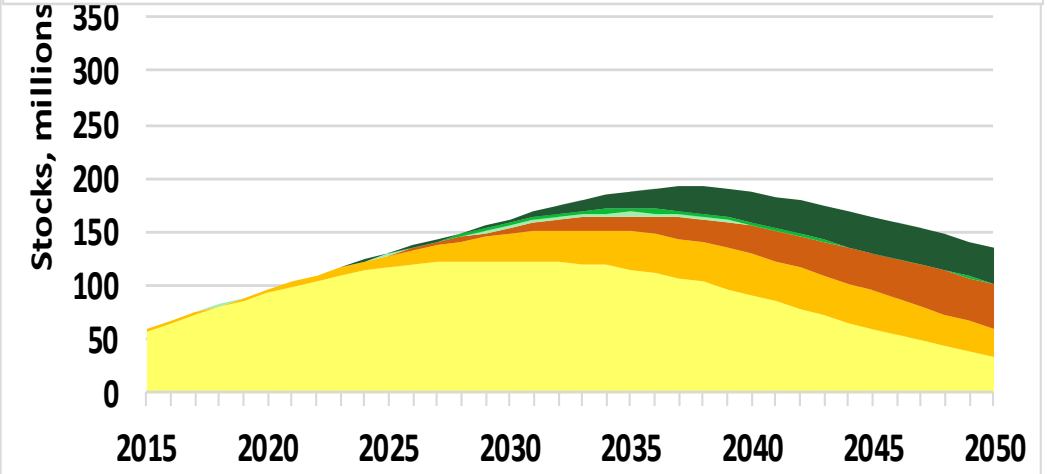
$130 trillion

over the next 35 years

Delayed impact of electrification

Stock lags behind sales





Optimistic Scenario:
By 2050, ICEs comprise
0% of sales, yet…
25% of stock!!

Technology will not solve all problems

- **Climate**
- **Energy Access**
- **Urban Sprawl**
  - Infrastructure Cost
  - Energy
  - Social Inequity
- **Public Health**
  - Traffic Fatalities
  - Physical Inactivity
- **Congestion**

Life without electric cars

Life with electric cars

COPENHAGENIZE EU

Need holistic approach

Public Transport

Fair User Fees

Urban street design

Sharing

Clean fuel & vehicles

Cycling

Compact, Connected Growth

Walking

FROM HERE…

Photo: Mexico City

Photo: Andreas/Flickr

…AND HERE

Photo: Clayton Lane

HOW DO WE GET THE FUTURE WE WANT?

CHANGE HOW WE THINK


You can't
cure obesity
with bigger pants

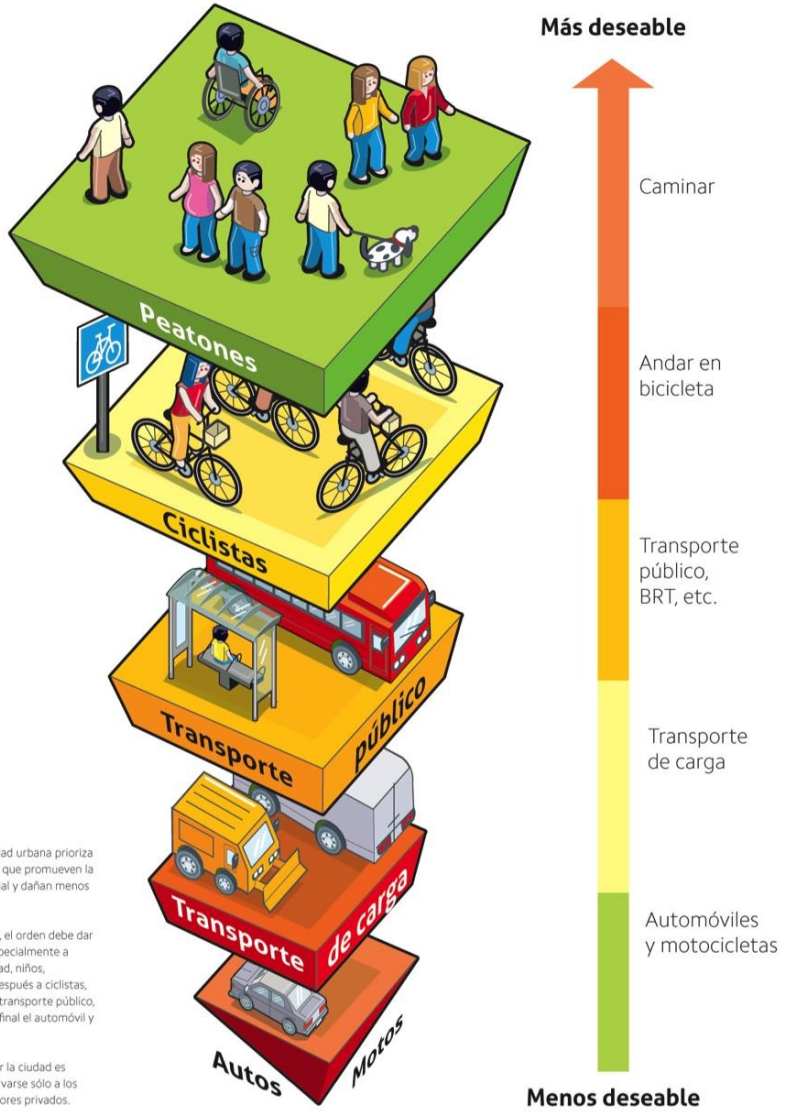
How most traffic engineers see your city

How cities should be designed

Turn the pyramid upside down!

Prioritize walking, cycling, and public transport

- Accessibility
- Equity
- Public health
- Environment



MAJOR CAPACITY GAPS

Vehicles Over People

Indonesia's Ambitious 2020 Plan: 29 cities with BRT

Indonesia “BRTs” built

PROGRESS

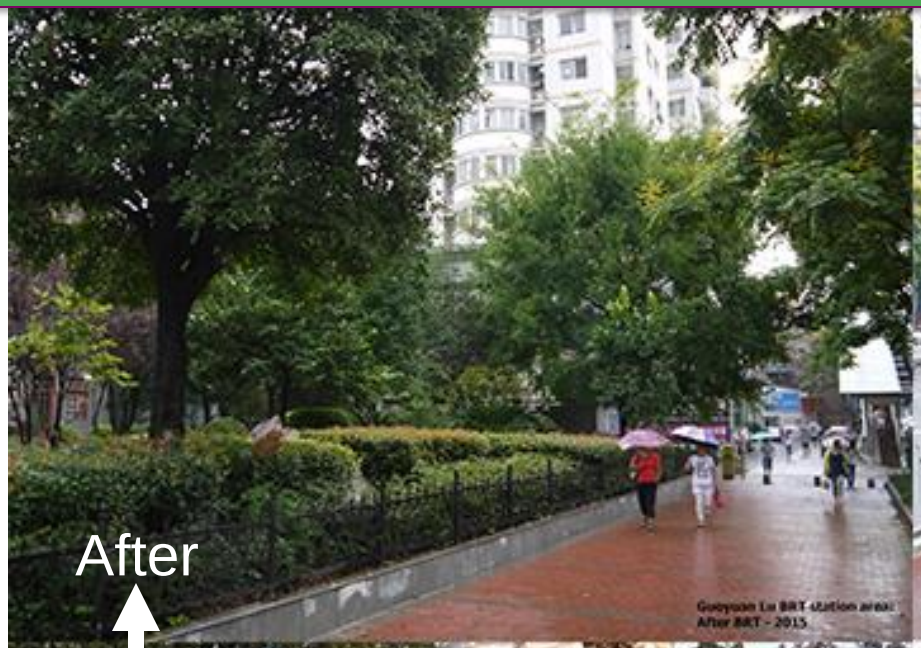
Dar es Salaam

Yichang, China

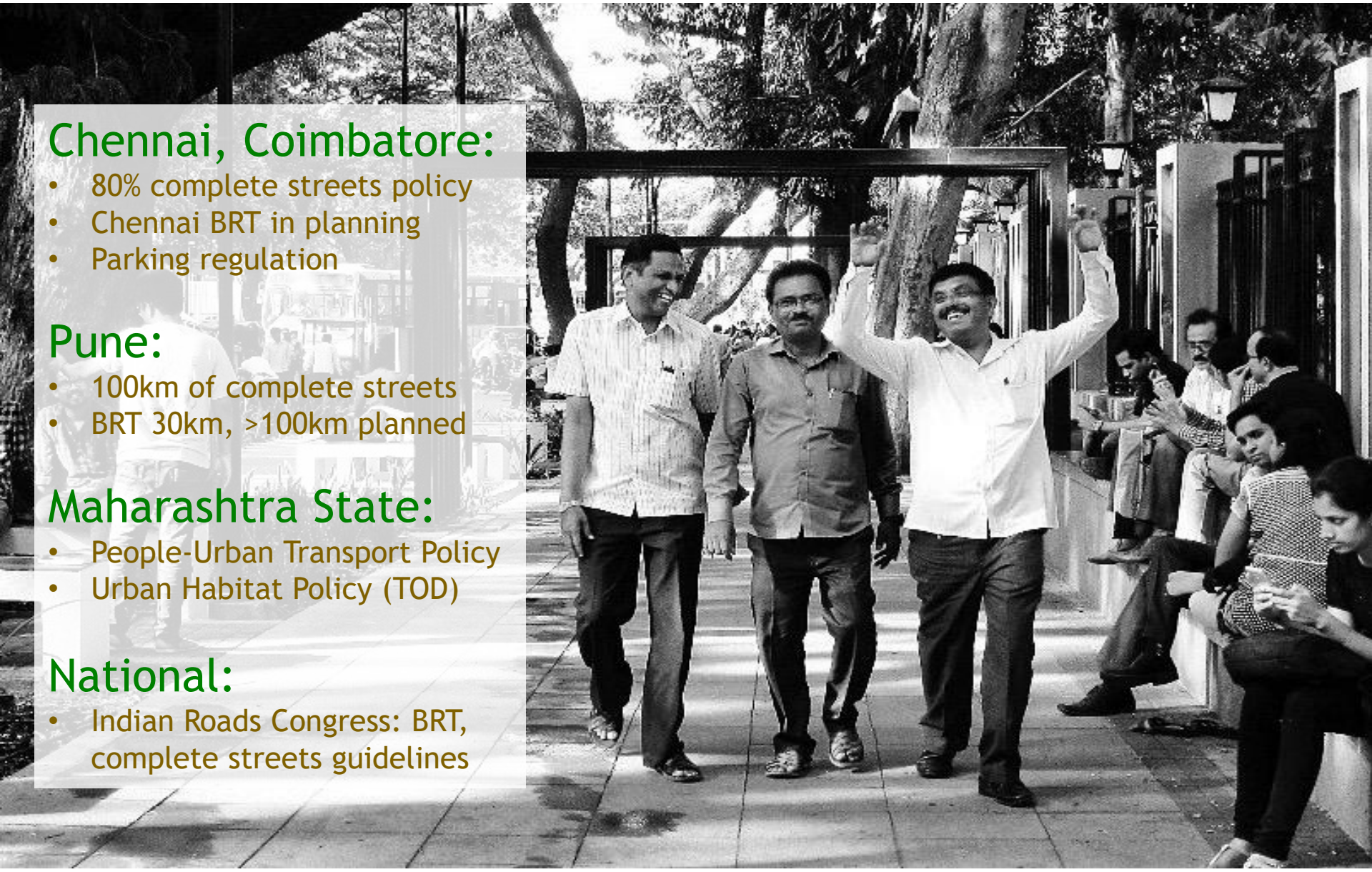
Integrated approach

- Complete Streets
- Bike sharing
- TOD
- Local bus
- BRT
- Parking → public space

Yichang, China



India: Smart Cities for People



Chennai, Coimbatore:

- 80% complete streets policy
- Chennai BRT in planning
- Parking regulation

Pune:

- 100km of complete streets
- BRT 30km, >100km planned

Maharashtra State:

- People-Urban Transport Policy
- Urban Habitat Policy (TOD)

National:

- Indian Roads Congress: BRT, complete streets guidelines

KEY MESSAGES

Key Messages

1. **Climate is about people.** Put people at center of solutions.
2. **Holistic**, integrated interventions are necessary.
3. **Mitigation potential** is significant, urgent.
4. **Progress is possible!** There is much, much more to do.

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