



WORLD  
RESOURCES | ROSS  
INSTITUTE | CENTER

# TOWARDS ACCESSIBLE, SAFE & EQUITABLE CITIES

ALEJANDRO SCHWEDHELM

WRI ROSS CENTER FOR SUSTAINABLE CITIES

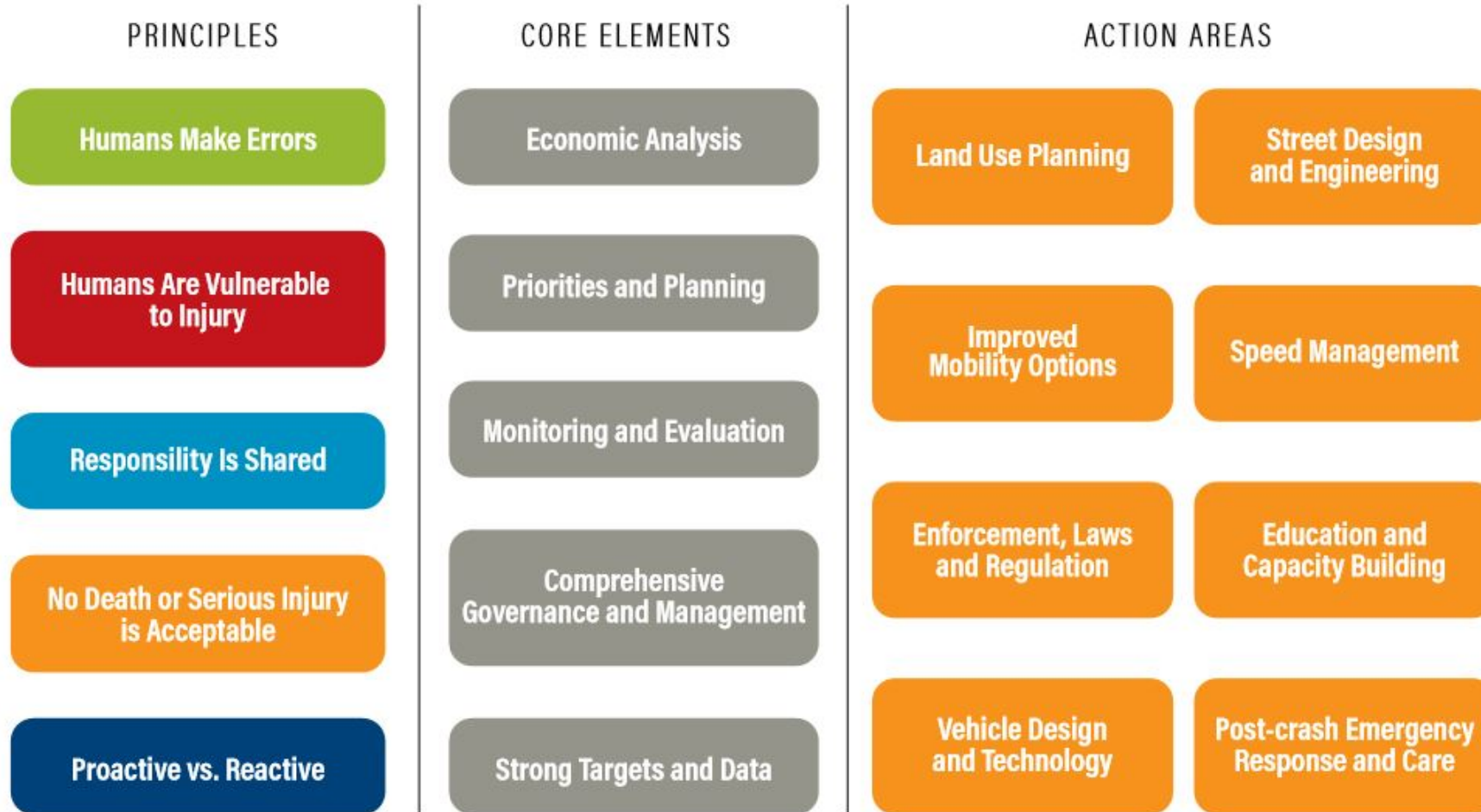
OCTOBER 2019

- 
- A photograph of a busy urban sidewalk. In the foreground, a man wearing sunglasses and a white t-shirt is riding a skateboard. To his right, a woman is riding a blue bicycle. In the background, many other people are walking and cycling. The scene is set outdoors with trees and a clear sky.
- 1. The Principles and Approaches to Road Safety**
  - 2. The Count: Good Data and GIS Analysis**
  - 3. The Change: Targeted Interventions**
  - 4. The Scale: Working with Partners to Build Networks & Scale Efforts**

**1.**

**The Principles and  
Approaches to Road  
Safety**

# Safe System Approach



Note: Principles are multicolored, core elements are in grey, and action areas are in orange.

# Avoid, Shift and Improve (ASI)



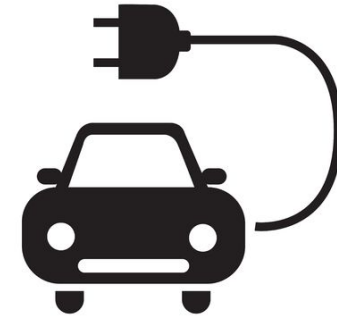
## AVOID

“Avoid” unnecessary travel through optimizing of land use, heterogeneous zoning and communities that are Compact, Connected & Coordinated (3Cs)



## SHIFT

“Shift” users towards sustainable, safer modes through improved design + better investments that enable safe, efficient, convenient & reliable options



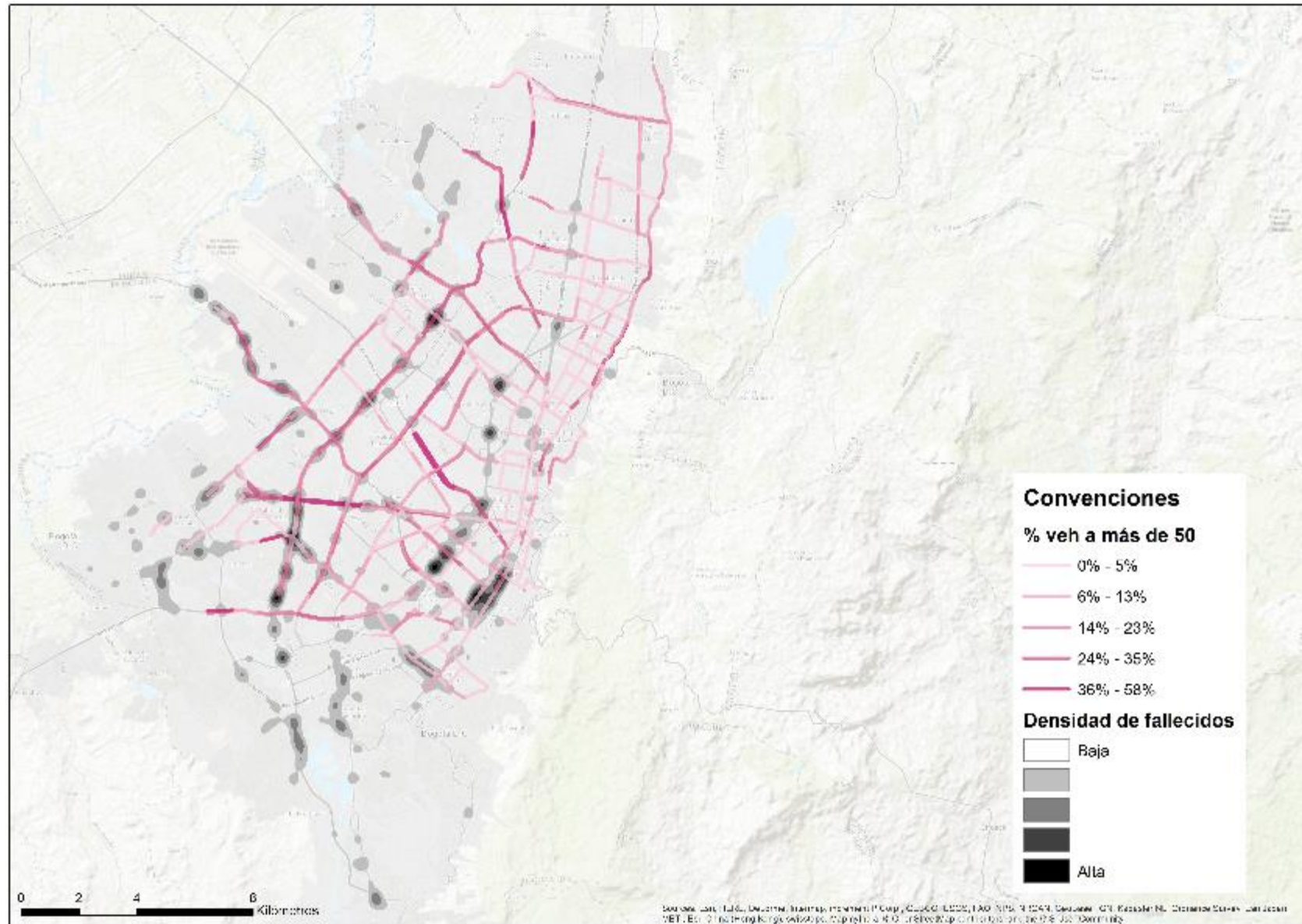
## IMPROVE

“Improve” fuel efficiency and engine technologies (EVs), implement stricter emission and safety standards

**2.**

**The Count: Good Data  
and GIS Analysis**

# Example: Speed & Fatalities In Bogota



**3.**

**The Change: Tailored  
Interventions**



# Project Case: HP Intersection, Mumbai



FROM TEMPORARY  
TO PERMANENT

<https://youtu.be/3ndXecuCAp4>



**4.**

**The Scale: Working with  
Partners to Build Networks &  
Scale Efforts**

# SCALING UP

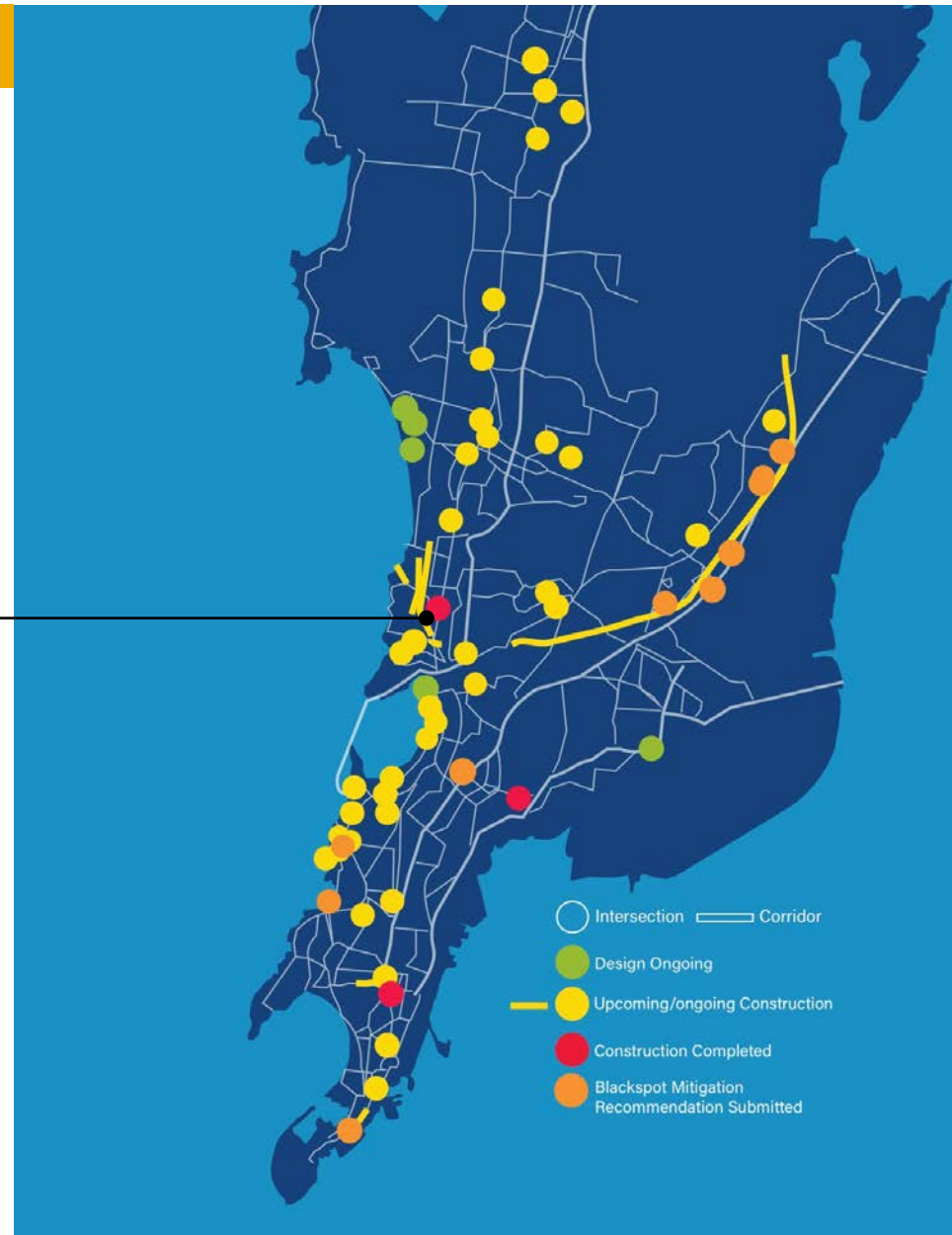
HP Intersection, Mumbai

Total Trials post success of HP Intersection: **4**

Total intersection designed by WRI India in Mumbai: **55**

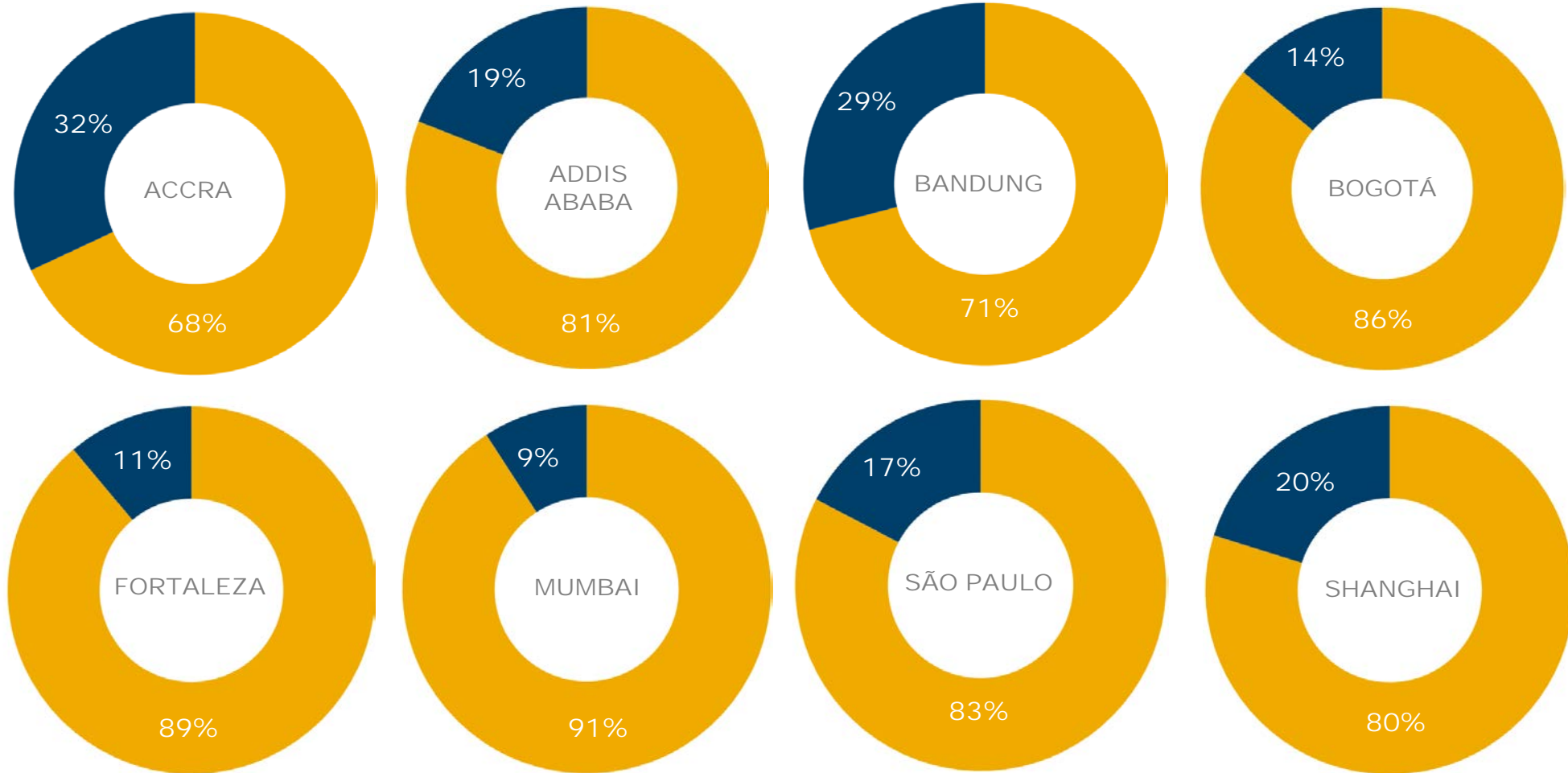
Total intersection construction completed post HP Intersection- **3**

Total ongoing permanent intersection constructions: **3**



# Appendix Slides

# AT GREATEST RISK: PEOPLE WALKING, BICYCLING AND RIDING MOTORCYCLES



■ All other Traffic Fatalities (includes 4 wheelers, mass transit etc.)

■ Pedestrian, Cyclist and Motorcyclist Fatalities

Source: WRI Research, Data collected by WRI

# Changes in the streets



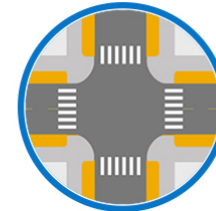
**Dedicated Bike Lanes**  
Shanghai, Fortaleza, São Paulo,  
Addis Ababa



**Bikeshare**  
Bandung, Shanghai, Fortaleza



**Vehicular Lane Markings**  
Accra, Addis Ababa, Bogota



**Redesigned Intersections**  
Addis Ababa, Fortaleza, Bandung



**Crosswalks**  
Addis Ababa, Bandung,  
Bangkok, Fortaleza\*\*



**Sidewalk Improvements**  
Mumbai, Bandung, São Paulo,  
Accra, Bangkok\*, Ho Chi Minh City\*



**Refuge Islands**  
Bogota, Ho Chi Minh City,  
Fortaleza



**Slow Speed Zone**  
Bogota, Fortaleza



**Bus Lanes & BRT**  
São Paulo, Ho Chi Minh City,  
Addis Ababa, Accra, Fortaleza,  
Shanghai



**Safe Access to Mass Transit**  
Ho Chi Minh City, Mumbai,  
Addis Ababa



**Street Lights**  
Accra



**Plaza/Public Space**  
São Paulo, Addis Ababa

\* These cities have installed protected pedestrian sidewalks  
\*\*Fortaleza has constructed raised crosswalks



# WHY TACTICAL URBANISM?

- Tactical Urbanism is an alternative to judicious planning methods.
- Allows **testing** of different **concepts** in context before making large permanent investments
- **Iterative and Incremental process** to bring change.
- Draws attention to perceived shortcomings and **inspire action**
- Allows larger public engagement
- It puts the onus back on individuals
- Helps build **confidence between different stakeholders**

