SAFE SYSTEMS IN CITIES

Claudia Adriaazola-Steil
Urban Mobility Director (Interim)
Director of Health and Road Safety
What is happening in cities around the world?
What do cities care about?
How is road safety changing cities?
URBANIZATION IN CITIES

1900 | 2 out of every 10 people lived in an urban area
1990 | 4 out of every 10 people lived in an urban area
2010 | 5 out of every 10 people lived in an urban area
2030 | 6 out of every 10 people will live in an urban area
2050 | 7 out of every 10 people will live in an urban area

Defined by UN HABITAT as a city with a population of more than 10 million

Source: OECD, 2006
FATALITY RISK FOR PEDESTRIANS AT DIFFERENT SPEEDS

Pedestrian Death Risks Declines at Lower Vehicle Speeds

Source: OECD, 2006
In urban areas, such as San Francisco, nearly 60 percent of pedestrian fatalities occur on wider, high-capacity, and higher-speed roads called ‘arterials’.

Most drivers within the USA travel 80% more on urban arterials than rural.
FATALITY DENSITY ON ARTERIAL STREETS

SOURCE: Urban-hub.com

BOGOTA

SOURCE: Urban-hub.com
PRIVATE VEHICLES VS MASS TRANSIT

Passengers per hour per direction (peak)

- 2 general traffic lanes: 3,194
- 1 lane of bus rapid transit: 5,000

Crashes per year

- 2 general traffic lanes: 726
- 1 lane of bus rapid transit: 6
SPACE COMPARISON
In India, 40% of traffic victims are motorcyclists. In Colombia, 44%.

Motorcycle deaths in Latin America increased 227% in 12 years.
• **Mumbai** Mode share and Related Fatalities (2015)

• **Bogota** Mode share and Related Fatalities (2016)
TECHNOLOGY AND INNOVATION

SAFE, GREEN AND SMART MOBILITY FOR ALL

SOURCE: http://www.thedailyjournal.co/category/travel/
In 2013, the last year before Uber’s presence was felt, use of subways, buses, and bicycles grew substantially. But by 2016, net growth in travel by Uber and other TNC’s far outstripped growth in those modes.
92% of traffic fatalities occur in middle- and low-income countries.

Research from South Korea shows that one-third of traffic crash victims experienced job loss due to their disability. The victims' average income level was 40% lower than the national average.

Source: Jung and Sul 2014

Photo: http://www.hdprc.gov.ph/multimedia/
AGENDA

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ACCESS TO JOBS AND EDUCATION
REDUCING CONGESTION

REDUCING AIR POLLUTION

Transport Plays a Key Role in Urban Air Quality

Air pollution contributed to **3.7 million deaths** worldwide in 2012. Urban air pollution contributes to **7,000 premature deaths per year** in metropolitan and reduces life expectancy by 1.5 years on average.

11 new bus rapid transit (BRT) projects in Mexico, Colombia, China, India, and South Africa have the potential to reduce greenhouse gas emissions by **31.4 million tons over the next 20 years**. This amount is equivalent to the annual emissions of more than 6.5 million cars.

Source: [www.wri.org/blog/2015/02/transport-plays-key-role-urban-air-quality](https://www.wri.org/blog/2015/02/transport-plays-key-role-urban-air-quality)
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BRT SYSTEMS EVOLUTION

Fuente: BRTdata.org
CYCLING IN LATIN AMERICA

Fuente: BID, 2015

Gráfico 3. Porcentaje de viajes realizados en bicicleta y km de infraestructura ciclista.

Fuente: investigación BID.
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

Source: Graphic by WRI2017
Addis Ababa and the planned light rail network
BMA proposes 50kph city speed limit law

27 Jul 2017 at 09:00

The Bangkok Metropolitan Administration (BMA) has proposed a new speed limit law of 50kph in the capital to ensure road safety.
Research in Grenoble, France found that a lower speed limit had a marginal impact on trip time. Graphic by: WRI Health and Road Safety Team, adapted from Ville30
FREQUENT SPEED CHANGES
SPEED, FATALITIES AND TIME OF THE DAY

Source: WRI Sustainable Cities with data from SDM (2017)
DATOS DE EASY
DATOS DE EASY
INDIA VISION ZERO
SAFER STREETS. SAFER CITIES.

5-6 June 2017 | Mumbai
SAVE THE DATE
#INDVisionZero

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THANK YOU!

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