





## Science in the City

#### Building Participatory Urban Learning Community Hubs through Research and Activation















#### WORLD POPULATION Source: United Nations Department of Economic and Social Affairs

# 2011 9 Estimated by 2040







# Estimated number of new urban residents by 2030

Source: Foreign Policy



#### China

(greater than the current population of the United States



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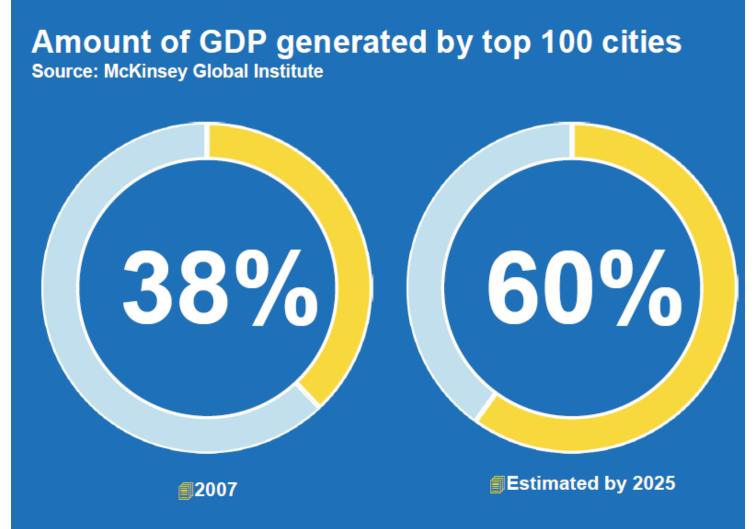
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Transport enables access to ... Jobs Education Health Care Services Markets Improves quality of life Assists to lift people out of poverty

...but, transport also means...















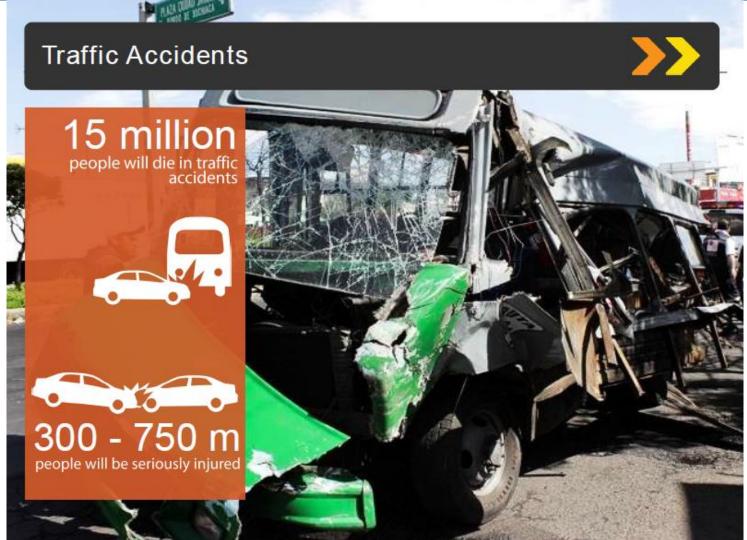
#### If not action is taken on transport, in 15 years...

















#### Air pollution









#### Transport contribution to climate change









#### Negative impacts on global economy

#### 50 trillion USD

5% of global GDP 2015-2030 will be lost because of negative impacts of congestions, road crashes, air pollutions and extreme weather events.

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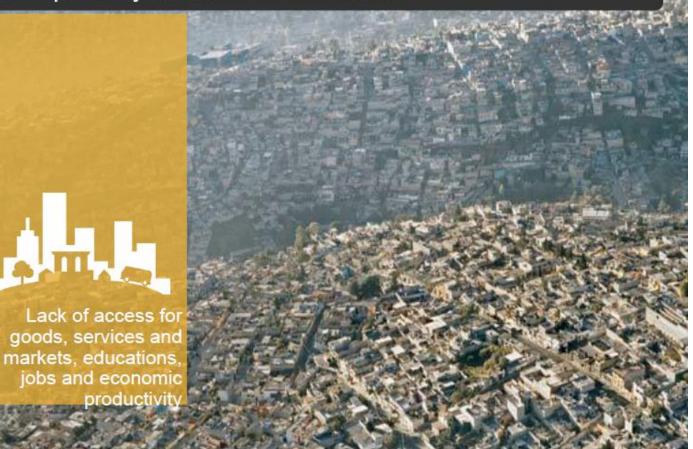
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# Without transport, eradication of urban and rural poverty can not be achieved

















# Urban and rural access to sustainable transport By 2030, increase to 80% of urban and rural population with appropriate access to employment, education, health and community services, through affordable sustainable transport.







#### Urban access to sustainable transport

#### PROCESS INDICATORS:

- Less than 20% of household income spent in transport.
- No more than 90 minutes in commuting daily
- Access to good quality walking and cycling facilities in 500 m
- Double transit and no motorized ridership









### Rural acces to sustainable transport Sustainable access for 1/3 of humanity PROCESS INDICATORS: Proximity and connectivity to all-weather roads Access to significant health services is less than 60 minutes Access to significant local markets/major shopping facilities is less than 60 minutes Connec people lives in rural areas. remote rural settlemen provincial centers















#### Air polution and human health

By 2030, reduce mortality and morbidity from transport-related air pollution.

#### INDICATORS:

Reduce urban population exposes to air quality that exceeds WHO standards.

All cities with more than 1M persons have air quality meeting WHO standards.

 Increase proportion of urban population with access to green and public space in cities.

Reduce air pollution from passenger and freight vehicles by 70%











#### Greenhouse Gas Emissions

#### By 2030, reduce at least 1.6 to 2.5 GtCO2e from transportation.

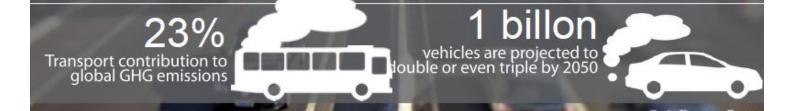
#### INDICATORS:

Reduce 50% GHG emissions from the global vehicle fleet, in 2030 for all new vehicles.

Reduce black carbon emissions from transport by 90%.

Double public transport ridership and no motorized travel from 2015 levels.

Ensure that all newly created, as well as most at risk currently existing transport infrastructure and services are climate resilient.





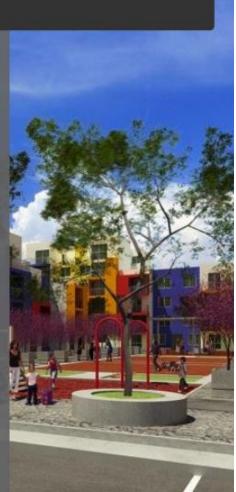




#### Access

- New Urban Areas need infrastructure conditions to develop sustainable transport :
  - Planning and reserving right of way for major roads and major urban equipment
  - Creating conditions and incentives for minimum densities
  - Requirement to build complete streets, with provisions for transit network

 Built Urban Areas need programs to be renewed and better connected

















#### **-** Shift

- Reallocation of current and planned funding for the development of transport infrastructure and services
- Develop national sustainable transport financing facilities
- Capacity building on sustainable transport
- Address social and political problems problems related with the modernization of transit systems more effectively.
- Improve science, data and awareness about the impact of car oriented policies









## Improve

Improving vehicle and fuel technology to all modes of transport increasing environmental efficiency from each kilometer traveled.









#### Improve

Adopt low carbon, low emissions transport technologies and policies for fuels and vehicles

Adopt policies to reduce the circulation of high emission







#### **Reference: CTS EMBARQ México**

