



NATIONAL SUPPORT PROGRAMS FOR SUSTAINABLE URBAN TRANSPORT IN COLOMBIA

Adriana Paola Sarmiento Hernández

National Planning Department
Infrastructure and Energy Department

September, 2017

www.dnp.gov.co

NATIONAL SUPPORT PROGRAMS FOR SUSTAINABLE URBAN TRANSPORT IN COLOMBIA



INDEX

1. Background
2. National policy of urban transport
3. Diagnosis and challenges

**NATIONAL SUPPORT
PROGRAMS FOR
SUSTAINABLE URBAN
TRANSPORT IN COLOMBIA**

1

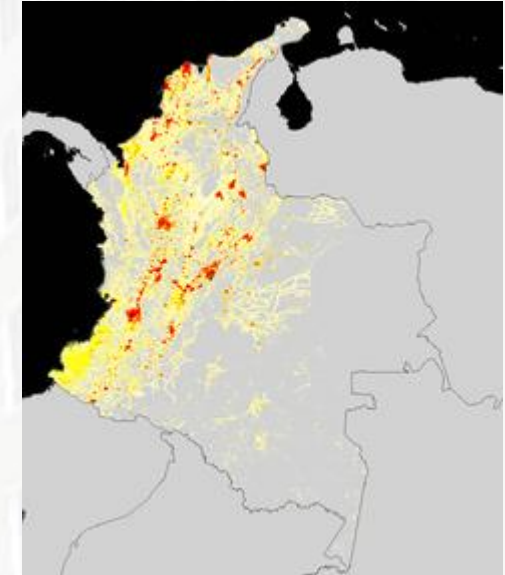
BACKGROUND

• Background

1

Location

Colombia:
50 million inhabitants



GDP Latin America:

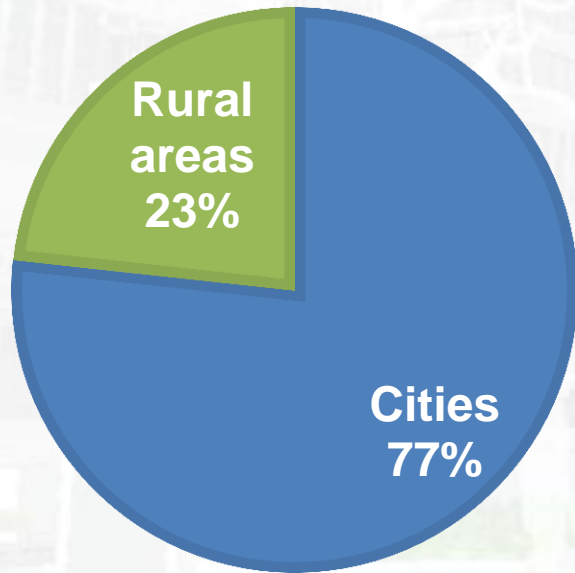
1. Brasil
2. México
3. Argentina
4. Colombia

Background

1

Population Indicators

Colombia:
50 million inhabitants

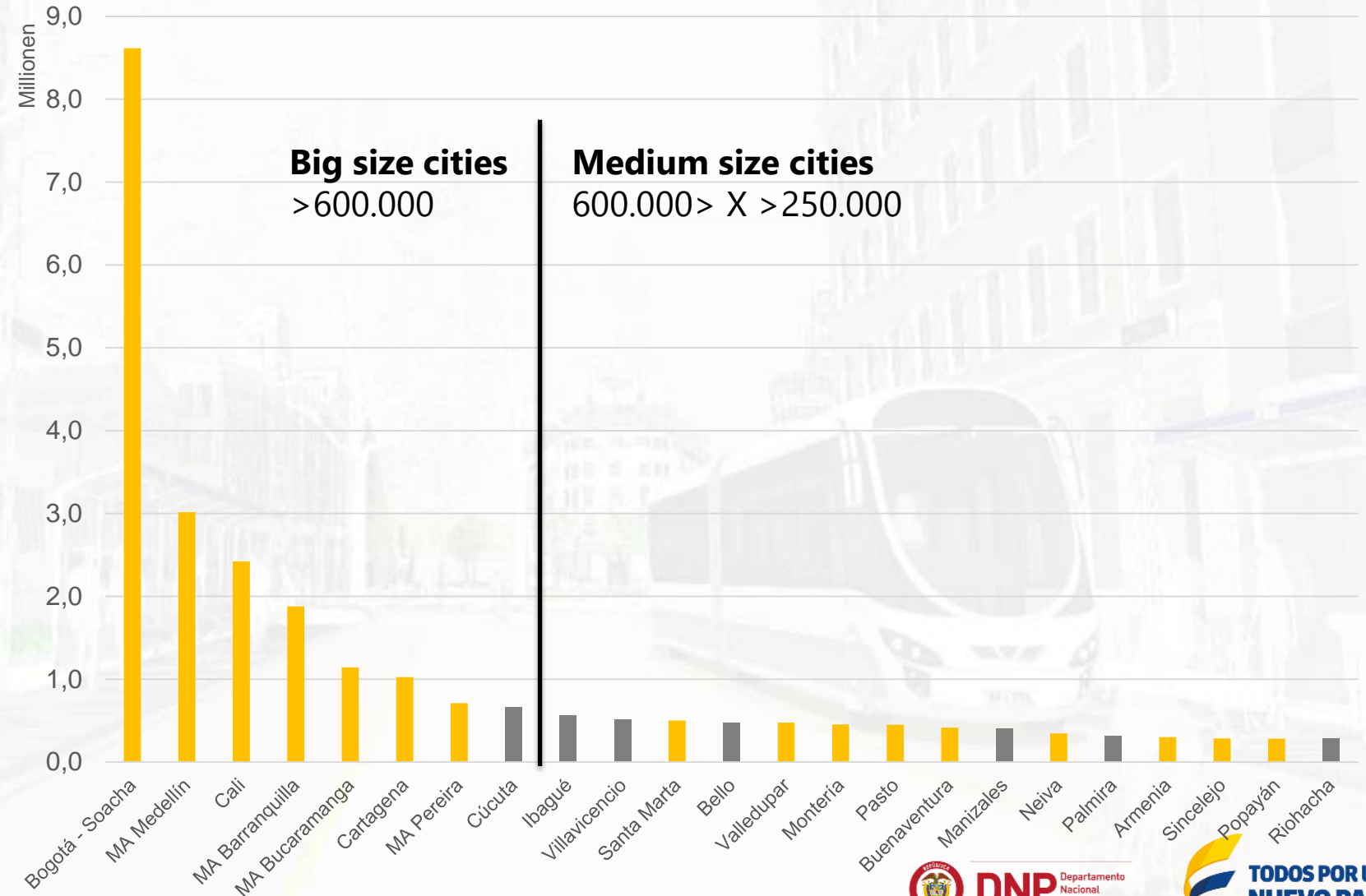


By 2050, 86% of
population will live in
cities

Cities
>250.000 inhabitants

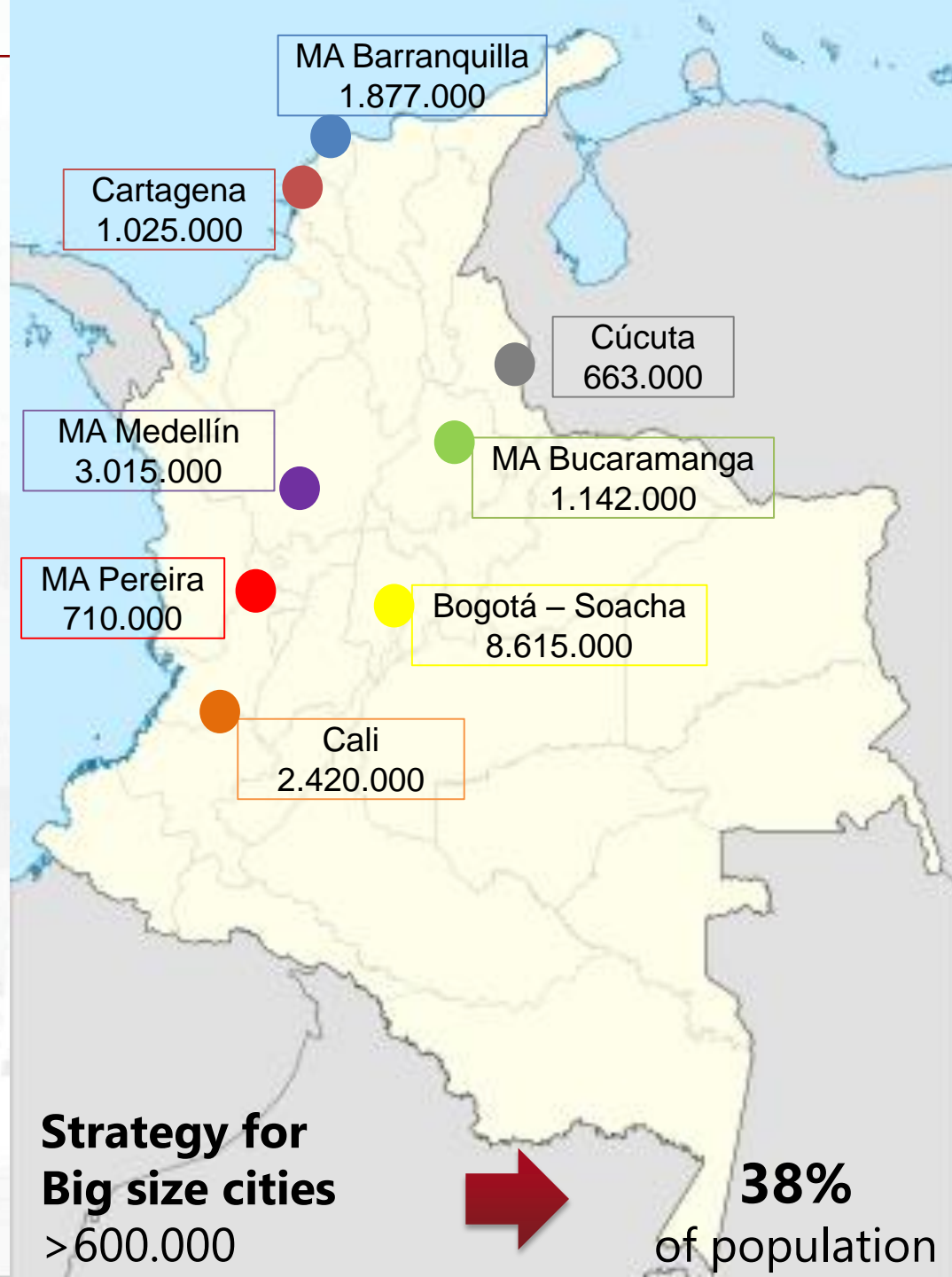


52%
of population



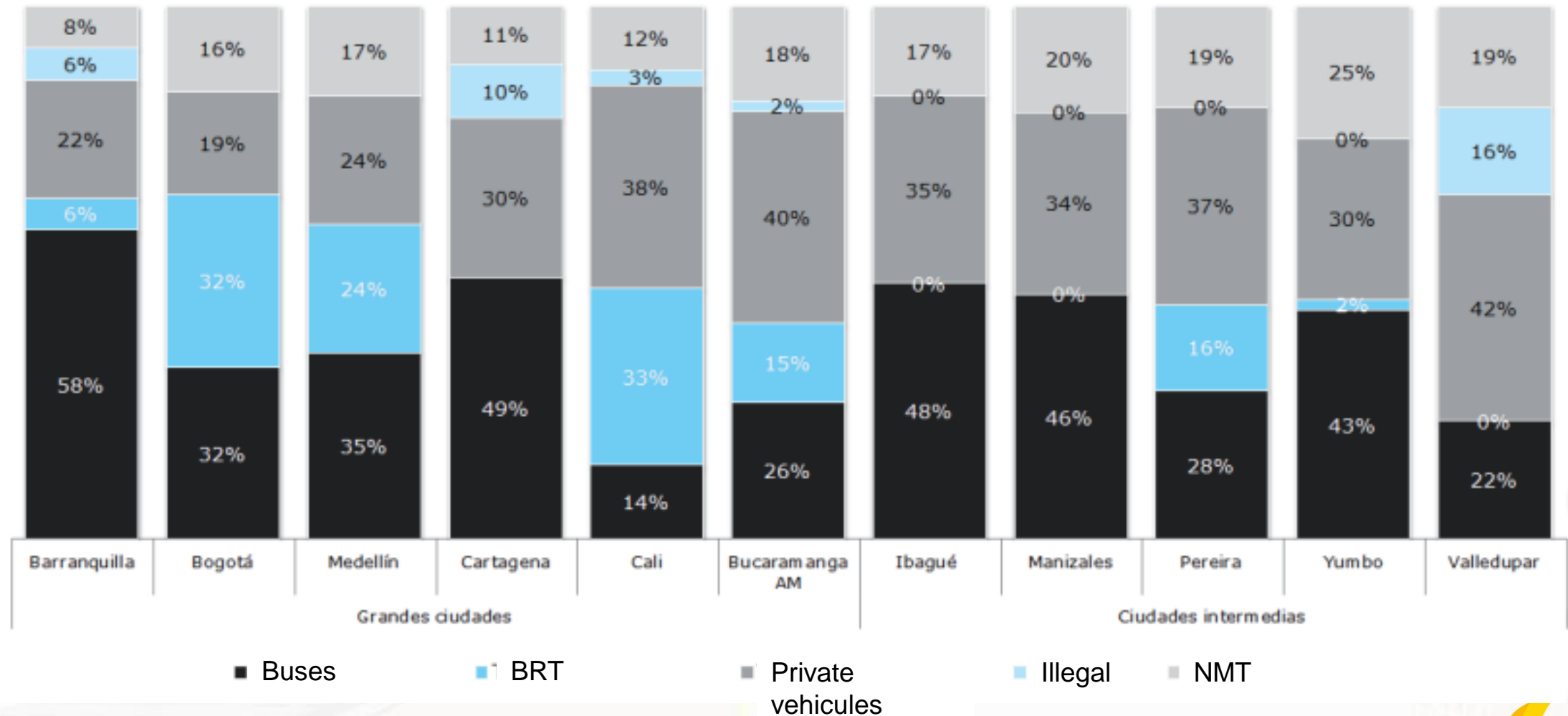
DNP Departamento
Nacional
de Planeación





1

Mobility Indicators



**NATIONAL SUPPORT
PROGRAMS FOR
SUSTAINABLE URBAN
TRANSPORT IN COLOMBIA**

2

**NATIONAL POLICY
OF URBAN
TRANSPORT**

2

Description



National Policy of Urban Transport

Since 2003, the Nation Government:

- Finances up to 70% of the value of the infrastructure
- Does not assume costs associated with maintenance or operation
- The resources are handled through a fiduciary
- Participates in the boards of the entities created to implement the projects

Cities
> **600.000** inhabitants



Integrated Massive
Transport System
-SITM-

BRT + Metro
+Cablecar+T
ram

Cities
> **250.000** x > **600.000**
inhabitants



Strategic System of
Public Transport
-SETP-

Buses+
SGCF +
SRC



DNP Departamento
Nacional
de Planeación

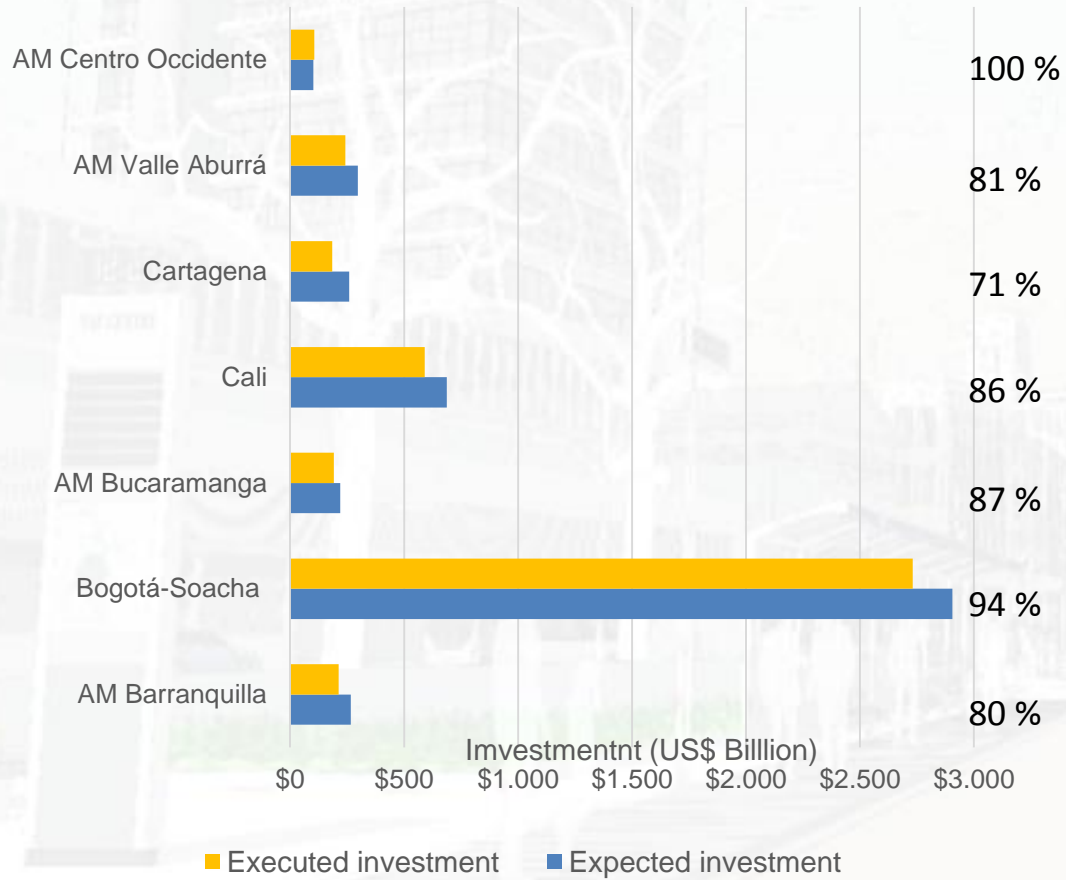


2

Investments

SITM (BRT)

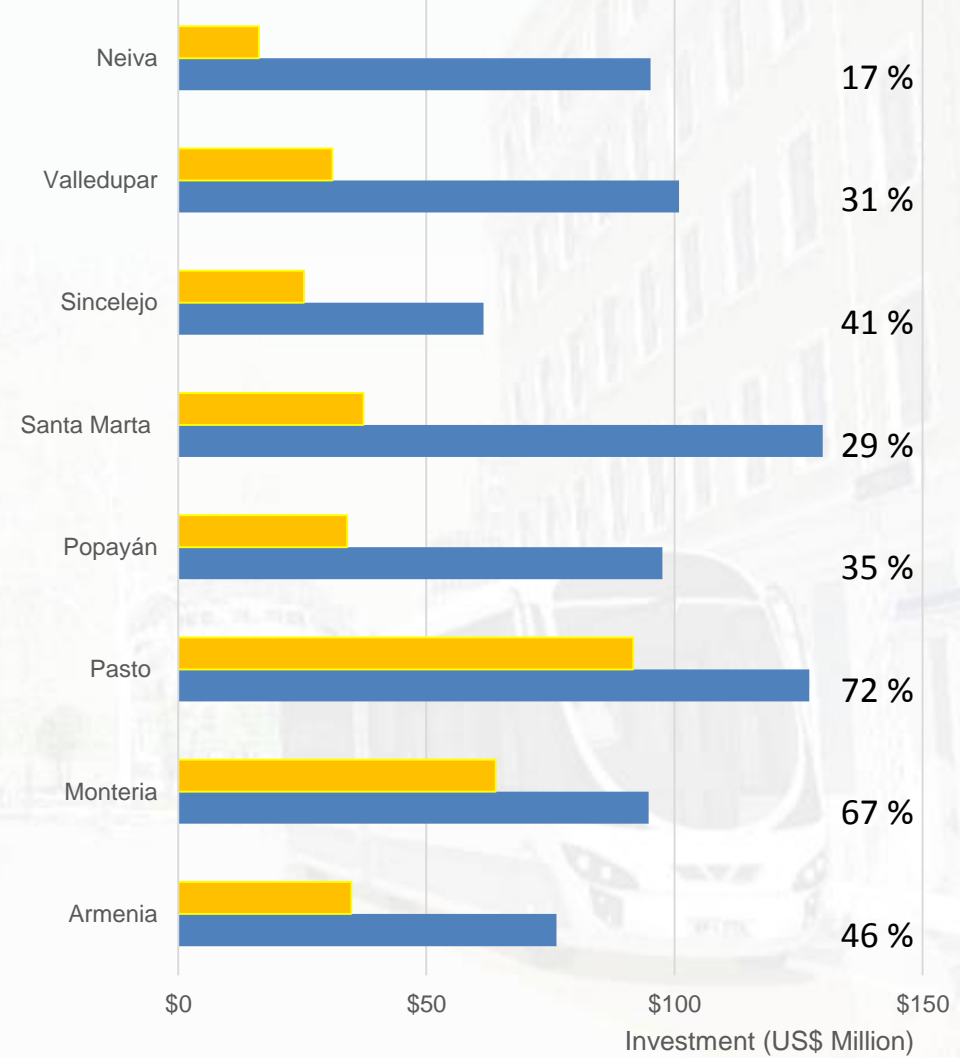
Invest: US\$4,7 billion



Programs and projects implemented

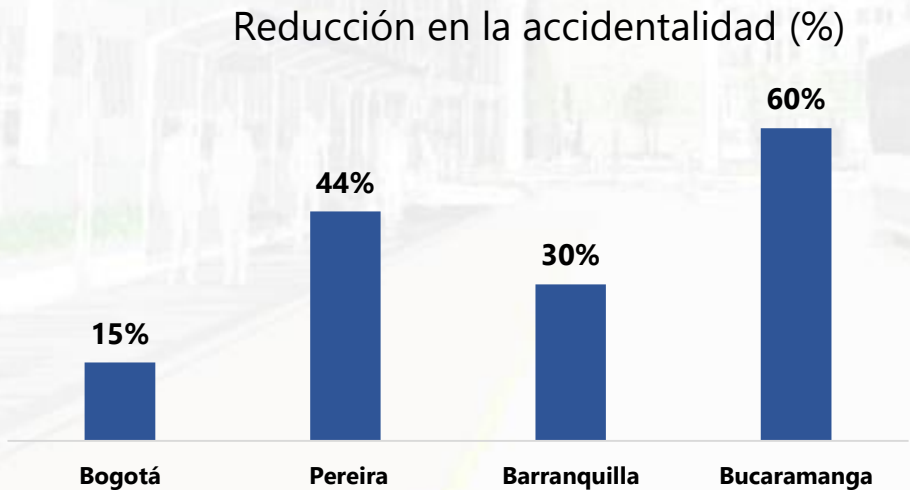
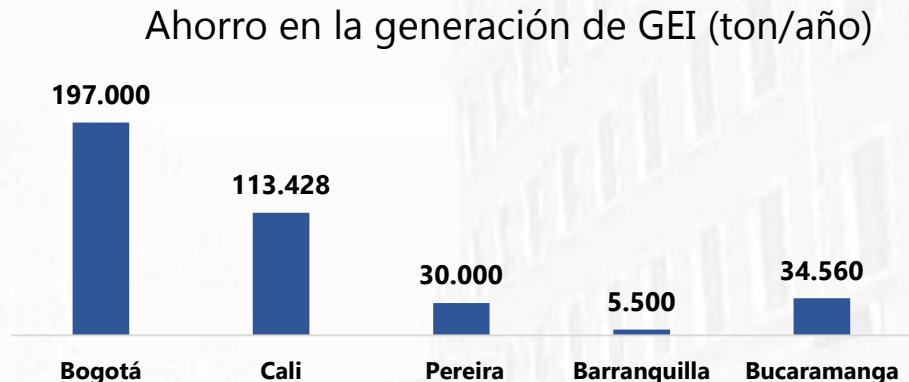
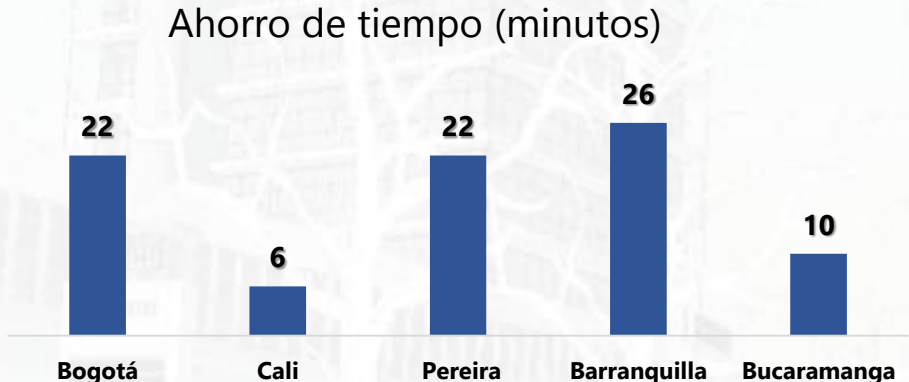
SETP

Invest: US\$1,4 billion



2 Benefits

The implementation of SITM has allowed the mobilization of around 4 million trips per day bringing positive impacts to cities



Fuente: Evaluaciones ExPost 2009 (Transmilenio), 2011 (Megabús y MIO) y 2012 (Metrolínea y Transmetro)

National Policy of Urban Transport

2

Benefits

Relación beneficio /costo

2.5

Bogotá

1.2

Cali

1.7

Pereira

1.7

Barranquilla

1.1

Bucaramanga

Another benefits:

Generación de empleo

Mayor valor del suelo

Generación de espacio público de calidad



Mío - Cali



Megabús - Pereira



DNP Departamento
Nacional
de Planeación



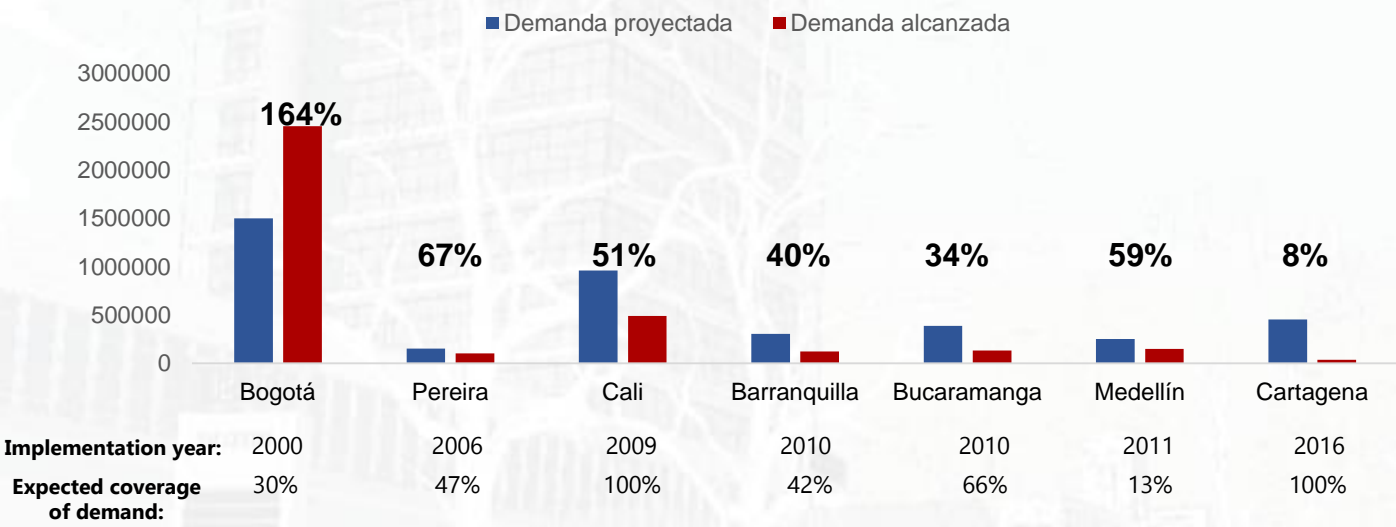
NATIONAL SUPPORT PROGRAMS FOR SUSTAINABLE URBAN TRANSPORT IN COLOMBIA

3

CHALLENGES

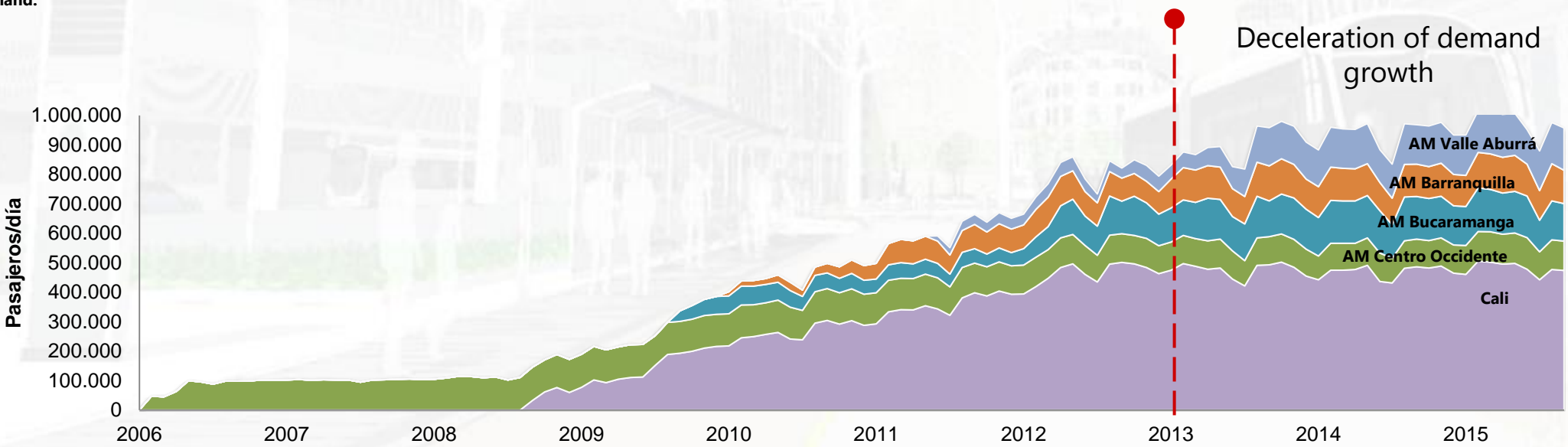
A. WEAKNESS CONSOLIDATION OF BRT SYSTEMS

Expected demand vs Achieved demand



43%
**AVERAGE OF
DEMAND
ACHIEVED***

* Without Transmilenio Bogotá



* Without Transmilenio

Source: Own elaboration based on information from the Ministry of Transport

PROPOSALS FOR THE CONSOLIDATION OF TRANSPORT SYSTEMS

1. Define new guidelines for the Nation co-financing in new mobility projects

Require fulfillment of **enabling requirements** for nation participation



Be included in mobility plans

Mobility master plans must consider:

1. How to move all demand with different modes.
2. How to integrate physical and financial these modes.
3. Articulate the mobility schemes with the land use plans.
4. Identify opportunities for private sector participation in project implementation.

Focus in the service to the citizens

Appropriate technologies

Incorporate TOD projects criteria

Prioritize projects to co-finance

✓ Relevance in the **demand** attention in sustainable transport modes.

✓ Improvement of infrastructure to facilitate walking and cycling

✓ Incorporation of road **safety** evaluations ex ante and ex post



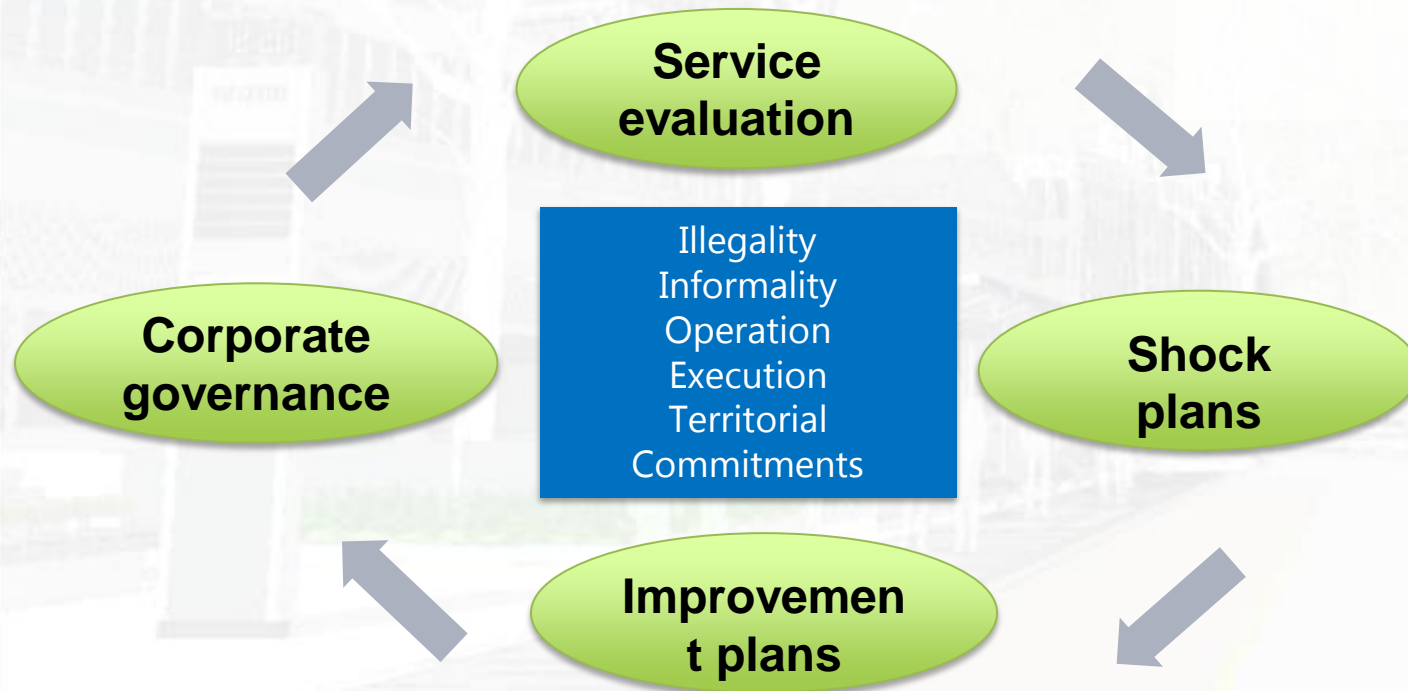
DNP Departamento Nacional de Planeación



PROPOSALS FOR THE CONSOLIDATION OF TRANSPORT SYSTEMS

2. Incentives to cities for the fulfillment of annual operational plans

Working jointly to improve the transportation systems, looking for the sustainability of the operation



- ✓ Develop working groups with territories
- ✓ Implementation and monitoring of shock plans
- ✓ Structuring and implementation of improvement plan

PROPOSALS FOR THE CONSOLIDATION OF TRANSPORT SYSTEMS

3. Generate tools for financial sustainability of systems

The cities have not appropriated the tools contemplated in the National Planning Development



Fare stabilization funds



Contribution for the garages service



Charges for congestion



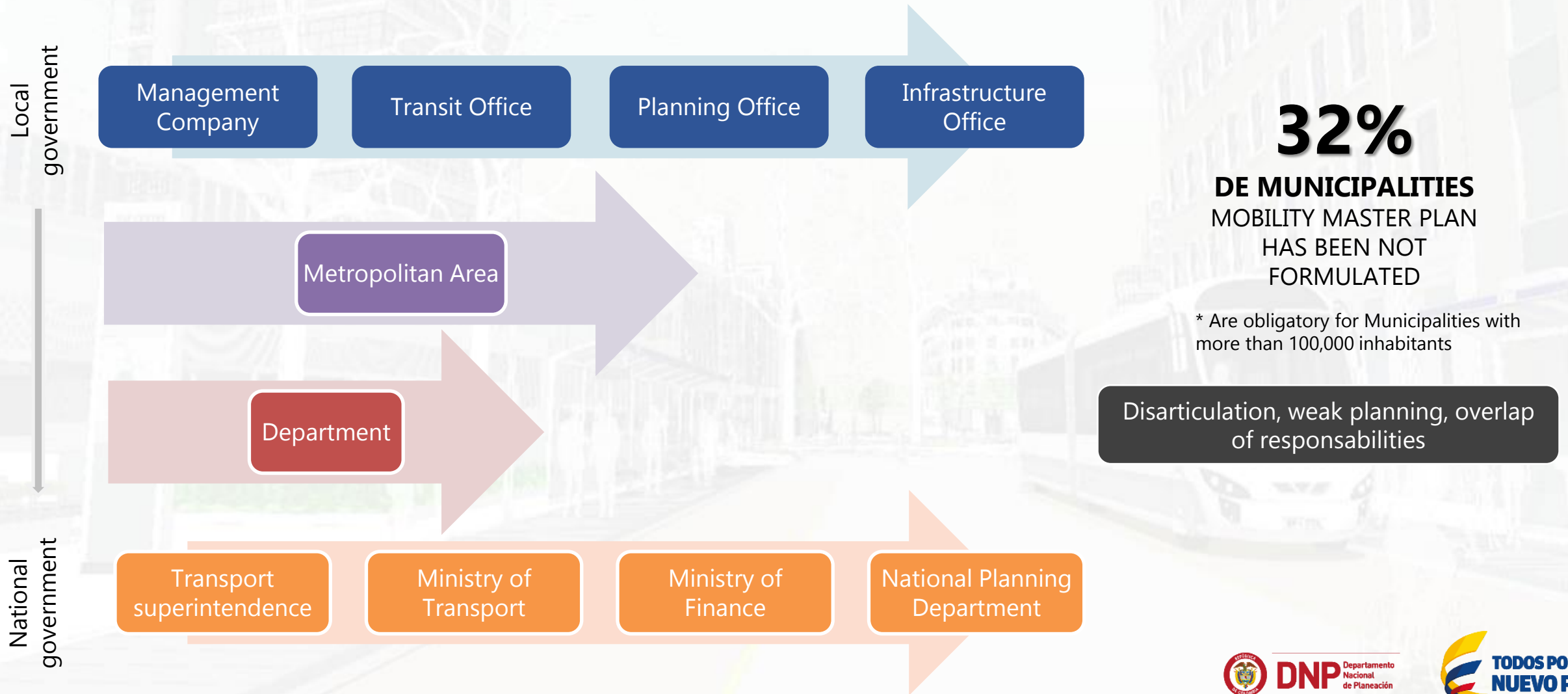
Public Private Partnership



Capturing land value - Height building license

B. INSTITUTIONAL WEAKNESS

The achievement of the goals established has been affected by institutional and territorial weaknesses



PROPOSALS FOR THE INSTITUTIONAL STRENGTHENING

1. Promote institutional schemes that allow articulated work between local authorities and strengthen the accompaniment by the nation

Create the **Local Interagency Committee**



Planning Office



Transport Office



Infrastructure Office



Environment Office



Finance Office



Management Company

2. Strengthening of institutional capacity and accompaniment of the nation

Update the **Nation's participation scheme** in transportation projects



STRENGTHENING MINISTRY OF TRANSPORT WORK TEAM

- ✓ New management scheme
- ✓ Prioritization of studies
- ✓ Capacitation program



ARTICULATION OF NATIONAL ENTITIES

- ✓ Formalization of responsibilities
- ✓ Ensure information flow
- ✓ Uniformity of supports



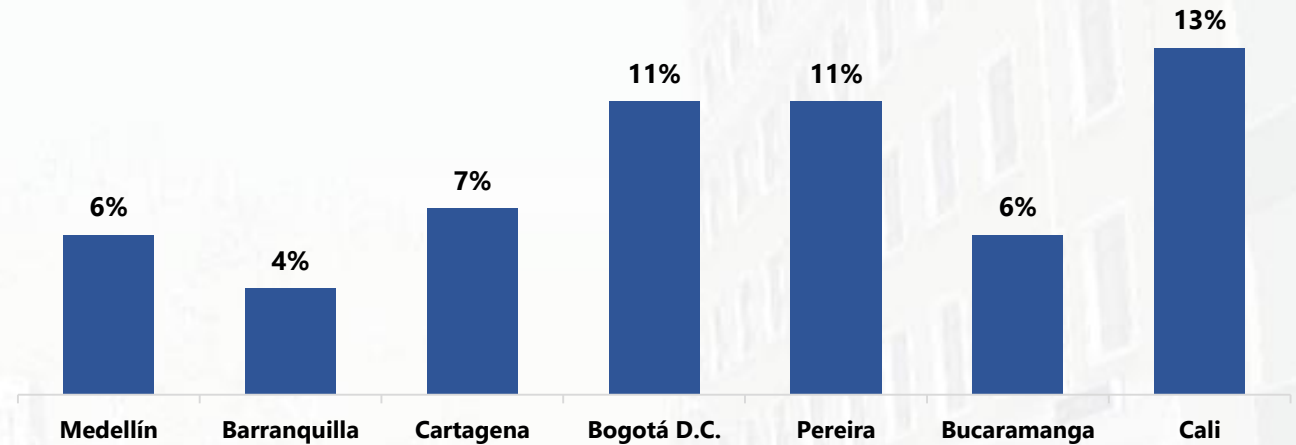
DNP Departamento Nacional de Planeación

C. LACK OF ACTIVE MOBILITY STRATEGIES



**Parking lots and lanes
for cyclists.
(Bogotá case)**

Travel in non-motorized modes



Source: Own elaboration based on information from the 'Cities How We Go 2015'

- Changes in modal distribution: the implementation of bicycle lanes increased the demand for bicycles by **23%**.
- Impacts on health: for every dollar invested in cycling, save **\$ 2.8 USD** of health expenses.

Source: NAMA TAnDem



DNP Departamento
Nacional
de Planeación



PROPOSALS FOR THE STRENGTHENING OF ACTIVE MOBILITY

Promote the implementation of actions that encourage trips on foot and by bicycle



Bogotá

Develop National Active Transport Program:

- ✓ Develop guidelines to implement low-cost actions with high-impact.
- ✓ Generate information for the comprehensive evaluation of active mobility projects
- ✓ Create a platform for sharing knowledge and experiences in the implementation of active mobility projects



Bucaramanga



Bogotá



Cartagena



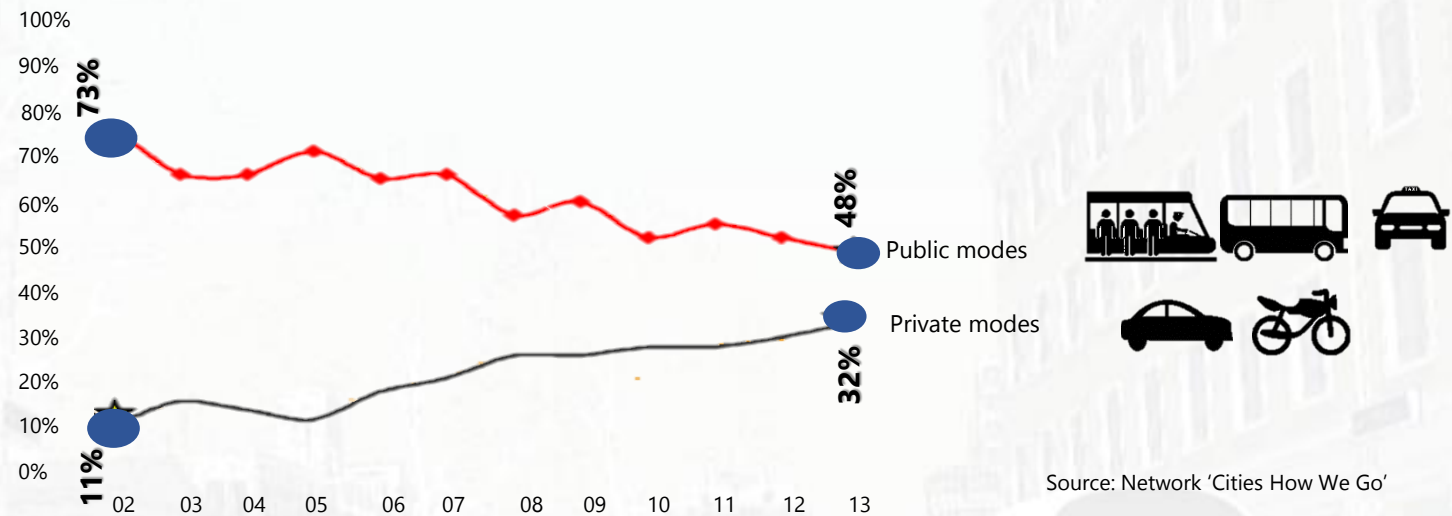
DNP Departamento
Nacional
de Planeación



D. PREFERENCE FOR THE USE OF NON-SUSTAINABLE MODES

This preference has brought negative consequences for cities in terms of congestion, pollution and accidents.

Trend in the use of public transport:



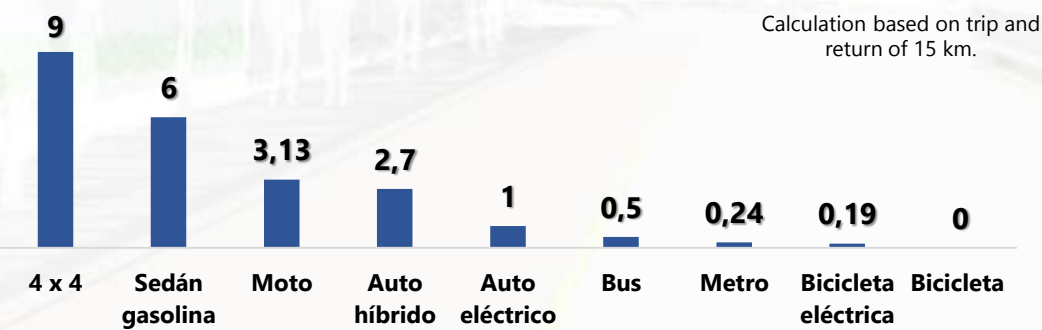
Costs of congestion

2% OF GDP
LOSSES CAUSED BY TRAFFIC JAMS

Source: Green and Inclusive Growth for the Transport Sector in Colombia - DNP

Emissions

Comparison of emissions by means of transport (kg of CO2)



Source: www.consumovehicular.cl

Road safety

56% OF DECEASED
in traffic accidents are users of auto or motorcycle

63% OF INJURED
in traffic accidents are users of auto or motorcycle

Source : National Institute of Legal Medicine - 2015



D. PREFERENCE FOR THE USE OF NON-SUSTAINABLE MODES

Consequences of indiscriminate use of the motorcycle

**Attraction of
Sustainable
Transportation
Travel**

79%
MOTORCYCLES
WERE USERS OF
COLLECTIVE PUBLIC
TRANSPORT

Source: The Motorcycle in Latin America. CAF



**Pollution
generation**

2,7
TIMES MORE CO2
GENERATE THE
MOTORCYCLES IN
COMPARISON WITH THE
AUTOMOBILES

Source: The Motorcycle in Latin America. CAF



**High accident
rate**

47%
OF DECEASED
IN TRAFFIC ACCIDENTS
ARE MOTORCYCLE USERS

Source: National Institute of Forensic Medicine - 2015



The **motorcycle** is a response of many citizens, to the transportation problems



DNP Departamento
Nacional
de Planeación



PROPOSALS FOR THE RESPONSIBLE USE OF PARTICULAR VEHICLE

1. Promote in the business sector the implementation of actions that reduce the use of motor vehicles and motorcycles

40%
TRAVELS
ARE ACHIEVED WITH
WORK REASON



There are specific **demand management measures** to avoid trips or reduce the use of the car when traveling for work:



Share vehicle



Mangement of parking lots



Tele commuting



Home transportation services



Staggered Schedules



Bicycle Incentives

20%
Of these trips
ARE PERFORMED IN
AUTO OR
MOTORCYCLE



Source: Bogota Mobility Survey 2015.

Business plans for sustainable mobility



DNP Departamento Nacional de Planeación



PROPOSALS FOR THE RESPONSIBLE USE OF PARTICULAR VEHICLE

2. Promote the rational and responsible use of the car and the motorcycle to mitigate its negative externalities

Design a **strategic plan** for the mitigation of the negative externalities associated with the irresponsible use of the private vehicle:

1. Road safety

40% OF INJURED MOTORCYCLISTS suffered cranioencephalic injuries

- ✓ Implementation of tests to guarantee the quality of the helmets
- ✓ Implementation of control and penalties for non-compliance
- ✓ Providing truthful information about product quality

2. Driving licenses

42% OF FATAL ACCIDENTS observe violation of transit rules and excess speed

- ✓ Implementation of driver's license systems

3. Charges associated with risks

In 2014, motorcycles caused **83% OF ACCIDENTS** paid, even though they **ONLY CONTRIBUTED 39%** of insurance

- ✓ Establish insurance amounts according to accident risk (type of vehicle - age - experience)

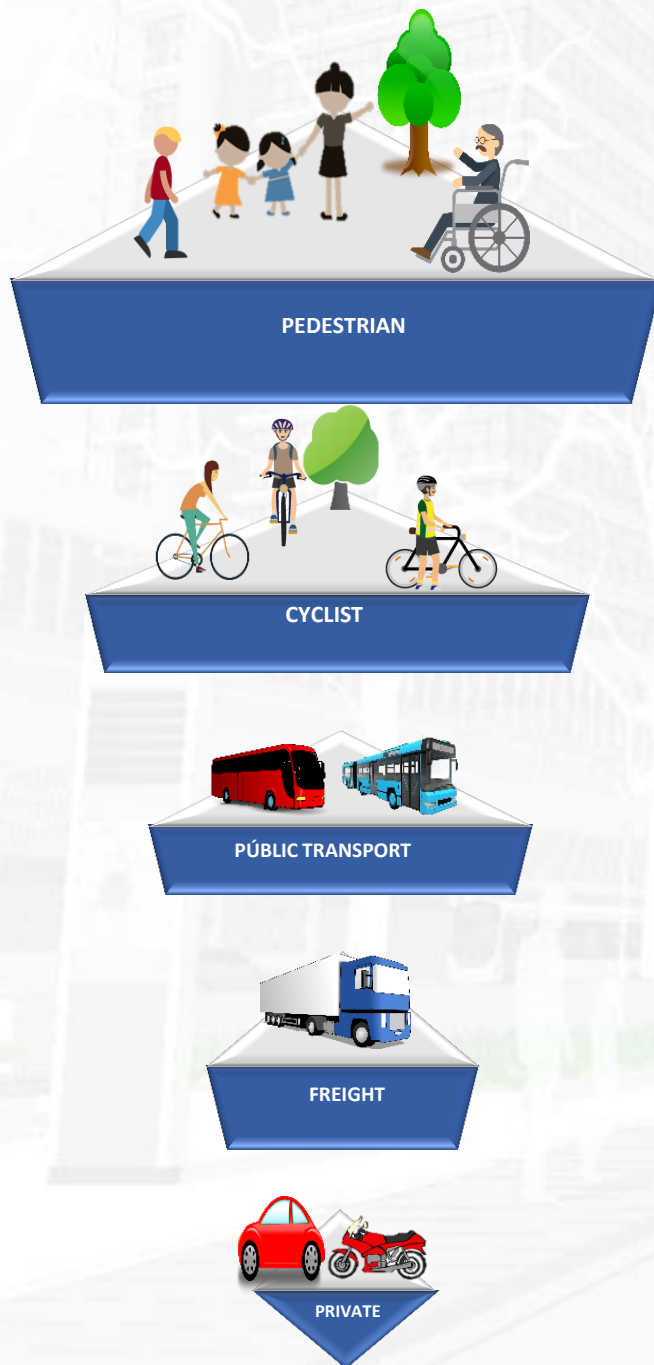
4. Educational promotion

- ✓ Implementation of robust and durable campaigns
- ✓ Evaluate campaign impact
- ✓ Implementation of mobility schools



MOBILITY URBAN POLICY FOR COLOMBIA

OBJECTIVE: To promote guidelines for the integral management of sustainable mobility in the cities of the country.



POLITICAL AXES



Public Transport
systems -
strengthen



Planning and Management for
Sustainable
Mobility



Rational use of
Private transport



Active Mobility –
bicycles and
pedestrians

- Encouraged and priority to the most vulnerable actors and the most sustainable means of transport (Cycling, walking, public transport).
- Avoid-Shift-Improve criteria



DNP Departamento
Nacional
de Planeación



Thank you.



DNP Departamento
Nacional
de Planeación



Departamento Nacional de Planeación
www.dnp.gov.co

Adriana Paola Sarmiento Hernández

National Planning Department
Infrastructure and Energy Department

asarmiento@dnp.gov.co

