



Advancing climate-resilient
low emission development
around the world

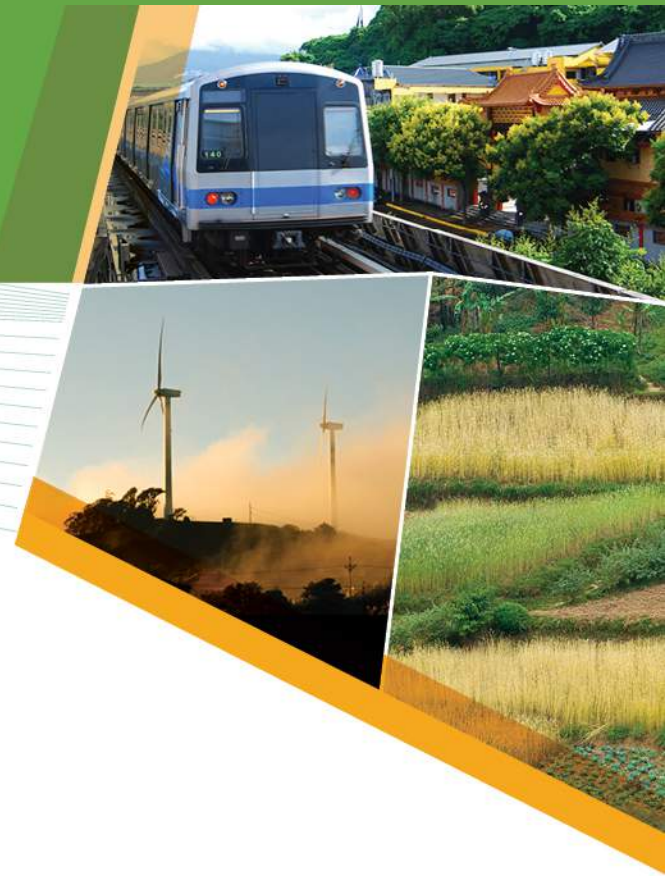
LEDS Global Event 2015

Transport Breakout Session

Packaging policies to advance public transport systems: Cases of Peru and Colombia

Benoit Lefevre, Ph.D., Director of Energy & Climate
Angela Enriquez, Research Analyst
LEDS Transport Working Group
EMBARQ/WRI Ross Center for Sustainable Cities

Please join the LEDS GP and encourage others to join.
www.ledsgp.org



Agenda

Introduction and Overview	10 min
Country Case Studies	20 min
• Peru	
• Colombia	
Group Exercise	1 hour
Wrap-up Discussion	20 min
Conclusion	10 min

LEDS Transport Working Group

Global

- LEDS Transport Toolkit (ledsgp.org/transport)
- Webinars
- Global events and trainings

Regional

- Workshops that serves the specific needs of that region
- Matchmakers for knowledge sharing

Local

- Deep dive, in-country support for governments on specific transport issues and policies
 - Workshops with peer experts
 - Technical assistance
- Remote Expert Assistance on LEDS (REAL)



LEDS
GLOBAL PARTNERSHIP
Advancing climate-resilient low emission development around the world

WORKING GROUP

TRANSPORT WORKING GROUP

Supporting sustainable transport systems of tomorrow



Countries facing significantly increasing demand for transport services over the coming decades have a unique opportunity to meet this demand and enable economic growth minimizing greenhouse gas (GHG) emissions. Sustainable transport systems are based on minimizing travel; shifting to more environmentally (as well as socially and economically) sustainable mobility; and improving transport technologies, fuels, and institutions. The Low Emission Development Strategies Global Partnership (LEDS GP) Transport Working Group provides technical assistance, tools, and training on strategies that support low-emission development in transport systems.

The Working Group is building a LEDS transport community, supporting champions and innovators, creating networks of experts on low-emission transport, and exploring opportunities for collaboration at local and regional levels. A team of international transport experts from EMBARQ, the sustainable urban mobility initiative of WRI Ross Center for Sustainable Cities, the United States Department of Energy's National Renewable Energy Laboratory (NREL) and the United Nations Environment Programme (UNEP) are leading these activities.

Avoid-Shift-Improve approach to sustainable transportation system development

The traditional approach to developing transportation systems has focused on expanding infrastructure—building new roads, rails, and vehicles to meet growing demand. This approach has led to proliferating sprawl, traffic congestion and associated economic impacts, costs to public health from reduced local air quality and increased accidents, and direct and indirect costs of global climate change impacts.

Sustainable transport system development is based on an Avoid-Shift-Improve (ASI) approach—which moves the focus to the policies and behaviors behind the demand for transport. LEDS prioritizes solutions that seek to “avoid” or reduce trips through the integration of land use and transport planning; that “shift” to more efficient and less carbon intensive modes such as public transport, walking and bicycling; and that “improve” the environmental efficiency from each kilometer traveled by enhancing vehicle and fuel technology. This approach addresses the long-term root of problems rather than marginally improving the status quo.



The Avoid-Shift-Improve (ASI) framework supports the holistic design of sustainable low-emission development strategies for transportation systems.

Objective of session

This interactive session aims to promote collaboration by training participants on developing actions that can be used to create policies for the transport sector that are cohesive with international climate commitments and national government mandates.

Country Case Studies

Peru

Integrating transport into national plans

Colombia

Packaging policies to implement transport project in cities



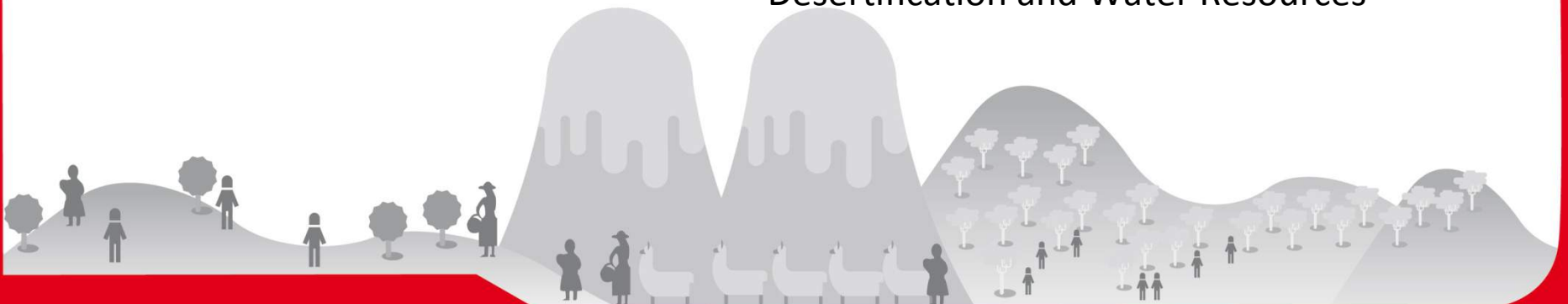
PERÚ

Ministerio
del Ambiente

Policies and Measures to Advance Public Transport Systems in Peru

Margoth Espinoza

General Direction fo Climate Change,
Desertification and Water Resources





Content

- Competents entities in transport sector
- Low emission projects implemented in transport sector
- INDC from Peru (procces and proposal)
- National GHG Inventory and Infocarbono Law



Competents Entities in Transport Sector

Ministry of Transport and Communications

- development of transport systems, communications infrastructure and telecommunications in the country.
- In ground transportation: construction of new roads and the implementation of major public transportation systems (example: Metro de Lima).

Municipalities

- To plan, regulate and manage urban transit passenger, granting concessions, permits and operating permits.



Low Emission Projects Implemented In Transport Sector



High Capacity Segregated Corridor (COSAC I)
Length: 27.02 km (southern to the northern
corridor of Lima)

Developer: Metropolitan Institute
PROTRANSPORTE of Lima

Start operation: 2010

Emission reduction: 68,830 TCO₂/año

Cost: 189,240,380 USD



Metro Line 1

Length: 33.28 Km (southern to East of Lima)

Emission reduction: 85,841 TCO₂/año

Developer: Authority Electrical Mass Transit
System – AATE

Start operation: 2012

Emission reduction: 85,841 TCO₂/año



Scrapping Program of Public Transport Units

Scope: Metropolitan Lima

Target: 3000 Vehicles (today 2085)

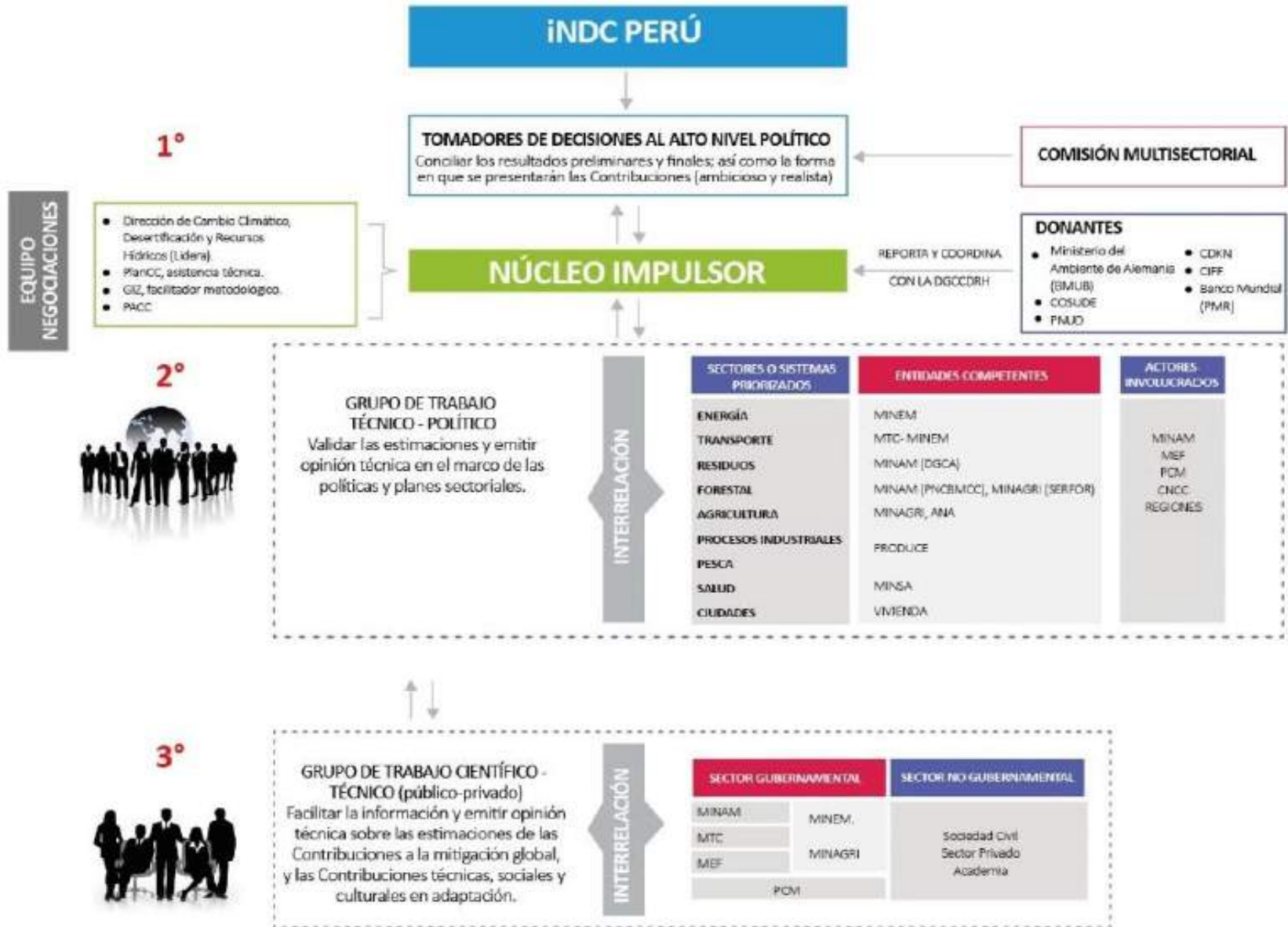
Developer: Metropolitan Institute

PROTRANSPORTE of Lima

Start operation: 2012



ORGANIZATION OF INDC





Permanent Coordination

Sectors involved to build our proposal from 2014

Public consultation

- Resolución Ministerial N°146-2015-MINAM
- Publication of the document *“Construyendo participativamente la Contribución Nacional”*
- 6 weeks (5 June – 17 July)

Groups consulted

- Private sector and associations
- Indigenous peoples
- Young people
- Academy
- NGOs
- Gender representatives
- Syndicate
- Municipalities
- Citizenship
- Governmental sectors, regional governmental and local.

Activities performed

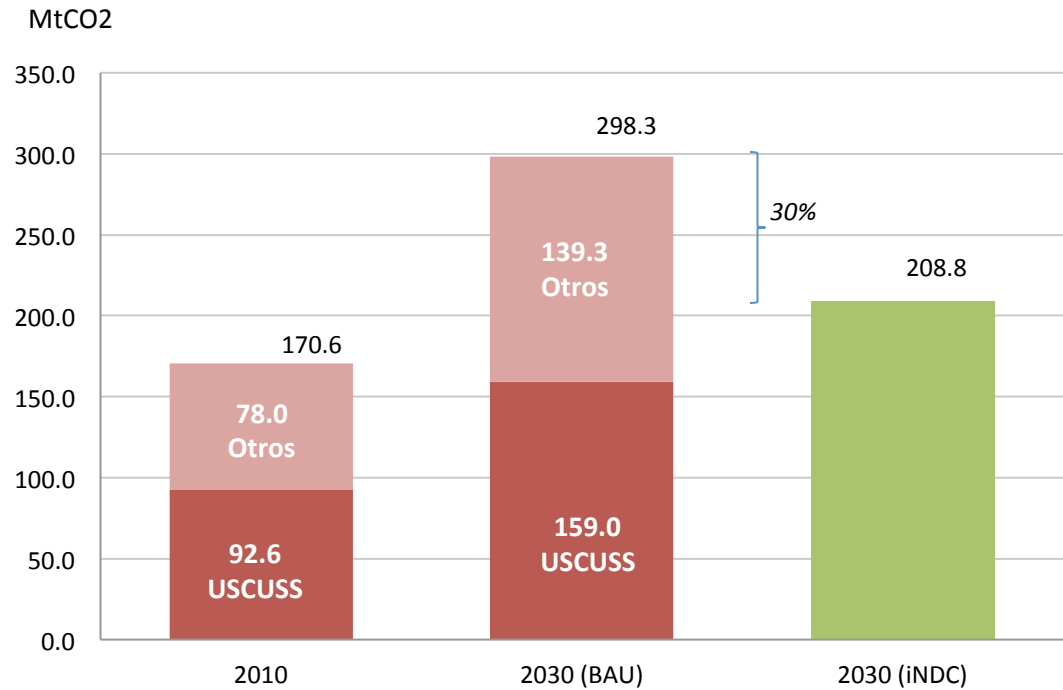
- **Informative meetings**
 - 21 with 278 participants
- **Workshops Macroregional**
 - 5 workshops
 - 25 regions
 - 440 participants
- **Web page and table of parts of the Ministry of Environment**
 - > 100 contributions and comments



INDC FROM PERU

↓ 30% compared to the BAU in 2030

↓ 20% No Conditioned
↓ 10% Conditioned



Scope

- National

Ambición y equidad

- Low current and historical emissions.
- Low per capita emissions
- High vulnerability country

Methodology

- IPCC
- Dynamic sector + GDP projection and population .
- considers forestry sector (emissions and removals)

Mecanismos de Mercado

- Acquisition of emission reduction is not considered.
- Sale of emission reduction (if not obstacle to compliance iNDC)

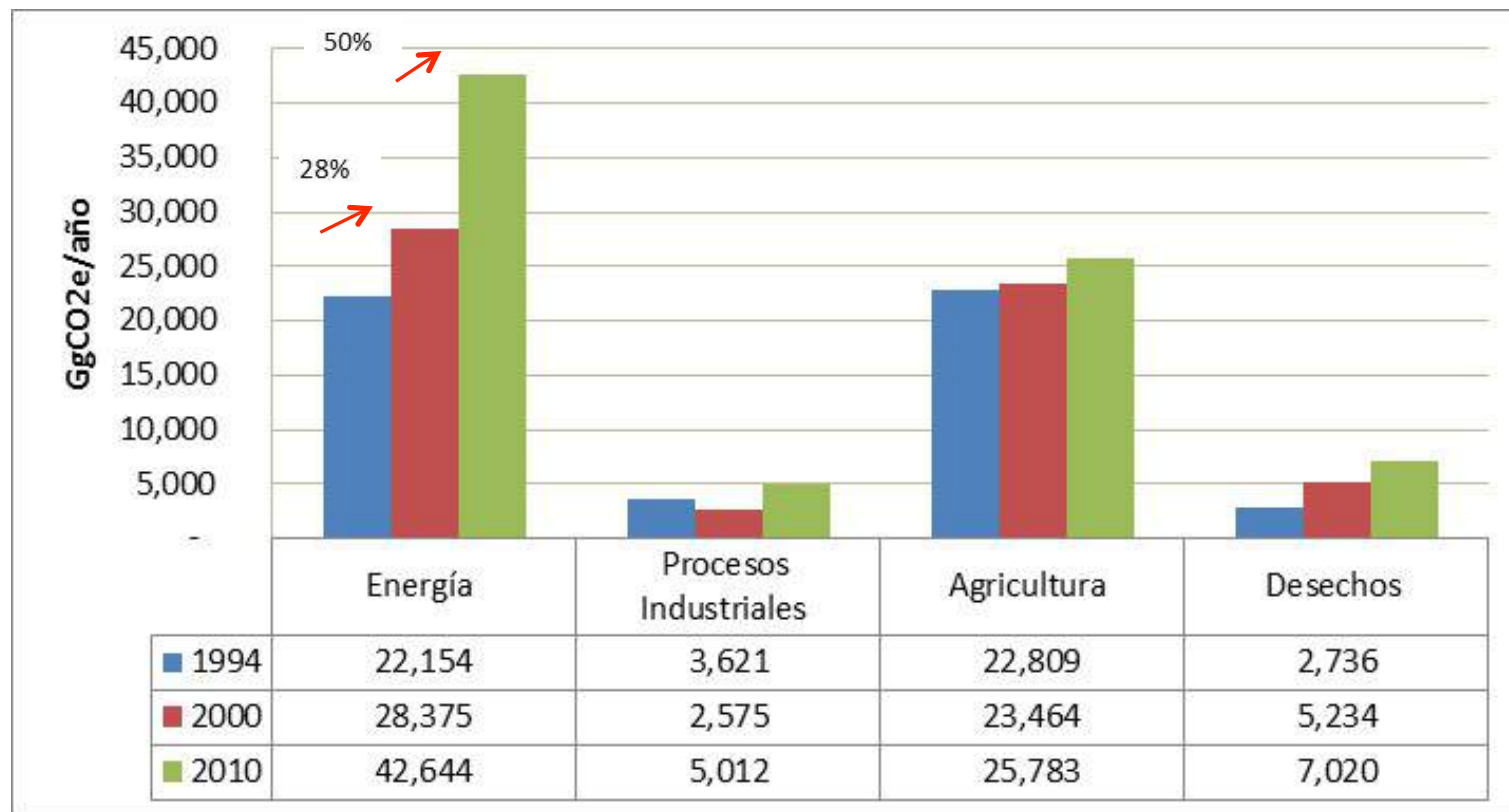


Some projects considered in the evaluation of the proposal:

- Implementation of Complementary Corridors
- Modernization of public transport vehicles
- Conversion and incorporation of urban public transport buses to NGV, where possible.
- Conversion and incorporation of light vehicles to NGV, where possible.
- Incorporación de vehículos livianos híbridos y eléctricos a nivel nacional
- Incorporation of hybrid and electric light vehicles nationwide
- Implementation of Network Meters Lima (some lines)
- Entre otros



NATIONAL GHG INVENTORY

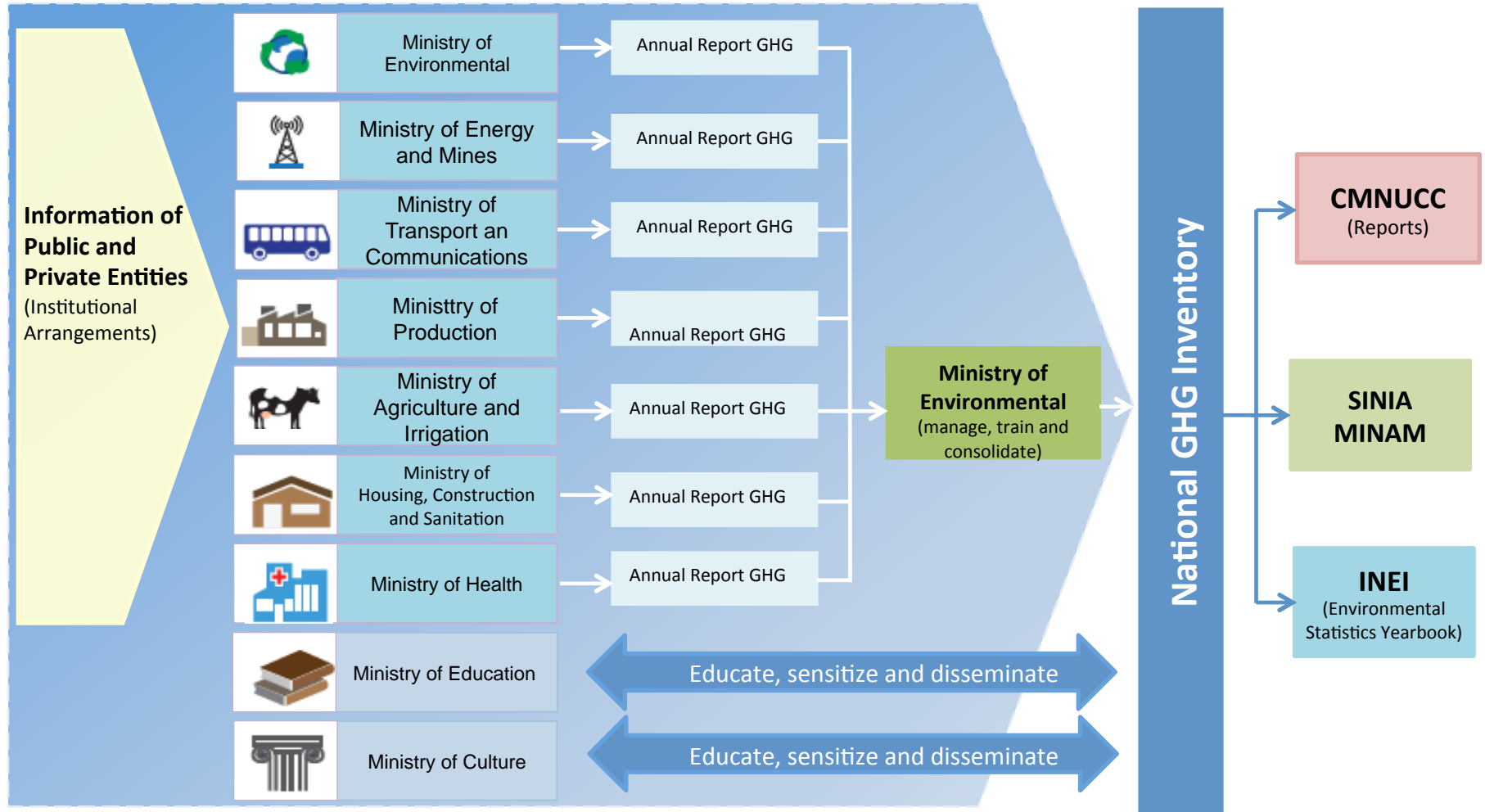


Transport category: 25% (1994), 35% (2000) and 39% (2010)



LAW INFOCARBONO

D.S. 013 – 2014 – MINAM - PROVISIONS FOR THE PREPARATION OF THE NATIONAL GHG INVENTORY





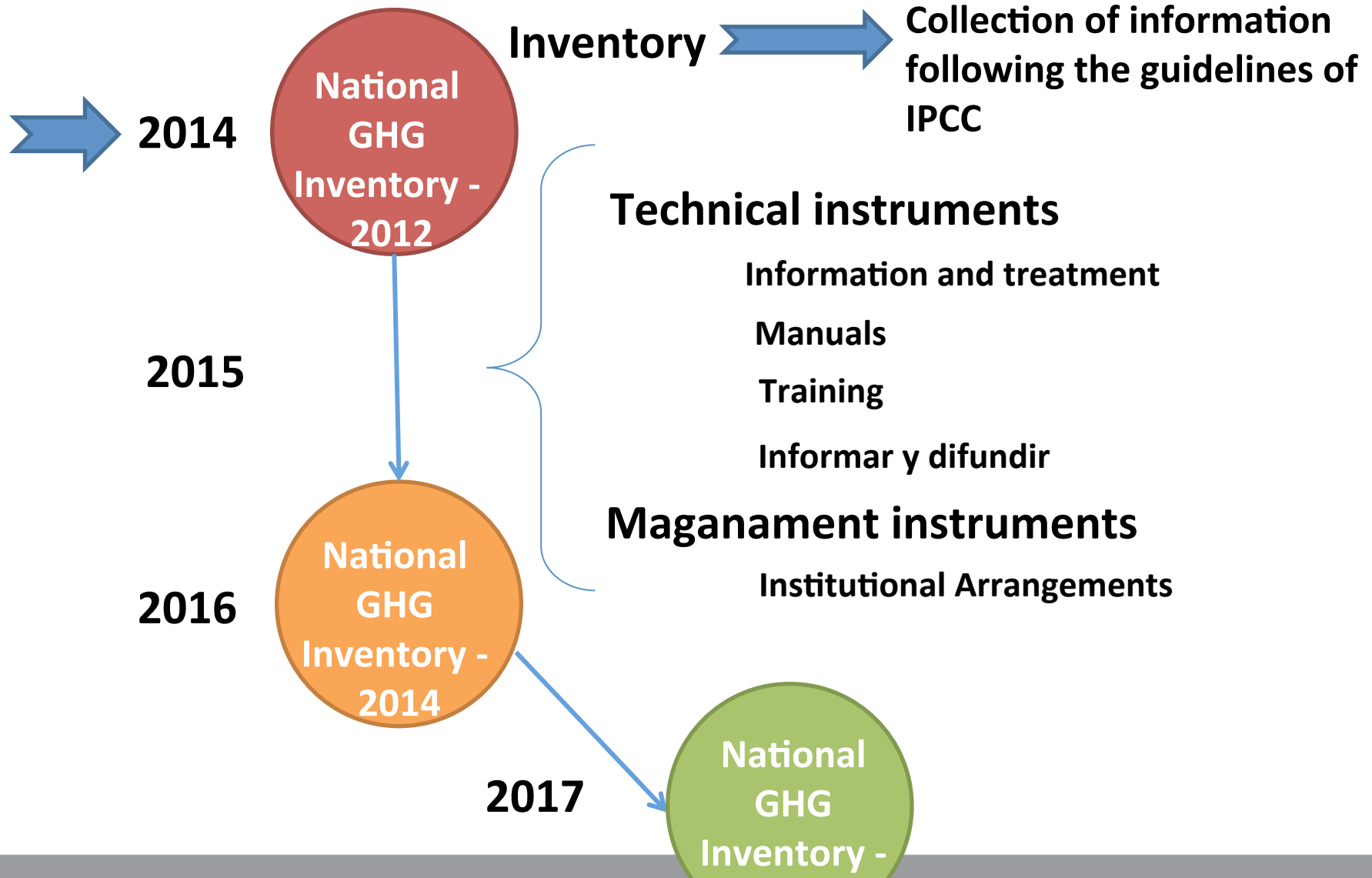
CONSULTANCY: TECHNICAL AND MANAGEMENT TOOLS TO IMPLEMENT THE INFOCARBONO

Specific objectives:

- A. To collect relevant information to prepare technical and management instruments to implement the INFOCARBONO.
- B. Capacity building of competent entities through following instruments:
 - Sectoral manuals (It includes workshops on the development of inventories)
 - Website where all the information about INFOCARBONO will be published. (manuals, inventories, spreadsheets).



TARGET INFOCARBONO





Thank You

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USAID
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UNIDOS DE AMÉRICA



P R O G R A M A
D E S A R R O L L O
R E S I L I E N T E
..... B A J O E N C A R B O N O

**LOW EMISSION
DEVELOPMENT
STRATEGIES
GLOBAL PARTNERSHIP
Punta Cana, Oct 2015**

LEDS Transport peer learning
session
Case Study: COLOMBIA –
URBAN TRANSPORT SECTOR



AGENDA

- INTRODUCTION
- TOWARDS A SUSTAINABLE URBAN
TRANSPORT SECTOR
- TRANSPORT ORIENTED
DEVELOPMENT NAMA

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DEVELOPMENT NAMA

¿WHAT TYPE OF CITIES DO WE WANT?

SYMPTOMS AND IMPACTS IN COLOMBIAN CITIES:

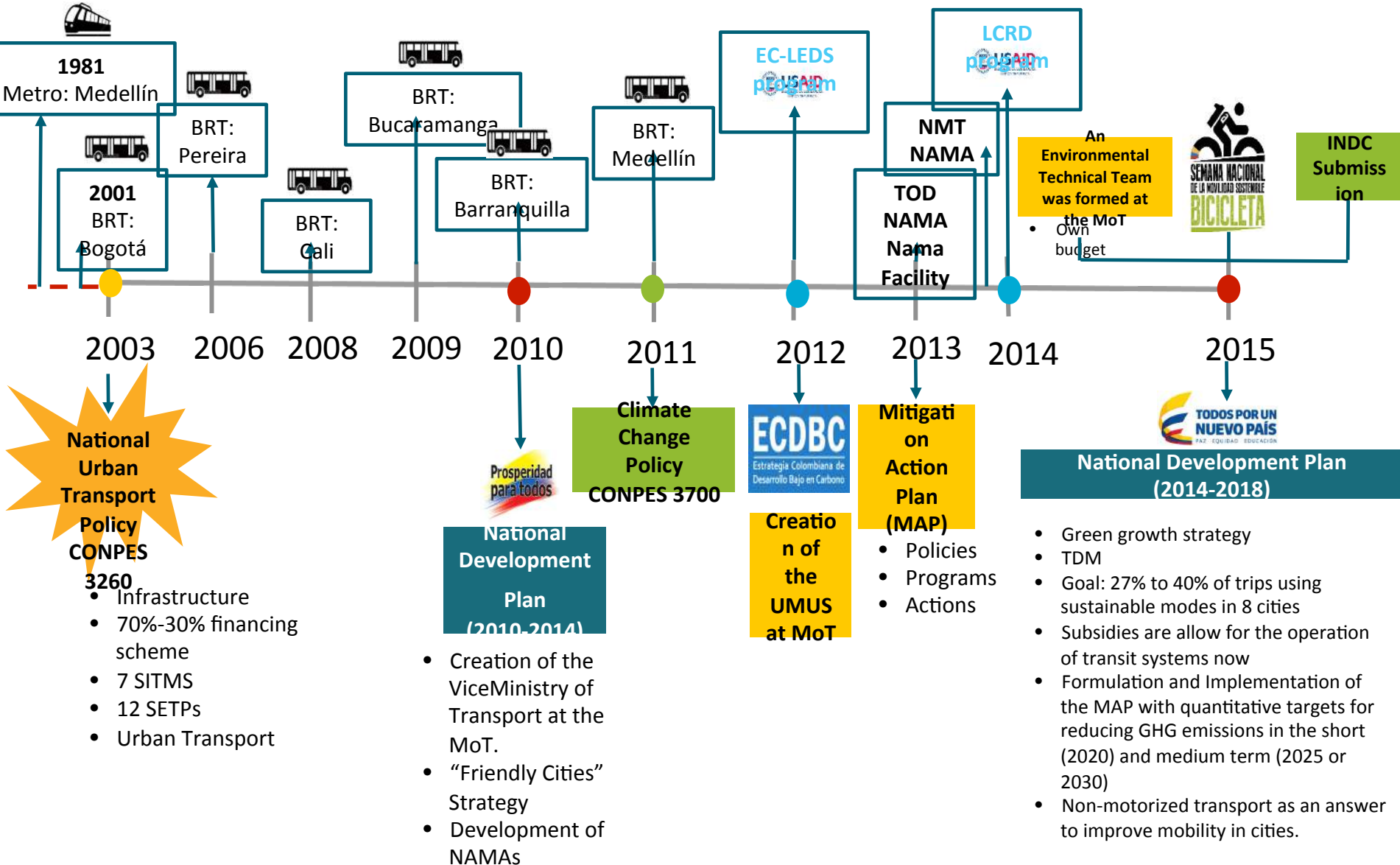


- Inequality, unsatisfied basic needs
- Urban Sprawl
- Inefficient public transport
- Fast increase of private vehicle ownership – particularly motorcycles
- Increasing travel time (congestion)
- Increasing use of informal transportation modes (cyclo, moto-taxi)

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TRANSPORT SECTOR
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DEVELOPMENT NAMA

POLICY ACTION TIMELINE



Besides all the efforts at the National Level, real implementation will take place at the local level



Cicloruta, ronda del río Sinú. Montería



BRT Mio, Cali



Public bicycle sharing system, Medellín

NAMAs are seeing as an opportunity to engage local governments to commit and to implement national policies at the local level

EXERCISE: The transport sector is in the process of committing to an emission reduction target in accordance with the INDC submission (20% reduction from BAU). It is known that modal shift has an important potential of reducing GHG emissions. At the same time, the promotion of NMT modes is a priority for the National Government.

ADVISORY COMMITTEE
AT THE MINISTRY OF
TRANSPORTATION

- What two key actions would you recommend to the Minister in order to meet the INDC reduction target?
- Design an implementation roadmap for the Minister (e.g. who to involve, how to access funding)

MAYOR'S OFFICE
ADVISORY COMMITTEE

- What would you recommend to the Mayor of the city to be able to receive support from the National Government to implement local projects on NMT?
- How will the city accomplish targets on GHG emission reduction in the transport sector and be part of the National

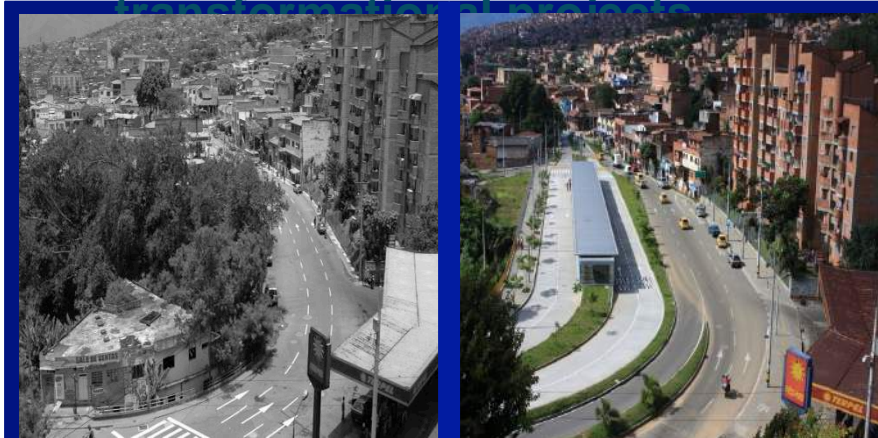
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DEVELOPMENT NAMA

People is already claiming for more sustainable solutions. A climate change approach could be useful for seeking real

MEDELLIN

**Before and
After**



BUCARAMANGA

Before and After



The TOD NAMA will transform urban development in Colombia, focusing public and private development around transit stations to create neighborhoods where

TOD NAMA



- Selected by NAMA Facility for €14.7 million (now in the final approval stage)
- Annual savings of 3.6 to 5.4 MMTCO₂ by 2040.
- Through the NAMA, cities will overcome technical, policy and market barriers to TOD by:
 - ✓ Implementing catalytic local pilot projects.
 - ✓ Developing national policies for replication.
 - ✓ Undertaking comprehensive Measurement and Evaluation, by tracking:
 - Implementation progress, land

Supporting Capacity Building:

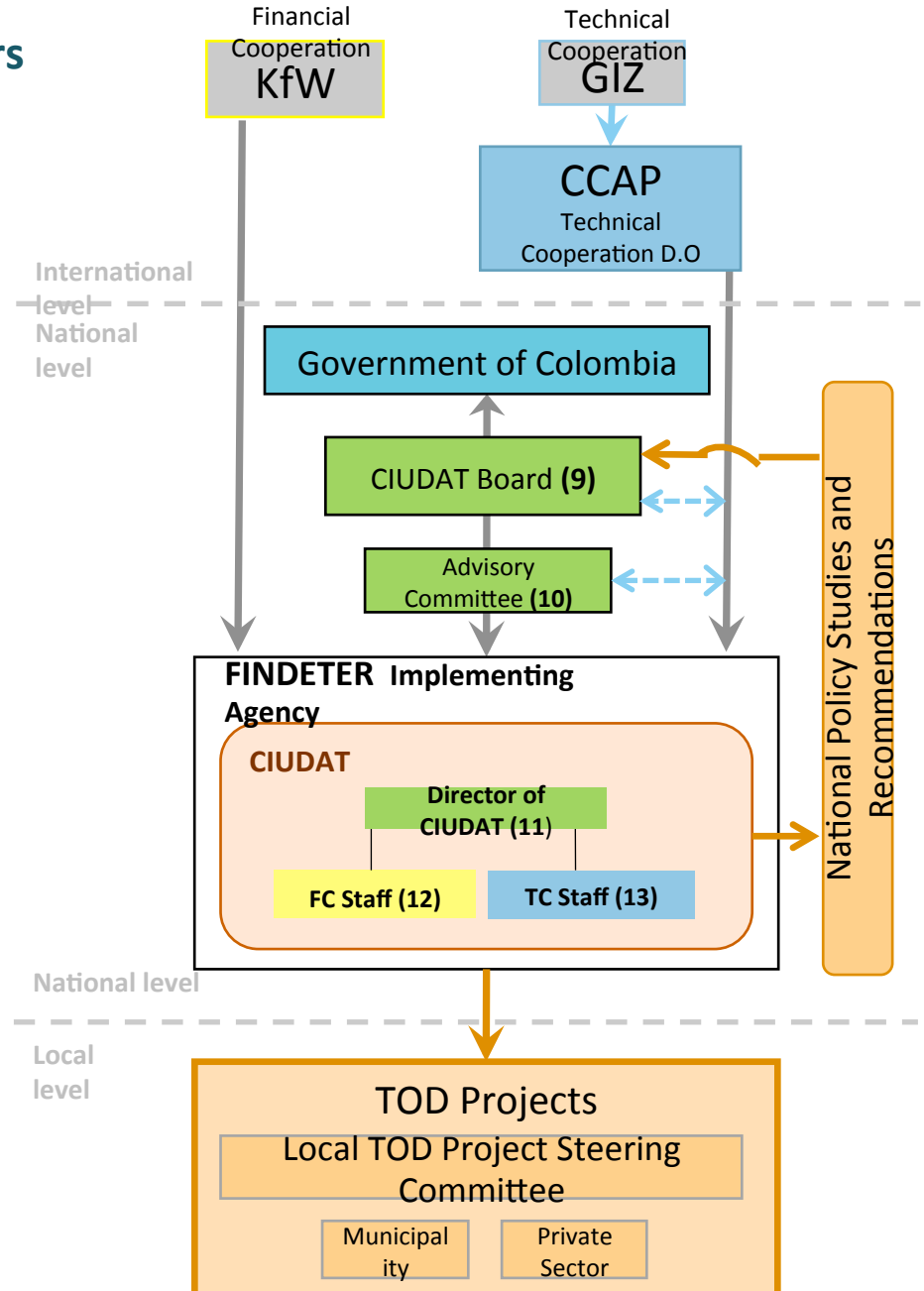
- ✓ A TOD workshop was held in Bogotá, Cali and Medellín.
- ✓ Technical support at Pasto City with its

TOD NAMA: COLOMBIAN OPPORTUNITY TO TRANSFO

Colombia TOD NAMA: Partners



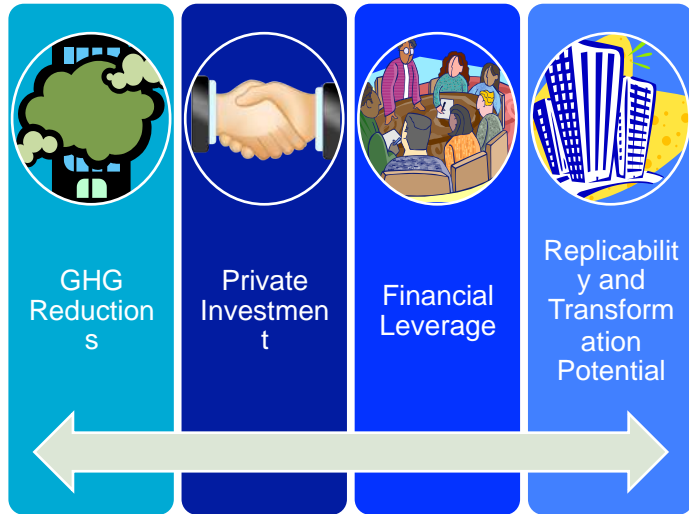
MOU



TOD NAMA: COLOMBIAN OPPORTUNITY TO TRANSFORM

Pre-selection criteria

Potential locations:



PLUS: political support, private sector participation and community engagement

Example: CALI: Transformation of the old industrial center of Cali into a transit- and pedestrian-oriented Green Corridor

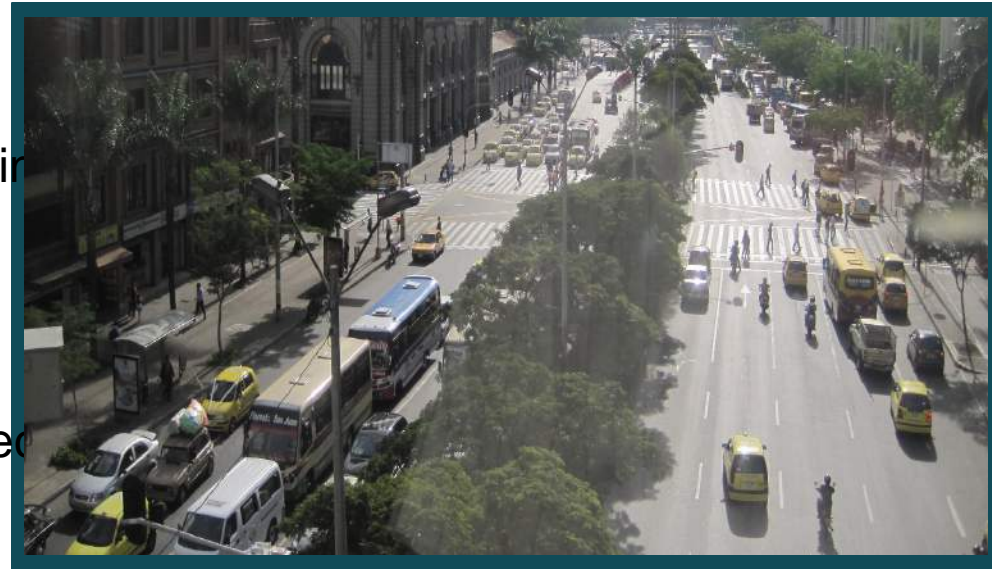
COMPETITIVE PROCESS ENSURES THAT NAMA RESOURCES ARE FOCUSED TO SUPPORT STRATEGIC PROJECTS THAT CAN YIELD SIGNIFICANT, TANGIBLE RESULTS



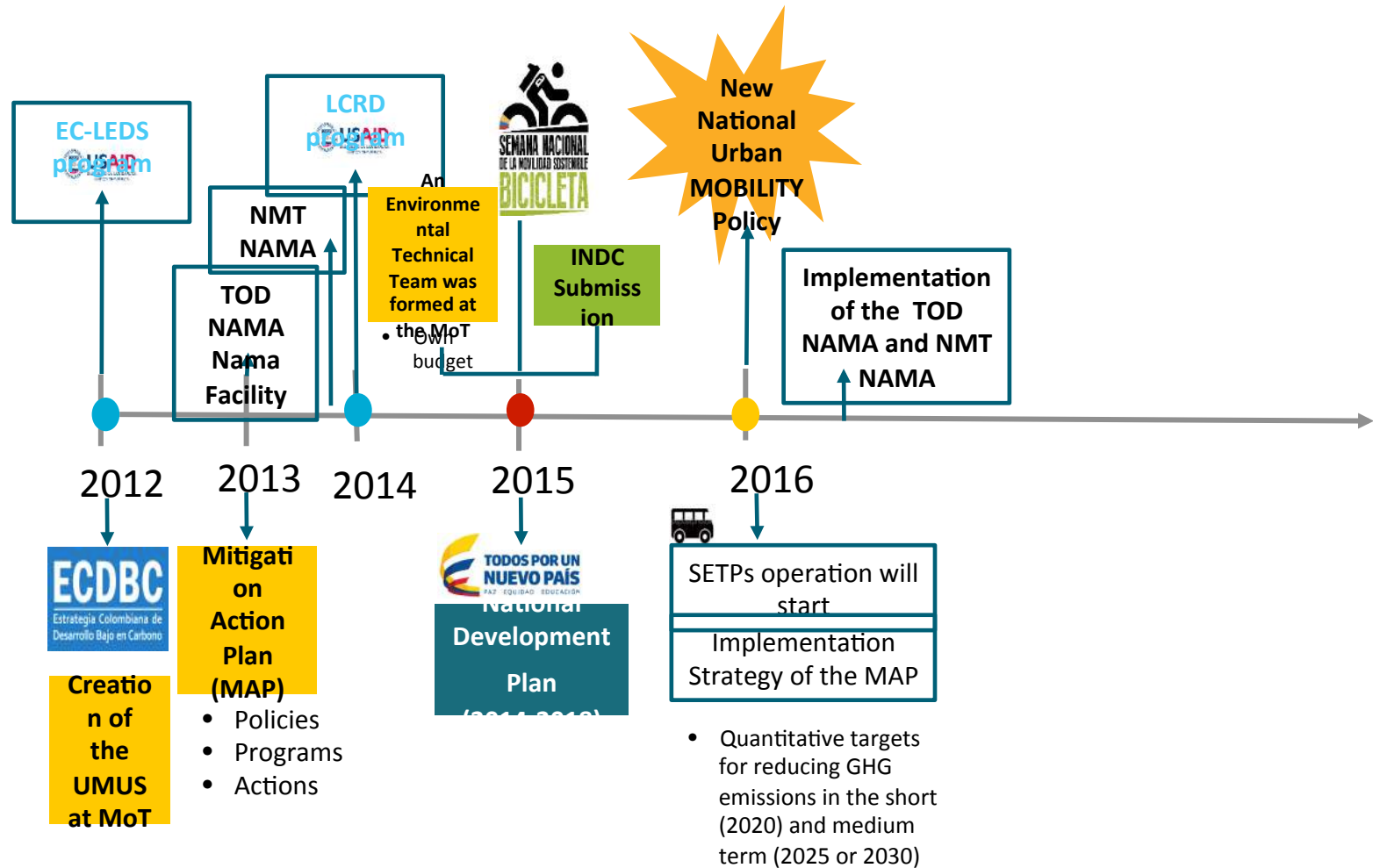
- Colombia has invested about US\$ 10 billion in public transit, social housing and GHG mitigation over the past decade.
- PPT Law
- The TOD NAMA will multiply the GHG benefits of these investments and leverage planned investments in:
 - **Public transportation**
 - US\$ 7 billion funding over the past decade (National, IBRD, IDB, CAF)
 - US\$ 2 billion planned in the next years
 - US\$ 2.5 billion projected for the Bogota Metro
 - **Social Housing**
 - US\$ 2.3 billion over the past few years
 - US\$ 2.5 billion planned for the next few years
 - **Sustainable Cities**
- CIUDAT* will work to maximize the leverage of NAMA funds including local government matches and financial instruments structured by Findeter, KfW and others.
- The French Global Environment Fund, is pursuing a €1.5 million grant to support TOD NAMA implementation in Cali's Green Corridor, as well as for developing national policies for replication and launching M&E efforts.
- Technical cooperation from LCRD program

BARRIERS TO TOD

- Technical, market, regulatory, policy, institutional
- Local investment gaps
- Imperfect public-private collaboration
- Inadequate policy integration
- Limited value capture and finance mechanisms



POLICY ACTION TIMELINE – What is next for CC in the Colombian Transport Sector?



THANK YOU!



CLAUDIA DIAZ
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LEDS Transport Working Group

- What are the priorities for learning and assistance in their country in the transport sector?
- How can the LEDS GP Transport Working Group help?

THANK YOU!

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