

## Sustainable Mobility in Bogotá



Motorized Mobility Rail transport and aerial cables





- "They are born" being **zero emissions**
- They are incorporated into POT and PMSS



Active Mobility



Bicycle Public Policy



Pedestrian Public Policy
In construction



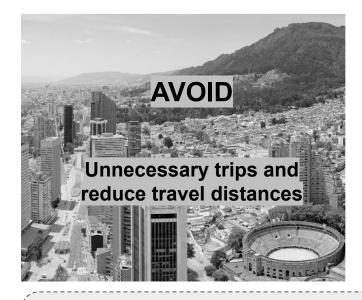




### Sustainable mobility approach



#### Mitigate the negative environmental impacts caused by the mobility sector in the city







**Land Plan Use - POT** 

Sustainable and Decarbonized Mobility Policy

**Bicycle Public Policy** 

**Pedestrian Public Policy** 

Safe and Sustainable Mobility Plan PMSS

Zero and Low Emission Public Policy







## Legal frame



**CONPES 3918** Sustainable National Development Objectives **CONPES 3934** Green Growth Policy **National Electric Mobility** Strategy Law 2199 **CONPES 3943** Bogota & Cundinamarca Law 1844 Law 1964 Air Quality Metropolitan Region **National Strategic Plan** Improvement Policy **Electric Mobility** Paris Agreement reglamentation 2020 - 2050 2017 2019 2021 2018 2020 2022 **Agreement 845 Agreement 811 Agreement 732** Agreement 761 Freight renewal Fund Actions against climate Electric and other District Development Plan "New emergency zero emission Social and Environmental Agreement 858 technologies for Contract for Bogota 2020-2024. Bogota's admission in the mobility Air Plan 2030 Metropolitan Region Agreement 790 Climate Emergency declaration in Bogota. Climate Action Plan 2020-2050







### What does this Public Policy seek?



Objective: Consolidate the zero and low emission motorized mobility as an efficient, sustainable, accessible and competitive alternative in the city region.

With its implementation we will:

Mitigate the emission of local pollutants such as PM2.5, which causes more than 2,000 annual deaths.



Mitigate greenhouse gases emissions generated in the city which are responsible for Climate Change



Facilitate the accessibility and empoderate the citizenship through the inclusion of the differential, gender, human rights, environmental and territorial scopes.



The emissions of the transport sector represents 43% of the basic emissions\* of particulated matter PM2.5 and the 48% of greenhouse gases emissions in the city.











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# Citizen participation









### **Participation processes**



#### By groups of actors

(85 spaces for participation in the Public Agenda and Formulation phases)

Public Agenda Phase September 2020- June 2021

44 spaces1.388 participants

- 3 face-to-face tables
- **15** public/private actor workshops
- 12 virtual workshops with citizenship
- 2 webinars
- 12 interviews

Formulation Phase June 2021- March 2023

**41** spaces **539** participants

- **14** public/private actor workshops
- 5 virtual workshops with citizenship
- 2 webinars
- 1 interviews
- 19 virtual meetings



#### By territorial approach

(in 20 locations - 290 citizens)





Women led the spaces for the construction of Public Policy!

Participation:



Ť

35%





## **Action Plan**











#### How to achieve it?



#### **Specific objectives**



1. Promote the transition of the motorized road transportation modes to zero and low emission technologies



2. Strengthen management, innovation, development and research processes in the value chain of technologies for motorized mobility with zero and low emissions.

#### **General objective**

Consolidate the zero and low emission motorized mobility as an efficient, sustainable, accessible and competitive alternative in the city region.



3. Develop an environment of communication, pedagogy and participation around zero and low emission mobility



**4.** Consolidate an intelligent, accessible and competitive charging infrastructure network, articulated with the private sector.







Rights









Gender Environmental Territorial







#### Plan de acción 2023 - 2040

5 sectors - 6 entity

involved

13 results

42 products



#### Specific objectives © . O. <u>O</u>. O Management, innovation, Communication environment, Intelligent charging Transition to zero and low development and research pedagogy and participation infrastructure network emissions processes 1 result 8 results 2 results 2 results 4 products 25 products 7 products 6 products \$ 1.254 M COP \$ 74,88 B COP \$ 5.431 M COP \$ 14.049 M COP

15 sectors

implementing official fleet changes

Validity: 18 years





\$ 74,9 Billons COP

(constant prices 2022)



### Objective 1: Transition to zero and low emissions

(8 results, 25 products)



Infrastructure projects of public transport and sustainable mobility:

2 Wires

1 MB line operation + 2 construction

57.72 km of high and medium capacity corridors

4 Wires

1 MB line operation + 2 construction + 1 structuring

82.18 km of high and medium capacity corridors

7 Wires

3 MB Lines operation + 1 construction + 1 structuring

120.54 km of high and medium capacity corridors

			COTTIGOTS	corridors co	orridors
Responsible entities	Type of transport	Actions	Actions	Actions	Actions
SDA SDM	Freight transport	-Environmental labeling -Technology pyramid -Freight fund	- 1 restriction: area of logistics activity -Strengthening load fund - 1 Last Mile Combustion Vehicle Replacement Project	- 2 restrictions: network of freight corridors - Strengthening load fund - 2 projects to strengthen the ecosystem and include other segments in cyclologistics	-2 restrictions: Western logistics ring and specialized logistics infrastructure -Strengthening load fund - 3 Cyclologistic Projects: deconsolidation and last km corridors  44%  56%
SDM SDG	Private cars	-6% of cars with differential charging by zones -2% preferential parking spaces -193 inspected parking spaces -1 Pilot restriction zone	-50% cars with demand management scheme for distance traveled -5% preferential parking spaces -505 inspected parking spaces -1 Restriction Zone (ZUMA)	- 100% of cars with mandatory demand management scheme by zones -20% preferential parking spaces -1,469 inspected parking spaces -2 Restriction Zones (ZUMA)	- 100% of vehicles with a mandatory demand management scheme throughout the city -50% differential parking spaces -2,169 inspected parking spaces -3 Restriction Zones (ZUMA)
SDM	Motorcycles	Inclusion of motorcycles within demand management schemes	-27% motorcycles with demand management scheme by distance traveled -1 Restriction Zone (ZUMA)	-65% motorcycles with mandatory demand management scheme by zones -2 Restriction Zones (ZUMA) -Exclusive registration zero emissions	-100% motorcycles with a mandatory demand management scheme throughout the city3 Restriction Zones (ZUMA) -Exclusive registration zero emissions
Emissions	High Low Zero	2023	2027	2031	2035 2040

#### Objective 1: Transition to zero and low emissions

Infrastructure projects of public transport and sustainable mobility:

2 Wires

1 MB line operation + 2 construction

57.72 km of high and medium capacity corridors

4 Wires

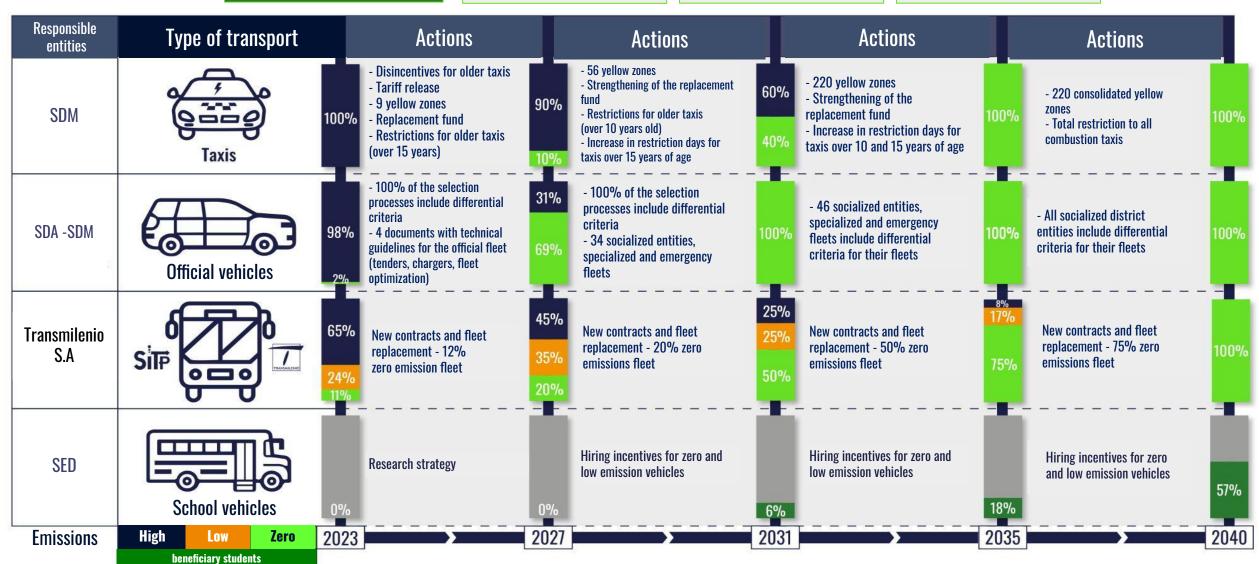
1 MB line operation + 2 construction + 1 structuring

82.18 km of high and medium capacity corridors

7 Wires

3 MB Lines operation + 1 construction + 1 structuring

120.54 km of high and medium capacity corridors



## Objectives 2, 3 y 4

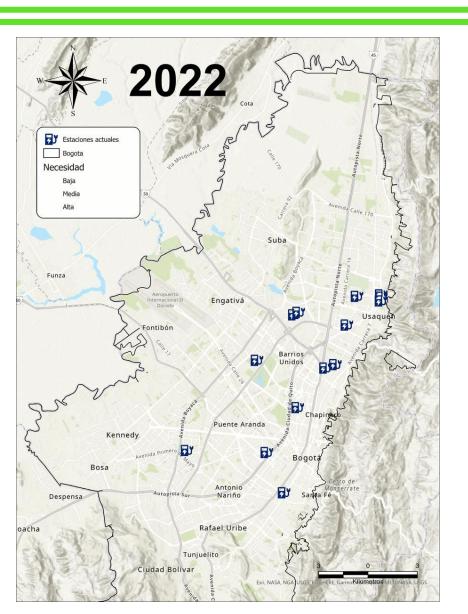
## (5 results, 17 products)

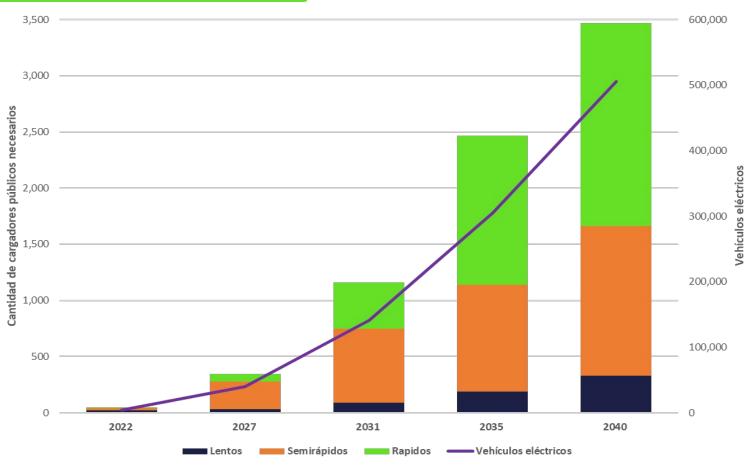


Objective	Result	Indicator	Quantity of products	Base Line	GOAL			COST (Millons	Responsible	
					2024	2027	2035	2040	COP)	
2. Management, innovation,	2.1. Increased capacities in the electric vehicle battery management chain	Percentage increase in battery management capacity	2	0%	1%	4%	24%	36%	\$190	SDA
development and research processes	2.2. Electric Mobility Network	Organizations and actors linked to the Electric Mobility Network	5	0	70	130	240	300	\$5.236	SDM
3. Communication environment,	3.1 Information on zero and low emission technologies	Percentage of citizens who know about zero-emission mobility in citizen perception surveys	4	32%	34%	40%	70%	90%	\$5.843	SDM
pedagogy and participation	3.2 Increase awareness and sustainable driving practices among citizens	Effectiveness of the ECOS Strategy	2	N/D	9 %	23%	67%	100 %	\$7.296	SDA
4. Intelligent charging infrastructure network	4.1 Attention to 100% of the demand for public access charging infrastructure for electric vehicles	Percentage of attention to the demand for public access to the electric vehicle charging service	4	N/A	100%	100%	100%	100%	\$1.254	SDM

#### Projection needs of public access chargers







Slow chargers: output power less than 22 kW
 Semi-fast chargers: output power > 22 kW and < 50 kW</li>
 Fast chargers: output power greater than 50 kW

Projections of chargers needed for taxis and private cars





# Summary



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#### Policy value chain



## 1 General Objective

Consolidate the zero and low emission motorized mobility as an efficient, sustainable, accessible and competitive alternative in the city region.



## 4 Specific Objectives

- Promote the transition of the motorized road transportation modes to zero and low emission technologies
- Strengthen management, innovation, development and research processes in the value chain of technologies for motorized mobility with zero and low emissions.
- Develop an environment of communication, pedagogy and participation around zero and low emission mobility
- Consolidate an intelligent, accessible and competitive charging infrastructure network, articulated with the private sector.

#### 13 Results

Technological rise in fleets:

- 1) Burden
- 2) individuals
- Official
- SITP
- taxi
- 6) motorcycles
- 7) Tricimóviles
- School
- 9) Increased stakeholder participation
- 10) Increased capacities for battery management
- 11) Increased knowledge about technology
- 12) Sustainable driving practices
- 13) Meeting the demand for charging infrastructure

#### 42 Products

**Sector leader: Movility** 

5 Sectors involved

Environment Sector, Mobility Sector, Government Sector, Women Sector, Education Sector

**6 Entitys participants** 

Environment Sec., Mobility Sec., Government Sec., Women's Sec., Education Sec., TransMilenio

15 Sectors implementing official fleet changes







#### Costos por objetivos y por periodos

Precios constantes 2022



	OBJECTIVE 1	OBJECTIVE 2	OBJECTIVE 3	OBJECTIVE 4	TOTAL PERÍOD	
PERIOD		<b>⊗</b>	9	<u>;;;</u> ;		
	Billons COP	Millons COP	Millons COP	Millons COP	Billons COP	
2023	\$ 2,4	\$ 78	\$ 461	\$ 106	\$ 2,42	
2024 - 2027	\$ 12,0	\$ 1.275	\$ 4.381	\$ 512	\$ 12,01	
2028 - 2031	\$ 15,9	\$ 1.255	\$ 3.315	\$ 212	\$ 15,98	
2032 - 2035	\$ 18,6	\$ 1.255	\$ 2.528	\$ 212	\$ 18,7	
2036 - 2039	\$ 20,5	\$ 1.252	\$ 2.672	\$ 212	\$ 20,54	
2040	\$ 5,2	\$ 316	\$ 692	-	\$ 5,29	
TOTAL OBJETIVO	\$ 74,9	\$ 5.431	\$ 14.049	\$ 1.254	\$ 74,91	











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# Thank you







