



UN HABITAT
FOR A BETTER URBAN FUTURE

Climate Change and Urban Policy Colombia

March 25th, 2021

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URBAN-LEDS PHASE II: PROJECT GOALS




Biodiverciudades

Colombia: un país de Biodiverciudades



Problems to address in the NUP Process

Poverty and Inequality

24% of urban households with insufficient funds to buy the basic food basket, vs 36% in rural zones (2018)

The proportion of income poverty in the dispersed rural municipalities of Colombia is 2.3 times higher than in the cities and agglomerations



the percentage of people classified in extreme poverty with respect to the total national population was 8.5% (+.6% 2015 -2016)

Informal Settlements

1.2 million households live in poor and overcrowding conditions
1.7 millions of urban households and 1.6 rural households lack of housing or live in very bad conditions



In Colombia more than 50% of the growth of cities in the last three decades is of informal origin



Pressure over Environmental Services

Very low performance in the use of water and consumes 2.8 more times than the average in Latin America



Very low performance in the use of water and consumption of 2.8 more times than the average in Latin America

In the last 6 years Colombia lost forest an equivalent of 926 thousand of soccer fields



Pollution

Colombia ranks 40 among the countries that emit the most GHG



Particulate matter (PM10) was exceeded from permissible limits in Bogotá, Cali, Medellín and Santa Marta, as well as the municipalities of Ráquira and Yumbo (IDEAM, 2018)

According to the Ministry of Mines and Energy, the building sector appears in third place with 22.04% of the national energy consumption

Only 42.6% of urban wastewater is treated

Urban Sprawl

With respect to housing and habitat, the housing deficit for the country has reached 36.6%



Cadastral records outdated. 92,93% of the municipalities with outdated information and 2.12% without any information

64% of cities have at least doubled the area occupied by their built area since 1990; and 28% of cities have quadrupled their areas of occupation

Lack of employment opportunities

The informal urban labor rate is 56.6% and in rural areas is 85.8%



Disordered patterns have produced a decrease in the proportion of urban areas close to arterial roads - Decrease in the effective connection between urban peripheries and metropolitan labor markets.



Lack of Connectivity and Transport

In the last six years, approximately 40 thousand personas have died as a consequence of road accidents



Bike lanes represent only 15% of the new built kilometers for public urban transport



48% of the population is disconnected from big cities and their benefits



Legal and Policy Instruments for Urban Planning

Political Constitution (1991).- Establishes the structure of the territorial entities: Department, Districts, Municipalities, Indigenous Communities

Law 99 (1993).- Establishes the National Information Environmental System (SINA) and the structure for the environmental management in the country

Law 388 (1997).- Ley de Desarrollo Territorial
Set the principles and implementation mechanisms for the national and territorial planning

Lay 617 (2000) .- Establishes differences according to the size of the population and the annual current income of the municipalities. Although this categorization has been useful for the control of operating expenses, it does not allow differentiating the characteristics of the level of development of the territorial entities

Law 1454 (2011).- Ley de Ordenamiento Territorial
Specify competencies to each level of government

Law 1551 (2012).- Establishes a categorization in line with the Law 617, adding the economic component. Municipalities are categorized in: large, intermediate, basic.

CONPES 3819 (2014).- System of Cities



CIUDADES 4.0 - NATIONAL URBAN POLICY (NUP)

VISION	—	SYSTEMIC – INTRA URBAN
SCALE	—	NATIONAL – SUSTAINABLE BUILDING
CATEGORIZATION	—	CENSUS 2020
ARMONIZATION	—	DIFFERENT LEGAL INSTRUM.
APPROACH	—	BOTTOM UP – TOP TO BOTTOM
INDICATORS	—	STRENGTHENING OPERATION

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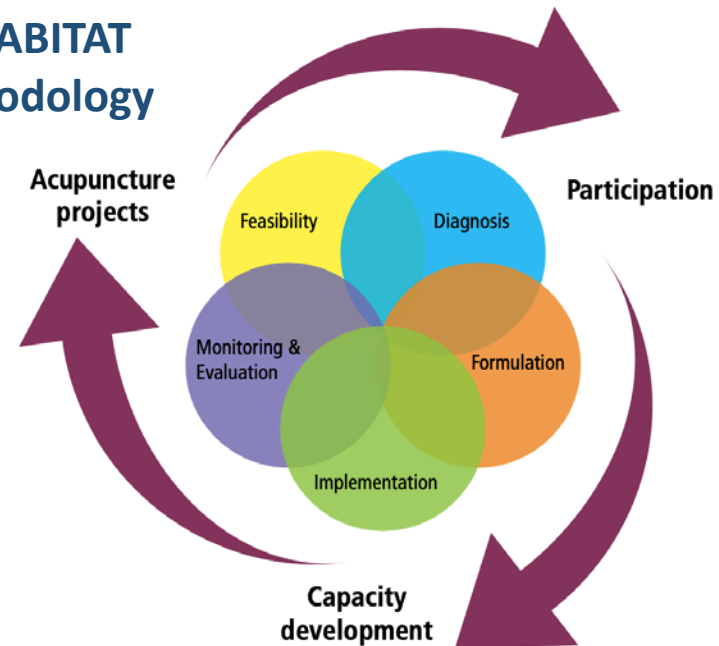
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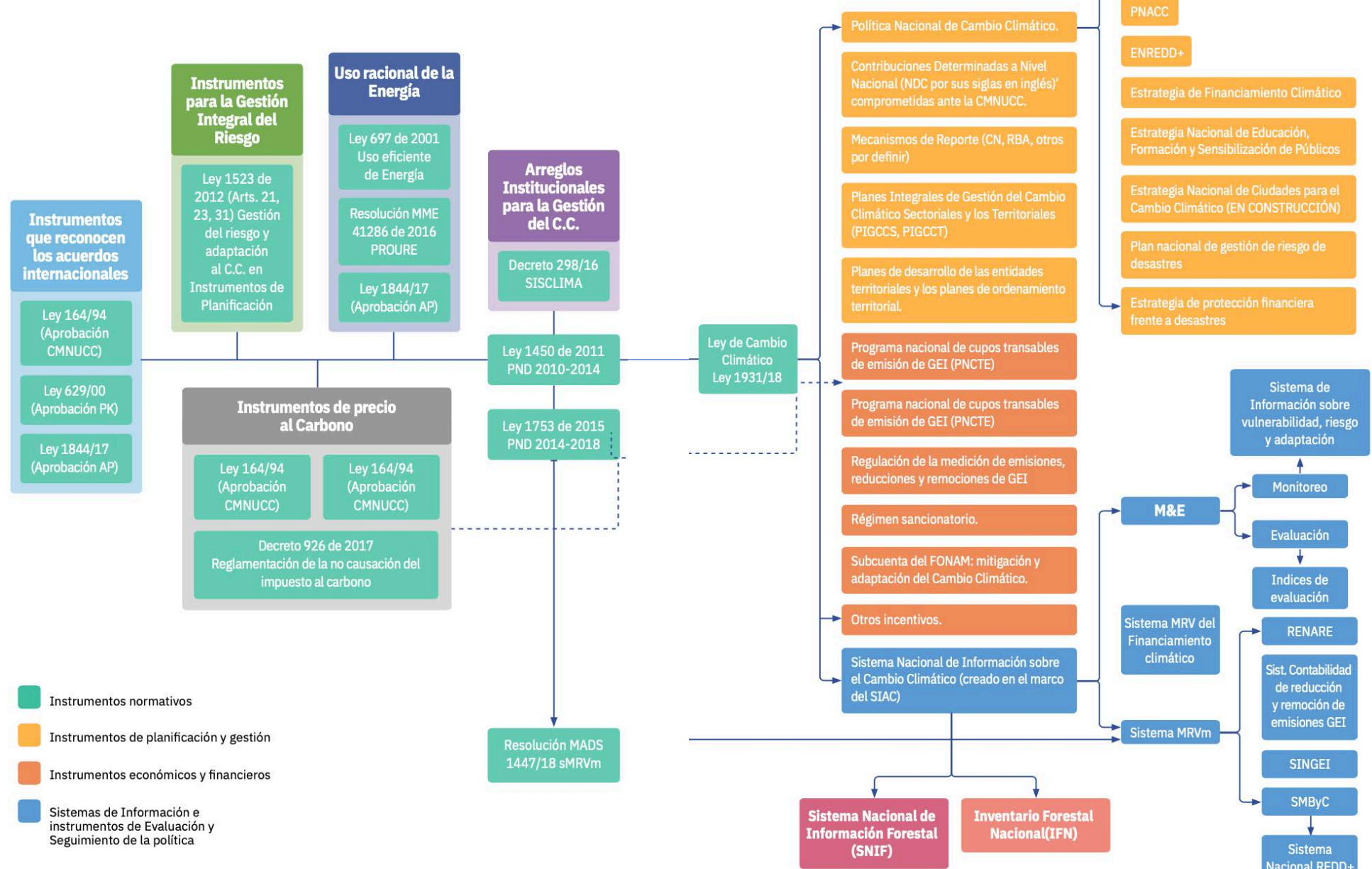
CIUDADES 4.0 - NATIONAL URBAN POLICY (NUP)

UN-HABITAT Methodology



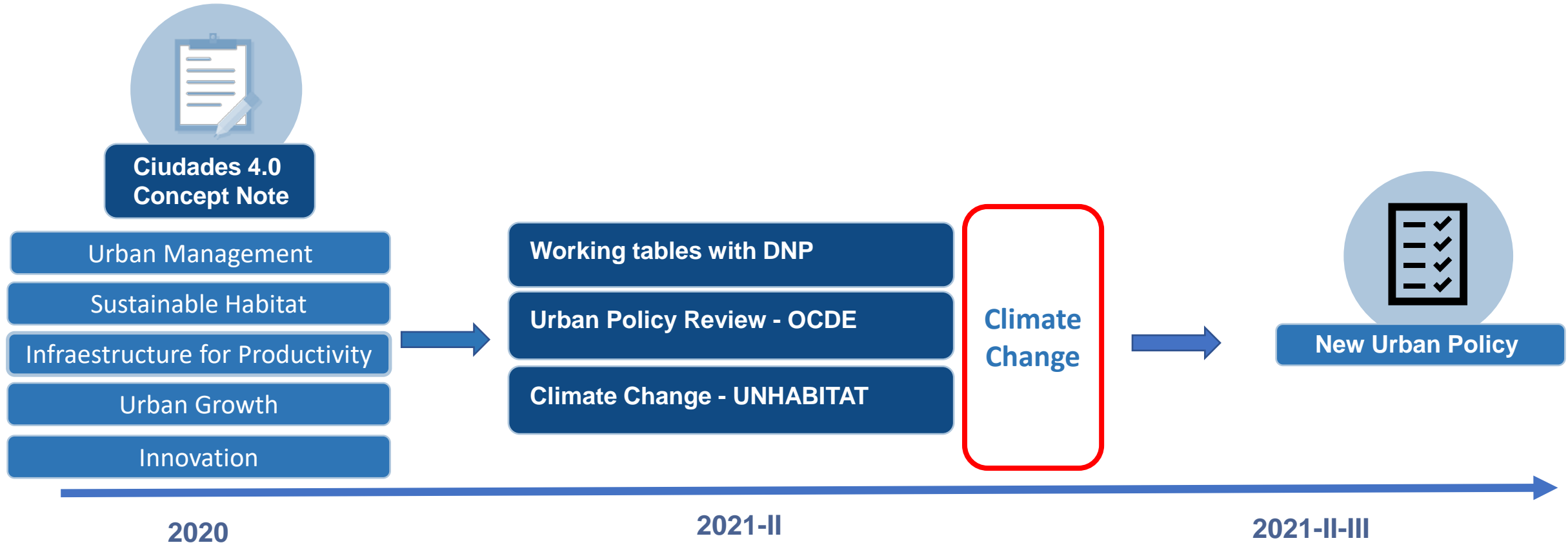
CAMBIO CLIMÁTICO

Climate Change Framework



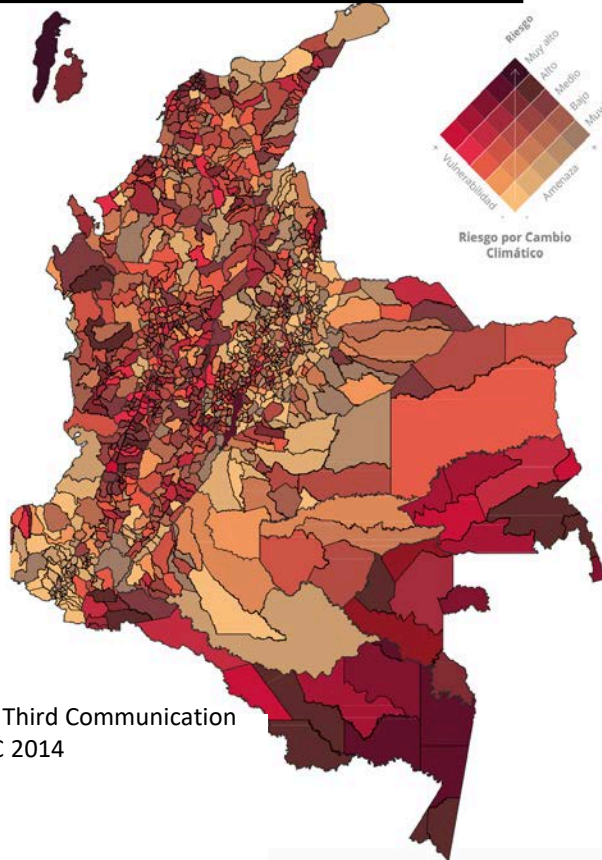
- Instrumentos normativos
- Instrumentos de planificación y gestión
- Instrumentos económicos y financieros
- Sistemas de Información e instrumentos de Evaluación y Seguimiento de la política

Current State of the Process



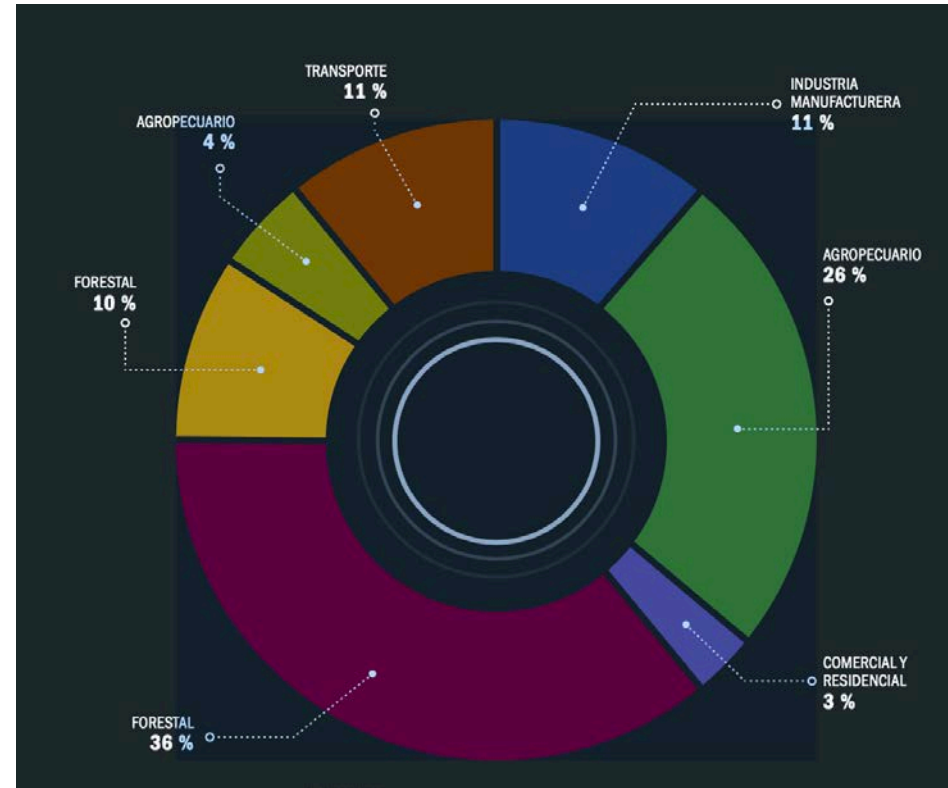
Why mainstreaming climate change into the NUP?

Geographic Distribution of Risk



Source: Third Communication UNFCCC 2014

GHG emissions by Sector (2014)



Source: Third Communication UNFCCC 2014

The total estimated direct GHG emissions for this year were **236,973 Gigagrams of CO₂**.

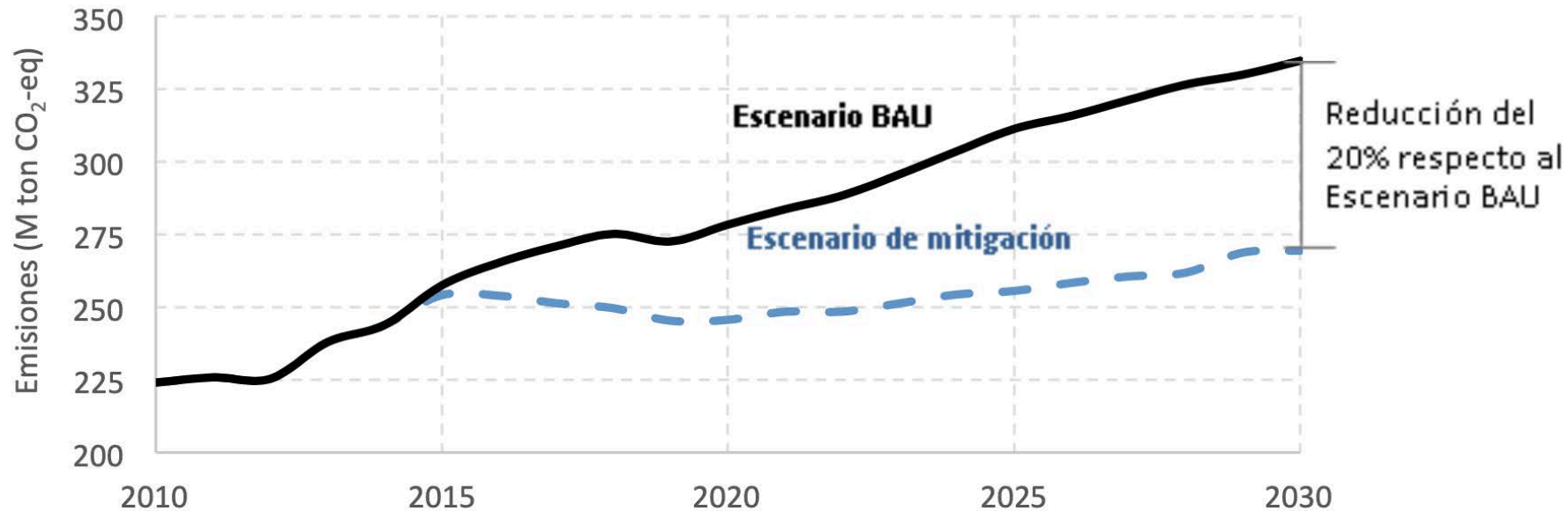
Estimated CO₂ removals were -22,659 Gigagrams CO₂eq, mostly by forest lands. **Consequently, net emissions (net balance) for 2014 were 214,315 Gg of CO₂eq**

- Climate Change represents high economic, social and cultural impacts for the country
- Colombia is highly vulnerable to climate change, through El Niño, La niña and other phenomena
- Forestry (36%), Agriculture (26%), Residential and Transport (14%), are the sectors that emit higher concentrations of GHG. Residential sector- one of the most affected
- Impacts on human health, regional competitiveness...



Why mainstreaming climate change into the NUP?

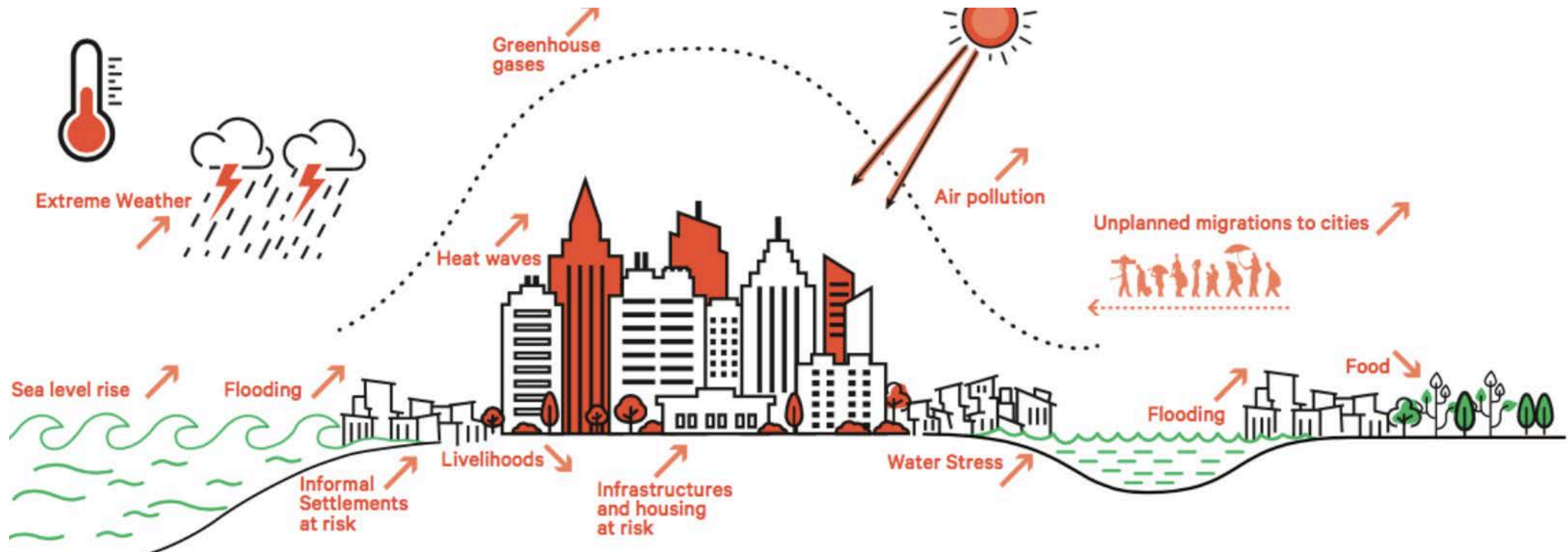
LIMITING GLOBAL WARMING TO 1.5 TO 2.0C WILL REQUIRE FAR REACHING TRANSITIONS IN CITIES IN THE COMING TWO DECADES



According to its recent NDC submission, Colombia will produce a maximum of 169.44 million tons CO₂ eq in 2030 (equivalent to a 51% reduction in emissions) 2027 – 2030 Carbon Neutrality

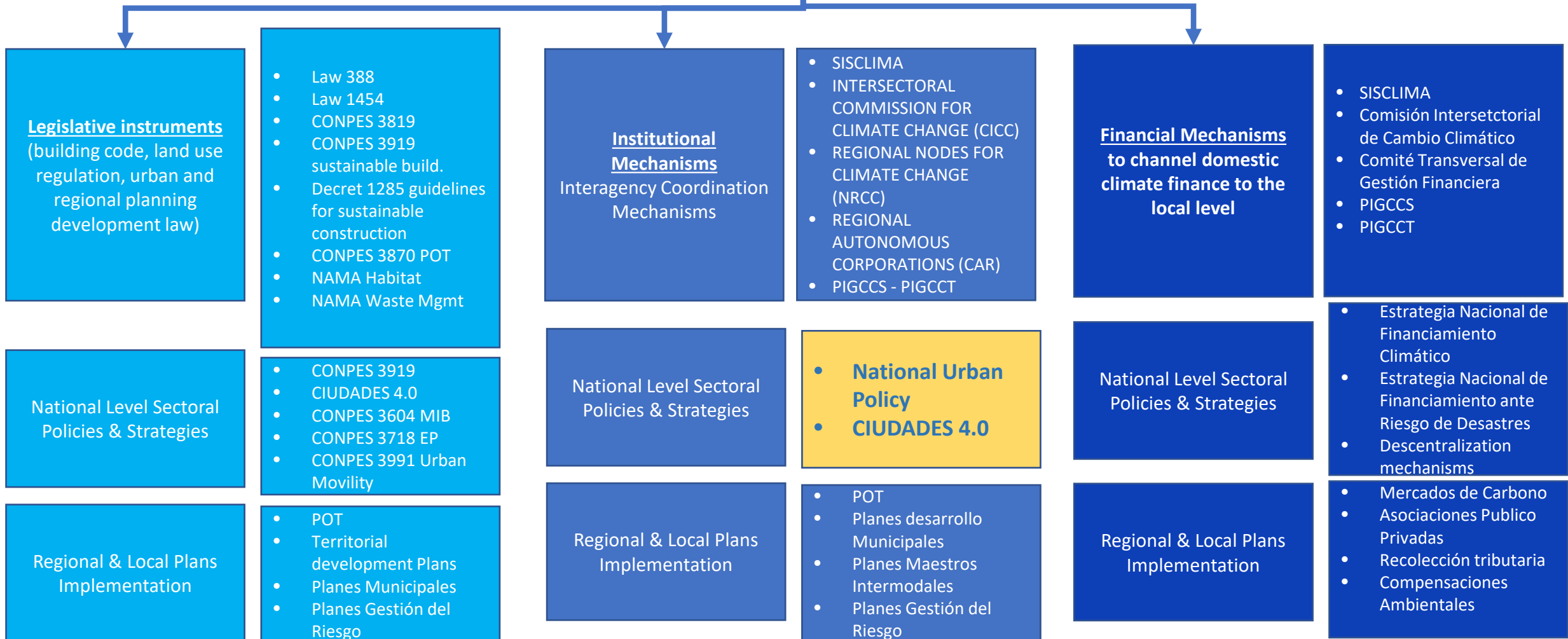
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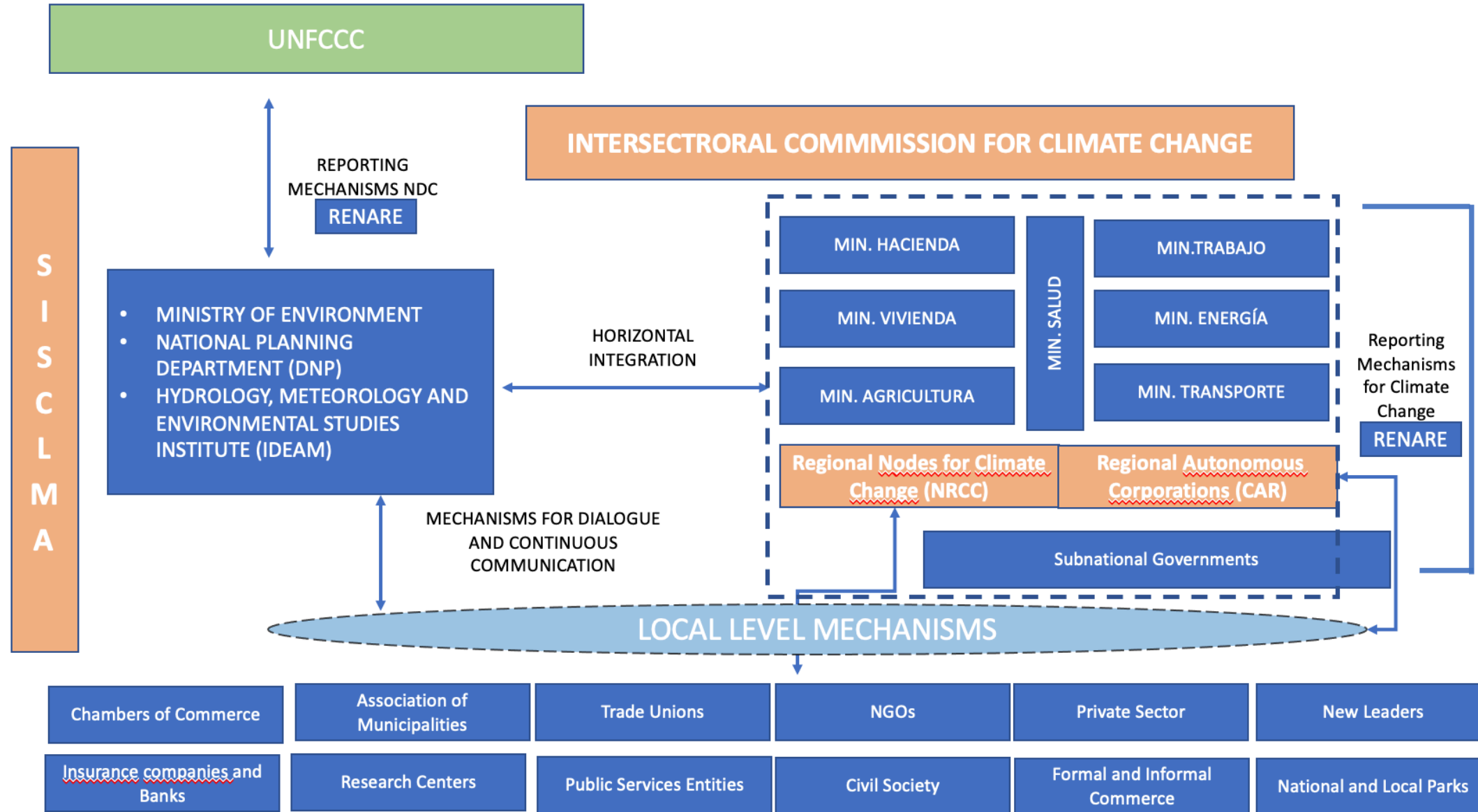


Climate Action – Urban Policy

Climate Responsive National Urban Policy



Multilevel Analysis



The importance of planning instruments in the climate change management



Fuente: Elaborado por los autores.

Source: DNP, MINAMBIENTE, IDEAM SNGRD, UNGRD. (2016) “Plan nacional de Adaptación al Cambio Climático: Líneas de Acción Prioritarias para la adaptación al cambio climático en Colombia”

Law 1931 Guidelines for Climate Change Management

- ART. 7 - Incorporate C.C. Management in POT
- ART. 10 - CAR – Integrate climate change strategies in POT
- ART. 13 - Jan, 2020 - POT should incorporate C.C. criteria
- Art. 14 - Climate Change management
- Art. 19 - PIGCCT - POT

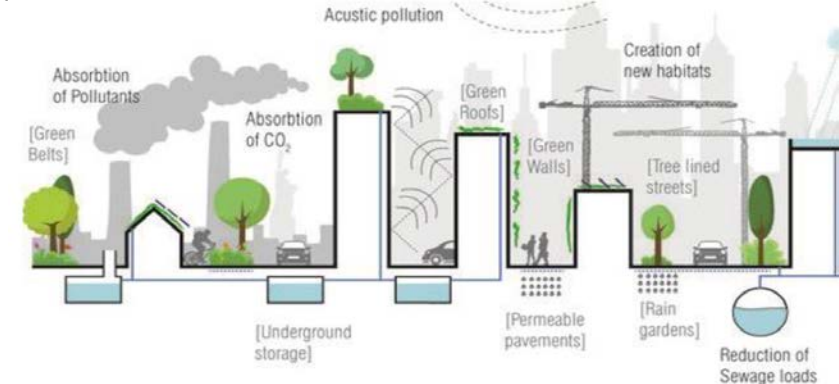
Diversity ok knowledge

HARMONIZATION

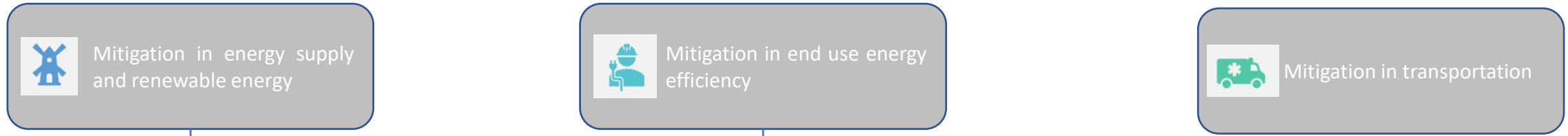
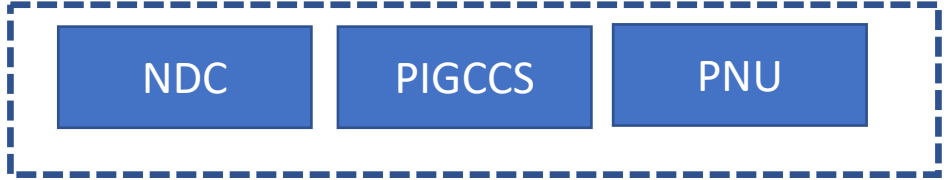
	Gestión Ambiental Regional	Planificación ambiental	Planificación territorial	Gestión del riesgo de desastres
NACIÓN		Planes Estratégicos de Macrocuencas (1:500.000)		PNGRD y estrategia nacional para la respuesta a Emergencias ²²
REGIÓN	Plan de Manejo de Áreas Naturales Protegidas-PM	POMCA (Subzonas hidrográficas o nivel subsiguiente)-POMIUAC (Escala: 1:25.000 1:100.000)	Plan Estratégico Metropolitano de Ordenamiento Territorial	Planes Distritales de Gestión del Riesgo y estrategia de respuesta
DEPARTAMENTO	PGAR –PAC-Instrumento de SyE (SIAC-SIPGA) PM de Áreas Naturales Protegidas	PMA de Microcuencas y Acuíferos	Planes de Ordenamiento Departamental	PDGR y estrategia de respuesta
MUNICIPIO	Planes de Manejo de Áreas Protegidas	PMA de Microcuencas 1:10.000	POT, PBOT, EOT (rural: 1:25.000 urbano: 1:10.00, 1:2.000)	PMGR y estrategia de respuesta

Fuente: Elaborado por los autores con base en L.388/1997, L.1454/2011 L.1625/2013, D. 1640/2012, D. 1120/2013, D. 1200/2004, D. 2372/2010, D. 1076/2015, L. 1523/2011, y D. 1807/2014.

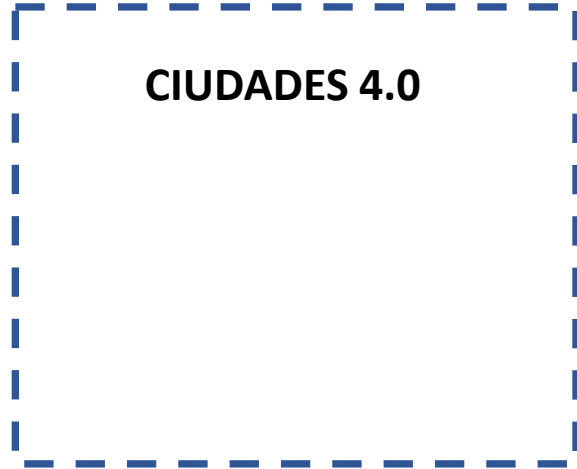
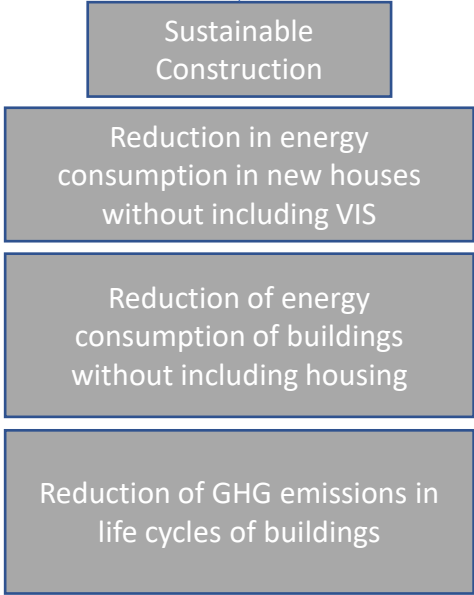
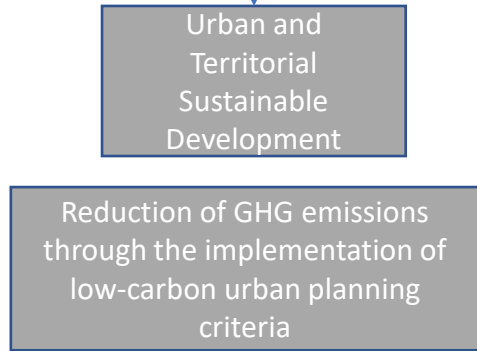
Source: DNP, MINAMBIENTE, IDEAM SNGRD, UNGRD. (2016) “Plan nacional de Adaptación al Cambio Climático: Líneas de Acción Prioritarias para la adaptación al cambio climático en Colombia”



Mitigation



INTEGRAL MANAGEMENT PLAN FOR SECTORAL CLIMATE CHANGE (PIGCCS)



UNHABITAT RECOMMENDATIONS


- Support the development of local level plans and strategies to reduce greenhouse gas emissions.
- Increasingly obtain energy from low-carbon and renewable sources.
- Encourage research in the renewable sector and innovative solutions.


- More sustainable design and construction of new buildings, and retrofitting of existing buildings.

- Encourage development patterns that are more conducive to reduce emissions, including by minimizing travel distances.
- Promote more sustainable modes of transportation.

Mitigation



 Mitigation in land use, land use change and forestry & agriculture

 Mitigation in solid waste and waste water

INTEGRAL MANAGEMENT PLAN FOR SECTORAL CLIMATE CHANGE (PIGICCS)

Urban and Territorial Sustainable Development

EEP protection and reduction of deforestation through specific criteria for land use

Reduction of GHG emissions in developments of informal origin

Integral Management of Solid Waste

Biological mechanical treatment systems (TMB)

Recycling and composting

Systems for burning biogas in landfills

NAMA Municipal Solid Waste

Integral Management of domest. wastewater

Biogas conduction, capture and burning systems

Biogas conduction, capture and burning systems

Management Systems for the use of Biogas in in WWTP

Increased coverage of domestic wastewater treat.

Deforestation reduction and control

Sources of protection for aqueducts through PSA, reforestation and restoration

Sources of protection for aqueducts through PSA, reforestation, etc.

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Compensation in the increase of forest mass
Aqueducts sewers and landfills

UNHABITAT RECOMMENDATIONS

- Make municipal management of solid waste and wastewater more sustainable.
- Initiate **community- led waste segregation** and collection.
- Innovate **waste-to-energy** solutions.

Adaptation



Research into the risks associated with the impacts of climate change

Local-level climate change vulnerability assessments that include an analysis of climate resilience and adaptive capacity

Integrate disaster risk reduction with climate change adaptation. Promote the mapping of hazards, including climate related hazards

INTEGRAL MANAGEMENT PLAN FOR SECTORAL CLIMATE CHANGE (PIGCCS)

CIUDADES 4.0

CIUDADES 4.0

Risk management for Adaptation

Reuse of treated wastewater

Management of supplying basins

Early warning Systems to reduce hydro climatological events provision of public services

Strategy to increase reuse of treated domestic wastewater

Strategy for the conservation and protection of priority supply basins

Strengthening technical capacities – guidelines

Strategy to increase reuse of treated domestic wastewater

Sustainable Drainage Urban Systems (SUDS)

CIUDADES 4.0
Food security
Transport and logistics



Adaptation



Plan human settlements, regulate land use and provide critical infrastructure and services in a way that takes into account risks and build resilience

Prioritize actions that reduce health risks and build the resilience of vulnerable and marginalized communities

Encourage regional planning, including a strategy for coastal areas, to protect ecosystems and avoid 'mal-adaptation'

Promote the protection and restoration of ecosystems and natural buffers. Promote nature-based solutions

INTEGRAL MANAGEMENT PLAN FOR SECTORAL CLIMATE CHANGE (PIGCCS)

Human settlements less vulnerable

Recovered areas

Climate resilient Territorial Development

Resilient Housing

Guidekines for adaptation in high mitigable risk zones

Definition and legal and technical tools for Non-mitigable risk areas

Definition of adaptation guidelines to climate change articulated with DRM - POT

Definition of adaptation criteria applicable to new buildings - cost-benefit analysis

Awareness raising and outreach strategies to introduce adaptation plans in high risk zones

Technical support to territorial entities in the implementation of legal instruments

Technical support for prioritization of adaptation measures in POT

Socialization criteria - new buildings

Formulation of programs in priority municipalities

Support in formulating and implementing projects to reduce vulnerability – local level

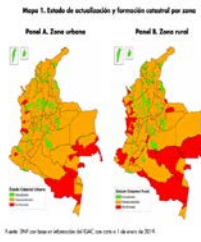
Design and construction of buildings with C.C. elements

CIUDADES 4.0

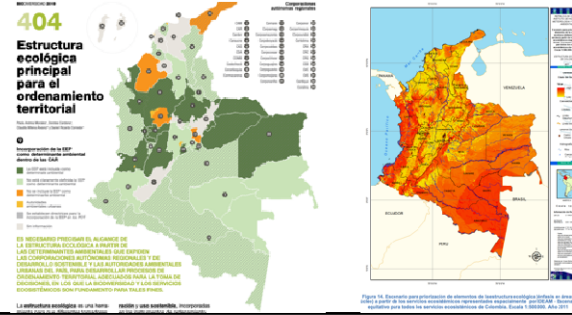
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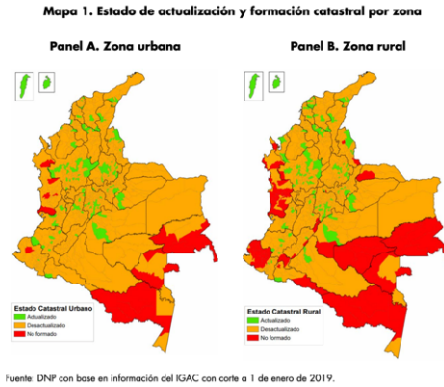
Principal Ecological Structure (EEP) – Cadastre – Risk Mapping



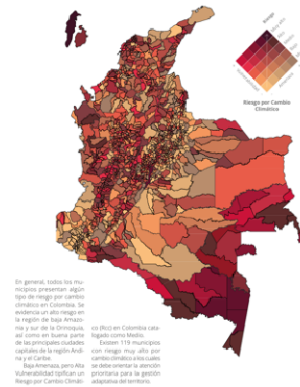
Principal Ecological Structure as an important instrument within POT and other planning instruments.



Cadastre's update across the country



Risk mapping



Initial recommendations

Actions	Legal and Institutional Considerations
Develop guidelines, handbooks and all the necessary material on time to strengthen local capacities for adaptation and mitigation actions. Consider the creation of a Knowledge Management Institution that coordinates and facilitates continuous materials and training	Política Nacional de Ciencia e Innovación para el Desarrollo Sostenible (Libro Verde)
Continuous technical support will be necessary to incorporate climate change aspects in the <u>Land Use Plans (POT) and all existintg planning instruments.</u>	Law 1454, 2011; Law 152, 1994; Law 1962, 2019; CONPES 3870;
Develop more research and cooperation frameworks with research centers / New agreements to produce more data and information to take better decisions	Law 1931, 2018; Política Nacional de Ciencia e Innovación para el Desarrollo Sostenible (Libro Verde)
Increase vulnerable assessment studies, identifying risks and adaptive capacities at the local, regional and national level	Law 1523, 2012; Law 1931, 2018; Law 1444, 2011;
Although the water and sanitation sector has mainstreamed DRM in their adaptation strategies, it is still necessary to mainstream specific DRM actions in infraestructure for productivity, urban growth, transport, and urban management	Law 1523, 2012; Law 1931, 2018; Law 1523 of 2012

A wide-angle photograph of a city skyline at sunset. The sky is filled with soft, golden light and scattered clouds, transitioning from a pale yellow near the horizon to a deep teal at the top. Several high-rise buildings are visible, including a prominent one with a tall antenna on its roof. The overall mood is peaceful and appreciative.

Thank you!

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