

# National Climate Change Mitigation Plan (PLANMICC) Ecuador 2024-2070

## Executive Summary



Implementada por  
giz



Ministerio del Ambiente,  
Agua y Transición  
Ecológica

# National Climate Change Mitigation Plan (PLANMICC), Ecuador 2024-2070

Ministry of the Environment, Water, and Ecological Transition, July 2024

Daniel Noboa Azín

**President of the Republic of Ecuador**

Sade Fritschi Naranjo

**Minister of the Environment, Water, and Ecological Transition**

Edgar Heredia Salazar

**Vice Minister of the Environment**

Ángel Sandoval Torres

**Undersecretary of Climate Change**

Leonardo Jaramillo Sánchez

**Director of Climate Change Mitigation**

## Produced by

Ministry of the Environment, Water and Ecological Transition (MAATE)  
[www.ambiente.gob.ec](http://www.ambiente.gob.ec)

## Financed by

French Development Agency (AFD)

## Other financial contributions

German International Technical Cooperation (GIZ)

Global Green Growth Institute (GGGI)

British Embassy in Quito, UK Government

## Managed by

Environmental and Sustainable Investment Fund (FIAS)

## Suggested appointment

MAATE. (2024). *National Climate Change Mitigation Plan (PLANMICC), Ecuador (2024-2070)*. Ministry of the Environment, Water, and Ecological Transition. Quito, Ecuador.



Ministerio del Ambiente,  
Agua y Transición  
Ecológica



### **Technical review team of the Undersecretary of Climate Change - MAATE**

Fernanda Bravo Palacios, Daysy Cárdenas Bautista, Félix Ricardo Charvet Maldonado, Santiago Cortés Delgado, Julián Estrella López, Guillermo Fernández Suárez, Jéssica Gallegos Yaruquí, Andres Goyes Godoy, Mario Heredia Salgado, Paúl Melo Pérez, Dominique Tapia Díaz, Ronny Tarira Albán

### **Technical team of the National Climate Change Mitigation Plan (PLANMICC)**

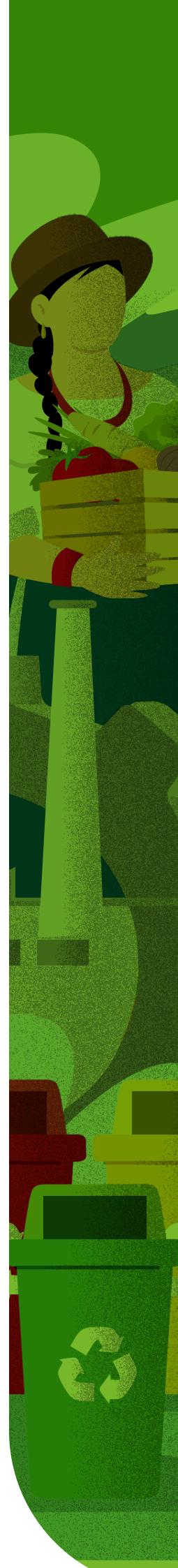
Fernando Granizo Murgueytio, PLANMICC coordinator  
María Belén Valdiviezo Armijos, Financial specialist  
Verónica Guayanlema Córdova, Energy specialist  
Sandra Barriga Curillo, Agriculture specialist  
Marco Vinuesa Espinel, LULUCF specialist  
Esteban Oviedo Costales, Waste and Industrial Processes specialist  
María Gabriela Mesías Zambrano, Legal specialist  
María Soledad Salvador Zamora, Economic specialist  
Ana Cristina Poma Eras, Social and Gender specialist  
Carolina Albán Andrade, Communication specialist

### **Style, design, and layout correction**

AQUATTRO

### **Allies:**

Ministerio de Energía y Minas (MEM), Ministerio de Producción, Comercio Exterior, Inversiones y Pesca (MPCEIP), Ministerio de Agricultura y Ganadería (MAG), Ministerio de Economía y Finanzas (MEF), Ministerio de Transporte y Obras Públicas (MTOP), Ministerio de Relaciones Exteriores y Movilidad Humana (MREMH), Ministerio de Desarrollo Urbano y Vivienda (MIDUVI), Ministerio de Salud Pública (MSP), Ministerio de Educación (MINEDUC), Ministerio de Turismo (MINTUR), Ministerio de Defensa Nacional (MIDENA), Secretaría Nacional de Planificación (SNP), Secretaría Nacional de Ciencia, Tecnología e Innovación (SENESCYT), Servicio Nacional de Contratación Pública (SERCOP), Secretaría Nacional de Gestión de Riesgos (SNGR), Policía Nacional del Ecuador, Consejo de Gobierno de Régimen Especial de Galápagos (CGREG), Embajada de Francia, Embajada de Corea, Universidad San Francisco de Quito (USFQ), Universidad de Costa Rica (UCR), Instituto de Altos Estudios del Ecuador (IAEN), Asociación de Municipalidades Ecuatorianas (AME), Consorcio de Gobiernos Autónomos Provinciales del Ecuador (CONGOPE), Gobiernos Autónomos Descentralizados Provinciales de Azuay, El Carchi, Esmeraldas, Guayas, Imbabura, Loja, Los Ríos, Manabí, Napo, Orellana, Pastaza, Pichincha, Santa Elena, Santo Domingo de los Tsáchilas, Sucumbíos, Tungurahua, Zamora Chinchipe; Gobiernos Autónomos Descentralizados Municipales de Alausí, Ambato, Arajuno, Balao, Carlos Julio Arosemena Tola, Cascales, Cayambe, Chaguarpamba, Chone, Colta, Coronel Marcelino Maridueña, Cuenca, Cuyabeno, Echeandía, El Empalme, El Pangui, Flavio Alfaro, Girón, Gonzalo Pizarro, Gonzanamá, Guamote, Huaquillas, Ibarra, Jipijapa, La Concordia, Lago Agrio, Latacunga, Limón Indanza, Manta, Mejía, Nangaritza, Olmedo, Paján, Palanda, Paquisha, Pasaje, Pastaza, Pedernales, Penipe, Pimampiro, Piñas, Portovelo, Puerto López, Putumayo, Rumiñahui, San Miguel de los Bancos, Santa Ana, Santa Rosa, Santo Domingo de los Tsáchilas, Sozoranga, Sucumbíos, Tena, Tulcán, Yaguachi, Subsecretaría de Patrimonio Natural / Dirección de Bosques - MAATE, Subsecretaría de Calidad Ambiental / Proyecto GRECI - MAATE, Subsecretaría de Agua Potable, Saneamiento, Riego y Drenaje / Dirección de Riego y Drenaje - MAATE, Sistema Nacional de Monitoreo de Bosques, Empresa Pública Municipal Mancomunada de Aseo Integral de los Cantones de Patate y Pelileo (EMMAIT EP), PROAmazonía, Fondo para la protección del Agua (FONAG), Banco Mundial, Banco de Desarrollo del Ecuador B.P., Banco Central del Ecuador (BCE), Instituto Nacional de Investigaciones Agropecuarias





(INIAP), Agencia de Regulación y Control Fito y Zoonosanitario (AGROCALIDAD), Agencia Nacional de Tránsito (ANT), Oficina de Investigación de Accidentes de Tránsito (OIAT CTE), Secretaría de Movilidad de Quito, Instituto Nacional de Estadística y Censos (INEC), Instituto Interamericano de Cooperación para la Agricultura (IICA), Agencia de Regulación, Control de Electricidad y Recursos No Renovables (ARCERNNR), Agencia de Regulación y Control de Energía y Recursos Naturales No Renovables (ARC), Instituto de Investigación Geológico y Energético (IIGE), Corporación Eléctrica del Ecuador (CELEC EP), Corporación Nacional de Finanzas Populares y Solidarias (CONAFIPS), Operador Nacional de Energía (CENACE), Empresa Eléctrica Quito (EEQ), Petroecuador EP, Secretaría de Ambiente del DMQ, Empresa Pública Metropolitana de Gestión Integral de Residuos Sólidos (EMGIRS EP), Empresa Pública Metropolitana de Agua Potable y Saneamiento de Quito (EPMAPS), Empresa Municipal de Telecomunicaciones, Agua Potable, Alcantarillado y Saneamiento de Cuenca (ETAPA EP), Instituto Ecuatoriano del Cemento y el Hormigón (INECYC), UNACEM, HOLCIM, UCEM C.E.M., Induatenas, Corporación Financiera Nacional (CFN), Corporación Andina de Fomento (CAF), Programa de las Naciones Unidas para el Desarrollo (PNUD) / Climate Promise, Programa Mundial de Alimentos (PMA), Programa de las Naciones Unidas para el Medio Ambiente (PNUMA), Alto Comisionado de las Naciones Unidas para los Refugiados (ACNUR), Organización de las Naciones Unidas para la Agricultura y Alimentación (FAO), Organización de las Naciones Unidas para el Desarrollo Industrial (ONUDI), Iniciativa Climática México (ICM), Organización Internacional para las Migraciones (OIM), Organización Latinoamericana de Energía (OLADE), Fondo de las Naciones Unidas para la Infancia UNICEF Ecuador, Universidad Internacional del Ecuador (UIDE), Pontificia Universidad Católica del Ecuador – Sede Quito (PUCE), Universidad Central del Ecuador (UCE), Escuela Superior Politécnica del Litoral (ESPOL), Escuela Politécnica de Chimborazo (ESPOCH), Universidad de Cuenca (UC), Universidad Internacional SEK (UISEK), Escuela Politécnica Nacional (EPN), Colegio Internacional SEK, Consejo Nacional para la Igualdad de Género (CNIG), Grupo de Trabajo sobre Certificación Forestal Voluntaria (CEFOVE), Cámara de la Industrias y Producción (CIP), Consorcio Ecuatoriano para la Responsabilidad Social (CERES), Gestores Ecuador, Cámara de la Industria de la Construcción (CAMICON), ADELCA, HEIFER Ecuador, SYTSA, Global Factor, Consultora CAOS, Forest Stewardship Council - Consejo de Manejo Forestal (FSC), BYD, GMX Capital, NISSAN, Clean Air Task Force (CATF), ASAMTECH, Empresa Municipal de Aseo de Cuenca (EMAC EP), Grupo Miral, KIA Corporation, ANETA, Neo Taxi, Coalición para la Movilidad Segura, Coalición Conductores Amables, J3M, Solutionsplus, Novack EcoSolutions, Electromobility, Urban Electric Mobility Initiative (UEMI), Sur Bikes UIO, Bixicargo, Asociación Regional de Soberanía Alimentaria del Territorio Kayambi, Fundación BiciAcción Ecuador, Fundación Futuro Latinoamericano (FFLA), Fundación Cicleada por la Vida, Fundación Jocotoco, Fundación EcoCiencia, Fundación Ecogestión, Fundación ACRA, Fundación Oceanids Ecuador, Corporación de Manejo Forestal Sustentable (COMAFORS), Consorcio para el Desarrollo Sostenible de la Ecoregión Andina (CONDESAN), VEOLIA Environment S.A., ReciVeci, RENAREC, Fundación 2IA, Industrias GRAIMAN S.A., PRONACA, TONICORP, ARCA Continental, EBE, GIRA, Corporación La Favorita, QUIFATEX, QUIPORT, INVENTAGRI, TRITUBOT, Barrio Quito Tennis, Grupo Miral, Elemento, Finca La Esperanza, Organización Internacional del Bambú y Ratán (INBAR), Carishinas Bici, Banco Procredit, Produbanco, Banco Internacional, ENYA Limited, Propalma S.A., Asociación de Empresas Automotrices del Ecuador (AEADE), Centro Kichwa “Río Guacamayos”, MANTHRA Comunicación.





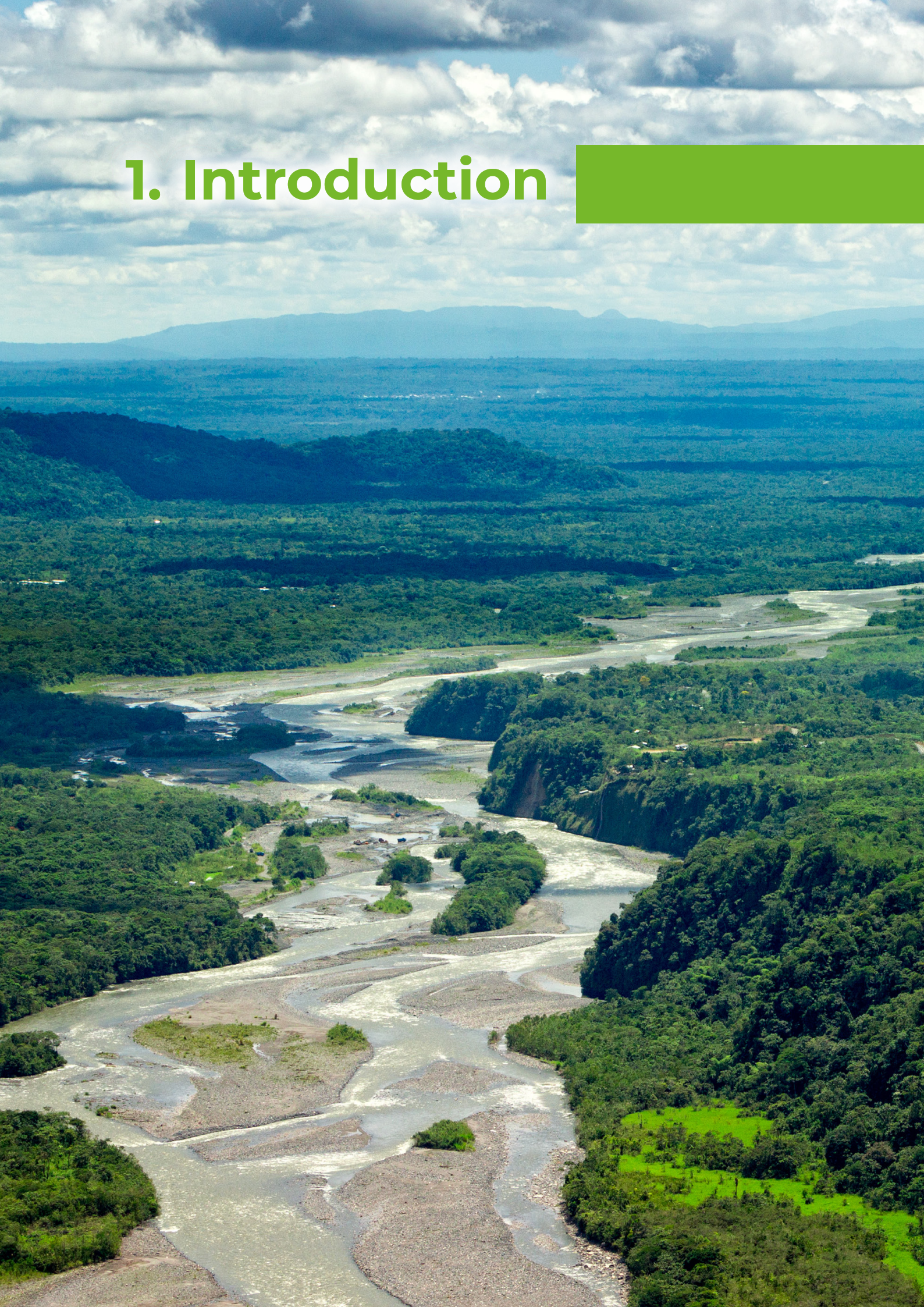
# Table of Contents



<b>1. Introduction</b>	<b>3</b>
<b>2. Vision</b>	<b>5</b>
<b>3. Climate Commitment 2070</b>	<b>9</b>
3.1 Course of action	11
3.2 Issuance goals and trajectories by sector	15
<b>4. Action plan</b>	<b>19</b>
4.1 Governance	19
4.2 Financing	20
4.3 Enabling frameworks	23
4.4 Social and gender strategy	24



# 1. Introduction







Climate change, driven by greenhouse gas (GHG) emissions from human activities, represents one of the greatest challenges for humankind. Since the Industrial Revolution, our reliance on fossil fuels, coupled with the inefficient, inequitable, and unsustainable management of energy, water, and land resources, has exacerbated these emissions. The problem is further complicated by lifestyles and production and consumption patterns that are heavily dependent on energy and materials, alongside rapid population growth.

The global climate is essential in maintaining planetary balance, on which human well-being and development depend. The increase in the concentration of GHGs in the atmosphere, the main cause of climate change, threatens this vital equilibrium. If the current GHG emission rates continue, it is likely that between 2030 and 2050, the average global temperature will increase by 1.5°C compared to pre-industrial levels, thus increasing the risks to the Earth's natural balance.

Since 1994, the Ecuadorian State has been committed to global climate action when it joined the United Nations Framework Convention on Climate

Change (UNFCCC). Since becoming a member, the country has continuously advanced in planning and strengthening the legal and institutional framework for climate change management. This includes efforts to reduce GHG emissions and improve adaptation to changing climate conditions. In 2017, Ecuador ratified the Paris Agreement, which establishes long-term objectives to significantly reduce GHG emissions, limit the increase in the planet's average temperature, finance climate initiatives, and promote resilience and adaptive capacity.

The Paris Agreement, in Article 4, paragraph 19, calls on countries to formulate and communicate long-term strategies for development with low GHG emissions, respecting the principle of common but differentiated responsibilities, considering each nation's capabilities and circumstances. According to the 2018 National Greenhouse Gas Inventory (INGEI), Ecuador emitted approximately 75,300 gigagrams of a CO<sub>2</sub> equivalent, representing 0.16% of global emissions. Ecuador, classified within the group of 'Non-Annex I' (developing) countries of the UNFCCC, has established its long-term strategy for reducing emissions through the National Climate Change Mitigation Plan (PLANMICC).

“

*The PLANMICC establishes a roadmap for the country to undergo an orderly transition to development with low GHG emissions looking towards 2070.*

”

The PLANMICC establishes a roadmap for the country to undergo an orderly transition towards development with low GHG emissions through 2070. This plan includes five prioritized sectors for climate change mitigation, defined in the National Climate Change Strategy: Energy, Agriculture, Land Use, Land Use Change, and Forestry (LULUCF), Industrial Processes, and Waste. This plan has been developed through a participatory process involving representatives from the central government, subnational governments, the private sector, academia, international cooperation organizations, and civil society. The PLANMICC guides the conservation and expansion of carbon sinks, as well as the reduction of emissions in priority sectors, without harming their competitiveness and development, to build a sustainable future low in GHG emissions. In addition, it adopts a social and gender approach to guarantee a fair, equitable and participatory transition, reducing social gaps.



## 2. Vision



The long-term vision for decarbonization, established in the PLANMICC, was developed through a participatory process that included public and private institutions, academia, and social organizations, with the participation of over 600 people in eight technical workshops. This process was based on methodologies designed to define trajectories and specific actions in the five prioritized sectors. In addition, the adequate conditions necessary to achieve the proposed sectoral objectives were identified. The decarbonization vision, the result of the sectoral visions, is as follows:

By 2070, Ecuador will have made significant progress in the decarbonization of its economy, based on criteria of sustainability, ecological balance, and a fair and equitable transition. The vision of each of the sectors is as follows:



a) The **Energy** sector will have a robust regulatory framework that promotes and guarantees the use of low-impact energies throughout its life cycle, energy efficiency and sustainable mobility, especially in public transport;



b) The **Agriculture** sector will apply a legal framework and technologies that guarantee sustainable agricultural and livestock production systems, promoting the consumption of products free of deforestation, with a low carbon footprint and based on fair trade and the enhancement of family farming;



c) The **LULUCF** sector will have a legal framework and land use planning and management tools that promote the conservation and restoration of ecosystems, limiting urban and productive expansion;



d) The **Industrial Processes** sector will strengthen investments and develop capacities and technologies for the use of raw materials and products with low GHG emissions, protecting biophysical systems, such as the ozone layer;

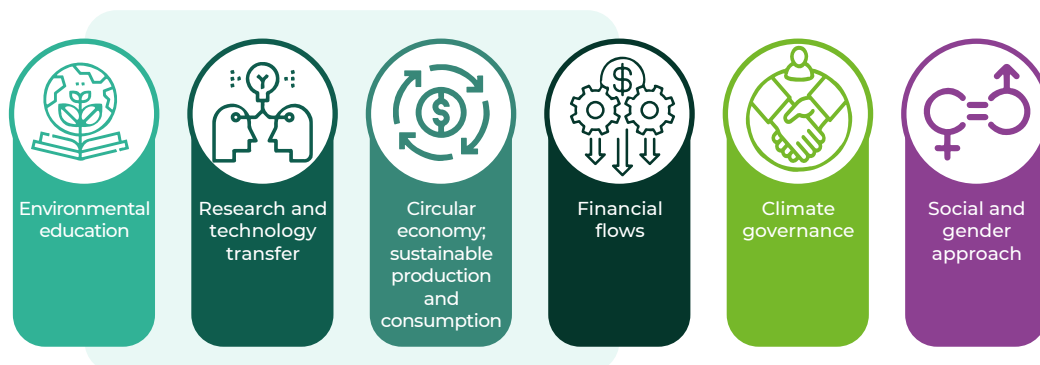


e) The **Waste** sector will have a legal framework and local plans for the comprehensive management of solid waste and sewage, achieving a significant reduction in the generation of waste and its reintegration into productive processes and energy reuse or valorization.

In Ecuador, achieving net zero emissions will be assessed in the periodic reviews of the PLANMICC, and will be subject to new commitments and actions of the different sectors and other stakeholders, as well as to the availability of international cooperation, financing, capacity development, technology transfer, and scientific collaboration.

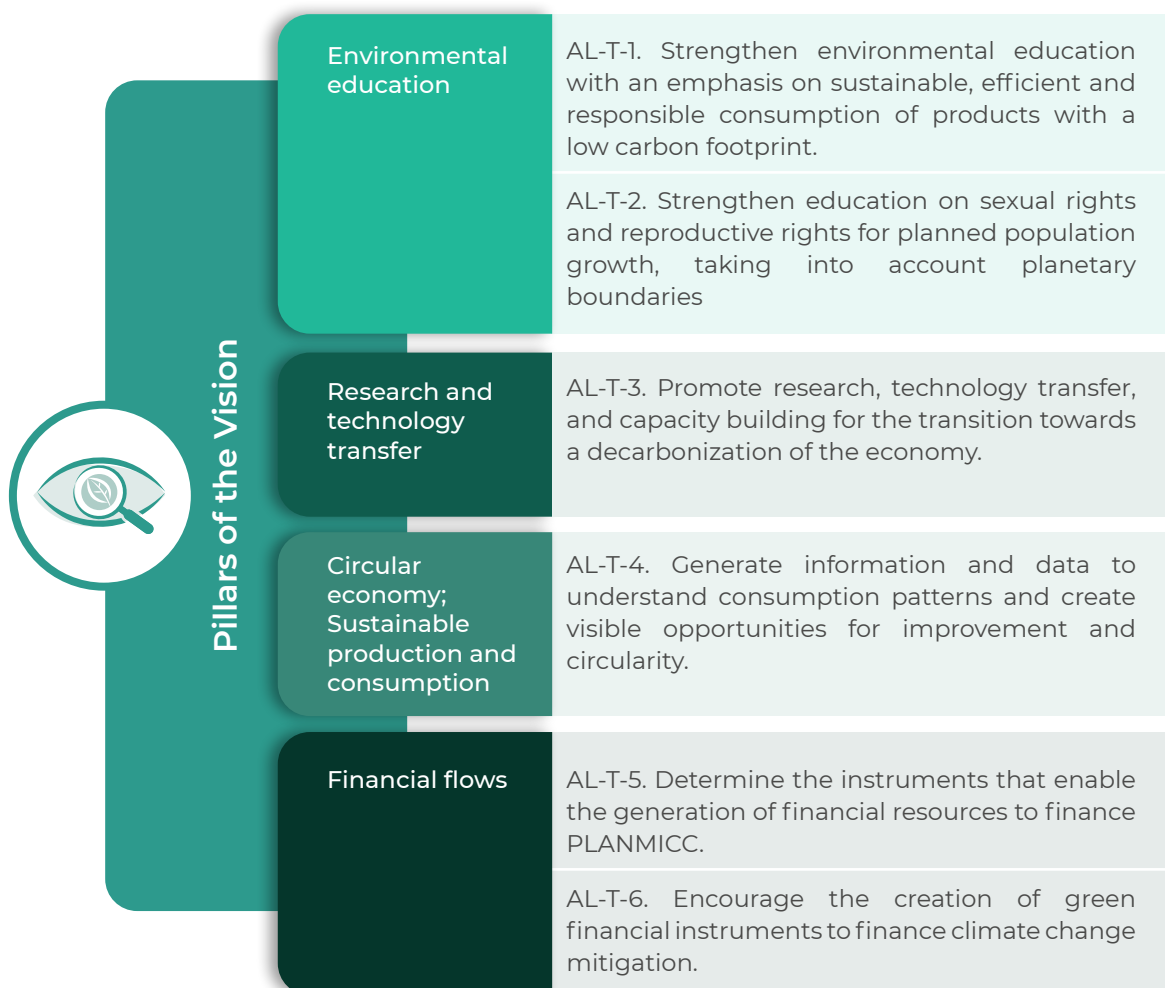


Complimentarily, six fundamental pillars were defined after identifying the necessary conditions for compliance with the general and sectoral vision of the project:



These pillars constitute the basis for inter-institutional, multi-actor, and multi-level collaboration, promoting the participation and empowerment of the population in climate change mitigation. The course of action corresponding to Pillars 1 to 4 are detailed in Figure 1, while Pillar 5 (Climate Governance) is presented as proposed strategies in Section 4.1, and Pillar 6 (Social and Gender Strategy) is presented in section 4.4. section 4.1.

**Figure 1.** Course of action based on the pillars of the Decarbonization Vision.



# 3. Climate Commitment 2070







The plausible decarbonization scenario<sup>1</sup> formulated participatively within the PLANMICC led to the creation of the “Climate Commitment Scenario 2070” (CC2070). This scenario integrates the mitigation initiatives of the five prioritized sectors, outlining specific actions, strategic objectives, indicators, goals, and enabling frameworks.

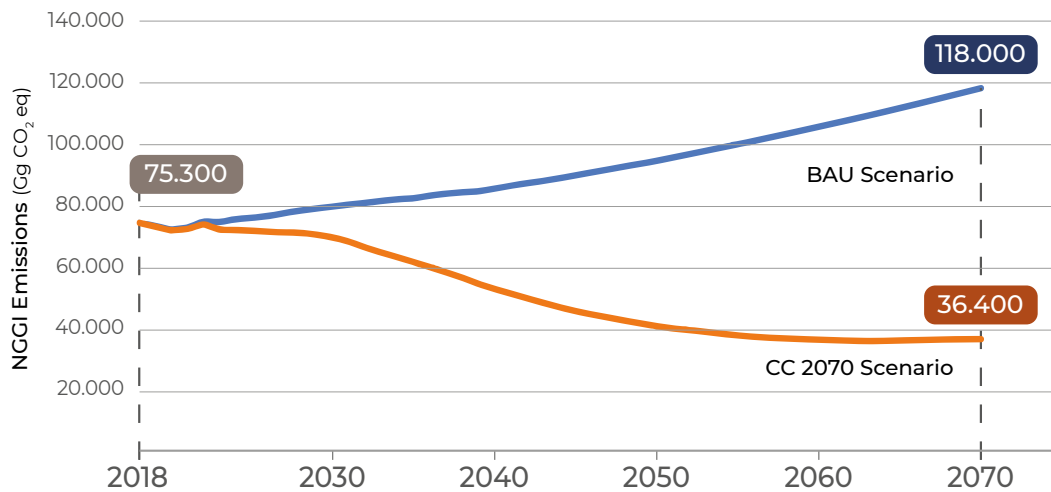
The initial development of CC2070 started from a Business as Usual (BAU) scenario, which projects the future evolution of the country’s emissions under the assumption that current policies continue without changes and no new mitigation initiatives are implemented. This base scenario includes: 1) 2018 INGEI data, 2) INEC projections of population (baseline 2010), 3) Central Bank of Ecuador estimates of GDP growth, 4) sectoral plans and policies that have been implemented or are in the process of implementation, along with data from the entities responsible for the five prioritized sectors.

Although the Paris Agreement establishes 2050 as the target year for the decarbonization of the world economy, the PLANMICC put forth that Ecuador, given its specific conditions, will not be

<sup>1</sup> A plausible scenario is one that has a balance between social, economic, and environmental variables. That is, it must be socially acceptable, economically viable, and have the greatest mitigation potential.

able to make a significant reduction in GHG emissions until 2070. With this consideration, the CC2070, which details the trajectory that the PLANMICC proposes for the gradual reduction of GHG emissions in the long term, the economic benefits, and the achievement of a sustainable future within the planetary boundaries. Figure 2 presents the comparison between the BAU scenario and CC2070.

**Figure 2.** Climate Commitment 2070 Scenario vs. BAU scenario.



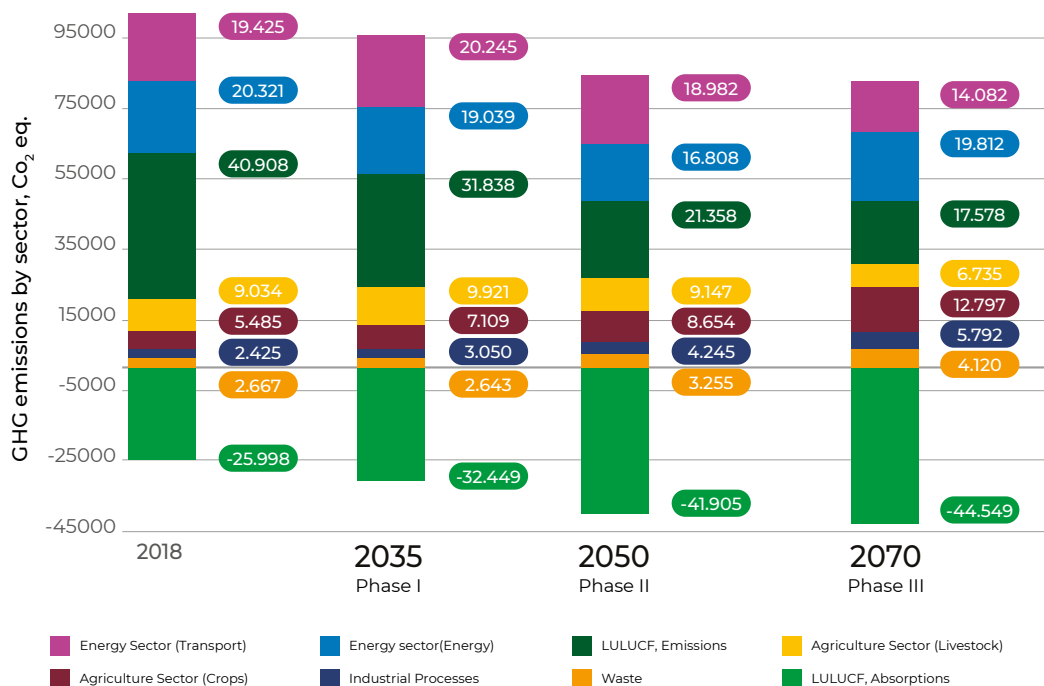
CC2070 symbolizes Ecuador's commitment as a member of the UNFCCC and signatory of the Paris Agreement to reduce and stabilize GHG levels. According to Graphic 2, if new measures are not implemented (BAU scenario), it is estimated that emissions could reach 118,000 gigagrams of CO<sub>2</sub> equivalent (Gg CO<sub>2</sub> eq) by the year 2070. In contrast, CC2070 proposes an alternative route that would limit emissions to 36,400 (Gg CO<sub>2</sub> eq) in the same year. The implementation of this scenario could result in a 70% reduction in emissions compared to the BAU scenario and a 50% reduction compared to the base year 2018.

The reduction of GHG emissions will follow a non-linear path. A slight decrease in emissions is anticipated through 2030, according to feedback from the participatory process and the collaboration of experts from various sectors. Subsequently, due to ecosystem conservation policies and their capacity as carbon sinks, emissions are expected to stabilize and then begin to steadily decrease through 2050. By 2070, emissions are expected to stabilize again, propelled by demographic and economic growth.



The emissions reduction goal established in CC2070 is based on a coordinated and continuous effort of the five prioritized sectors. The actions of each sector are aligned with the specific objectives described above (Section 2). However, emissions in the Agriculture, Waste, and Industrial Process sectors are expected to increase due to population growth, economic expansion, and increasing demand for resources. Conversely, a reduction in emissions from the Energy sector is anticipated starting in 2030. The capacity of forests to absorb CO<sub>2</sub> within the sector will be crucial in achieving emissions reduction goals. The projected emissions and removals for the five sectors through 2070 are shown in Figure 3.

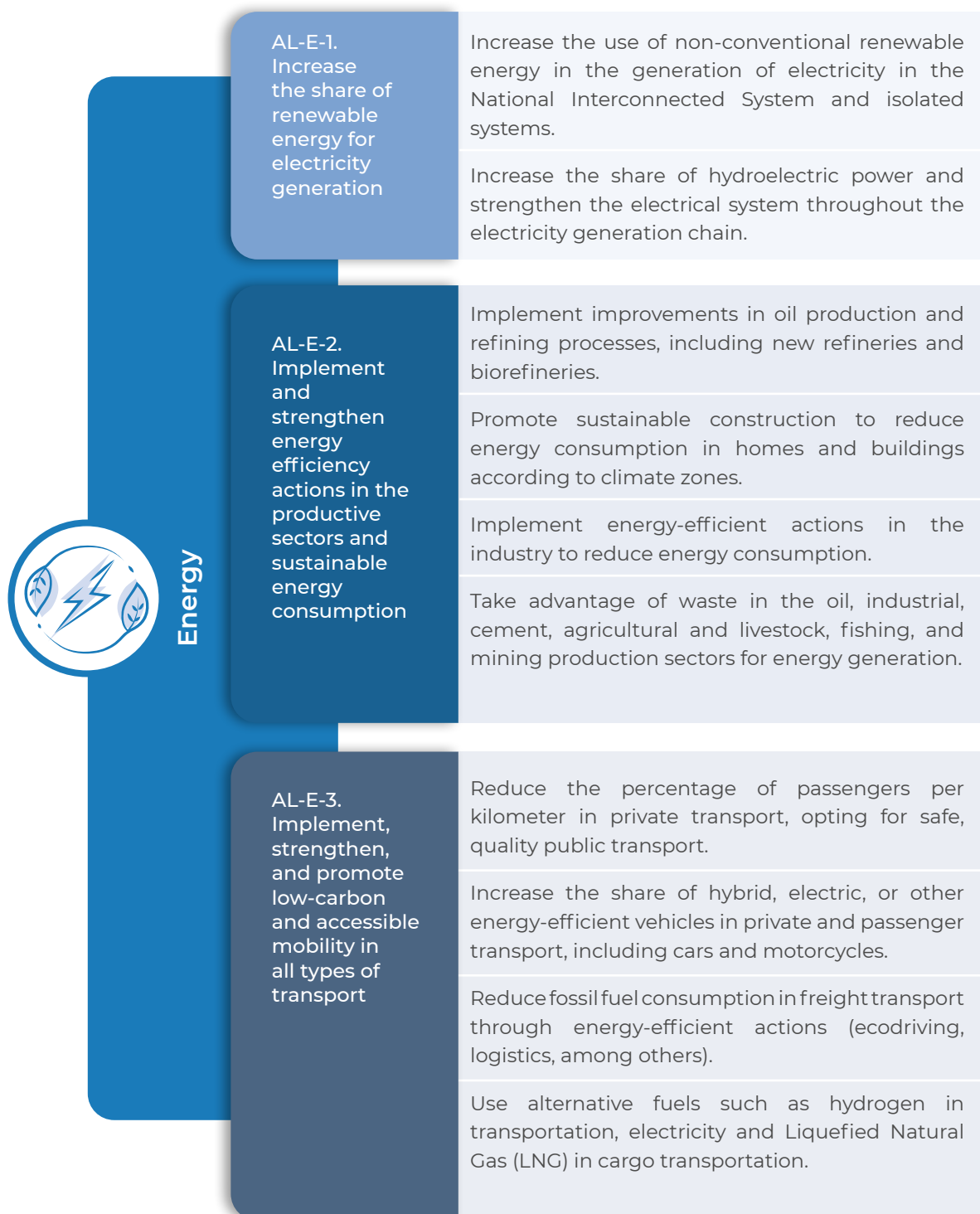
**Figure 3.** Emissions and absorptions of the five sectors prioritized for climate change mitigation by 2070



### 3.1 Course of action

The PLANMICC course of action will strategically structure the initiatives aimed at reducing greenhouse gas (GHG) emissions. This will promote the coordination, integration, and sustainability of efforts to combat climate change. Figure 4 shows the course of action for each of the five prioritized sectors.

**Figure 4.** PLANMICC course of action according to the five prioritized sectors.







## Agriculture

**AL-A-1.**  
Sustainable agricultural production systems with low greenhouse gas emissions to reduce the expansion of the agricultural borders

Reduce the expansion of the area dedicated to agricultural and livestock production by promoting sustainable and resilient intensification.

Promote the System of Rice Intensification, (SRI) by incorporating biomass into the soil, using irrigation techniques (avoiding flooding) and mechanical weed control.

Encourage the consumption of sustainable agricultural products with a low carbon footprint.

**AL-A-2.**  
Sustainable and efficient livestock farming, low in GHG emissions

Reduce emissions from enteric fermentation by implementing a low-emission sustainable livestock development model.

**AL-A-3.**  
Integrated management of soil fertility

Promote integrated soil fertility management and reduce the use of synthetic nitrogen fertilizers.



## Land Use, Land Use Change, and Forestry

**AL-U-1.**  
Implement and strengthen conservation and management strategies

Maintain and increase carbon stocks through conservation mechanisms.

Strengthen sustainable forest management.

Reduce the expansion of the area dedicated to agricultural and livestock production by promoting sustainable and resilient agricultural and livestock productivity and production.

**AL-U-2.**  
Implement and strengthen restoration strategies

Increase the national forest area through forest restoration programs.

**AL-U-3.**  
Promotion of Sustainable Commercial Forest Plantations

Reactivate, reconvert, and diversify of the Sustainable Commercial Forest Plantations.



## Industrial Processes

### AL-P-1. Reducing emissions in clinker manufacturing

Reduce GHG emissions by replacing clinker.

Progressively include industrial waste as a partial replacement for clinker in cement production.

### AL-P-2. Capacity building to promote efficient and low-emission construction

Develop innovative projects that enable the capture and use of carbon produced in the form of CO<sub>2</sub> by the cement production process.

Raise awareness on environmental issues and the reduction of GHG emissions in the industry, including substituting raw materials and implementing new technology.

Incorporate recycled material into the ceramics industry's products.

Reduce imports, promote the capture and elimination of hydrofluorocarbon (HFC) and perfluorocarbon (PFC) compounds.

Generate GHG emissions data in industrial processes.



## Waste

### AL-R-1. Comprehensive management of solid waste for climate change mitigation

Reduce per capita production of solid waste in the medium term and stabilize it in the long term.

Apply sustainable solid waste management practices through different technologies, both for organic and inorganic waste.

Completely eliminate open-air dump sites in the country.

Generate financial and technical capacities in relation to the implementation of initiatives for solid waste management with mitigation potential.

### AL-R-2. Integrated water management for climate change mitigation

Reduce per capita water consumption and increase in the volume of treated wastewater.

Promote decentralized wastewater treatment systems in rural communities.

Implement sustainable technologies for wastewater treatment.



## 3.2 Issuance goals and trajectories by sector

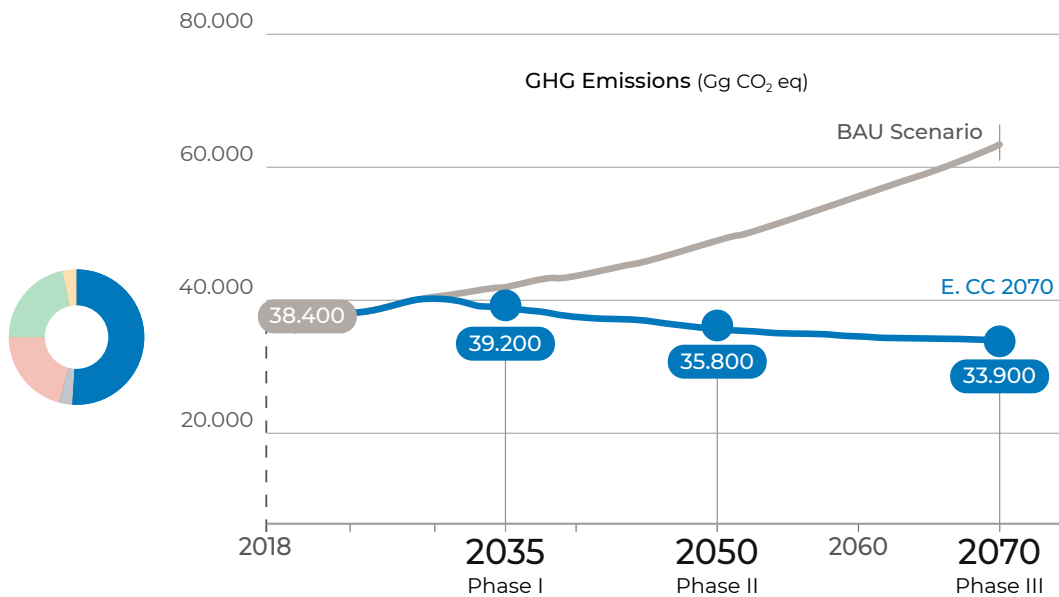
Based on the established course of action, the PLANMICC has defined sectoral goals into three phases: Phase I: 2024-2035, Phase II: 2036-2050, Phase III: 2051-2070. The graphs below illustrate GHG emissions trajectories and proposed targets for each sector.



### Energy Sector

The trend in the Energy sector is influenced by various factors, including decreasing oil production, the need for initial investments, and the time required to implement relevant actions. These factors will contribute to the reduction of GHG emissions beginning around 2030. It is estimated that the potential for emissions reduction in the Energy sector could reach 49% compared to the BAU scenario (Figure 5).

**Figure 5.** GHG emissions trajectory for the Energy sector.

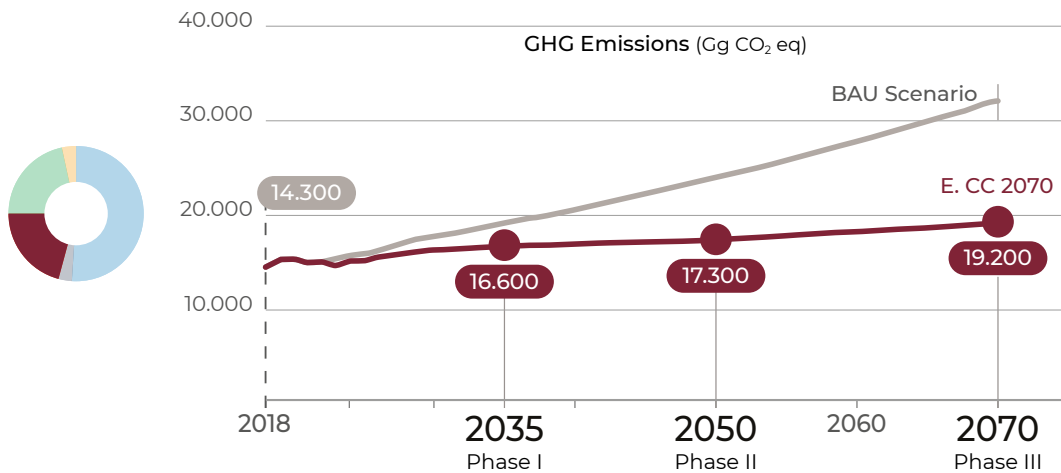




## Agriculture Sector

Through the implementation of the CC2070 scenario, a 41% reduction in emissions is expected compared to the BAU scenario. However, there is an increase in emissions relative to the base year, motivated by the need to increase food production to meet the demand of a growing population and the increase in export of sustainable agricultural products projected through 2070 (see Figure 6).

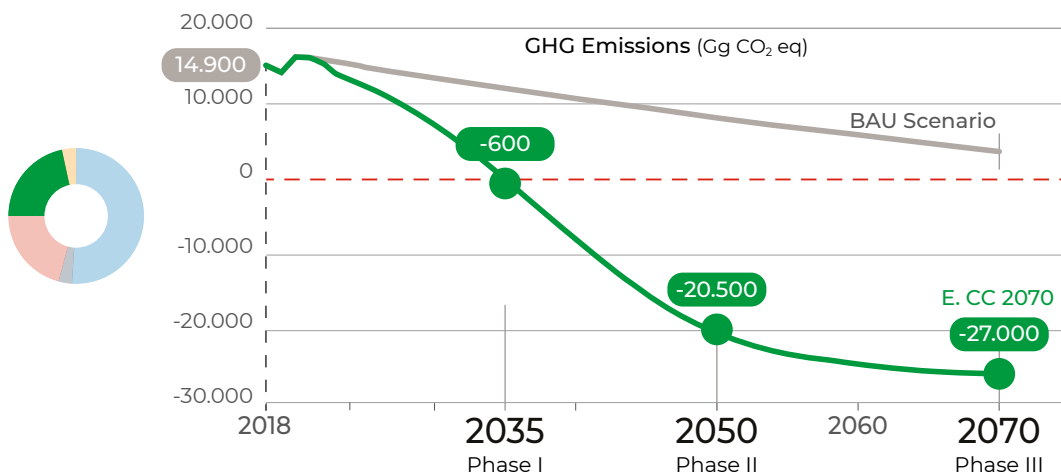
**Figure 6.** GHG emissions trajectory for the Agriculture sector.



## LULUCF Sector

In the BAU scenario, this sector continues to emit GHGs, while in the CC2070 scenario it reaches a carbon-neutral balance around 2035 due to the expansion of forest areas under conservation management. By 2070, the CC2070 scenario foresees a 40% reduction in emissions and a 71% increase in absorption compared to the trend scenario (Figure 7).

**Figure 7.** Projection of carbon emissions and absorption of the LULUCF sector: trend scenario and CC2070.



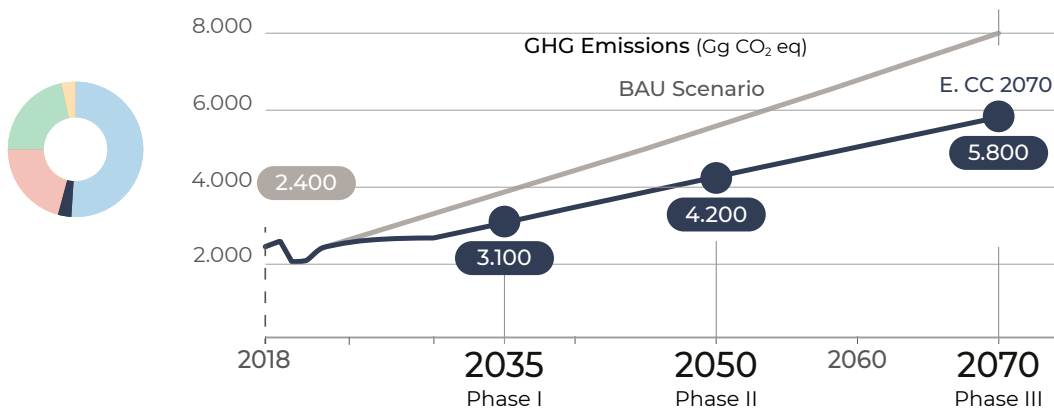




## Industrial Processes Sector

In this sector, the reduction of GHG emissions focuses fundamentally on the replacement of clinker, identified as the main GHG emitter in cement manufacturing, with materials that produce less GHG emissions. In the CC2070 scenario, a 30% decrease is projected compared to the BAU scenario (Figure 8).

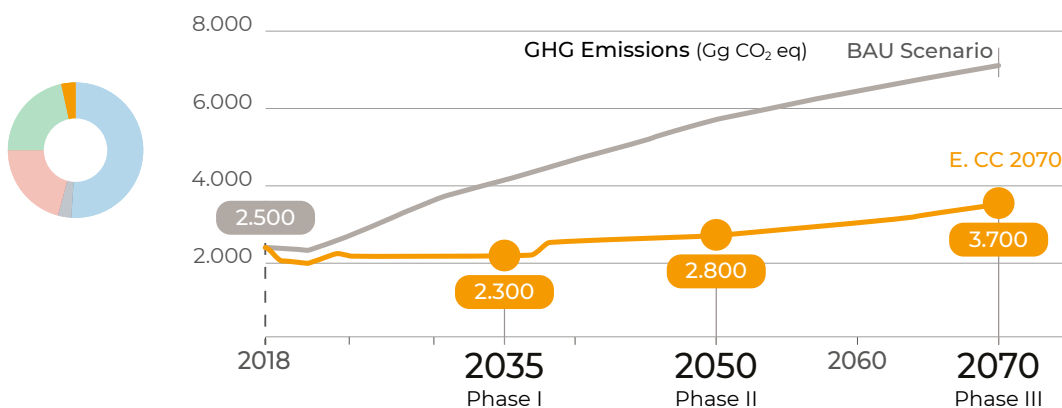
**Figure 8.** Trajectory of emissions in the Industrial Processes sector.



## Waste Sector

To establish the 2070 Climate Commitment scenario in this sector, multiple factors were considered, highlighting the precepts of the hierarchy pyramid as a central element in the comprehensive management of solid waste and sewage. The transition in this sector was planned following progressive criteria and with immediate action. Emissions in the CC2070 scenario are expected to decrease 50% compared to the BAU scenario (Graphic 8).

**Figure 9.** Trajectory of emissions in the Waste sector.



## 4. Action plan







## 4.1 Governance

The implementation of the PLANMICC is the responsibility of the State, led by the sectoral authorities, the National Environmental Authority, and the Decentralized Autonomous Governments. This implementation requires effective coordination with the private sector, academic institutions, international cooperation organizations, and civil society. Because of this, a governance model has been designed that facilitates the articulation of sectoral policies and strategies to achieve the goals established in CC2070. This model emphasizes strengthening the current legal and institutional framework, as well as developing capabilities and improving coordination and collaboration between different levels and sectors.

The proposed model includes the following strategies:

- Strengthening the entities that participate in the Interinstitutional Committee on Climate Change (CICC) to guarantee effective and continuous intersectoral and interinstitutional coordination.
- Strengthening the leadership of the CICC for inclusive and dynamic management, which will increase its representativeness. To this end, the functions and budget of the National Environmental Authority, which oversees the Presidency and the Technical Secretariat of the CICC, must be reinforced.
- Promoting inter-institutional agreements between government entities to coordinate climate mitigation actions and avoid duplicating efforts.
- Integrating climate change mitigation criteria into sectoral and territorial plans, aligned with the PLANMICC.
- Implementing sectoral and territorial mitigation programs in accordance with the PLANMICC.
- Forming a National Climate Change Advisory Council and subnational committees to promote and strengthen national and local coordination, ensuring an orderly and sustained transition with a multi-actor and multi-level approach.
- Implementing training programs for public officials at all levels of government in climate change mitigation.
- Creating and enforcing a comprehensive law on climate change to establish a solid legal framework that supports the implementation of the PLANMICC.

## 4.2 Financing

During the preparation of the PLANMICC, detailed cost-benefit analyzes of the proposals in each sector were carried out, including the evaluation of both positive and negative externalities<sup>2</sup>. This evaluation is essential for decision making, impact analysis, and obtaining national and international financing. In the context of CC2070, benefits considered included the reduction of pollution, improvement in health and air quality, creation of green jobs, reduction of vehicle congestion, increase in agricultural production, conservation of biodiversity, among others.

<sup>2</sup> Positive externalities are benefits that third parties not directly involved in an economic activity receive, at no cost to them. An example is the improvement in public health derived from clean energy projects that reduce environmental pollution.

Negative externalities are costs or damages suffered by third parties who are not directly involved in an economic activity, without receiving compensation. An example is pollution emitted by a factory that deteriorates the health and well-being of the nearby population.



The total cost of the BAU scenario exceeds one trillion US dollars, while the total cost of the Climate Commitment Scenario 2070 is around 948 billion. In this way, the economic benefit or, seen from another perspective, the savings that the implementation of CC2070 would generate, would reach 54 billion USD between 2024 and 2070.

Regarding investments, the value for CC2070 (165 billion USD) exceeds that of the BAU scenario (153 billion USD), mainly due to the technological change necessary to incorporate both conventional and non-conventional renewable energy technologies, sustainable mobility, sewage treatment, comprehensive solid waste management and sustainable agriculture and livestock, among others. However, fixed and variable operating costs, as well as externalities, are significantly reduced, which represents an important economic benefit for the country.

Generating these benefits depends on the implementation of the course of action proposed in CC2070, representing a significant financial challenge for all actors involved. This requires effective resource management and financing through government mechanisms, in addition to attractive financial instruments for the private sector and for bilateral and multilateral institutions specialized in climate financing, as well as for international cooperation organizations. Several financing strategies are proposed below, which must be based on a robust legal and regulatory foundation, seek to minimize the fiscal impact and, to the extent possible, be resilient to political change and turbulence.

### Strategy 1:

Alignment of international cooperation, public investment, and mobilization of private funds

International cooperation is vital for capacity building, fostering enabling environments, and implementing scalable pilot projects, both publicly and privately funded. It is essential to coordinate these efforts with public investments and the mobilization of private funds to optimize the use of available resources. Actions proposed for this strategy include:

- 1 Strengthening state institutional capacities** to manage and coordinate climate financing at the national and local level.
- 2 Establishing those responsible for climate change management** in the Ministries that make up the CICC, to act as focal points for international cooperation, public investment and mobilization of private funds, with the role of administering and managing the resources obtained.
- 3 Promoting and implementing Public-Private Partnerships (PPP)** to manage and finance sustainable infrastructure projects low in GHG emissions, using public funds and international cooperation as catalysts to attract private investment.

4

**Implementing policies and regulations** that promote investment in sustainable and low GHG emissions projects, including tax incentives, subsidies, and green credit programs.

5

**Creating enabling mechanisms and frameworks** for the mobilization of financial resources.

6

**Prioritizing public investment** in projects with a high impact on climate change mitigation, also attracting private investment.

## Strategy 2:

### Fiscal strategy

Environmental (green) tax reforms that generate resources and contribute to reducing GHG emissions will be proposed. The implementation of green (ecological) taxes is put forth as a source of financing for the PLANMICC, allocating a part of this revenue for the most vulnerable population.

## Strategy 3:

### Foreign investment

The decarbonization of Ecuador's economy described in the PLANMICC requires a significant investment that exceeds the fiscal capacities of the public sector. Therefore, it will be necessary to generate innovative financing mechanisms and instruments that diversify traditional sources and make financial schemes sufficiently attractive to capture the interest of the private sector, bilateral and multilateral institutions, international cooperation, among others. Suggested actions include:

1

**Creating or strengthening the legal and regulatory framework** that protects the rights of foreign investors and facilitates direct investment.

2

**Implementing tax incentives**, signing bilateral investment treaties and free trade agreements.

3

**Promoting innovation and entrepreneurship in strategic sectors** through support for startups, incubators, and business accelerators.

4

**Implementing instruments** such as green bonds, climate insurance, and payment-by-results mechanisms to generate additional resources from the private sector.

5

**Implementing robust Measuring, Reporting, and Verification (MRV) systems** to track project progress, ensure compliance with climate goals, and publish regular and transparent reports on the use of funds.




As a cross-cutting issue, it is essential to guarantee transparency and accountability regarding the use of resources to promote their efficiency and effectiveness, in addition to generating trust among the actors involved.

### 4.3 Enabling frameworks

In addition to the governance proposal and possible financing strategies, the PLANMICC has identified other key elements necessary for the implementation of actions and the fulfillment of the sectoral goals defined in the framework of CC2070. These elements are related to the key actors and their roles in mitigation management, as well as with cross-cutting issues that, in the field of climate action, are known as Means of Implementation and Climate Transparency.

Figure 10 shows the key actors and their roles.

**Figure 10.** Roles of key actors for climate change mitigation and implementation of CC2070.

 <p>Public sector</p>	<p>Coordinate and articulate actions.</p> <p>Create or strengthen the regulatory framework that encourages investment for actions in all sectors.</p>
 <p>Private sector</p>	<p>Financing actions within the framework of corporate social and environmental responsibility.</p> <p>Innovate in sustainable technological solutions.</p>
 <p>Academy</p>	<p>Generate information for decision making.</p> <p>Develop research, innovation, technology transfer, dissemination and social appropriation.</p>
 <p>Civil society</p>	<p>Awareness raising, social mobilization and surveillance for policy compliance and accountability.</p> <p>Citizen empowerment for climate action.</p>
 <p>International cooperation</p>	<p>Facilitate global cooperation, advice, technical assistance, management and financing of resources.</p> <p>Promote multi-sector and multi-level work.</p>

In turn, Figure 11 shows some frameworks related to the means of implementation.

**Figure 11.** Enabling frameworks in means of implementation and climate transparency



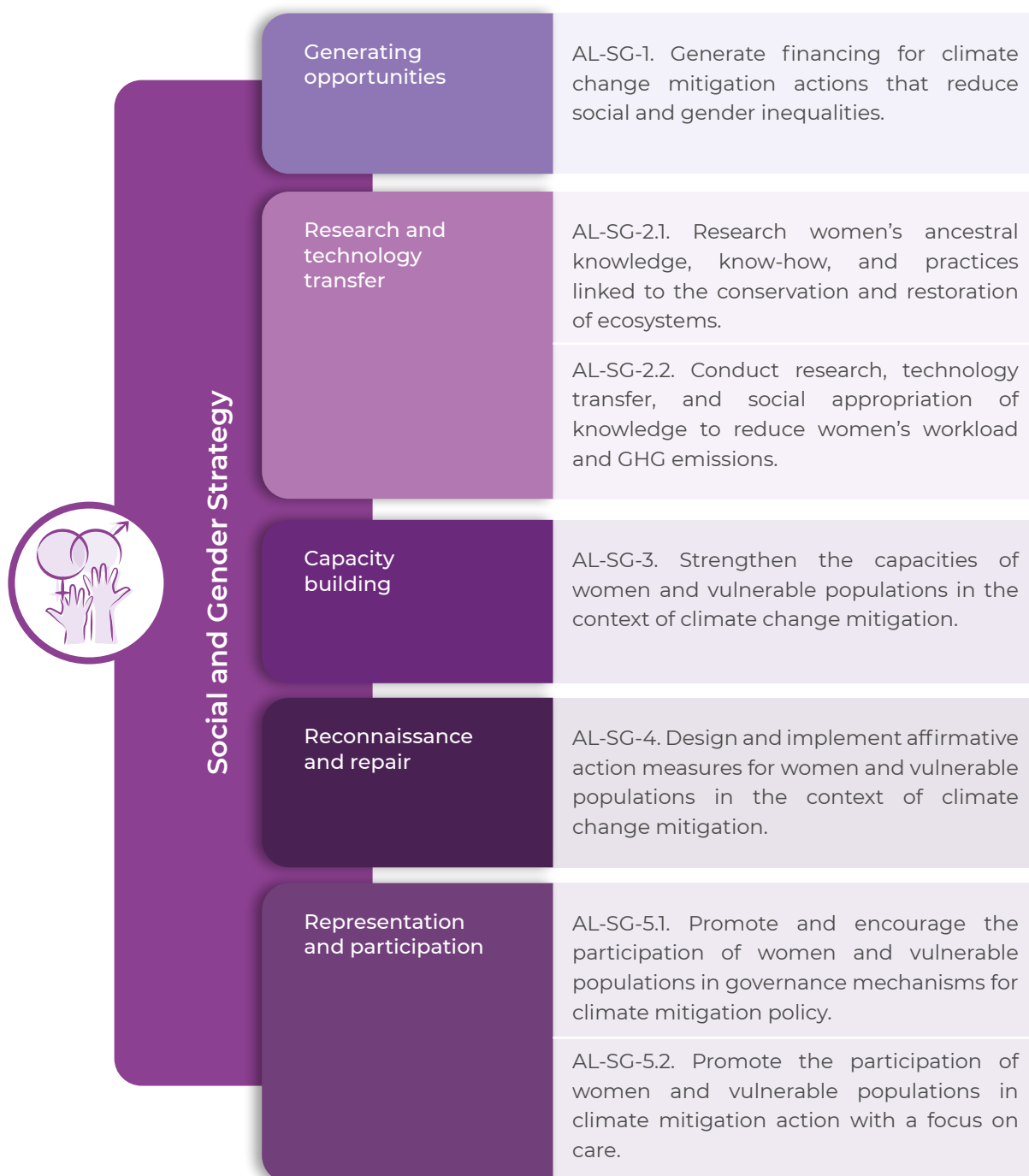
## 4.4 Social and gender strategy

The PLANMICC Social and Gender Strategy formulates strategic axes, lines of action, indicators, and enabling frameworks to mainstream human rights, gender, and intersectionality in climate change mitigation management. The starting point was a diagnosis of the gender situation in the field of mitigation, which made it possible to identify the following barriers: a) gender inequality and structural discrimination towards the vulnerable population, b) limited access and control of resources for women, peoples and nationalities and population in vulnerable situations, c) limited capacity for agency<sup>3</sup> and participation in decision-making of women and the vulnerable population in the context of mitigation, d) limited access to basic services for women and vulnerable population.

<sup>3</sup> Agency refers to the ability of individuals to act and make decisions within the limits imposed by power structures and social discourses. (Dreyfus and Rabinow, 2001).

Under this context, the strategy aims to *provide opportunities for the individual and social empowerment of women and the vulnerable population in the context of climate change mitigation*. To this end, five strategic axes and seven lines of action are proposed in Figure 12.

**Figure 12.** Lines of action and strategic objectives of the social and gender approach





The strategy focuses on generating opportunities, promoting research, development, innovation and technology transfer, strengthening capacities, and promoting recognition and reparation, as well as representation and active participation. This strategy, structured around clear axes and lines of action, will seek to guarantee rights and reduce social and gender gaps, in addition to strengthening climate mitigation initiatives through the empowerment of women and vulnerable populations, valuing their knowledge and expertise.

This strategy will require self-financing for its implementation. Likewise, it is necessary to build a solid baseline that analyzes the factors of social and gender inequality associated with the dynamics of GHG emissions. Finally, it is essential to integrate a social and gender approach in all stages of climate change mitigation management to guarantee a fair, equitable, inclusive, efficient, and sustained transition.

The National Climate Change Mitigation Plan outlines the roadmap for an orderly transition towards a sustainable future with low GHG emissions, which will require essential support from the international community. This planning instrument has been formulated through a participatory process in which the role of international, national, sectoral, subnational, academic, private, and civil entities has been fundamental. Its implementation will only be feasible with the participation and commitment of all actors.





Be part of the

**2070**

**CLIMATE  
COMMITMENT**