

European Pavilion

# Digital Ocean

Nice | France  
2 - 13 JUNE 2025

NDC 2025 & Thematic Report  
Oceans-Climate-Biodiversity  
Nexus

12th June



Inspire  
ocean & climate



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COMITÉ CIENTÍFICO  
ASESOR DE  
**CAMBIO**  
**CLIMÁTICO**



# Scientific Advisory Committee on Climate Change



In Chile, the establishment of the Scientific Advisory Committee on Climate Change was formalized through the Framework Law on Climate Change, which provided a legal foundation for its independence and authority

COMITÉ CIENTÍFICO  
ASESOR DE   
**CAMBIO**   
**CLIMÁTICO**

AMAYA ÁLVEZ

ALEX GODOY

WALDO  
BUSTAMANTE

ELIZABETH LAM

LOHENGRIN  
CAVIERES

CAMILA MUÑOZ

RAÚL CORDERO

JORGE PÉREZ

SANDRA CORTÉS

RODOLFO SAPIAINS

CAMILA FERNÁNDEZ



# Participatory Process



## Scientific Conversations for Climate Action 2025

Strengthen the role of science in shaping Chile's climate policies by engaging the scientific community in reviewing draft NDCs, the Long-Term Climate Strategy (ECLP), and developing related focus reports. The goal is to produce science-based recommendations that inform the design and implementation of public policies and climate change management instruments, ensuring decisions are grounded in robust evidence.

### Calls extended to researchers

NDC

ECLP

Focus Reports

### Participation Mechanisms

Sharing papers

Virtual Workshops

Roundtable Workshops

# Scientific Dialogues for Climate Action

Virtual and on-site March 2025

## More than 240 researchers

Different disciplines and national coverage

Review the contributions of the preliminary draft of the NDC

Propose indicators and monitoring criteria

Identify interconnections between chapters and themes.



# NDC Components

**Social Pillar social in Fair Transition**  
Sustainable Development

**Means of Implementation**  
Capacities  
Technologies  
Financing

Clarity, Transparency and Understanding

Mitigation

Adaptation

Integration

GHG emissions: emissions budget 1100 MtCO<sub>2</sub>eq 2020-2030

Black Carbon: Reduction of at least 25% of emissions by 2030 compared to 2016

Methane: Peak emissions by 2025

Sectoral Adaptation Plans

Water: Strategic Basin Plans

Disaster Risk Management

Health

Oceans

Circular Economy

LULUCF: Forests and peatlands

# Key Recommendations

## Accounting for Territorial Specificities

Design climate policies that consider local socio-ecological realities, ensuring alignment with the national strategy.

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## Strengthening Governance at Different Levels

Enhance national, subnational, sectoral, and multi-stakeholder governance for effective climate policies.

Strengthen multi-level mechanisms, interministerial coordination, and clearly defined roles.

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## Sustainable Financing

Implement clear and robust financing strategies, fostering multisectoral efforts (public and private) and coordination to increase investment and build capacity.

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## Incorporating Equity, Climate Justice, and Gender

Explicitly integrate equity, climate justice, gender considerations, and the needs of vulnerable groups into adaptation and mitigation policies.

## Cross-Cutting Recommendations



1

### Clear and robust indicators

Enhance early warning, monitoring, and measurement systems by incorporating local data, and establish clearer, disaggregated, and quantifiable targets.



2

### Expanded ecosystem-based approach with cross-sectoral integration

Account for interlinkages between sectors and NDC components to maximize synergies and co-benefits. Expand the ecosystem-based approach. Expand the ecosystem-based approach to incorporate all ecosystem types — terrestrial, aquatic, and marine — recognizing their critical role in adaptation, mitigation, and the provision of ecosystem services.



3

### Territorial planning framework and Climate justice principles

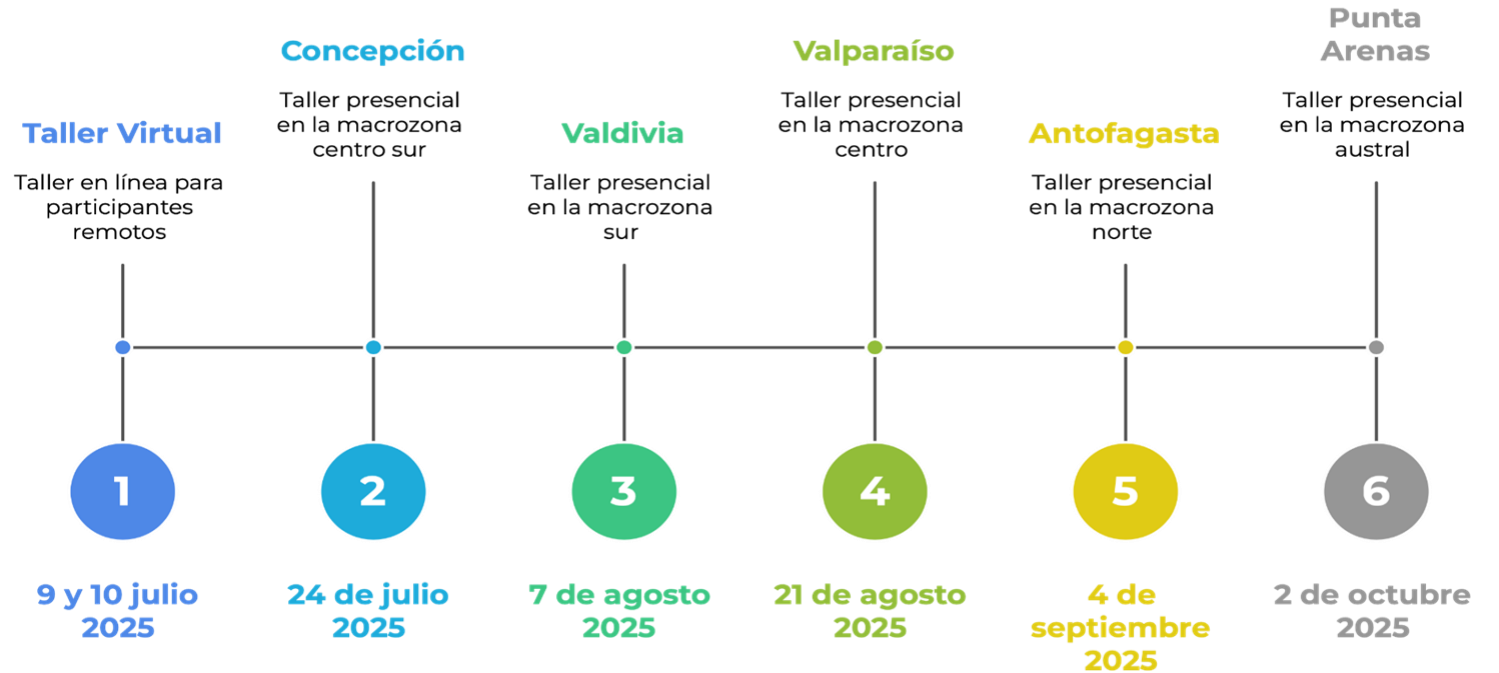
Strengthen Citizen Participation and Dialogue with Local Communities to ensure meaningful influence on climate decision-making. Assess how participants evaluate the process and the inclusion of their input.





- ✓ Ocean-Climate-Biodiversity Nexus
- ✓ Water-Energy-Food Nexus
- ✓ Health and Climate
- ✓ Circular Economy

## Calendario de Talleres julio a octubre 2025



# Focus Report on the "Oceans-Climate-Biodiversity Nexus" by the Climate Change Advisory Scientific Committee.

- **Tentative Title:** "Ocean-Climate-Biodiversity Nexus: Science for Transformative Adaptation in Chile's Marine-Coastal-Terrestrial Zones".
- **Justification:** The report aims to address the current fragmented approach to climate variability responses, advocating for integrated knowledge about the interactions between oceans, the atmosphere, and terrestrial systems.
- **Objective:** Provide integrated scientific evidence and recommendations for public policies, research needs, territorial planning, and ecosystem-based adaptation to address climate change challenges.
- **Methodology:** Systematic review of scientific literature, analysis of data and models, multidisciplinary workshops, and evaluation of compound risks and future scenarios.
- **Expected Results:** A scientific synthesis report on the OCB nexus in Chile, policy recommendations, and identification of research needs.
- **Key Themes included in the proposed Outline:** Conceptual and scientific framework of the OCB nexus, observed and projected climate impacts, biodiversity loss and ecosystem services, pollution and anthropogenic pressures, socioecology and governance, blue and green carbon, and transformative adaptation with an ecosystem approach.

# Proposed Table on Content on “Oceans-Climate-Biodiversity Nexus

- 1. Introduction, Toward an Integrated Vision of the OCB Nexus:** Scientific Rationale and Political Urgency of the OCB Approach; Report Objectives; Methodology and Participatory Process; Alignment with CC policy frameworks.
- 2. Dynamics of the Ocean-Climate-Biodiversity Nexus:** Critical Physical and Biogeochemical Processes; Interactions and Feedbacks Between Climate, Biodiversity, and Ecosystem Services; Projected Climate Scenarios and Compound Risks; Pollution and other anthropogenic pressures on biodiversity.
- 3. Climate Change Risks on Marine, Coastal, and Terrestrial Ecosystems:** Acidification, Hypoxia, Megadrought, Megafires, and Extreme Events; Biodiversity and Ecosystem Service Changes; Socio-ecological Vulnerability Assessment and At-Risk Ecosystem Services.
- 4. Blue and Green Carbon: Conservation and Mitigation:** Key Chilean Ecosystems; Carbon Sequestration and Storage Potential; Blue/Green Carbon as Synergistic Solutions; Recommendations for Inclusion in NDCs and Green Taxonomies.
- 5. Integrated Governance and Socio-Environmental Justice:** Legal/Institutional Framework Analysis (Coordination Challenges and Use Conflicts); Role of Local Communities and Indigenous Peoples; Proposals for Marine-Terrestrial Spatial Planning.
- 6. Case Studies and Lessons from Chilean Territories:** Management and Exploitation Areas for Benthic Resources (AMERBs); 2016 Chiloé Crisis and Other Socio-Ecological Tipping Points; Local Initiatives for Monitoring, Restoration, and Adaptive Management.
- 7. Roadmap for Transformative and Resilient Adaptation:** Integrated Land-Ocean Observation System (e.g., SIOOC); Prioritizing Restoration Actions and Ecosystem Monitoring; Incorporating Social, Gender, and Intersectional Dimensions in Policy Strategies.
- 8. Conclusions and Recommendations:** Recommendations and Guidelines for Future NDCs Updates; Chile’s Strategic Role in International OCB Initiatives.



# Inspire

ocean & climate

On June, the Chile's Ministry of the Environment, has included the scientific contributions gathered through the Scientific Dialogues for Climate Action 2025.

Based on this document, the Ministry will continue working on the update and consolidation of the 2025 Nationally Determined Contribution (NDC), with the goal of finalizing it ahead of COP30 in Brazil.

This process aims to ensure that Chile's climate targets are both ambitious and grounded in the best available scientific evidence.



# Focus Report: “Oceans-Climate-Biodiversity Nexus”

- **Thematic Report** on the "Oceans-Climate-Biodiversity Nexus" by the Climate Change Advisory Scientific Committee.
- **Focus groups** to define the objective, scope and outline of the report.
- **Tentative Title:**  
"Ocean-Climate-Biodiversity Nexus: Science for Transformative Adaptation in Chile's Marine-Coastal-Terrestrial Zones".
- **Justification:**  
The report aims to address the current fragmented approach to climate variability responses, advocating for integrated knowledge about the interactions between oceans, the atmosphere, and terrestrial systems.
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### **Virtual Workshops (March 6<sup>th</sup> to 12<sup>th</sup>)**

Researchers from diverse disciplines analyzed the NDC 2025 Draft, identifying information gaps, thematic interconnections, and proposing key indicators for tracking progress.

### **Roundtable Workshop (March 17<sup>th</sup>, Ministry of Foreign Affairs)**

With the participation of over **100 researchers**, scientific contributions were consolidated, and evidence-based recommendations were formulated to support the effective implementation of the NDC.



### **Key objectives of the Dialogues:**

- Review the NDC Preliminary Draft through a science-based critical lens.
- Compile scientific inputs for the C4 Preliminary Report.
- Identify thematic interconnections and promote an integrated vision of climate action.
- Propose robust indicators to monitor and evaluate NDC progress over time.

**Climate Change Framework Act**  
**Carbon neutrality and resilience target for 2050**

