

**Forest Carbon Partnership Facility (FCPF)
Carbon Fund**

ER Monitoring Report (ER-MR)

ER Program Name and Country:	Chile Emission Reduction Program
Reporting Period covered in this report:	01-01-2022 to 31-12-2023
Number of FCPF ERs:	3,010,906
Quantity of ERs allocated to the Uncertainty Buffer:	885,558
Quantity of ERs allocated to the Pooled Reversal Buffer:	2,007,268
Number of FCPF ERs from enhanced Removals through afforestation/reforestation (A/R)	0
Date of Submission:	10-02-2026
Version	2

WORLD BANK DISCLAIMER

The boundaries, colors, denominations, and other information shown on any map in ER-MR does not imply on the part of the World Bank any legal judgment on the legal status of the territory or the endorsement or acceptance of such boundaries.

The Facility Management Team and the REDD Country Participant shall make this document publicly available, in accordance with the World Bank Access to Information Policy and the FCPF Disclosure Guidance.

Table of Contents

1	Implementation and operation of the ER Program during the Reporting Period.....	7
1.1	Implementation status of the ER Program and changes compared to the ER-PD	7
1.2	Update on major drivers and lessons learned.....	16
1.3	Methodological deviations	19
2	System for measurement, monitoring and reporting emissions and removals occurring within the monitoring period	20
2.1	Forest Monitoring System	20
2.2	Updates to the monitoring approach	28
2.3	Measurement, monitoring and reporting approach	28
3	Data and parameters	46
3.1	Fixed Data and Parameters	46
3.2	Monitored Data and Parameters.....	65
4	Quantification of Emission Reductions	74
4.1	ER Program Reference level for the Monitoring / Reporting Period covered in this report	74
4.2	Estimation of Emissions by Sources and Removals by Sinks included in the ER Program’s scope	74
4.3	Calculation of Emission Reductions.....	75
5	Uncertainty of the estimate of Emission Reductions.....	78
5.1	Identification, assessment and addressing sources of Uncertainty	78
5.2	Uncertainty of the estimate of Emission Reductions	84
	Parameters and assumptions used in the Monte Carlo method	84
	Quantification of the uncertainty of the estimate of Emission Reductions	95
5.3	Sensitivity analysis and identification of areas of improvement of MRV system.....	95
6	Transfer of Title to ERs	96
6.1	Ability to transfer title	96
6.2	Implementation and operation of Program and Projects Data Management System.....	99
6.3	Implementation and operation of ER Transaction Registry	100
6.4	ERs transferred to other entities or other schemes	101
7	Reversals	103
7.1	Occurrence of major events or changes in ER Program circumstances that might have led to the Reversals during the Reporting Period compared to the previous Reporting Period(s)	103
7.2	Quantification of Reversals during the Reporting Period.....	106
7.3	Quantification of Pooled Reversal Buffer replenishments	106
7.4	Reversal Risk assessment	107
8	Emission Reductions available for transfer to the Carbon Fund.....	112
	Annex A: Quantification and Monitoring of Deforested Areas Affected by Browning.....	114
	ANNEX 1: INFORMATION ON THE IMPLEMENTATION OF THE SAFEGUARDS PLANS	116

ANNEX 2: INFORMATION ON THE IMPLEMENTATION OF THE BENEFIT-SHARING PLAN180
ANNEX 3: INFORMATION ON THE GENERATION AND/OR ENHANCEMENT OF PRIORITY NON-CARBON BENEFITS 202

LIST OF ACRONYMS

AA: Accounting Area
AFOLU: Agriculture, Forestry and Other Land Use
AGCID: Agency for International Development Cooperation
ARCLIM: Climate Change Risk Atlas
ASP: Protected Wildlife Areas
BSP: Benefit Sharing Plan
CAPR: Rural Drinking Water Committees
CATS: Carbon Assets Tracking System
CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora
CONADI: National Indigenous Development Corporation
CONAF: National Forestry Corporation
CORECC: Regional Climate Change Committees
COSOC: CONAF Civil Society Council
CORFO: Production Development Corporation
CSGE: Centre for Seeds, Genetics and Entomology
CSM: Complaints and Suggestions Mechanisms
CTICC: Interministerial Technical Committee on Climate Change
CTR-CC: Technical Coordinator of MINAGRI's Regional Technical Committee on Climate Change
DBOCC: Climate Change and Forest Departments
DCCSE: Climate Change and Ecosystem Services Department
DMECC: Climate Change and Ecosystem Monitoring Department
ENCCRV: National Strategy on Climate Change and Vegetation Resources
ERPA: Emissions Reduction Program Agreement
ERPD: Emissions Reduction Program Document
ERP: Emissions Reduction Program
ESMP: Environmental and Social Management Plan
FAO: Food and Agriculture Organization
FCBN: Native Forest Conservation, Recovery and Sustainable Management Fund
FIBN: Native Forest Research Fund
FCPF: Forest Carbon Partnership Facility
FGRM: Feedback and Grievance Redress Mechanism
FIA: Foundation for Agricultural Innovation
FIBN: Native Forest Research Fund
FMT: Fund Management Team
FPA: Environmental Protection Fund
FPIC: Free Prior and Informed Consent
FREL/FRL: Forest Reference Emission Level/ Forest Reference Level
GASP: Protected Wilderness Areas Management
GCEBX: Forest and Xerophytic Ecosystems Conservation Management
GEF MST: GEF/Sustainable Land Management Project (MST)
GEF: Environmental Evaluation and Oversight Management
GEFA: Finance and Administration Management
GEPRIF: Forest Fire Protection Management
GCF: Green Climate Fund
GHG: Greenhouse gases
ICP: Private conservation initiatives
IFN: National Forest Inventory
INDAP: Institute for Agricultural Development
INFOR: National Forestry Institute
INGEI: National Greenhouse Gas Inventory
IPCC: Intergovernmental Panel on Climate Change

LEMU: Logging and Extraction Monitoring Unit
MGAS: Environmental and Social Management Framework
MINAGRI: Ministry of Agriculture
MINENERGIA: Ministry of Energy
MMA: Ministry of the Environment
MOFIM: Intercultural Mapuche Forestry Model
MRS: Mechanisms for Complaints and Suggestions
MRV: Monitoring, reporting and verification
NDC: National Determined Contribution
NDVI: Normalized difference vegetation index
NFMS: National Forest Monitoring System
ODEPA: Office of Agricultural Studies and Policies
OIRS: Information, Complaints and Suggestions Office
PAT: Biomass Territorial Supply Program
PES: Payment for Environmental Services
PMST: Sustainable Land Management Project
PNRP: National Landscape Scale Restoration Plan
PSM: Project Management System
PTN: National Technical Proposal
PTR: Regional Technical Proposal
RCA: Environmental Qualification Resolutions
SAFF: Forestry Administration and Control System
SAG: Livestock Agricultural Service
SAIS: Secretariat of Indigenous and Social Affairs
SAQ: Burn Assistance System
SAT: Early Warning System
SBAP: Biodiversity and Protected Areas Service
SEA: Environmental Assessment Service
SEGEGOB: Ministry General Secretariat of Government
SEIA: Environmental Impact Assessment System
SEREMI: Ministerial Regional Secretary
SERNAFOR: National Forest Service
SESA: Strategic Environmental and Social Assessment
SIAC: Public Environmental Information System
SIDCO: Digital Information System for Operations Control
SIGEFOR: Forestry Promotion and Development Management System
SIGI: Institutional Management Information System
SIS: Safeguards Information System
SIT: Territorial Information System
SMM: Monitoring and Measurement System
SNASPE: National System of State-Protected Wildlife Areas
SNiChile: Chilean National Greenhouse Gases Inventory System
SPF: Secretariat for Forest Policy
SVS: Soil Conservation Service (USDA)
TNC: The Nature Conservancy
UACH: Universidad Austral de Chile
UAIS: Indigenous and Social Affairs Unit
UCCSA: Unit of Climate Change and environmental services
UNCCD: United Nations Convention to Combat Desertification
UNFCCC: United Nations Framework Convention on Climate Change (CMNUCC in Spanish)
UN-REDD: United Nation Reducing Emissions from Deforestation and forest Degradation
UPCT: Public Participation and Transparency Unit
UTRE: Specialized Regional Technical Units

1 IMPLEMENTATION AND OPERATION OF THE ER PROGRAM DURING THE REPORTING PERIOD

1.1 Implementation status of the ER Program and changes compared to the ER-PD

The Chilean Emissions Reduction Program (ERP) corresponds to the activities carried out within the framework of the implementation of the [National Strategy on Climate Change and Vegetation Resources \(ENCCRV\)](#). In turn, the ENCCRV is a public policy instrument that aims to "Reduce the social, environmental and economic vulnerability generated by Climate Change, Desertification, Land Degradation and Drought on vegetation resources and human communities that depend on them, in order to increase the resilience of ecosystems and contribute to mitigating climate change by promoting the reduction and capture of greenhouse gas emissions in Chile".

In order to meet this objective, [seven direct action measures and 19 facilitation measures](#) were established through various technical analyses and participatory processes at the national level. These measures are organized and strengthened through the different programs, plans and activities carried out by the National Forestry Corporation (CONAF), and are technically and financially supported by other [international climate initiatives](#) (FCPF, Green Climate Fund, [UN-REDD](#), [GEF MST Project](#), [Swiss Cooperation](#), and the [Chile-Mexico Fund](#), among others). This chapter presents the main advances in ERP actions and interventions during the 2022-2023 period.

The selected Reporting Period is from 01-01-2022 to 31-12-2023 and the accounting area is 16,601,656 ha¹, related to the total surface of the Maule-Los Lagos administrative regions.

Progress on Chile's ER Program actions and interventions

The activities developed by the ERP in the 2022-2023 period included actions related to the management of CONAF that were carried out with state financing and funding from multilateral organizations directly administered by CONAF. After the first payment for results of the ENCCRV began in the previous period, through its +Bosques project financed by the Green Climate Fund, where demonstrative pilot projects were carried out in 2020. In August 2022, the first call of the ENCCRV Public Tender began, through the implementation of the Benefit Distribution System or Benefit Sharing Plan (BSP). The objective of the BSP is to ensure the execution of activities in a fair, effective and transparent manner and by 2022 it had awarded 397 projects, whose execution area² corresponded to 4,578 ha and the planning area³ to 1,230 ha, which corresponds to a total of 5,808 ha. This area includes afforestation, restoration, sustainable management, post-forest fire restoration and fire prevention forestry. In this call, a total of 3,204 beneficiaries were registered, where 49% corresponded to women and 77% to people belonging to indigenous peoples. In addition, the ENCCRV education program trained 745 beneficiaries⁴.

In 2023, in the second call of the ENCCRV Public Tender, 710 initiatives were presented, which completed their award process in January 2024⁵.

Activities executed with national budget

Below is a summary of the results of the ERP activities carried out by CONAF in the reporting period (2022-2023) in the accounting area (AA). These activities are related to the ENCCRV and seek to address the causes of deforestation, forest degradation and the non-increase of forest carbon stocks.

¹ Accounting area land use & land use change maps: <https://plataforma.enccrv.cl/static/erpa/mr3/mapas/CUT-MR3.zip>

² The execution area corresponds to the effective surface where territorial activities were carried out.

³ The planned area corresponds to the surface that will be executed after being submitted to a forest management plan.

⁴ Public Account document CONAF 2022, page 14:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

⁵ 2023 Public Tender Information Note: <https://www.conaf.cl/en-40-aumentaron-las-postulaciones-y-superficies-a-manejar-en-bosque-nativo/>

Within the framework of Law No. 20,283, on Native Forest and Forestry Development, administered by CONAF, 1,091 projects equivalent to 14,188.95 ha of sustainable management were awarded. It should be noted that this call was held only in 2022 and 100% of the budget allocated by the Fund for the Conservation, Recovery and Sustainable Management of the Native Forest (FCBN) was executed. In relation to the Native Forest Research Fund (FIBN), in its eighth round (2022), 78 projects were awarded, executing 100% of the budget allocated for that year. In the following rounding in 2023, 14 projects were awarded, executing 99% of the budget allocated for that year⁶.

In terms of forest inspection, in both periods (2022-2023), 9,467 inspection activities were carried out, covering a total of 105,714.2 hectares of inspected area (57,236.19 in 2022⁷ & 48,478.01 in 2023⁸). For the environmental inspection program and subprogram of Environmental Qualification Resolutions (RCA)⁹, in both periods (2022-2023), 67 scheduled environmental inspections were carried out. In relation to the activities framed in Law No. 2,096 that Applies the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), during 2023 39 export permits were issued, which mostly corresponded to manufactured species of cacti and 9 seizures of specimens present in the CITES appendices. Of these, 50% corresponded to native cacti that were referred to the Cactus Rescue Center inaugurated in 2022. Located in the Atacama Region, the Cactus Rescue Center has more than 1,000 specimens of Cactaceae of different species and state of development¹⁰¹¹.

During 2023, the CONAF Prosecutor's Office provided advice to the Executive Directorate of the Corporation to resume work on the Bill that aims to transform the National Forestry Corporation into the National Forest Service, based on the reactivation of the process that had begun in 2017. On April 16, 2025, the Senate unanimously approved the new National Forestry Service (Sernafor), the legal successor to the National Forestry Corporation¹².

The Economic Reactivation Program for Small and Medium Forest Owners¹³ was implemented between the regions of Coquimbo and Magallanes. It considered actions for native forest management, afforestation and recovery of forests affected by forest fires or climate change, prioritizing the recovery of native forest, the conversion of exotic plantations to native ones, afforestation with native species in areas of conservation and protection of soils, wetlands, headwaters of watersheds and bodies of water, where the landscape scale restoration approach was incorporated in the design of the initiatives. The program executed an area of 6,961 ha and generated 3,405¹⁴ jobs nationwide in 2022, and although this plan was not implemented in 2023, within the scope of economic recovery, the Plan for the Restoration of Native Forests on a Large Scale – “Siembra por Chile” will continue.

The National Landscape Scale Restoration Plan (PNRP) is a bi-ministerial plan developed between the Ministries of Agriculture and Environment (MMA), with the support of the technical secretariat of CONAF, which seeks to initiate

⁶ Public Account document CONAF 2022, page 20-21:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

⁷ <https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

⁸ https://www.conaf.cl/wp-content/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

⁹ It considers native forest management, preventive and sanitary, afforestation, and recovery of forests affected by forest fires or climate change, prioritizing the recovery of native forests, the conversion of exotic plantations to native ones, afforestation with native species in conservation and protection zones for soils, wetlands, headwaters, and water bodies, where the landscape-scale restoration approach was incorporated into the design of the initiatives.

¹⁰ Public Account document CONAF 2022, page 27-28:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

¹¹ Public Account document CONAF 2023, page 53-54:

https://www.conaf.cl/wp-content/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

¹² <https://www.conaf.cl/nace-un-fortalecido-sernafor-hoy-es-el-primer-dia-de-los-proximos-50-anos-para-proyectar-al-sector/>

¹³ Public Account document CONAF 2022, page 22:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

¹⁴ Public Account document CONAF 2022, page 22:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

the restoration process of one million hectares by 2030, considering terrestrial, inland water and marine-coastal ecosystems, prioritizing social, economic and environmental vulnerability in the country, to recover the ecological functionality of landscapes and thus improve people's quality of life.

During 2022, the following related actions were carried out:

- Innovation Program in Monitoring Acceleration for Restoration Policies (WRI/CATIE) in Turrialba, Costa Rica, with the participation of staff from the MMA, the Forestry Institute (Infor) and two professionals from CONAF.
- Formalization of the Global Environment Facility (GEF) "Restoration of biodiversity and ecosystem services at the landscape scale in productive agroforestry areas and their natural environment". Through this, seven pilot intervention landscapes were defined in the regions of Coquimbo, Valparaíso, O'Higgins, Maule, Ñuble and Biobío¹⁵.

During 2023, the following actions were carried out:

- Annual meeting with the Advisory Council and National Technical Committee to coordinate efforts on the actions to be carried out in the short term within the framework of the PNRP.
- Launch of the GEF Project Restoration of Biodiversity and Ecosystem Services at the Landscape Scale in Productive Agroforestry Areas and their Natural Environment, on June 14, 2023¹⁶.
- On August 3, 2023, the process of formalizing the decree that was made official by the National Technical Committee of the PNRP began, being published by the Ministry of the Environment on December 6, 2024.

The Economic Reactivation Plan for the Restoration of Native Forests on a Large "Siembra por Chile" executes activities from the regions of Arica and Parinacota down to Magallanes. It considers actions to initiate restoration processes, prioritizing areas of conservation and protection of soils, wetlands, headwaters of basins and bodies of water. To this end, the following actions were carried out:

- Seed Collection National Program: its purpose is to collect seeds in all regions of the country to supply, in the first place, the needs of CONAF's regional nurseries. The surplus of representative samples will be sent to the Centre for Seeds, Genetics and Entomology (CSGE) for processing, analysis, storage, sale or reshipment to places of origin. In 2022, a total of 782.59 kg of clean seeds were obtained, as a result of all the activities carried out in the processing stage (fruit extraction, drying, pulping, manual and mechanized final cleaning)¹⁷. In 2023, the total volume of seeds entered into the CSGE corresponded to a gross amount of 9,803.44kg, of which a total of 1,016.24 kg of seeds cleaned and processed at the center were obtained. Of these, 578.7 kg were planted in the CSGE nursery. The rest was stored in a cold room. Seed transfers were made to the regional offices of Aysén, Los Ríos, La Araucanía, Coquimbo and O'Higgins, which totaled 32.5 kg, enabling supply for different programs of the Corporation. Finally, it should be mentioned the execution of seed sales to 27 small and medium-sized private companies, in the regions of Ñuble, Biobío, Maule, Metropolitana and Tarapacá, for a total amount of 179.04 kg of clean seeds¹⁸.
- In addition, activities were carried out to initiate in situ restoration processes and the strengthening of CONAF nurseries and community nurseries^{19,20}.

¹⁵ Public Account document CONAF 2022, page 12:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

¹⁶ National Landscape Scale Restoration Plan 2021-2030:

<https://gefrestrauracion.mma.gob.cl/apoyo-al-plan-nacional-de-restauracion-de-paisajes-pnrp/>

¹⁷ Public Account document CONAF 2022, page 21:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

¹⁸ Public Account document CONAF 2023, page 21:

https://www.conaf.cl/wp-content/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

¹⁹ Public Account document CONAF 2022:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

²⁰ Public Account document CONAF 2023:

https://www.conaf.cl/wpcontent/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

- For the year 2022, The Economic Reactivation Plan for the National Landscape Scale Restoration Plan “Siembra por Chile” had a budget of 1,000,000,000 million Chilean pesos, directly benefiting 19,696 small and medium-sized owners, and also generated 37,227 jobs, through the execution of 11,280 ha in the country²¹.
- For the year 2023, the Plan had a budget of 10,260,000,000 million Chilean pesos, and very successfully managed to benefit 3,993 people, generated 24,276 direct and indirect jobs with the execution of 16,238 ha²².

Activities funded by international agencies.

Specifically, in the 2022-2023 period, the most relevant milestones are related to the following elements:

- Implementation of the 4th edition of the Benefit Sharing System (BSP) for the ENCCRV and the Operational Manual for the implementation of the BSP in the specific framework for the PRE, through the ENCCRV Public Tender.
- Capacity building workshops for CONAF professionals on topics such as: ENCCRV platform and the different systems that converge there, use of drones, Climate Change and Protected Wild Areas, biomass utilization, nursery improvement and maintenance, participatory methodologies for working with rural and indigenous communities, biofuels, and others.
- Following up of the Environmental Education Program and the Communication Strategy of the ENCCRV, highlighting the execution territorial stakeholders and/or potential beneficiaries talks on topics such as: biomass and energy poverty, climate change and the importance of native forests, native species planting techniques, wood energy, preventive forestry, solid biofuels, nurseries, native seed collection, and a gender perspective in the rural sector.
- Provincial-level Benefit Distribution System dissemination workshops: During August 2022 and 2023 regional workshops and dissemination activities were held, with the aim of implementing and increasing the participation of relevant stakeholders in the management of ENCCRV projects.
- In December 2023, a new National Forest Reference Level was established for the regions from Coquimbo to Magallanes.
- Presentation in 2024 of a Second Technical Annex of REDD+ Results for the periods 2018-2029 and 2020-2021, for the regions from Coquimbo to Magallanes.

Other technical advancements

- Progress in safeguards: during the reporting period, there has been progress related to the implementation of the [Safeguards Information System \(SIS\)](#). This system allows project data storage in a multi-scale approach – local, operational, administrative, and national – to ensure respect for REDD+ safeguards in the execution of the ENCCRV. Coordination with CONAF's Information, Complaints and Suggestions Office (OIRS) was strengthened through the inclusion and improvement of the procedure associated with the ERP's [Complaints and Suggestions Mechanisms \(CSM\)](#). Start of the process of the Environmental and Social Framework of the ENCCRV updating, through the application of a national survey aimed at facilitating the collection of information and background information such as MGAS effectiveness as a guidelines and inductive tool for the socio-environmental management of strategy projects. Finally, a National Safeguards Approach Proposal for the ENCCRV has been reinforced by the DCCSE safeguards specialists, in line with the commitments made by the country within the framework of the ENCCRV.
- Progress in the payment by results phase: After the first pay-for-results project received by the country was initiated in 2020, the +Bosques Project, during 2022 the project began its first version of the ENCCRV Public

²¹ Public Account document CONAF 2022, page 22:
<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

²² Public Account document CONAF 2023, page 14:
https://www.conaf.cl/wpcontent/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

Tender, where progress was made in the award of 397 projects between the Maule and Los Lagos regions with a total of: 201.5 ha of post-forest fire restoration, 247.9 ha of preventive forestry, 853.4 ha of afforestation, 1,591.3 ha of reforestation, 2,759.5 ha of forest management and 328.3 ha linked to wood energy. This was done through the implementation of the Benefit sharing plan (BSP).

In parallel, between the months of May and August 2022, the ENCCRV Public Tender Platform was developed, with a friendly and comprehensive system, so that it could be used by both applicants and professionals who attend the applications, whose objective is to contain and follow up on the application processes for REDD+ initiatives until completing their final award phase; such as the entry of the applicant's data, the design, evaluation of the initiatives and their admissibility²³.

Strategy Update to mitigate/and or minimize potential displacements

The ERPD 2016 document from Chile argued that the most important way for ENCCRV to avoid emission displacements would be to implement action measures at the national level. Under this approach, the likelihood of displacement becomes significantly lower. This way remains the most relevant in the ER Program reporting period, as ENCCRV actions are effectively being implemented across all regions of Chile and not just those in the AA. Nevertheless, the ERPD mentioned possible local displacements could occur inside the AA, for which measures associated to some of the main drivers identified were proposed.

In 2018, the [document](#) “Additional background for the update of the Chilean ER Program, according to recommendations by the Chair’s Summary in the 15th Meeting of the Carbon Fund”, does not refer to any changes in the strategy for mitigating and/or minimizing these possible displacements. If that is so, the strategy used to mitigate displacements inside the AA remains as such, i.e., through measures designed for some of the main causes or drivers associated to forest degradation and deforestation, which have been updated as such for the period of this report:

DD cause/driver	ERPD proposed strategy to reduce displacement risks (2016)	Strategy update for report period (2022-2023) ²⁴
Unsustainable use of vegetation resources.	With the forestry management actions proposed by the ENCCRV to address this driver, a risk of emission displacement is generated due to the reduction of the potential extraction volume by forest owners under planning criteria. The strategy proposed to reduce or avoid such displacements consists in increasing sale prices under a higher valuation for sustainably sources wood. In this manner, owners can extract less wood without impacting their revenue. This is achieved through improved productive chains, moving forward in the sustainable firewood and wood certification process for obtaining better prices. On the other hand, the ENCCRV will seek to lower production costs for owners through tax reductions and improved monitoring to promote sustainable forest management.	Multiple support activities for productive chains, oversight and planning in sustainable management have been carried out within the ER Program, so this strategy remains current and active. The activities are related to initiatives considering improvements on firewood productive chains focused on reducing market informality and therefore enabling sustainable management. Some of these actions included supporting beneficiaries in order to raise financing the production, processing or commercialization of goods and/or services, associative business development planning, farmer certification and associativity network development.

²³ Available in: <http://concurso.enccrv.cl/>

²⁴ All the actions mentioned here, which were carried out during the 2022-2023 period, are described in CONAF's public accounts documents, available at:

<https://www.conaf.cl/wp-content/uploads/2024/06/Informe-Cuenta-Publica-2022.pdf>

https://www.conaf.cl/wp-content/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

DD cause/driver	ERPD proposed strategy to reduce displacement risks (2016)	Strategy update for report period (2022-2023) ²⁴
		The only component of the strategy without developments has been the tax reduction for sustainable producers.
Forest fires	With the fire prevention actions proposed by ENCCRV to address this driver, such as preventive silviculture, there is a risk of emissions displacement by promoting forest biomass extraction actions (Fire and fuel gaps). The strategy proposed to avoid and reduce such emissions entails, on one hand, detailed planning of each activity to identify the best way to remove a minimum amount of biomass with the greatest impact on fire risk reduction, and on the other, using the extracted biomass in wood – based products that fix carbon in longer terms.	Multiple training activities in fire prevention silviculture and productive linkage for owners and producers have been conducted within the framework of the ER Program and ENCCRV. Pilot experiences have also been developed, making it possible to advance in the technical validation of fire prevention silviculture and include the costs of such projects in the value table of Law No. 20,283. Given this, it can be said that this strategy is current and active for this risk.
Forest being used for livestock farming	Establishing buffer zones for livestock farming in forest areas is one of the measures proposed by the ENCCRV for addressing this driver. There is a risk of this measure generating emissions displacement, as cattle will have to be moved to other grazing areas and cause degradation. The strategy for reducing such risk is based on supporting the development of global livestock management plans, leading to a more efficient use of plains, forest grazing systems and summer grazing management.	Property planning activities have been conducted in the framework of the ER Program and ENCCRV integrating various land uses and productive activities (Livestock and forestry). UTREs have also developed such property plans for various pilot properties. On the other hand, the GEF Sustainable Land Management Project (PMST), which includes one of the AA regions, has generated pilot experiences and capabilities in management at a property scale, maximizing productive efficiency and the structured use of State promotion instruments. Given this, it may be stated that this strategy is current and active for this displacement risk, which is considered to be medium. Reinforcing such actions through trainings in other regions will be evaluated.
Agriculture and livestock expansion	In order to mitigate the potential of deforestation emissions due to this driver to transition towards forest degradation, the proposal is to promote the conservation of native forests with financial support through the incorporation of forest conservation variables in Law 18,450 on irrigation promotion and Law 20,412 on sustainability of agricultural lands. Then, farmers and livestock owners will have another sustainable source of revenue to compensate for the potential loss of their previous livelihood if changes to forest conversion promotion by means of Laws No. 18,450 and 20,412 were to deter them from expanding their agriculture lands over natural vegetation.	There have been no developments in the incorporation of forest conservation variables to Laws No. 18,450 and 20,412; therefore, this strategy is neither current nor active. The viability of achieving such regulatory adjustments during the period of the Emission Reduction Payment Agreement (ERPA) is being evaluated. Failing this, a new strategy will be explored for this risk of displacement, which is considered low.

DD cause/driver	ERPD proposed strategy to reduce displacement risks (2016)	Strategy update for report period (2022-2023) ²⁴
Expansion of monoculture forests	This situation could spread to regions in the north of the ER Program Area due to strong economic returns from plantations there. Maps from the Land Registry indicate that this is a relatively common transition in these regions, particularly the substitution of tree-filled scrubland, which is now considered a native forest. However, national mitigation measures, such as improved inspection by CONAF, environmental awareness and the recognition of native forests, should avoid this type of displacement. Focusing on mitigation in terms of planning and territorial legislation with a view to prohibiting such substitution in certain areas could cause displacement to other areas within the ER Program Area. However, planning also involves designating optimal areas for establishing new exotic plantations where substitution would cause less environmental damage, thus diminishing the potential for displacement.	As part of the measures related to planning at the territorial level, it is expected that priority areas for exotic plantations will be delimited through the Regional Territorial Planning Plans. The above, considering that in 2018 Law No. 21,074 was enacted regarding the strengthening of the regionalization of the country and which modifies Law No. 19,175. The objective of this law is to regulate the preparation and approval of Regional Territorial Planning Plans in coherence with the regional development strategy, the national territorial planning policy, the long-term climate strategy and the regional climate change action plan. The plans are instruments that guide the use of the region's territory for sustainable development, define strategic guidelines and macrozoning of the territory, establish binding conditions for the location of waste, infrastructure and productive activities and recognize areas under State protection.

Effectiveness of organizational arrangements and involvement of partner agencies

CONAF has a governance structure at the national and regional level that has allowed it to effectively implement the ER Program and ENCCRV actions. The organizational structure of CONAF is based on a clear chain of command with well-defined instances and roles, also including agile information systems. It has allowed for the generation of governance instances along with internal functional arrangements to institutionalize and operationalize ENCCRV actions in the regions of the ER Program. As an institution spread across various territories, CONAF has a central office led by an Executive Directorate, Management, Advisory Units and Department which all contribute to the implementation of the strategy at the regional level. The Forest and Xerophytic Ecosystems Conservation Management (GCEBX, acronym in Spanish) is responsible for directing and leading the ENCCRV.

The units and departments associated with the ER Program in the reporting period are, from the central level, the Climate Change and Ecosystem Services Department (DCCSE, previously UCCSA acronym in Spanish) as the leading technical entity, the Secretariat of Indigenous and Social Affairs (SAIS, acronym in Spanish), the Prosecution Office, and the Environmental Assessment Department. Also, the Interagency Committee on Climate Change of CONAF, permanent instance with the function of coordinating all institutional actions associated to the ENCCRV, has ensured the institutionalization of both the technical activities and safeguards treatment. This structure has allowed for the development of the Strategy to be systematic, efficient and be progressively inserted in the institutional work for the scope of the proposed goals and objectives. DCCSE has also been a key instance at the central level for enabling the ENCCRV result – based payment phase. Acting as a Focal Point for REDD+, it has coordinated international cooperation associated with REDD+, also being in charge of the administrative, financial and technical aspects of projects, including the approach towards consideration and compliance with safeguards.

In addition, the [CONAF Civil Society Council \(COSOC, acronym in Spanish\)](#) has also participated, being a citizen participation mechanism that is advisory in nature (non - binding), whose actions are reported to and its recommendations incorporated to each of the areas of technical work, including developments in the implementation of ENCCRV. During the reporting period, the COSOC was consolidated as part of the institutional

arrangements for BSP governance, through annual meetings where the system's progress and ENCCRV projection was presented.

At the local level, and as a way of ensuring the effectiveness of institutional management in the implementation of ENCCRV at the regional level, there are DCCSE representation offices in all regions that are part of the ER Program. This role is fulfilled by a Coordinator of Climate Change and Ecosystem Services, who reports administratively to the Climate Change and Forest Departments (DBOCC, acronym in Spanish). These are professionals with a long-standing institutional track record, with experience in project management and community relationships. In those regions where ENCCRV pilots and/or projects have been developed, these coordinators actions have been reinforced by support professionals, who contributes towards management of projects in general and safeguard follow up, monitoring and reporting, as is the case for Regional Managers for Indigenous and Social Affairs.

Regarding the efficiency of institutional arrangements for the generation, reporting and integration of information with other State agencies, it is worth mentioning that the sources of basic information for the implementation of the ER Program Monitoring Plan, based on the [National Forest Monitoring System](#), have been, i) Cadastre of Vegetation Resources and statistics on forest fires developed by CONAF, ii) the Continuous Forestry Inventory developed by the National Forestry Institute (INFOR, acronym in Spanish), both institutions part of the Chilean Ministry of Agriculture (MINAGRI, acronym in Spanish). Statistics on areas affected by forest fires have been permanently updated through the Digital Information System for Operations Control (SIDCO, acronym in Spanish) and reported in a yearly basis for each season in the period. Besides the aforementioned basic information, there is a set of second order information, which has to be generated within the ER Program Monitoring Plan framework, such as density plot or stock charts for estimating degradation in all AA forest types, which is being implemented through a specific agreement between CONAF and INFOR.

Regarding consistency between the Forest Reference Level and the National Greenhouse Gas Inventory (INGEI, acronym in Spanish) developed by the Ministry of the Environment (MMA, acronym in Spanish), the CONAF and INFOR technical teams have been the technical entities in charge of building the greenhouse gases inventory for the Silviculture and Other Land Uses sectors along with ensuring the alignment between the methods applied, with the purpose of improving and maintaining the consistency of both instances. The necessary institutional arrangements to formalize the joint work between services and ministries have been made, such as the Intra – Ministry Technical Committee on Climate Change ([CTICC, acronym in Spanish](#)), instance coordinated by the Office of Agricultural Studies and Policies ([ODEPA, acronym in Spanish](#)) and composed of all MINAGRI services acting as reviewers for the ER Program and all ENCCRV initiatives, strategic and technical orientation, decision reinforcement and progress report review.

Finally, as international cooperation from different sources has continued and intensified (Section 1.1.1), CONAF has generated and enhanced an internal governance structure to manage international cooperation and strategic partnerships with implementing agencies that provide administrative and technical support, principal among them being the relationship with the Food and Agriculture Organization of the United Nations (FAO).

The CONAF Prosecutor's Office unit, in conjunction with the Management of Protected Wild Areas, began work to implement Law 21,600, which created the Biodiversity and Protected Areas Service and the National System of Protected Areas, published in the Official Gazette on September 6, 2023. Thus, in October, CONAF signed an agreement for the implementation of the law with the Ministries of Environment and Agriculture, to address the challenges of the implementation of the Biodiversity and Protected Areas Service (SBAP)²⁵. Meetings were held between the entities involved to ensure the correct execution of the legal competencies of each institution, establishing collaboration mechanisms, in addition to avoiding duplication and dysfunctionality in the implementation of the SBAP.

During 2023, the Prosecutor's Office provided advice to the Executive Directorate to resume the processing of the Bill that transforms the National Forestry Corporation into the National Forest Service, based on the reactivation of

²⁵ For more information, consult the *Sixth Transitory Article* and the official documents from: <https://www.bcn.cl/leychile/navegar?idNorma=1195666>

the processing of Bulletin 11,175-1. The project of public institutionality for CONAF is in its second constitutional procedure, in the Commission of Agriculture and Environment, united. The work carried out with various public and private entities has led to the preparation of indications by the Executive Branch that have been aimed at strengthening the purpose, functions and attributions of the public service, with a view to sustainable development and modernizing the current work carried out by CONAF. Also, in the parliamentary procedure itself, technical aspects have been contributed to the sessions that have been held with a view to the National Forest Service being able to transform the current CONAF into a public service, honoring the commitments made in labor matters that have been reached with the trade union organizations and that guarantee full respect for the labor rights of CONAF workers. ensuring that the transition of these to the new service is carried out safeguarding labor rights and guaranteeing non-regression in this area. The transformation of CONAF into the National Forest Service will strengthen the sector's institutional framework and allow the development of forestry laws in accordance with the requirements of society.

Financial Plan Updates

It was proposed in the ERPD Chilean document of 2016 that the ENCCRV implementation would require an estimated budget of \$174 million dollars for 9 years, 30% of which would be unconditional and the remaining 70% (\$121 million dollars) would be conditional on the management and obtention of external resources by CONAF. Then, in the document titled "Additional background for the update of the Chilean ER Program, according to recommendations by the Chair's Summary in the 15th Meeting of the Carbon Fund" in 2018, an update is proposed for the Initial Plan.

This update has defined the budget for a nine-year period, considering available experiences and better information about the costs of action measures, variations between region and forest types, among other aspects. Therefore, to finance all ENCCRV action measures, the new financial estimate including conditional and currently available factors amounts to \$357 million dollars. This includes international bilateral and multilateral contributions, donations, and results – based payments, along with national private and government contributions. Out of all this, 23% come from international sources while the remaining 77% is national. In addition, 40% is unconditional and the remaining 60% is conditional. From the already mentioned financial sources, to meet the goals of the ENCCRV it will be critical to establish a public – private partnership work, aside from promoting regional initiatives of local funds, on which progress has been made due to the reinforcement of capabilities installed in the various regions of Chile through preparation funds.

It is important to consider that the ENCCRV non – conditional budget corresponds to state resources allocated to CONAF through the Budget Law, and that such funds have and will continue to reinforce the compliance of ENCCRV goals. Some of the actions financed through this government source during the ER program report period in order to reinforce activities associated to reducing deforestation and forest degradation have been: i) reinforcement of the firewood energy promoters program; ii) the interoperability of the platforms of the Forestry Promotion and Development Management System (SIGEFOR, acronym in Spanish) with other CONAF platforms to enhance operability; iii) the capability of on-site teams; iv) reinforcement of the Early Warning System (SAT, acronym in Spanish) for the detection of unauthorized forest felling using satellite images and drones, v) the development of a mobile app for the detection of unauthorized forest felling, and vi) a traceability system for native forest primary products. Also, the "Communities Prepared against Forest Fires" program has been strengthened, doubling its impact on 2018 along with the development of manuals and programs for the technical implementation of 7 ENCCRV direct action measures.

As part of the new financial plan, CONAF has been working with the Agency of Sustainability and Climate Change to establish similar public – private synergies and guide actions to leverage resources for actions aligned with the ENCCRV and the ER Program. These actions correspond to fire prevention, forest planning and restoration of areas affected by forest fires through compensation mechanisms that must be applied by private companies, mainly from the real estate and mining sectors. In line with this, [financial instruments](#) are being formulated together with CORFO, with such instruments being used to attract private investments for native forest management mainly for wood and energy purposes. From the business sector, an agreement has been made by forestry companies, with technical support by CONAF, to direct efforts towards restoring native forests affected by massive forest fires in the 2017 season, encompassing two of the five AA regions. Also, financial resources provided by the Undersecretary of

Agriculture have been added, along with a redirection of funds managed by the Foundation for Agricultural Innovation (FIA, acronym in Spanish) and the MMA through its [Environmental Protection Fund \(FPA, acronym in Spanish\)](#). In this context, companies have invested nearly \$80 million dollars, which implied a 60% increase in relation to the average historical expenditure on such issues.

This new financial plan, in line with the Benefit – Sharing Plan (BSP)²⁶, specifically mentions that 20% of the total funds obtainable under ER Program payments (\$5.2 million dollars) will be used during the implementation period of the Program, with the implementation possibly being extended beyond 2025. These resources will be used to cover and develop those actions that either provide sustainability to the system or correspond to ENCCRV facilitating action measures such as inspection, regularization of property titles of ownership, environmental education, aspects related to the communication, dissemination, and reinforcement of CONAF institutional programs, among others.

Finally, the ER Program considers that 80% (\$20.8 million dollars) out of the total resources will be directed towards the population as non – monetary benefits, through technical assistance by strengthening Forestry Extension and forestry management actions where the main focus will be on lands belonging to small and medium scale forest owners, along with public lands. This dynamic applies to all payments perceived by Chile from emission reductions as established in the BSP.

In 2024, the UN REDD+ Program approved technical assistance resources for the development of analytical inputs for the preparation of a financial planning proposal for the ENCCRV and the sectoral NDC that allows their financial sustainability, in addition to updating the cost projection of the measures that make up the ENCCRV for the period 2025-2030 considering the commitments made in the update of the Nationally Determined Contribution (NDC) presented by Chile to the United Nations UNFCCC in 2020 and the subsequent strengthening of its commitments in 2022.

1.2 Update on major drivers and lessons learned

Update on major drivers of deforestation, degradation and non – increase of forestry sinks in the Accounting Area.

The Chilean ERPD document of 2016 detailed the process of the identification, prioritization and characterization of the main drivers or causes of forest degradation, deforestation and non – increase of causal sinks for the PRE. This information was used as a basis for the proposal of the strategic actions which formed the ENCCRV action measures. For the 2022 – 2023 reporting period, no significant changes were identified in the drivers that affect native vegetation resources in the AA. Actually, the document titled “Additional background for the update of the Chilean ER Program, according to recommendations by the Chair’s Summary in the 15th Meeting of the Carbon Fund” from October 2018²⁷, does not mention any aspects regarding changes or updates on this issue.

The drivers analysis presented in the Chilean ERPD was conducted with a methodology that included the collection and systematization of information about participative processes and specialized consulting. These analyses have not been conducted again in the reporting period, therefore, the update on the status of the drivers presented below corresponds to a proposal based on updated statistical data, technical analysis of professional teams, and sectorial trends in the reporting period.

²⁶ For more information, consult the official documents from: <https://www.enccrv.cl/5ta-edicion-sdb> and <https://www.enccrv.cl/reporte-anual-implementacion>

²⁷

https://www.forestcarbonpartnership.org/system/files/documents/Chile%20Doc.%20ERPA%20ENCCRV_Version%208%2016_10_2018%20limpio-v3%20%28english%29.pdf

Causes or Drivers of forest degradation, deforestation and non – increase of sinks	Relevance defined in ERPD 2016	Relevance 2022-2023 reporting period	Observations/sources of information
DIRECT CAUSES²⁸			
Forest fires	Very high	Very high	Remains the most important cause of degradation and deforestation in the AA, according to statistics from CONAF.
Unsustainable use of vegetation resources for production	Very high	Very high	Remains a cause of very high relevance, as there is still a significant amount of informality and unsustainable exploitation of native forests (above 80%), mainly for firewood extraction, as its use is above 9 million cubic meters per year in the AA, according to firewood consumption data for 2018 and 2019 by INFOR ²⁹ .
Unsustainable use of vegetation resources for livestock	High	High	Remains a driver of high relevance, as grazing still persists in native forests for all ER Program regions in the AA. There are no systematized statistics, but it is a widely recognized reality.
Forest monoculture expansion	High	Low	The degree of relevance of this driver has decreased, as annual surfaces where native forests are replaced with forest monocultures have decreased since 2014, according to statistics on changes in land use in the CONAF Cadastre and the analysis of emissions caused by the degradation from the transformation of native forests into forest plantation, as in the REDD+ Annex for Chile in 2018 .
Agriculture and livestock activity expansion	Medium	Low	The degree of relevance of this driver is decreased, as the annual surface of areas with native forests where agriculture is allowed has decreased since 2014, according to statistics on changes in land use in the CONAF Cadastre and the analysis of emissions caused by deforestation from the REDD+ Annex for Chile in 2018.
Urban and industrial activity expansion	Medium	High	The degree of relevance of this driver has increased, as even though statistics of deforestation and changes in land use have declined in general for the AA, there is evidence suggesting a regional trend toward increased property subdivision and land parceling for real state development in forested areas. Although systematized statistics are not available, this is considered a plausible and well-recognized assumption supported by regional observations and planning reports.
Industrial activity expansion	Low	Low	The degree of relevance of this driver has remained low, since the statistics of deforestation and changes in land use due to the expansion of the industry continue to be in insignificant areas of the AA. according to statistics on changes in land use in the CONAF Cadastre (REDD+ Annex for Chile in 2018).
Effects of climate change, desertification, land degradation and drought	Medium	High	The degree of relevance of this driver has increased, as it has become clear that the impacts of the Megadrought affecting a large part of Chile have intensified. Such effects have been stronger in the native forests of the regions to the north of the ER Program and associated to a Mediterranean climate (Miranda et al., 2020 ; Garreaud et al., 2017). Also, risk scenarios projected in the Climate Change Risk Atlas (ARCLIM, acronym in Spanish), indicate that this scenario will be permanent in nature due to climate change, even moving

²⁸ The names of the causes have been updated as per the official ENCCRV document from 2016.

²⁹

<https://app.powerbi.com/view?r=eyJrIjoib2JmNTVmZTA0NjRhYy00NmE4LWl5NzktYmFIYWExMTAxODUwliwidCI6IjcwZTI3NDhlTAzNmTmNDIiZi05N2RkLTl0ODAxYTc2ZmFIYSIsImMiOiR9&pageName=ReportSection>

Causes or Drivers of forest degradation, deforestation and non – increase of sinks	Relevance defined in ERPD 2016	Relevance 2022-2023 reporting period	Observations/sources of information
			towards southernmost territories. These projections, together with the raise in temperature and heat waves, will increase the likelihood of forest fires (Gonzalez et al., 2018). CONAF is planning to conduct relevant studies to determine the magnitude and repercussions of this phenomenon in the ER Program.
Plagues and diseases	Low	Medium	The degree of relevance of this driver has increased, as the risks of new pests entering Chile or existing ones propagating due to recurring climate phenomena are increasing (SAG, 2019).
Effects of contamination	Low	Low	These drivers were not described in detail in the ERPD, since they were not prioritized according to the analysis carried out by the ENCCRV and there was a significant uncertainty from the sources of information to characterize them. It is assumed that they maintain their low relevance.
Overexploitation of water	Low	Low	
Soil erosion	Low	Low	
INDIRECT CAUSES			
Public policy deficiencies for regulation	Very high	Very high	The level of relevance of this driver remains very high, as even though efforts have been made to advance in the improvement and promotion of regulatory instruments for the forestry sector, a large gap still persists, and the existing instruments are neither sufficient nor adequate for meeting goals and achieving sectorial climate challenges.
Deficiency in public policies due to promotion or development	High	High	The level of relevance of this driver remains high, as even though efforts have been made to advance in the improvement and promotion of regulatory instruments for the forestry sector, a large gap still persists, and the existing instruments are neither sufficient nor adequate for meeting goals and achieving sectorial climate challenges.
Poor knowledge and cultural valuation of vegetation Resources	Very high	Very high	The level of relevance of this driver remains very high relevance driver, as even though many actions focused on environmental education, awareness, and training under the ER Program and the ENCCRV have been implemented, there is an important gap represented by bad practices and unsustainable actions still occurring in native forests.
Informality in firewood markets	High	High	The level of relevance of this driver remains high, as a significant amount of informality and unsustainable exploitation of native forests for firewood extraction persists (over 80%), since its use is above 9 million cubic meters per year in the AA regions, according to firewood consumption data for 2018 and 2019 provided by INFOR .
Rural poverty, lack of opportunities	High	High	The level of relevance of this driver remains high, as rural poverty and vulnerability still persist in AA regions.
Deficiency in public policies due to limited oversight capabilities or enforcement	Medium	Medium	The level of relevance of this driver remains medium, as even though many actions focused on training, improvement of technical and technological capabilities and awareness have been present under the influence of the ER Program and the ENCCRV, there is an important gap that needs to be addressed, and CONAF oversight capabilities are limited in scope.
Low profitability, opportunity costs	Medium	Medium	The level of relevance of these drivers remains medium, since there have been no significant changes in financial returns

Causes or Drivers of forest degradation, deforestation and non – increase of sinks	Relevance defined in ERPD 2016	Relevance 2022-2023 reporting period	Observations/sources of information
Economic Model Deficiency for the Use of the Native Forest (NF)	Medium	Medium	and opportunities associated with the management of native forests.
Disputes or problems due to fragmentation of property	Medium	High	The degree of relevance of this driver has increased, since there is a significant trend in the AA regions towards an increase in property plot subdivisions and divisions with the aim of developing real estate projects in wooded areas. There are no systematized statistics, but it is a widely recognized reality.
Disputes or problems due to property tenure	Low	Medium	Land tenure problems have been and continue to be a relevant issue in the AA regions, and its impact as a driver has increased, considering that most of the forest promotion programs and implementation projects within the framework of the Climate action, require forest owners to have their land tenure situation regularized. This situation leaves many potential beneficiaries out of these programs.
Deficiency of the forest institutional framework	Low	Low	It continues to be a driver of low relevance since although there are still important gaps to improve and consolidate forestry and environmental institutions in Chile, these gaps should not have a significant impact on the processes of degradation, deforestation, and the non-increase of sinks.
Lack of association for farmers	Low	Low	It continues to be a driver of low relevance since although there is still low productive associativity among forest owners, this gap should not have a significant impact on the processes of degradation, deforestation, and the non-increase of sinks.
Stigmatization of forest plantations	Low	Low	It continues to be a driver of low relevance since although the stigmatization of forest plantations has increased, this situation should not have a significant impact on the non-increase of sinks, even more so considering that the ENCCRV has restricted afforestation actions to exclusive use of native species.
Management plans do not ensure sustainable use	Low	Low	It is assumed that the level of relevance of this driver remains low since the area managed under these plans is still small, and there has also been progress in the capacities to support and monitor the correct application of these plans. There are no systematized statistics, but it is a widely recognized reality.

1.3 Methodological deviations

No methodological deviations were used in this monitoring report.

2 SYSTEM FOR MEASUREMENT, MONITORING AND REPORTING EMISSIONS AND REMOVALS OCCURRING WITHIN THE MONITORING PERIOD

2.1 Forest Monitoring System

Organizational structure, responsibilities, and competencies, linking these to the diagram shown in the next section

The National Forest Monitoring System (NFMS) of Chile has been established for monitoring forests and operates on existing systems supported by various institutions which underpin and maintain it, which produces a functional link among its multiple building elements.

The NFMS in Chile is coordinated by CONAF, institution serving as REDD+ Focal Point to the UNFCCC (CMNUCC in Spanish) in accordance with Decision 10/CP.19. CONAF operating under the MINAGRI who gives the REDD+ Focal Point to the Climate Change and Ecosystem Services Department (DCCSE) of the Forest and Xerophytic Ecosystems Conservation Management (GCEBX, acronym in Spanish). As the REDD+ focal point, DCCSE has the responsibility of being the organization in charge of coordinating the generation and reporting of elements linked to REDD+, which includes the responsibility of coordinating the NFMS, reporting and generation for FREL/FRL and REDD+ result reports.

Inside CONAF, there are other units with the main responsibility of generating activity data. Among them, the Climate Change and Ecosystem Monitoring Department (DMECC, acronym in Spanish) of the Environmental Evaluation and Oversight Management (GEF, acronym in Spanish), has a primary role for the generation of base information. DMECC is responsible for implementing the mandate established by Law No. 20,283 of 2008, which establishes that CONAF “Will maintain a Forest Cadastre, which is to identify and establish, at least cartographically, the forest types that exist in each region of Chile”.

The Forest Cadastre, called “Cadastre of Native Forests and Vegetation Resources”, is the main source of information for the development of Land – Use Change Maps, also developed by DMECC for the continuous monitoring of vegetation cover in Chile.

As the next figure shows, CONAF also includes the participation of the Forest Fire Protection Management (GEPRI, acronym in Spanish) through the provision of information by means of the Operation Control Digital System (SIDCO, acronym in Spanish) and GEF using the Forestry Administration and Control System (SAFF, acronym in Spanish).

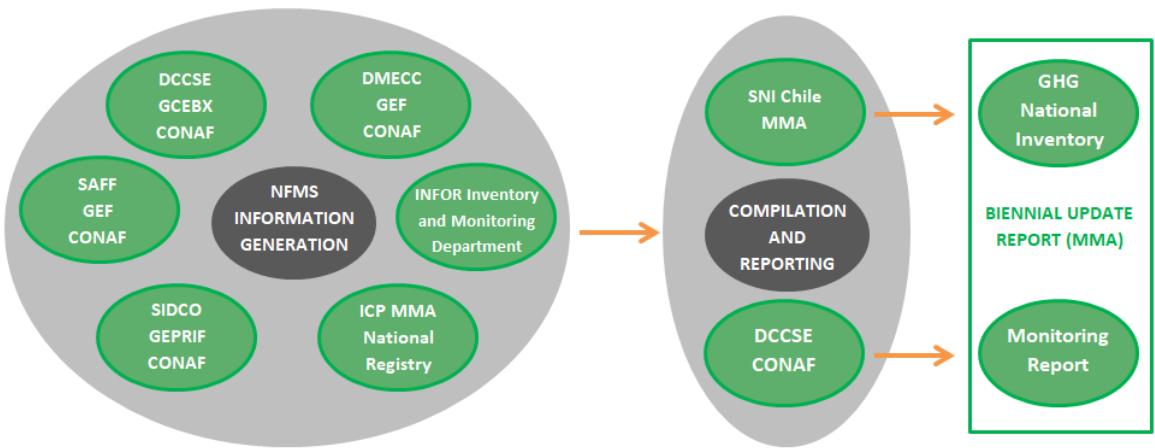


Figure 1. NFMS Organizational Structure of Chile.

Within GEPRI, The Protection against Forest Fires Department and its Digital Information System for Operation Control ([SIDCO](#)), provides annualized statistical information on the occurrence of forest fires in the entire country. On the other hand, SAFF provides information about the implementation of forestry management plans. Finally, also within CONAF, The Protected Wilderness Areas Management (GASP, acronym in Spanish) is responsible for providing information on conservation areas in the National System of Wilderness Protection Areas or SNASPE.

Together with the CONAF units, activity data for the NFMS is provided by the Forestry Institute INFOR and the Ministry of the Environment (MMA, acronym in Spanish). INFOR is established as a private law corporation, part of MINAGRI, with such institution providing public funding for the design, technological development, implementation, and execution of the National Forestry Inventory.

Information about emission factors for forest monitoring comes from the National Forestry Inventory or INF, administered by INFOR which is also used by the Chilean National Greenhouse Gases Inventory System ([SNiChile](#)), administered by the Climate Change Office, which arises as a response to the need to inform the citizens about GHG emissions and removals in the country.

Emission factors are monitored by INFOR through inventory plots and reported annually through IFN national reports. Emission factors are applied to the NFMS by forest type and/or region, depending on the REDD+ activity evaluated.

The Ministry of the Environment is the State organ in charge of working with information provision on private conservation initiatives (ICP, in Spanish), for their incorporation to the accounting of areas subject to conservation. The [National Registry of Protected Areas](#) was established within the MMA, which operates as an information platform where the 9 categories are considered protected areas (Marine Park, Pristine Regions Reserve, National Park, Natural Monument, Forest Reserve, National Reserve, Marine Reserve and Multiple Use Coastal Marine Areas), aside from Private Protected Areas and Community / Private Conservation initiatives, encompassing the entire national territory.

The selection and management of GHG related data and information

The information and data selected to be incorporated to the NFMS, have been defined by Chile in the ERPD on which the subnational FREL/FRL was established. Selected information and data remain for this monitoring report, being managed by DCCSE for the monitoring and reporting.

Activity data: Land use and land use changes maps³⁰

Land use data selected for the FREL/FRL were those coming from existing Native Forest Cadastres in regions of the Accounting Area. The information provided by the Cadastre is regularly updated by the Climate Change and Ecosystem Monitoring Department (DMECC) of CONAF, describing 9 Land uses and 20 Sub – uses, along with other breakdowns by altitude, cover and structure.

Nevertheless, as indicated in Annex 4 of the first Monitoring Report, the reference level was corrected by incorporating spatially explicit use change data estimated based on reference maps for evaluation instances 2001 and 2013. Such maps are developed through the implementation of a semi – automated methodology for change detection that operates on Landsat images analyzed in Google Earth Engine by applying the land use definitions defined by Chile in the Cadastre of Native Forests.

REDD+ activities and sub – activities that occur in forest remaining forests

The data selected for the estimation of emissions and captures from activities that occur in forest remaining forests are those indicated in the ERPD and refer to data coming from plots in the Continuous Inventory of Forest Ecosystems or National Forest Inventory (IFN) by INFOR, combined with spectral information from the Landsat series. This information integrates forest state variables on the number of trees per hectare and basal area registered in the IFN plot monitoring, with Landsat spectral data in order to estimate carbon stocks in a spatially explicit manner.

Satellite Information

The generation of activity data in land use change activities and change detection is developed based on spectral information from the Landsat data. To obtain satellite images that are representative of the beginning and end of each period, NFMS has been corrected through work with multi – pixel mosaics that require a time range for the search for cloud free images and the selection of the pixels that comprise such images. The multi – pixel mosaic is an image comprised of pixels from various images, extracted from the definition of a time range or window. The selection of each pixel seeks to define the best available information for a given area, with the priority being pixels free of clouds and shadows of such clouds.

³⁰ Land Use Change Maps are available in <https://plataforma.enccrv.cl/static/erpa/mr3/mapas/CUT-MR3.zip>

Given the large number of clouds in the south of Chile, this time window will correspond to a range of ± 3 months for the starting date of the period and the end date of the analysis period respectively, as it corresponds to the dry season period in Chile. As an example, for the 2022 – 2023 where the starting date is January 1, 2022, the time range or window will cover between October 1, 2021, to March 31, 2022. For the end of the period until December 31, 2023, the time range for multi – pixel mosaic estimation will address from October 1, 2023, until March 31, 2024. For pixel selection, a code is applied in Google Earth Engine where median NDVI values are selected for pixels corrected to land surface. NDVI medians are selected with the purpose of not incorporating phenological states of vegetation with high photosynthetic activity or vigor but rather selecting values that do not alter the outcome of the method application.

Information administration and Management

The management of the information is led by the Climate Change and Ecosystem Services Department (DCCSE) of CONAF, through a cloud-based infrastructure. For the FREL/FRL, the information was managed through spreadsheets stored in desktop computers. Currently, data management is done through cloud storage using Gmail and OneDrive platforms. A lot of folders have been organized to favor versioned and organized information storage, to which access is granted through various permissions to the people who participate in the estimation process. The folders are divided into base information, documents, tools, reports, and work for each of the NFMS reporting elements.

The base information provided by the DMECC and INFOR, along with the auxiliary information which feeds monitoring, is stored in different folders. Each folder may contain different versions of the data, which is documented through files that account for the changes between versions. The versioning description is the responsibility of the MRV DCCSE team.

The data used for the NFMS and for the REDD+ results reports are public and made available to the community through links to downloadable files in the published reports. CONAF is responsible for the information, therefore being the owner of their intellectual property.

Processes for collecting, processing, consolidating, and reporting GHG data and information

The main processes for collecting, processing, consolidating, and reporting GHG emissions in NFMS are described below.

- Activity data generation

Activity data generation is also divided into land use change activities, obtained from land use change maps, and activities on forest remaining forests associated with the development of carbon flow and stock maps for forest degradation.

These elements are generated through two base official inputs, respectively: Land use and land use change surfaces from land use maps based on the Native Forest Cadastre and Carbon content and variation in forest carbon stock from the Forest Inventory. Both processes are based on satellite data.

- a) Land Use and Land use change map development³¹

The development process for land use and land use change maps has been a common task of DCCSE and DMECC, with the purpose of defining forest dynamics related to land use changes.

For the 2022-2023 monitoring period, the process starts with the development of one Land Use Change Map per region, based on satellite mosaics and the MIICA³² change detection method. To apply the MIICA method, change detection thresholds must be defined to ensure the spectral values register empirical changes. Change categories are mentioned in the CONAF “Methodological protocol for the development of land use and land use change maps in Native Forests as of 2016”.

Land Use Change Map Validation

The land use land use change map validation is implemented by comparing the results in reference maps to observations obtained through Open Foris: SEPAL, Open Foris Collect and its Google Earth interface, Collect Earth.

The validation starts with pre – sampling process to estimate the accuracy of IPCC land sub use.

³¹ Land Use and Land Change maps are available in <https://plataforma.enccrv.cl/static/erpa/mr3/mapas/CUT-MR3.zip>

³² The MIICA methodology is based on the combination of 2 spectral indices (dNBR, dNDVI) which, through integration rules, provide coverage of land use change, indicating the magnitude and directionality of the change.

The land use change map polygons are first selected from pre sampling points and then, entered in Google Earth so ground truth can be collected from Collect Earth surveys. Both data collection and user accuracy estimation are conducted in the same way as the sampling, through confusion matrixes.

Reference data are selected based on the pre sampling, through a random sampling design stratified for IPCC land sub use by region. This sampling type also allows us to report the accuracy and surface evaluated for land change category, aside from adjusting a sample size that ensures global reliability in the evaluated areas (Olofsson et al., 2014).

Surface by IPCC land sub use information in vectorial format is necessary for the sampling design, reducing processing times in the server. User accuracy parameters for land sub use are obtained from the pre sampling stage, which are then entered into the platform as expected user accuracy values, considering a 0.01 standard accuracy error (Olofsson et al., 2014).

Activities and sub activities related to forest remaining forests³³

The process is based on the methodology detailed in Bahamondez et al. (2009), which considers number of trees per hectare and basal area monitored by the inventory as input variables. It refers to spatially explicit information which location is known, applying an interpolation process for carbon flux and stock in the analyzed periods.

Forest Inventory plots, from the IFN, are placed in a density plot or stock chart, based on the number of trees and basal area per hectare. The density plot considers thresholds which determine, for forest types, their status at the measuring moment. This information identifies the state of plots, distinguishing between degraded and non-degraded plots (Bahamóndez, 2009).

In the case of the methodology applied in the NFMS, B line or B threshold will allow the degradation in forest remaining forests and restoration in degraded forests to be identified. Line B represents the limit where trees can develop large treetops and completely occupy the site capacity without excessive competition (Gingrinch, 1967). The limit for this threshold was established through field work by experts and is specific for each forest type (INFOR, 2012). Line B is considered the natural resilience threshold of a forest. Plots located below the B line or threshold are not recommended for productive work.

Forest types with density diagrams available and incorporated to the degradation estimation methodology are the following: Roble – Raulí – Coihue (RoRaCo in Spanish), Siempreverde, Canelo, Lenga – Hualo (RoHua), Coihue – Raulí – Tepa (CoRaTe), Coihue de Magallanes, Spinal subtype Esclerófilo and Esclerófilo.

The IFN is designed under a two-stage statistical design concept, in clusters of three concentric circular plots of an area equivalent to 500m², distributed in a 5x7 km systematic grid. The inventory is based on the generation of a first measurement cycle for permanent sampling plots covering 9.38 million hectares of native forest between the Coquimbo and Magallanes regions, completed in the 2001 – 2010 period, together with a second yearly basis measurement cycle under the partial replacement system with support from growth projections.

GHG data and information consolidation and integration

The described inputs are integrated into geospatial relational databases associated to spreadsheets, which pick up and systematize information about activity data and emission factors following a structure in accordance with the REDD+ activities.

DCCSE is responsible for the consolidation of information, integration, emissions and captures estimation for REDD+ activities, being implemented by the MRV Monitoring, Reporting and Verification team. The use of semi-automated tools has the main goal of minimizing errors, increasing result consistency and transparency through the association between spreadsheets and PostgreSQL databases. This process also adds improvements concerning result check and update times.

The flow of information for the integration and execution of the calculations is based on the spreadsheets summarizing estimate results divided by REDD+ activities, which include different procedures attached to this document.

On the PostgreSQL database server, the main and auxiliary NFMS information, land use change maps, carbon content map and estimate parameters are loaded. Change map vectorial coverages are used in .gdb formats, while rasters data are integrated from map associated .dbf files.

³³ CO2 maps are available in <https://plataforma.enccrv.cl/static/erpa/mr3/mapas/CO2-MR3.zip>

Information entry to the database is supported by geographic and topologic validation rules, data attributes and content, to avoid subsequent errors during estimations or inconsistencies in the results. Data is repaired, corrected, and prepared for integration during these validations. Among all the processes being run, one of the most important tones is the estimation of surfaces per REDD+ activities, equivalent to activity data.

Finally, the data uploaded to PostgreSQL interacts with Excel to run the estimation process. This connection takes place through the ODBC Open Database Connectivity connector. The data is then entered into the excel spreadsheets where result estimation is run.

Systems and processes that ensure the accuracy of the data and information

The NFMS has processes established to ensure the accuracy of information, which also contribute to improving the accuracy, transparency, integrity, consistency, and comparability of estimations conducted.

Land use change maps quality control

The quality control process for land use change maps has the main objective of identifying discrepancies and inconsistencies in the results. Considering a semi-automated methodology where some stages are executed through programming, it is necessary to perform checks on the end product.

Quality control has been developed by DCCSE to be applied to the products delivered by the DMECC about land use change maps and is mainly focused on detailed map database and attribute reviews, along with layer geometry. Once discrepancies have been identified, they are submitted to the team responsible for their resolution, and then it must be verified if such discrepancies still remain. It is also necessary to document all methodological steps applied, in such a way that a record of continuous improvement is established.

Methodological protocol for the development of land use land use change maps in Native Forests

The objective of this protocol is to describe procedures, inputs, data sets and methodological steps needed to generate thematic cartography and statistical reports at the technical level on land use extension, distribution and coverage changes from the digital processing of satellite images, to allow for their replication and reconstruction. Some of its specific objectives are:

- Establish a methodology for the evaluation of land use and land use changes in Native Forests with biennial frequency.
- Generate use and change (directionality) coverages for Native Forest land use in the Maule, Ñuble, Biobío, Araucanía, Los Ríos and Los Lagos regions.

Protocol for the development of carbon stock, flux and degradation maps in forest remaining forest

The forest degradation methodology is based on the integration of satellite information provided by CONAF and the national forest inventory plots. The use of satellite data must guarantee necessary adjustments for the application of the degradation algorithm. This process is semi-automated by using multi pixel mosaics downloaded from Google Earth Engine. The protocol establishes the requirements of spatial information, dasometric information and data processing needed for calculations.

The application of this process results in thematic maps that combine the information of parcels which information is known, then spatially intersected with state variable and spectral information data.

Uncertainty Estimation for Land Use Land Use Change Maps

The main way to estimate accuracy of land use land use change maps is the comparison between the results of the sorting conducted on reference maps and observations as sampling plots. The factors that influence such estimation are sampling design and the size of the map accuracy and precision assessment sample. Errors from changes in land uses and sub – uses are calculated by following the Guides on Good Practices for the estimation of use change accuracy described in Olofsson et al (2013).

Chile has a semi-automated tool that allows to compare land use change map results to high resolution images through Collect Earth. Some of its functions and use steps are:

1. Generate a pre-sampling by land use change strata.
2. From the results of the pre-sampling, the tool generates one sampling per class that meets the guidelines described in the Map Accuracy Reports (Maximum global error) and as in pre-sampling, this tool can be

used in the Collect Earth tool where a group of expert interpreters assess the initial and final uses of the period according to IPCC classes.

3. The software uses the sampling results to calculate uncertainty at the general and use change/region class level, along with details of emission and commission errors for each map.

Geographic data validation for calculating results

Results estimation is implemented from geographic data of carbon and land use change maps. To validate such data, a process with the aim of ensuring the data meets topological conditions has been developed.

Data geometry is validated in others, as it is fundamental for spatial analysis since errors detected by validation codes must be fixed before integration and calculation.

Aside from this and to reduce processing time for millions of records, an index structure for improving database performance has been developed. These indexes are applied to non-spatial values from the land use change map.

Applying a checklist to activity data

NFMS has a process for ensuring information quality and consistency, which consists in applying checklists to the results of activity data obtained from the final integration and calculation tools. The process is applied by DCCSE, with the aim of having informed surfaces completely consistent according to each REDD+ activity and region informed.

The verification seeks to ensure consistency between the surface reported for each activity and the official surface of each region, through two revisions:

- Total sum of REDD+ activity surfaces per region.
- Consistency between the surfaces reported between two periods.
- The process is applied during the integration of final calculation results and in case of finding inconsistencies, integration must be stopped, and input data reviewed.

Design and maintenance of the Forest Monitoring System

The NFMS has been designed and structured on the institutions related to Chilean forestry resources and the processes conducted by each institution, responsible for use change maps, degradation maps and forest inventory plots, and the GHG National Inventory of Chile.

Its design has a gradual approach, starting with a reference level at subnational scale and therefore its construction has been on a step-by-step basis, with the goal of advancing towards the national scale monitoring of forestry regions.

Regarding NFMS maintenance, the main activities by each institution that allow continuing the development of necessary inputs and methodologies for guaranteeing reporting on forest status in a climate change context considering continuous improvement elements are described below:

- CONAF: is responsible for implementing native forest registries through the DMECC. Also, based on international commitments on climate change, it has assumed the responsibility to develop biennial land use change national maps that contribute to ensure reporting on climate change matters and results – based payment projects.
- INFOR is responsible for continuing the measurements supported by the Chilean GHG reports, both from REDD+ and the GHG National Inventory. On the other hand, as a member of the Agriculture, Forestry and Other Land Use (AFOLU) like CONAF, INFOR remains close to the ERPA associated INGEI and REDD+ climate change commitments of Chile and maintains the commitment of executing the necessary processes for estimating degradation of the two next monitoring milestones, in accordance with the agreement.

Systems and processes that support the Forest Monitoring System, including Standard Operating Procedures and QA/QC procedures

The processes that support the FNMS are described in the next SOPS:

- **SOP01 Satellite mosaic elaboration (includes satellite image selection)³⁴**

This document is a guideline to select and download multi pixel satellite mosaics to monitor land use and land use change and to evaluate forest degradation in NFMS. The document indicates searching windows of images and pixels with the minimum required quality to be included in the mosaic elaboration.

- **SOP02 LULUCF Maps elaboration³⁵**

SOP 2 indicates the technical procedure to detect gain and losses in forest land, for the land use change monitoring, through the Multi Index Integrated Change Detection MIICA method application.

- **SOP03 Standardization and quality control protocol for land use change maps³⁶**

Standards or guidelines are established and used as compliance rules to standardize formats regarding historical and use change map, which contain information and traceability by region of land use, sub – use, structure, forest type, forest subtype, change and type of change for each evaluated period.

- **SOP04 Uncertainty assessment on land use change maps³⁷**

Correspond to standard operating procedures in writing containing detailed protocols to be followed in order to correctly attribute land uses, training procedures for interpreters/evaluators and develop a re-photointerpretation process for a series of sample units to guarantee that standard operating procedures are correctly implemented and identify areas of improvements through the use of a Platform of Uncertainty.

Visual Interpretation Classification Manual:

Written manual created as a practical, step by step tutorial meant for interpreters/evaluators that participate in uncertainty estimation processes.

- **SOP05 Forest carbon flux estimation assessment³⁸**

Develops the methodological protocol for estimating carbon fluxes in forest lands that remain as such, by integrating satellite mosaics with data series from forest inventory plots. These data are combined to determine the degradation or increase of carbon stock in permanent forest.

- **SOP06 Field operation manual³⁹**

The manual details the procedures and methods to be used in the field data collection for the inventory of the resources comprised in the native forest ecosystems of the country. It includes the chapters that deal with the data and information referring to the field brigades and the conglomerates, the plots and the trees, including the variables that characterize the development environment from an ecosystem perspective. As such, it aims to rescue data and information from the different components of forest ecosystems.

- **SOP07 Forest fire polygons⁴⁰**

This document establishes the procedure for the elaboration of forest fire polygons, operational, post and final fire, as an input for the evaluation of the damage caused by these at the level of plant formations, populated centers and strategic infrastructure.

Role of communities in the forest monitoring system

The role of communities in the NFMS is connected to activities previously presented during the 2016 report, which has extended until today in this regard. In such a context, communities actively participate in the system in terms of complaints on fire related issues, where territorial committees led by GEPRIF, and its Forest Fire Prevention

³⁴ SOP_01 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_01_MR3.zip

³⁵ SOP_02 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_02_MR3.zip

³⁶ SOP_03 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_03_MR3.zip

³⁷ SOP_04 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_04_MR3.zip

³⁸ SOP_05 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_05_MR3.zip

³⁹ SOP_06 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_06_MR3.zip

⁴⁰ SOP_07 Available in https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_07_MR3.zip

Department have been established. The previous report mentioned that the use of fire as a tool in agriculture and silviculture activities is regulated by Decree No. 276 of MINAGRI, enacted in 1980. This decree regulates and establishes norms on technical and administrative procedures for fire use, mainly for agriculture or silviculture harvest residues disposal. When this decree was issued, 45% of all forest fires in Chile were generated using fire for disposing of forestry and agriculture residues without adequate planning or control measures. Nevertheless, the current situation reveals that only 6% of fires are caused due to agricultural and/or forest burning.

CONAF's online platform for the Burn Assistance System ([SAQ](#), acronym in Spanish) facilitates procedures and processes when members of the community need to use fire, where the user conducting the controlled burning can obtain a voucher for his burn notification without having to visit a CONAF office in person. In this regard, CONAF has provided capacity building and trained communities so their users can use the system effectively and independently through the national territory.

On the other hand, and on this same point about controlled burning notifications, members of the community can also actively participate in complaint procedures that lead to fire use oversight, a situation made possible by the close cooperation between CONAF and the national police (Carabineros de Chile). In this context, initiatives such as these encourage the communities to actively participate in protecting their lands by establishing the already mentioned forest oversight committees, which for example have been developed in Maule, Biobío and Araucanía regions.

In parallel, illegal logging is another aspect related to the role of communities in NFMS. For this purpose, CONAF also has a mechanism for receiving citizen complaints via website through its third-party complaint form for alleged violations of Forestry Law of Chile available in the next link <https://oficinavirtual.conaf.cl/denunciaTerceros/index.php?x=1>, when there is information of any acts where a violation of the Forest Law of Chile has taken place.

Among the main complaints that can be made are: i) Unauthorized cutting of forest, ii) Cutting, elimination or stripping of Xerophytic formations without a Work Plan, iii) Non-compliance with technical studies and iv) Transportation or collection of primary products from the native forest.

For this, CONAF oversees verifying the truthfulness of the information being provided through the complaint, following a site inspection process as final verification and also setting in motion the various legal actions that are required to be filed against the alleged offender. Afterwards, CONAF sends a document to the complainant's address to notify him/her about the outcome of the complaint and the law enforcement conducted by CONAF, informing the complainant if there was a breach of the existing forest legislation and any legal measures adopted by CONAF if required.

As previously mentioned in Reports 1 and 2, the mechanisms described below remain unchanged and continue to support community involvement in forest monitoring and legal enforcement efforts. In relation to controlled burn notifications, community members can actively contribute by filing complaints that help regulate fire use. This is possible thanks to the collaboration between CONAF and Chile's national police, Carabineros de Chile. These efforts foster local communities to take part in protecting their lands, as seen through the creation of forest oversight committees in regions such as Maule, Biobío, and La Araucanía.

Likewise, illegal logging is another key area where communities participate within the framework of the National Forest Monitoring System (NFMS). In this regard, CONAF offers an online platform that allows citizens to report suspected violations of the Chilean Forestry Law via a third-party complaint form, accessible at the following link: <https://oficinavirtual.conaf.cl/denunciaTerceros/index.php?x=1>.

Frequent types of complaints include: (i) Unauthorized tree felling, (ii) Clearing or degradation of xerophytic vegetation without an approved Work Plan, (iii) Failure to comply with technical study requirements, and (iv) Transport or extraction of primary products from native forests. Once a complaint is submitted, CONAF is responsible

for assessing the validity of the information, including conducting an on-site inspection as part of the verification process. Where applicable, legal action is initiated against the alleged violator. Finally, CONAF sends a written notice to the complainant informing them of the results of the investigation, any detected legal infractions, and the enforcement measures applied.

Use of and consistency with standard technical procedures in the country and the National Forest Monitoring System.

The approach for the measuring, monitoring, and reporting established for emissions and captures accounting is completely consistent with the procedures established by Chile for the National Forest Monitoring System, which has been developed and implemented in accordance with the technical requirements established by the UNFCCC and the Carbon Fund. It has also been subject to a technical evaluation by the Green Climate Fund panel of experts during 2019, for the results – based payment phase. The NFMS is part of the ENCCRV Monitoring and Measurement System (SMM), which besides forest monitoring is also designed to monitor neutral land degradation elements, safeguards and co – benefits.

The SMM of the ENCCRV has information collection processes and systems that act as a basis for the NFMS. These correspond to land use change maps based on a Native Forest Cadastre for land use change activity data, the National Forest Inventory for the estimation of forest degradation, the National Wood Fuel and Carbon Inventory and the Forestry Administration and Control System (SAFF) and the Territorial Information System (SIT). These systems allow the gathering, visualization, query, and maintenance of information related to land use in Chile.

2.2 Updates to the monitoring approach

Intentionally left blank because there is no updates to the monitoring approach in this monitoring period.

2.3 Measurement, monitoring and reporting approach

The approach applied by the country is based on the preparation of land use / land use change maps, from which the stable and changing forest areas are defined for both the reference period and the period of follow-up. The first step in the process is the preparation of the land use change map and the second is the preparation of the carbon stock map, for monitoring degradation. These are the most important points in the process.

Then, for the land use change activities, the NFMS applies the gain losses estimation approach, and the stock change approach for forest remaining forest activities. For both, the emission factors come from the national forest inventory data.

2.3.1 Line Diagram

A line diagram outlining the important monitoring points, parameters monitored and the integration process according to the two areas of result estimation is shown below. In addition, specific diagrams according to REDD + activity are presented in the text. The next figure shows, in a summarized way, the sources of information for the generation of emissions and absorption estimations.

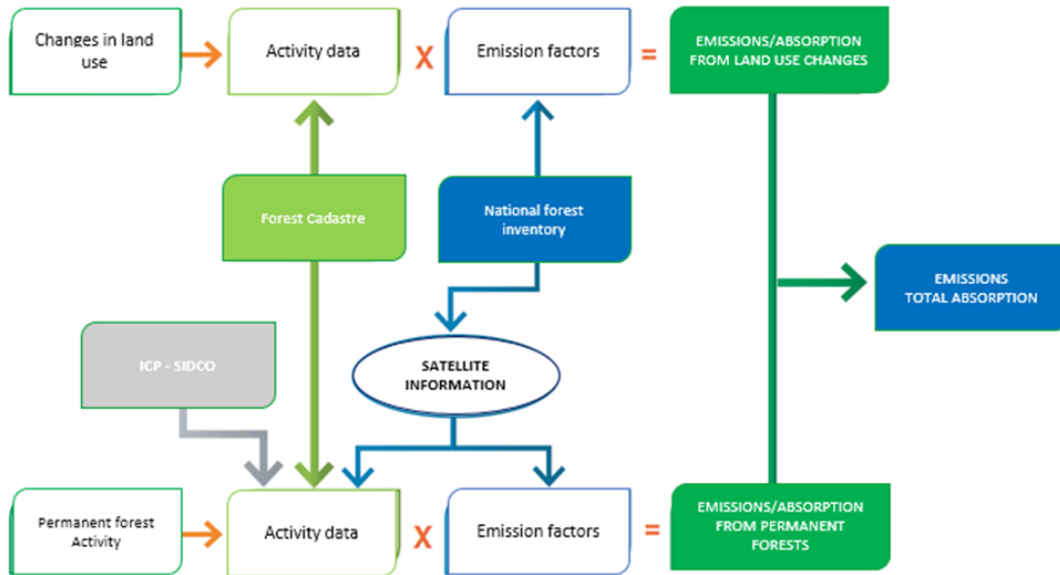


Figure 2. Sources of information for the generation of forest carbon emissions and absorption estimations.

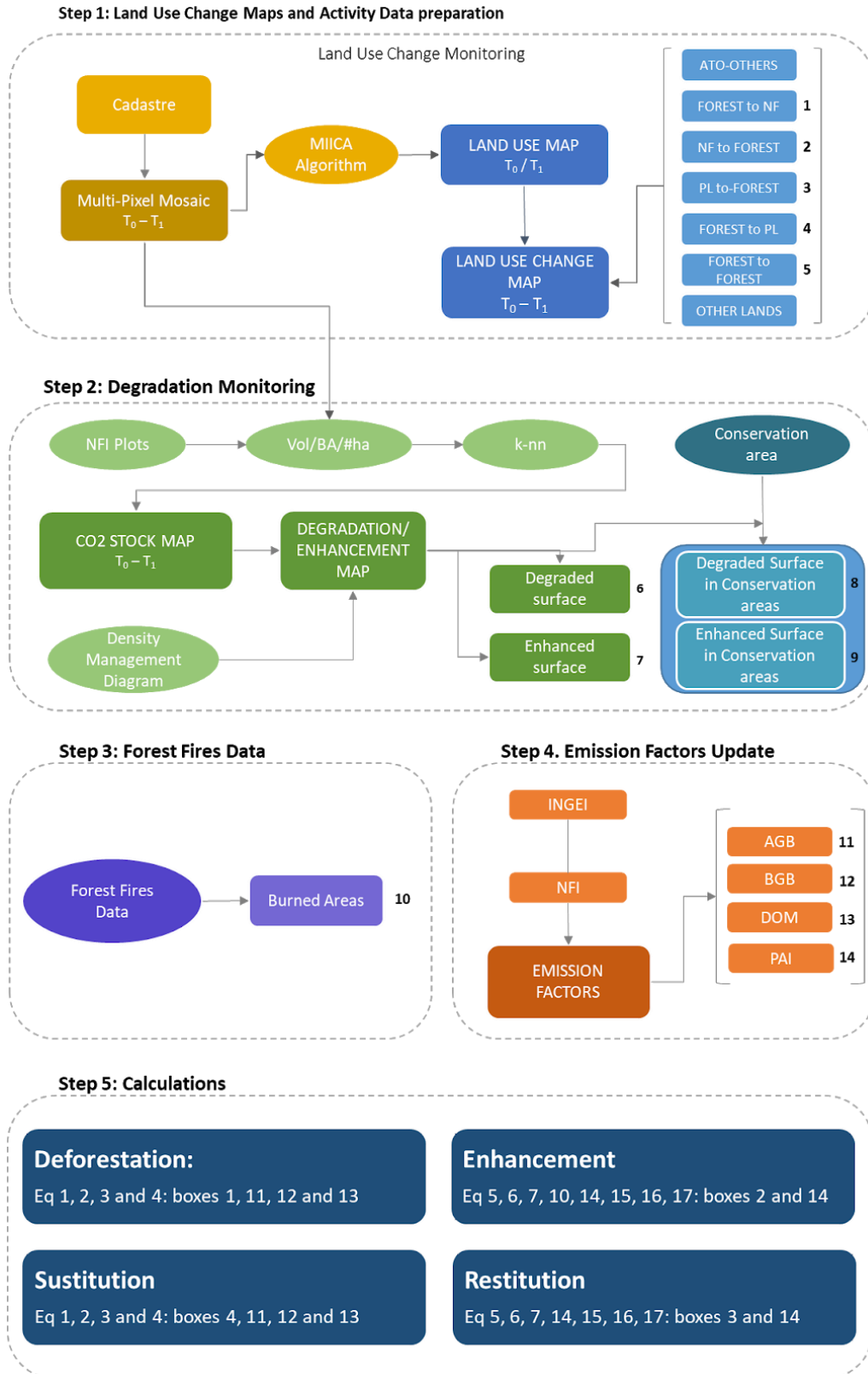


Figure 3. Methodological diagram of the Measurement and Monitoring process.

2.3.2 Calculation

Removals and emissions are estimated in the NFMS by applying the IPCC 2006 equations, in accordance with the methodology applied by INGEI. The equations are the same ones presented in the ERPD, both for the reference and monitoring period 2022-2023. They are detailed below by REDD+ activity:

Deforestation ⁴¹

The methodology for calculating deforestation is based on the IPCC 2006 equations for forest lands converted into other lands, which are also used in the INGEI for calculating emissions from forests converted into other land uses. Above ground biomass, below ground biomass and DOM reservoirs are included.

Equation 1. Estimation of Deforestation [Adapted from Eq. 2.15 of IPCC (2006)]

$$FREL_{Def} = \frac{\sum_t^n \Delta C_{B_{t,Def}}}{p} * \frac{44}{12}$$

Where:

- Def = annual average carbon stock losses in forest lands converted into non – forest during the reference and monitoring period, in tonnes CO₂e year⁻¹.
- CB_{t, Def} = carbon stock change in forest lands converted into non – forest in year *t* of the reference and monitoring period, in tonnes C.
- *p* = years of the reference and monitoring period.
- 44/12 = factor for converting carbon into equivalent carbon dioxide, tonnes CO₂e ton C⁻¹.

Tier 3 of the IPCC methodology is used in estimations of emissions from deforestation, as carbon stocks in land uses before and after conversion are specific to Chile, with conversion areas being broken down by original land cover type (Sidman et al., 2015).

As recommended in IPCC (2006), Equation 2.15 is used to calculate annual carbon stock changes in wooded lands converted into other land use categories (in the case of deforestation, any forest area converted into non – forest)

Equation 2 [Eq. 2.15 of IPCC (2006)]

$$\Delta C_{B_{t,Def}} = \Delta C_{G_t} + \Delta C_{CONVERSION_t} - \Delta C_{L_t}$$

Where:

$\Delta C_{B_{t,Def}}$ = annual carbon stock change in forest lands converted into non – forest in year *t* under deforestation activity (Def), in tonnes C.

ΔC_{G_t} = annual increase in carbon stocks due to growth in forest lands converted into non – forest in year *t*, tonnes C.

$\Delta C_{CONVERSION_t}$ = initial change in biomass carbon stocks in forest lands converted into non – forest in year *t*, in tonnes C.

ΔC_{L_t} = annual loss of biomass carbon stocks due to wood harvesting, firewood extraction and disturbances in forest lands converted into non – forest in year *t*, in tonnes C.

⁴¹ Excel spreadsheet available in:

https://plataforma.encrv.cl/static/erpa/mr3/deforestacion/Herramienta_Deforestacion_NR2_MR3_v021.xlsx

In this equation, changes in carbon stocks from gains and losses due to any activity other than conversion (ΔC_G and ΔC_L) to net gains and losses directly due to conversion ($\Delta C_{CONVERSION_i}$; in case of deforestation, as it generally results in a negative value due to the loss in forest carbon stocks) to calculate total changes in carbon stocks.

The NFMS of Chile includes ΔC_G , which represents carbon captures for non – forest uses after conversion (agricultural, urban, others). This variable will be given a value of zero, as it does not impact the deforestation loss analysis.

Equation 3 [Eq. 2.16 of IPCC (2006)]

$$\Delta C_{CONVERSION_t} = \sum_i \left\{ (B_{AFTER_i} - B_{BEFORE_i}) * \Delta A_{TOOTHERS_{i,t}} \right\} * CF$$

Where:

$\Delta C_{CONVERSION}$ = initial change in biomass carbon stocks in forest lands converted into non – forest, in tonnes C year⁻¹.

B_{AFTER_i} = existence of biomass in non – forest land use type i after conversion, in dry biomass tonnes per hectare.

B_{BEFORE_i} = existence of biomass in forest type before conversion, in dry biomass tonnes per hectare.

$\Delta A_{TOOTHERS_{i,t}}$ = forest type i area converted into non – forest in year t , in ha.

CF = carbon fraction of dry biomass, in tonnes of carbon by tons of dry biomass. 0.47 is the default value as per IPCC AFOLU guidelines 2006, Table 4.3.

In the case of deforestation, these two equations can be represented with two essential inputs ($\Delta A_{TOOTHERS_i}$), frequently called activity data (AD) and the amount of carbon stocks emitted due to conversion ($B_{AFTER_i} - B_{BEFORE_i}$), frequently called emission factors (EF). Parameters B_{AFTER_i} and B_{BEFORE_i} only include above and below ground biomass, so DOM is included by adding parameter ΔC_{DOM} calculated according to the following equation:

Equation 4 [Eq. 2.23 of IPCC (2006)]

$$\Delta C_{DOM_t} = \frac{(C_n - C_o) * A_{on_t}}{T_{on}}$$

Where:

ΔC_{DOM_t} = DOM carbon stock change in year t , tonnes C.

C_n = dead wood and DOM carbon stocks in non – forest land use after conversion, ton C year⁻¹.

C_o = dead wood and DOM carbon stocks in forest before conversion into non - forest, ton C year⁻¹.

A_{on_t} = area converted from forest into non – forest in year t , hectares.

T_{on} = time period for the forest into non – forest transition.

In this equation A_{on} corresponds to activity data, or $A_{TOOTHERS_i}$, according to the parameter of previously described in Equation 3. In order to simplify accounting, DOM emissions will be counted in the year of conversion (meaning T_{on} is supposed to have a value of 1).

The process for calculating emissions from deforestation is summarized in the following diagram:

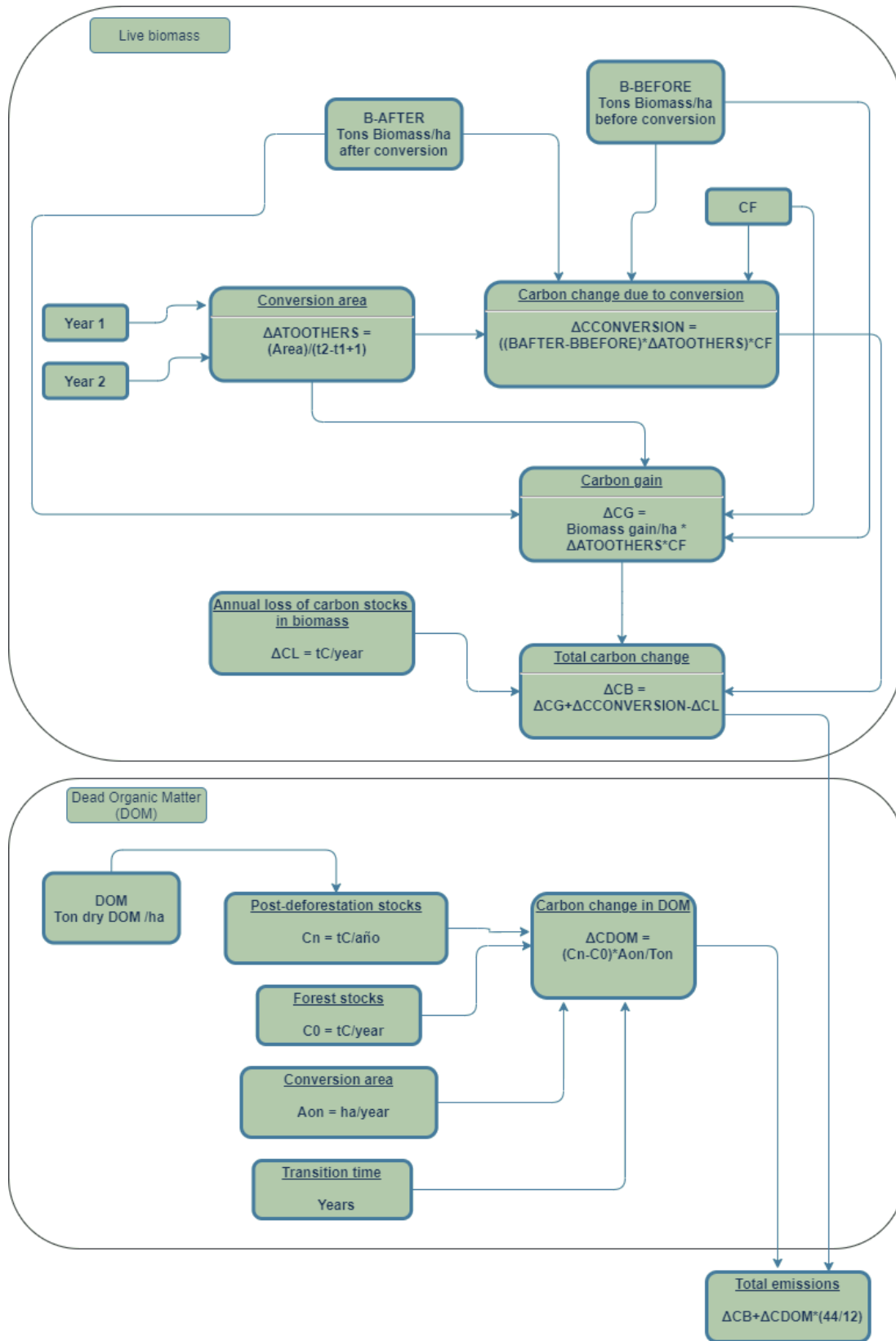


Figure 4. Step by step diagram for estimating emissions from deforestation.

Degradation from substitution⁴²

The equation used for estimating deforestation is applied to estimate degradation in native forests converted into plantations, as it is assumed that for a plantation to be established, all carbon content in the preceding native forest must be reduced to zero. Equation 1 is used to calculate the reference and monitoring period in CO₂e. Step-by-step diagram summarizing the process is presented below:

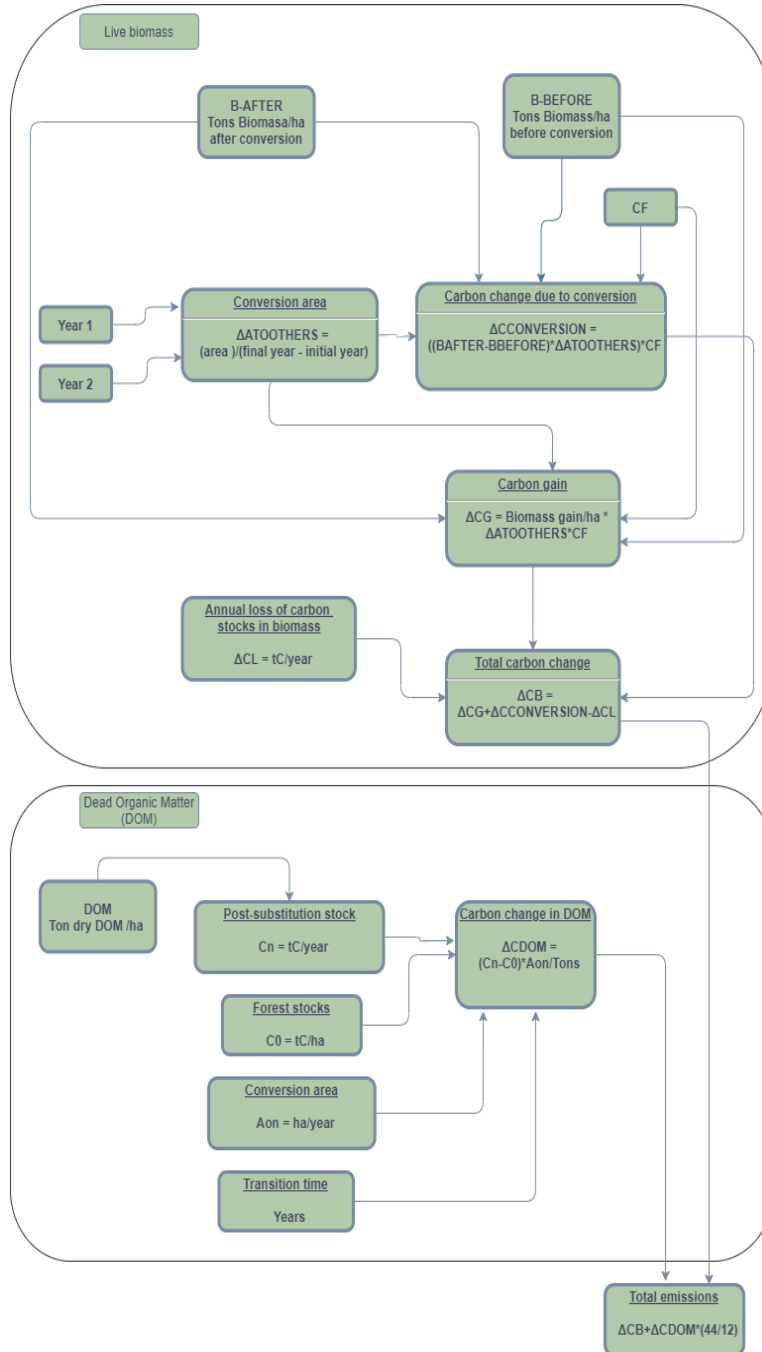


Figure 5. Step by step diagram for estimating emissions from Substitution.

⁴² Excel spreadsheet available in:

https://plataforma.enccrv.cl/static/erpa/mr3/sustitucion/Herramienta_Sustitucion_NR2_MR3_v011.xlsx

Forest area Restitution and carbon stock Enhancement⁴³

As in the other calculated activities, the methodology for enhancements in other lands converted into forests is consistent with the methodology used in INGEI which is based on equations 2.9, 2.10 and 2.15 of IPCC (2006).

The general equation corresponding to Tiers 2 and 3 of IPCC (2006) is 2.15, used for calculating annual changes in carbon stocks in above and below ground biomass (the only reservoirs included in enhancement estimations) and lands converted into other land uses (In this case, non – forest into forest):

Equation 5 [Eq. 2.15 of IPCC (2006)]

$$\Delta C_{B_{t,ANFF}} = \Delta C_{G_t} + \Delta C_{CONVERSION_t} - \Delta C_{L_t}$$

Where:

- $\Delta C_{B_{t,ANFF}}$ = carbon stock enhancements in year t , from non – forest lands converted into forests during the reference period, under the stock enhancement activity (A), in tonnes C.
- ΔC_{G_t} = carbon stock enhancement due to growth in non – forest lands converted into forest year t , in tonnes C.
- $\Delta C_{CONVERSION_t}$ = initial carbon stock change in non – forest lands converted into forests in year t , in ton C.
- ΔC_{L_t} = annual carbon stock decrease due to wood harvesting, firewood extraction and disturbances in non – forest lands converted into forest in year t , in ton C.

The estimations for enhancements assume ΔCL to be zero, due to the lack of sufficient data to quantify losses in non – forest areas converted into forest. Equation 2.16 of IPCC (2006) is used for the parameter $\Delta C_{CONVERSION_t}$:

Equation 6 [Eq. 2.16 of IPCC (2006)]

$$\Delta C_{CONVERSION_t} = \sum_i \left\{ (B_{AFTER_i} - B_{BEFORE_i}) * \Delta A_{TOOTHERS_{i,t}} \right\} * CF$$

Where:

- $\Delta C_{CONVERSION_t}$ = initial carbon change in non – forest lands converted into forest in year t , ton C.
- B_{AFTER_i} = biomass stocks in forest type i immediately after conversion, ton m.s. ha⁻¹.
- B_{BEFORE_i} = biomass stocks in land type i before conversion, ton d.m. ha⁻¹.
- $\Delta A_{TOOTHERS_{i,t}}$ = non – forest land use surface converted into forest in year t , ha.
- CF = carbon fraction in dry matter, ton C (ton m.s.)⁻¹ 0.47 is the default value as per IPCC AFOLU guidelines 2006, Table 4.3.

For parameter ΔCG (enhancement due to forest growth), INGEI uses IPCC 2006 Equation 2.9 for a Tier 2 – 3 calculation. Nevertheless, INGEI only uses it for lands converted into forest in the year of conversion.

Equation 2.9 of IPCC (2006) calculates annual carbon enhancements. But Equation 6 [(Eq. 2.16 of IPCC (2006))] does not consider captures converted in previous years that keep accumulating in strata “ i ”. So, it is necessary to modify equation 2.9 of IPCC (2006) as follows to achieve a correct accounting:

⁴³ Excel spreadsheet available in:

https://plataforma.enccrv.cl/static/erpa/mr3/aumento/Herramienta_Aumentos_NR2_MR3_v032.xlsx

Equation 7 [adapted from Eq. 2.9 of IPCC (2006)]

$$\Delta C_{G_t} = \sum_i \sum_x (A_{i,x} * G_{TOTAL_i} * CF)$$

Where:

- ΔC_{G_t} = carbon stock enhancement in year t , due to growth in non – forest lands converted into forest type i during the reference period, in ton C.
- $A_{i,x}$ = Area converted into forest i in year x of the reference period, in ha.
- G_{TOTAL_i} = annual average biomass growth in non – forest lands converted into forest type i , ton d. m. ha⁻¹ year⁻¹.
- CF = dry matter carbon fraction, ton C (ton d.m.)⁻¹ · 0.47 is the default value as per IPCC AFOLU guidelines 2006, Table 4.3.

Equation 7 considers that for calculating ΔC_{G_t} in year t , it is necessary to add captures from areas converted in each year x before year t in the reference and monitoring period, to captures from areas converted in year t . In case a forest reaches adulthood and stops capturing CO₂ from the atmosphere, it should be removed from enhancement accounting. Nevertheless, this is not supposed to happen during the reference and monitoring period.

The following diagram represents step by step the calculation of removals due to increases from non-forest to forest and restitution (plantation to native forest). In the lower part, the number of years considered in the reference period is represented (13 in total), indicating that forests grow cumulatively from year 1 to year 13.

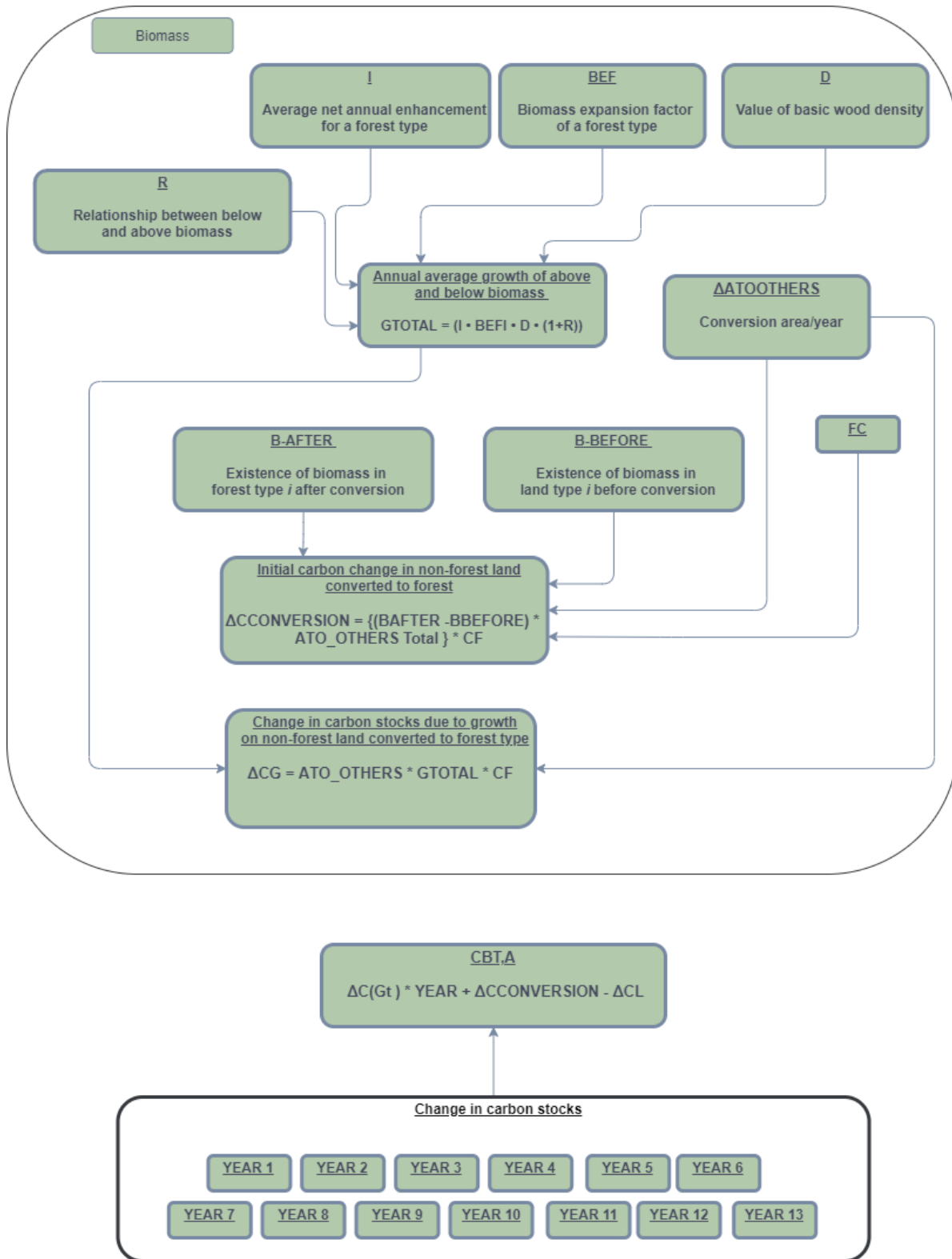


Figure 6. Step by step diagram for estimating removal from Enhancement.

Forest Remaining Forest

Degradation ⁴⁴

Equation 2.8(a) of IPCC (2006) is used to estimate changes in carbon stocks in forest lands that remain as such due to degradation:

Equation 8 [Eq. 2.8 of IPCC (2006)]

$$\Delta C_{B_t, DegFF} = \frac{(C_{t_2} - C_{t_1})}{(t_2 - t_1)}$$

Where:

- $\Delta C_{B_t, Deg}$ = annual carbon stock change in forest lands that remain as such considering total area under degradation activity (*DegFF*), ton C.
- C_{t_2} = total forest carbon in year t_2 , ton C.
- C_{t_1} = total forest carbon in year t_1 , ton C.

The equation is applied for the reference level accounting described in Bahamondez *et al.* (2009)⁴⁵. This methodology accounts for carbon stocks at different points in time, where the difference in carbon stocks in forest lands is considered degradation in case of losses. On the other hand, INGEI uses a loss – gain method, Equation 2.7 of IPCC (2006) instead of the stock difference method found in IPCC 2006 equation 2.8, where tabular data from INFOR is integrated to estimate volume extracted through selective logging, INFOR and MINENERGIA firewood statistics, and CONAF tabular data for the surface of fires in native forest and forest plantations. According to national experts, firewood extraction data are not very robust or representative of degradation in a comprehensive manner. The methodology used in NFMS allows to achieve Approach 3 results, spatially explicit data, and is based on robust and independent sources of information.

IPCC equation 2.8(b) is used to calculate carbon stocks in the initial and final moments of the reference period (C_1 and C_2 in Equation 8). The country applies a summarized version of IPCC eq 2.8, where the term EF considers ($V * BCEF * (1+R)$), portion of the equation that is previously calculated in the thematic map, the elements of Volume, Conversion Factor and expansion of biomass and relationship stem root):

Equation 9 [Adapted from Eq. 2.8 of IPCC (2006)]

$$C_t = A_{Deg} * EF * CF$$

Where:

- $C_{t,i}$ = total forest carbon in year t , ton C.
- A_{Deg} = degradation area in forest that remains as such, ha.
- EF = carbon stocks in forest that remains as such, ton biomass ha⁻¹.
- CF = carbon fraction, t carbon t biomass⁻¹. 0.47 is the default value as per IPCC AFOLU guidelines 2006, Table 4.3.

⁴⁴ Excel spreadsheet available in:

https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx

⁴⁵ Bahamóndez, C., Martín, M., Müller-Using, S., Rojas, Y., Vergara, G., 2009. Case Studies in Measuring and Assessing Forest Degradation: An Operational Approach to Forest Degradation. (Forest Resources Assessment Working Paper). Forestry Department, Food and Agriculture Organization of the United Nations.

Stock Enhancement in Forest remaining forest ⁴⁶

IPCC (2006) equation 2.8 was used to calculate annual stock enhancements:

Equation 10 [Eq. 2.8 of IPCC (2006)]

$$\Delta C_{B_t, AFF} = \frac{(C_{t_2} - C_{t_1})}{(t_2 - t_1)}$$

Where:

- $\Delta C_{B_t, AFF}$ = annual carbon stock change in forest lands that remain as such, considering total area under stock enhancement activity (*DegFF*), ton C year⁻¹.
- C_{t_2} = total forest carbon in year t_2 , ton C.
- C_{t_1} = total forest carbon in year t_1 , ton C.

Carbon contents in year t_1 (2001) and t_2 (2010) were obtained from the results of applying the methodology that allows to identify areas that were below threshold or line B at the start of the reference and monitoring period.

Forest Conservation⁴⁷

As explained in previous sections, emissions and removals for Forest Conservation is estimated by adding emissions from forest degradation in forest remaining forest and absorptions from the restoration of degraded forests in forest areas under formal conservation processes. The country applies a summarized version of IPCC eq 2.8, where the term EF considers ($V * BCEF * (1+R)$), portion of the equation that is previously calculated in the thematic map, the elements of Volume, Conversion Factor and expansion of biomass and relationship stem root):

Equation 11 [Adapted from Eq. 2.8(a) of IPCC (2006)]

$$\Delta C_{B_t, ConFF} = \Delta C_{B_t, AFF} - \Delta C_{B_t, DegFF}$$

Where:

- $\Delta C_{B_t, C}$ = carbon stock annual change in forest lands subject to formal conservation processes in year t , in ton C.
- $\Delta C_{B_t, AFF}$ = annual changes in carbon stocks due to recovery of degraded forests in areas subject to formal conservation processes, in ton C year⁻¹.
- $\Delta C_{B_t, DegFF}$ = annual changes in carbon stocks due to forest degradation in forest lands subject to formal conservation processes, in ton C year⁻¹.

In the following diagram the summary of steps for estimating emissions and captures in forest remaining forest is presented, both for increases, degradation and conservation. As can be seen, the conservation areas correspond to a part of the forest remaining forest that is under protection. It is defined by the geographic limit that delimits the area.

⁴⁶ Spreadsheet available in:

https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx

⁴⁷ Spreadsheet available in:

https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_Conservacion_NR2_MR3_v14.xlsx

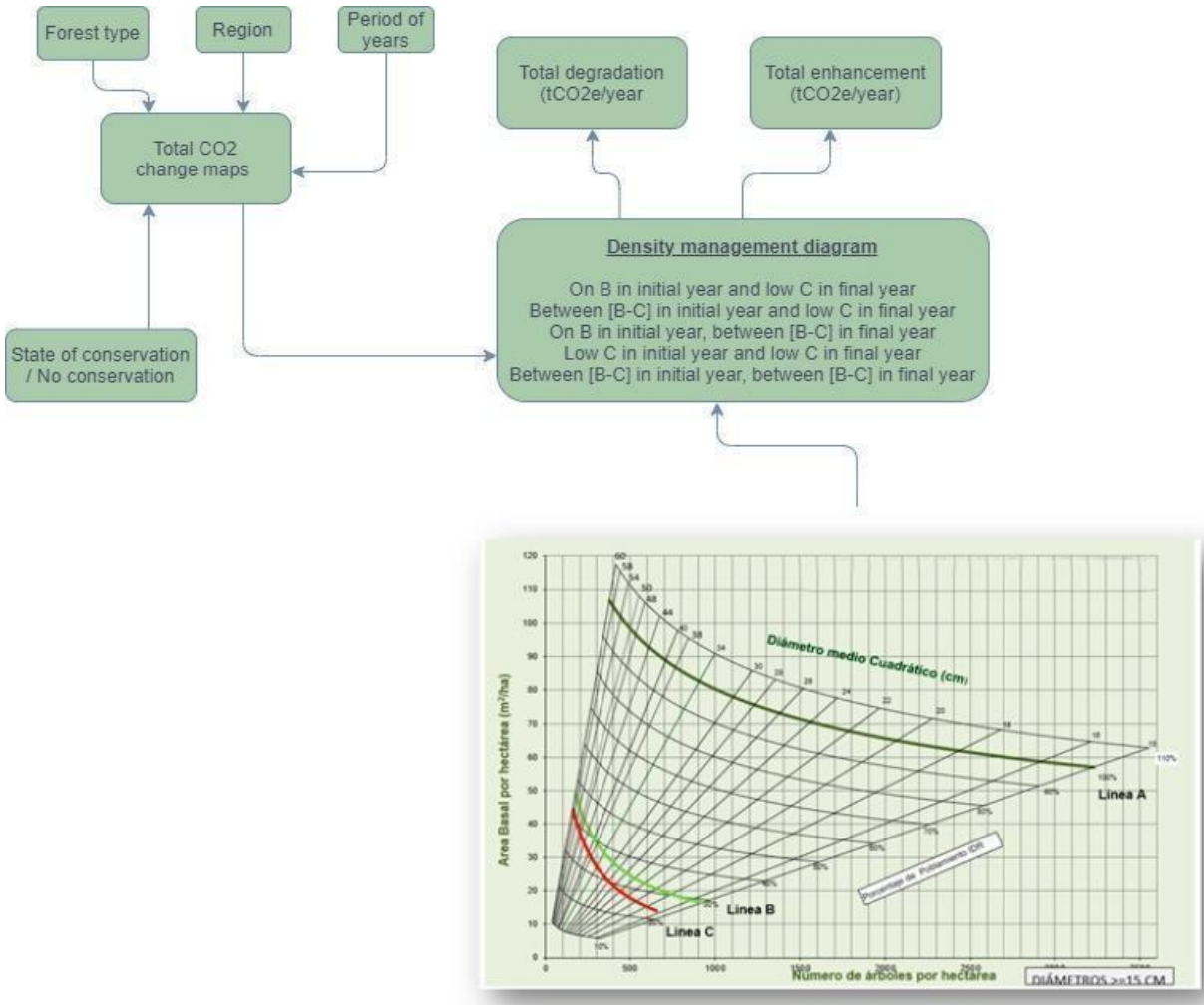


Figure 7. Step by step diagram for estimating emissions and removals from forest remaining forest.

Non -CO₂ emissions from Forest Fires⁴⁸

The methodology by Bahamondez et al. (2009) estimates CO₂ emissions in forest remaining forests. Therefore, Equation 2.27 of IPCC (2006) is used to calculate non – CO₂ emissions from forest fires:

Equation 12 [Eq. 2.27 of IPCC (2006)]

$$L_{fire} = A * M_B * C_f * G_{ef} * 10^{-3}$$

Where:

- L_{fire} = amount of greenhouse gas emissions caused by fire, ton of each GHG gas year⁻¹
- A = burned surface, ha year⁻¹
- M_B = fuel mass available for combustion, ton ha⁻¹.
- C_f = combustion factor, no dimension. The value applied is 0.45 according to IPCC 2006.

⁴⁸ Spreadsheet available in

https://plataforma.encrcv.cl/static/erpa/mr3/incendios/Herramienta_Incendios_NR2_MR3_v018.xlsx

- G_{ef} = emission factor, g kg⁻¹ of burned dry matter. Emission factors used for the equation are 4.7 for CH₄ and 0.26 for N₂O.

Equation 13 is used to convert L_{fire} into CO₂e, for Equation 12:

Equation 13

$$GEI_{fire} = L_{fire} * CF$$

Where:

- CF = conversion factor of non CO₂ gas into CO₂e, ton gas no-CO₂ ton CO₂e⁻¹. CF value is 25 for CH₄ and 298 for N₂O, according to IPCC 2006.

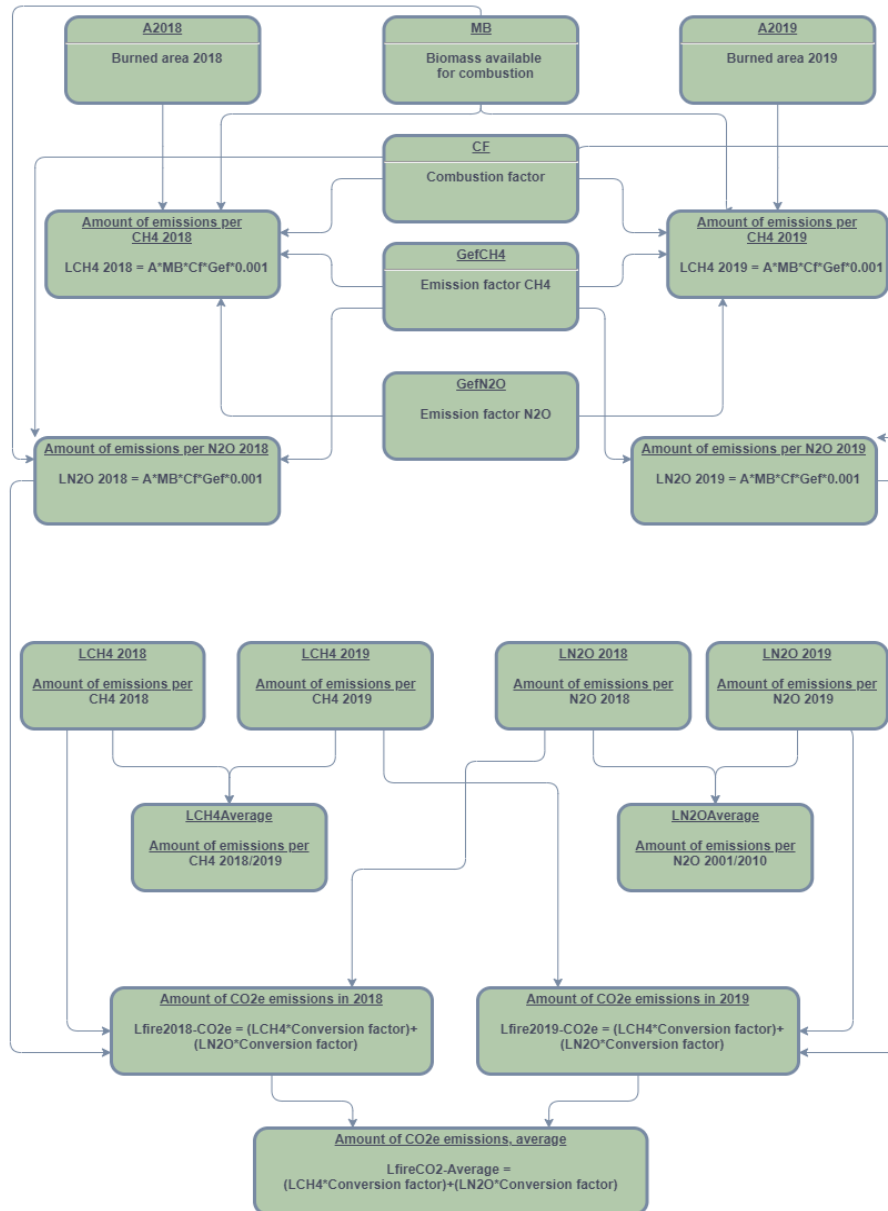


Figure 8. Step by step diagram for estimating emissions from forest fires.

Emission Factors

Deforestation

Carbon stocks before deforestation (B_{BEFORE})

Forest carbon stocks before deforestation were obtained from the information base of the INGEI of Chile. These numbers are derived from the national forest inventory in order to reach a Tier 2 living above ground biomass estimation. Estimations are stratified by forest type to obtain carbon contents before deforestation. Information of changes in land use was updated to include forest type data.

Above and below ground biomasses (B_{BEFORE} in Equation 3 and 6) along with DOM (Co in Equation 4) are obtained from the GHG national inventory. Under deforestation accounting, harvested wood products (HWP) carbon stocks are supposed to be zero, due to the lack of reliable sources of data for distinguishing between HWP due to deforestation and HWP due to degradation.

Carbon stocks after deforestation (B_{AFTERi})

INGEI uses IPCC (2006) default values for B_{AFTERi} , but these values are supposed to be the non – forest land use growth that really corresponds to ΔCG . For FREL estimations, carbon stocks directly after deforestation in deforested lands will be assumed to be zero.

Changes in carbon stocks other than deforestation events (ΔCG and ΔCL)

Post – deforestation carbon stocks (ΔCG) are determined in one of two ways:

- Values taken from a literature review of non – forest carbon stocks, ideally studies conducted in Chile (such as Gayoso 2006). If these studies are not available, data from other regional studies (Temperate South America under similar management regimes) can be used. This is the preferred method, representing a Tier 2 approach.
- When these values are not available, IPCC (2006) default values can be used. This is the method being currently used by the INGEI but represents a Tier 1 method.

Losses due to wood harvesting, firewood extraction and disturbances (ΔCL) are supposed to be zero in deforestation areas, using the same assumption as INGEI.

Degradation from Substitution

Carbon stock estimations derived from National Inventory plots and other carbon stock studies in other land uses are utilized for the emission factors in changes from native forest into plantation. Biomass stock estimations in plantations are assumed to be zero (0), as stocks in the native forest are supposed to have been reduced to zero before the establishment of the plantation.

Forest Surface Enhancement and Restitution

The value of B_{AFTERi} in Equation 7 is supposed to be zero for agricultural lands and urban – industrial areas, as carbon stocks in non – forest land use converted into forest have been removed before forests are established. For natural land uses, mainly grasslands and scrubs, B_{AFTERi} is supposed to be equal to $B_{BEFOREi}$, as no clearing or cleaning processes are supposed to take place in those lands before the forest is established, but rather are naturally converted into forest without losing initial carbon stocks. Carbon stocks in $B_{BEFOREi}$ are equivalent to carbon stocks in non – forest land use. National or regional scientific reports such as Gayoso (2006) which have estimated carbon stocks in non – forest land uses are used for these stocks.

In Equation 7, G_{TOTALi} , average annual biomass growth per hectare for each forest type is calculated through Equation 14 (modified from Equation 2.10 in IPCC 2006).

Equation 14 [adapted from Eq. 2.10 of IPCC (2006)]

$$G_{TOTAL} = \sum_i (I_{vi} \cdot BCEF_i \cdot (1+R_i))$$

Where:

- G_{TOTAL} = Average annual above and below ground biomass growth, ton d. m. ha⁻¹ year⁻¹.
- I = Annual average net increase for one forest type, m³ ha⁻¹ year⁻¹.
- $BCEF_i$ = Biomass expansion and conversion factor for the conversion of annual net volume increase into Above ground biomass growth for one forest type, tons of aerial growth (m³ of annual average increase)⁻¹.
- R = Relation between above and below ground biomass for one forest type in ton m.s of below ground biomass (ton m.s. of Above ground biomass)¹.

Annual average net increase values, I , are gathered in the INGEI data set, based on data from national forest inventory, which estimates values for the following forest types: Alerce, Ciprés de las Guaitecas, Araucaria, Ciprés de la Cordillera, Lengua, Coihue de Magallanes, Roble Hualo, Roble-Raulí-Coihue, Coihue-Raulí-Tepa, Esclerófilo and Siempreverde. Equation 15 is used for calculating $BCEF_i$:

Equation 15 [From IPCC 2006 Volume 4, page 2.13]

$$BCEF_i = BEF_i \cdot D_i$$

Where:

- BEF_i = Biomass expansion factor for one forest type. This factor expands total above ground biomass value to offset the non – marketable components of the increase, no dimension.
- D = Basic wood density value, ton m⁻³. The value applied for D is 0.496166.

The biomass expansion factor, BEF_i , and wood basic density value, D , come from the INGEI data set, having a BEF_i value for native forests, not classified by forest type, by Gayoso et al (2002). Likewise, there is only one wood density value for native species, without INGEI defining the original source, which is used for ensuring consistency with the INGEI.

The relation between above and below ground biomass in native forests, R , was estimated by Gayoso et al (2002) and is found in the INGEI data set. The value applied for R is 0.2869.

Forest remaining forest

Emission factors for degradation in forests remaining forests, carbon content enhancement from restoration of degraded forests, and forest conservation all use the same methodology.

The emission factors come from the national forest inventory, which is the basis for the methodology. The methodology determines a basal area for each forest hectare in t_1 and t_2 . The total volume of each hectare is calculated based on this data:

Equation 16

$$Vol = KAB^\beta$$

Where:

- Vol = Volume of trees in forest, cubic meters ha⁻¹.
- AB = Basal area square meters ha⁻¹.

- K = Constant, value of 2.9141.
- β = Constant, value of 1.2478.

To convert volume into CO₂ for its use in equation:

Equation 17

$$EF = Vol * D * BEF$$

Where:

- EF = carbon stocks in forests that remain as such, ton biomass ha⁻¹.
- Vol = Volume of trees in forest, cubic meters ha⁻¹.
- D = average forest density, tons meters⁻³.
- BEF = biomass expansion and conversion factor for the conversion of annual net volume increase (bark included) into above ground biomass growth for one forest type, above ground biomass growth in tons (m³ of average annual increase)⁻¹⁰.

CALCULATION OF ANNUAL EMISSION HISTORICAL AVERAGE DURING THE REFERENCE PERIOD

Forest Degradation

There are two sub activities under the degradation activity, according to the definitions:

1. Degradation in forest remaining forest.
2. Degradation from Substitution.

Various methodologies are used for each sub – activity type as previously described and justified, to calculate FREL, adding different methodologies and reference periods in ton CO_{2e}, using the following equation:

Equation 18

$$FREL_{Deg} = \frac{(\sum_t^n \Delta C_{B_t, DegFF} + \sum_t^n \Delta C_{B_t, DegFNF}) * \frac{44}{12} + \sum_t^n GEI_{fire}}{p}$$

Where:

- $FREL_{Deg}$ = carbon stock annual average losses due to forest degradation during the reference period, in ton C year⁻¹.
- $\Delta C_{B_t, DegFF}$ = carbon stock change in forest lands that remain as such in year t of the reference period, in ton C.
- $\Delta C_{B_t, DegFNF}$ = carbon stock change in forest lands converted into arborescent scrub or plantations in year t of the reference period, in ton C.
- GEI_{fire} = Amount of non-CO₂ gas emissions from forest fires, ton CO_{2e}.
- p = years of the reference period.
- $\frac{44}{12}$ = factor for converting carbon into equivalent carbon dioxide, ton CO_{2e} ton C⁻¹.

Forest Carbon Stock Enhancement

Captures associated to areas that change from non – forest into forest, along with captures from forest areas that remain as such are accounted under the stock enhancement category.

1. Forest surface restitution and enhancement.
2. Restoration of degraded forests

Likewise, FREL activity data regarding forest carbon stock enhancements is estimated using differentiated methodologies for forests that remain as such and the identification of non – forest areas converted into forests, just as in the degradation FREL.

Equation 19

$$FRL_A = \frac{(\sum_t^n \Delta C_{B_t,ANFF} + \sum_t^n \Delta C_{B_t,AFF}) * \frac{44}{12}}{p}$$

Where:

- FRL_A = annual average carbon stock increase during the reference period, in ton CO₂e year⁻¹.
- $\Delta C_{B_t,ANFF}$ = carbon stock change in year t , from non – forest lands converted into forest during the reference period, under the stock enhancement activity (A), in ton C.
- $\Delta C_{B_t,AFF}$ = annual carbon stock change in forest areas that remain as forest, considering total area, in ton C year⁻¹.
- p = years of the reference period.

3 DATA AND PARAMETERS

3.1 Fixed Data and Parameters

Parameter:	Biomass expansion factor (BEF) for the native forest
Description:	This factor expands the total volume of above ground biomass to compensate for non-marketable aspects of the enhancement.
Data unit:	Dimensionless parameter
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	The Biomass expansion factor comes from information collected in the country from the study of Gayoso et al. (2002) and used in INGEI (2020). This value is for native species and has a national spatial level.
Value applied:	1.75
QA/QC procedures applied	These are reference national values obtained from Gayoso et al. (2002) and INGEI (2020) as was mentioned before.
Uncertainty associated with this parameter:	Error calculation based on statistical data from the Biomass Inventory and Carbon Accounting of the Universidad Austral de Chile (UACH). Error: 18%
Any comment:	

Parameter:	Basic density value of the wood (D)
Description:	Calculated using basic density data collected from native species growing in Chile.
Data unit:	t d.m. m ⁻³
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	A bibliographic review of basic densities of the forest species in Chile was carried out and there were no modifications for the value exposed from Gayoso et al. (2002) and INGEI (2020).
Value applied:	0.496166
QA/QC procedures applied	These are reference national values obtained from Gayoso et al. (2002) and INGEI (2020) as was mentioned before.
Uncertainty associated with this parameter:	Calculation was performed using basic density data collected from native species growing in Chile. Error: 5.6%
Any comment:	

Parameter:	Root-to-shoot ratios of native forest (R factor)
Description:	Relationship between below ground and above ground biomass
Data unit:	t d.m. m ⁻³
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	R factor comes from information collected in the country (Gayoso et al., 2002; INGEI, 2020). This value is within the range of values indicated in the 2006 IPCC Guidelines for temperate forests (between 0.20 and 0.46, according to Table 4.4; Chapter 4; Volume 4) and within the values available worldwide, which provide R factors that range between 0.09 and 0.33. This value is for native species and has a national spatial level.
Value applied:	0.2869
QA/QC procedures applied	These are reference national values obtained from Gayoso et al. (2002) and INGEI (2020) as was mentioned before. QA / QC applied in documentation process “Estimación de valores de fracción de carbono, relación tallo raíz” (“Estimation of carbon fraction values, stem-root relation”).
Uncertainty associated with this parameter:	Error calculation based on statistical data from the Biomass Inventory and Carbon Accountancy of the Universidad Austral de Chile (UACH). Error: 9.4%
Any comment:	

Parameter:	Above and below ground biomass of other uses
Description:	Above and below ground biomass of Urban and Industrial Areas, agricultural land, grassland, scrub, arborescent scrub, shrub planting, succulent scrub, succulent formations, plantations, wetlands, areas deprived of vegetation, eternal snows and glaciers, waterbodies and unrecognized areas
Data unit:	Tons of dry biomass ha ⁻¹ (t d.m. ha ⁻¹)
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	<ul style="list-style-type: none"> ● Urban and Industrial Areas (INGEI, 2020) ● Agricultural land (INGEI, 2020) ● Grassland (Gayoso et al., 2006) ● Grassland - Scrub (Gayoso et al., 2006) ● Scrub (Gayoso et al., 2006) ● Arborescent scrub (Gayoso et al., 2006) ● Scrub with succulent (Gayoso et al., 2006) ● Succulent formations (assumption of grassland values (Gayoso et al., 2006)) ● Shrub planting (Gayoso et al., 2006) ● Plantation (Expert national panel) ● Wetlands (assumption) ● Areas deprived of vegetation (assumption) ● Eternal snows and glaciers (assumption) ● Waterbodies (assumption) ● Unrecognized areas (assumption) <p>These are reference national values obtained from Gayoso et al. (2006), INGEI (2020), an expert national panel and assumption as mentioned before.</p>

Value applied:	Use / sub use	t dry above ground biomass ha⁻¹	t dry below ground biomass ha⁻¹
	Urban and Industrial Areas	2	0
	Agricultural land	10	2
	Grassland	4.73	8.13
	Grassland - Scrub	9.04	14.99
	Scrub	9.04	14.99
	Arborescent scrub	21.78	35.25
	Scrub with succulent	9.04	14.99
	Succulent formations	4.73	8.13
	Shrub planting	9.04	14.99
	Plantation	0	0
	Wetlands	0	0
	Areas deprived of vegetation	0	0
	Eternal snows and glaciers	0	0
Waterbodies	0	0	
Unrecognized areas	0	0	
QA/QC procedures applied	These are reference national values obtained from Gayoso et al. (2006), INGEI (2020), an expert national panel and assumption as mentioned before.		
Uncertainty associated with this parameter:	Data from INGEI (2020) and Gayoso et al., (2006).		
	Use / sub use	Error % in above ground biomass	
	Urban and Industrial Areas	95%	
	Agricultural land	75%	
	Grassland	27.7%	
	Grassland – Scrub	34.6%	
	Scrub	34.6%	
	Arborescent scrub	22.4%	
	Scrub with succulent	34.6%	
	Succulent formations	27.7%	
	Shrub planting	34.6%	
	Uncertainty for below ground biomass (BGB) of Non-Forest lands is based on propagation error estimate following IPCC approach 1 of Matorral-Arborescente AGB error (22.42%) and Root shoot ratio -R Factor error (48.27%) estimated by Gayoso et al. (2002), resulting in total uncertainty of 53.2%.		
Any comment:			

Parameter:	Above and below ground biomass of native forest.
Description:	Above and below ground biomass of native forest. The native forest is classified by different forest type and structure. Each forest type has its own biomass value in some cases, depending on data availability.
Data unit:	Tons of dry biomass ha ⁻¹ (t d.m. ha ⁻¹).

<p>Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):</p>	<p>Native forest data are national data and published in INGEI (2020). The mixed forest is calculated as a weighted average value of the forest types present in the region and according to the forest type surface present for the activity of deforestation of the period. For missing biomass values of the forest types and some of the structures a weighted average value was calculated in the region and according to the forest type surface present at the final year in reference level (2013). The AGB and BGB parameters are estimated from the IFN plots. The estimate of the variation in carbon content on forests that remain as such for FREL/FRL and monitoring report for Degradation, Restoration of Forest remaining forests and Forestry Conservation activities is estimated based on information coming from the Continuous Inventory of Forest Ecosystems and the application of remote sensing techniques on LANDSAT satellite images.</p>																																																																																																																																												
<p>Value applied:</p>	<table border="1"> <thead> <tr> <th>Forest type</th> <th>Structure</th> <th>AGB (t d.m. ha⁻¹)</th> <th>BGB (t d.m. ha⁻¹)</th> </tr> </thead> <tbody> <tr><td>Alerce</td><td>Adult</td><td>339.1</td><td>97.3</td></tr> <tr><td>Alerce</td><td>Young</td><td>203.6</td><td>58.4</td></tr> <tr><td>Alerce</td><td>Adult/Young</td><td>203.6</td><td>58.4</td></tr> <tr><td>Alerce</td><td>Stunted</td><td>339.1</td><td>97.3</td></tr> <tr><td>Cipres de las Guaitecas</td><td>Adult</td><td>198.0</td><td>56.8</td></tr> <tr><td>Cipres de las Guaitecas</td><td>Young</td><td>198.0</td><td>56.8</td></tr> <tr><td>Cipres de las Guaitecas</td><td>Adult/Young</td><td>198.0</td><td>56.8</td></tr> <tr><td>Cipres de las Guaitecas</td><td>Stunted</td><td>198.0</td><td>56.8</td></tr> <tr><td>Araucaria</td><td>Adult</td><td>421.4</td><td>120.9</td></tr> <tr><td>Araucaria</td><td>Young</td><td>219.1</td><td>62.9</td></tr> <tr><td>Araucaria</td><td>Adult/Young</td><td>219.1</td><td>62.9</td></tr> <tr><td>Araucaria</td><td>Stunted</td><td>421.4</td><td>120.9</td></tr> <tr><td>Cipres de la Cordillera</td><td>Adult</td><td>124.0</td><td>35.6</td></tr> <tr><td>Cipres de la Cordillera</td><td>Young</td><td>124.0</td><td>35.6</td></tr> <tr><td>Cipres de la Cordillera</td><td>Adult/Young</td><td>124.0</td><td>35.6</td></tr> <tr><td>Cipres de la Cordillera</td><td>Stunted</td><td>124.0</td><td>35.6</td></tr> <tr><td>Lenga</td><td>Adult</td><td>198.5</td><td>56.9</td></tr> <tr><td>Lenga</td><td>Young</td><td>237.2</td><td>68.1</td></tr> <tr><td>Lenga</td><td>Adult/Young</td><td>237.2</td><td>68.1</td></tr> <tr><td>Lenga</td><td>Stunted</td><td>198.5</td><td>56.9</td></tr> <tr><td>Coihue de Magallanes</td><td>Adult</td><td>129.1</td><td>37.1</td></tr> <tr><td>Coihue de Magallanes</td><td>Young</td><td>129.1</td><td>37.1</td></tr> <tr><td>Coihue de Magallanes</td><td>Adult/Young</td><td>129.1</td><td>37.1</td></tr> <tr><td>Coihue de Magallanes</td><td>Stunted</td><td>129.1</td><td>37.1</td></tr> <tr><td>Roble - Hualo</td><td>Adult</td><td>114.9</td><td>33.0</td></tr> <tr><td>Roble - Hualo</td><td>Young</td><td>114.9</td><td>33.0</td></tr> <tr><td>Roble - Hualo</td><td>Adult/Young</td><td>114.9</td><td>33.0</td></tr> <tr><td>Roble - Hualo</td><td>Stunted</td><td>114.9</td><td>33.0</td></tr> <tr><td>Roble - Rauli - Coihue</td><td>Adult</td><td>178.6</td><td>51.2</td></tr> <tr><td>Roble - Rauli - Coihue</td><td>Young</td><td>152.8</td><td>43.8</td></tr> <tr><td>Roble - Rauli - Coihue</td><td>Adult/Young</td><td>152.8</td><td>43.8</td></tr> <tr><td>Roble - Rauli - Coihue</td><td>Stunted</td><td>178.6</td><td>51.2</td></tr> <tr><td>Coihue - Rauli - Tapa</td><td>Adult</td><td>377.0</td><td>108.2</td></tr> <tr><td>Coihue - Rauli - Tapa</td><td>Young</td><td>377.0</td><td>108.2</td></tr> </tbody> </table>	Forest type	Structure	AGB (t d.m. ha ⁻¹)	BGB (t d.m. ha ⁻¹)	Alerce	Adult	339.1	97.3	Alerce	Young	203.6	58.4	Alerce	Adult/Young	203.6	58.4	Alerce	Stunted	339.1	97.3	Cipres de las Guaitecas	Adult	198.0	56.8	Cipres de las Guaitecas	Young	198.0	56.8	Cipres de las Guaitecas	Adult/Young	198.0	56.8	Cipres de las Guaitecas	Stunted	198.0	56.8	Araucaria	Adult	421.4	120.9	Araucaria	Young	219.1	62.9	Araucaria	Adult/Young	219.1	62.9	Araucaria	Stunted	421.4	120.9	Cipres de la Cordillera	Adult	124.0	35.6	Cipres de la Cordillera	Young	124.0	35.6	Cipres de la Cordillera	Adult/Young	124.0	35.6	Cipres de la Cordillera	Stunted	124.0	35.6	Lenga	Adult	198.5	56.9	Lenga	Young	237.2	68.1	Lenga	Adult/Young	237.2	68.1	Lenga	Stunted	198.5	56.9	Coihue de Magallanes	Adult	129.1	37.1	Coihue de Magallanes	Young	129.1	37.1	Coihue de Magallanes	Adult/Young	129.1	37.1	Coihue de Magallanes	Stunted	129.1	37.1	Roble - Hualo	Adult	114.9	33.0	Roble - Hualo	Young	114.9	33.0	Roble - Hualo	Adult/Young	114.9	33.0	Roble - Hualo	Stunted	114.9	33.0	Roble - Rauli - Coihue	Adult	178.6	51.2	Roble - Rauli - Coihue	Young	152.8	43.8	Roble - Rauli - Coihue	Adult/Young	152.8	43.8	Roble - Rauli - Coihue	Stunted	178.6	51.2	Coihue - Rauli - Tapa	Adult	377.0	108.2	Coihue - Rauli - Tapa	Young	377.0	108.2
Forest type	Structure	AGB (t d.m. ha ⁻¹)	BGB (t d.m. ha ⁻¹)																																																																																																																																										
Alerce	Adult	339.1	97.3																																																																																																																																										
Alerce	Young	203.6	58.4																																																																																																																																										
Alerce	Adult/Young	203.6	58.4																																																																																																																																										
Alerce	Stunted	339.1	97.3																																																																																																																																										
Cipres de las Guaitecas	Adult	198.0	56.8																																																																																																																																										
Cipres de las Guaitecas	Young	198.0	56.8																																																																																																																																										
Cipres de las Guaitecas	Adult/Young	198.0	56.8																																																																																																																																										
Cipres de las Guaitecas	Stunted	198.0	56.8																																																																																																																																										
Araucaria	Adult	421.4	120.9																																																																																																																																										
Araucaria	Young	219.1	62.9																																																																																																																																										
Araucaria	Adult/Young	219.1	62.9																																																																																																																																										
Araucaria	Stunted	421.4	120.9																																																																																																																																										
Cipres de la Cordillera	Adult	124.0	35.6																																																																																																																																										
Cipres de la Cordillera	Young	124.0	35.6																																																																																																																																										
Cipres de la Cordillera	Adult/Young	124.0	35.6																																																																																																																																										
Cipres de la Cordillera	Stunted	124.0	35.6																																																																																																																																										
Lenga	Adult	198.5	56.9																																																																																																																																										
Lenga	Young	237.2	68.1																																																																																																																																										
Lenga	Adult/Young	237.2	68.1																																																																																																																																										
Lenga	Stunted	198.5	56.9																																																																																																																																										
Coihue de Magallanes	Adult	129.1	37.1																																																																																																																																										
Coihue de Magallanes	Young	129.1	37.1																																																																																																																																										
Coihue de Magallanes	Adult/Young	129.1	37.1																																																																																																																																										
Coihue de Magallanes	Stunted	129.1	37.1																																																																																																																																										
Roble - Hualo	Adult	114.9	33.0																																																																																																																																										
Roble - Hualo	Young	114.9	33.0																																																																																																																																										
Roble - Hualo	Adult/Young	114.9	33.0																																																																																																																																										
Roble - Hualo	Stunted	114.9	33.0																																																																																																																																										
Roble - Rauli - Coihue	Adult	178.6	51.2																																																																																																																																										
Roble - Rauli - Coihue	Young	152.8	43.8																																																																																																																																										
Roble - Rauli - Coihue	Adult/Young	152.8	43.8																																																																																																																																										
Roble - Rauli - Coihue	Stunted	178.6	51.2																																																																																																																																										
Coihue - Rauli - Tapa	Adult	377.0	108.2																																																																																																																																										
Coihue - Rauli - Tapa	Young	377.0	108.2																																																																																																																																										

	Coihue - Rauli - Tapa	Adult/Young	377.0	108.2
	Coihue - Rauli - Tapa	Stunted	377.0	108.2
	Esclerófilo	Adult	18.6	5.3
	Esclerófilo	Young	18.6	5.3
	Esclerófilo	Adult/Young	18.6	5.3
	Esclerófilo	Stunted	18.6	5.3
	Siempreverde	Adult	361.6	103.8
	Siempreverde	Young	127.3	36.5
	Siempreverde	Adult/Young	127.3	36.5
	Siempreverde	Stunted	361.6	103.8
QA/QC procedures applied	SOP_06_Field Operation Manual			
Uncertainty associated with this parameter:	<p>Uncertainty for Below Ground Biomass BGB is based on propagation error estimate following IPCC approach 1 of Above Ground Biomass-AGB error (18.85%) and Root shoot ratio -R Factor error (9.4%) estimated by Gayoso et al. (2002), resulting in total uncertainty of 44.2%.</p> <p>For the forest types with a limited number of sampling plots, AGB uncertainty propagation with Monte Carlo analysis uses the following information: i. DBH measurement error (0.2%), calculation based on Continuous Forest Inventory data of INFOR; ii. Volume estimation error (0.07%), calculation based on Continuous Forest Inventory data of INFOR, iii. Biomass Expansion Factor (BEF) error (18.0%), BEF comes from information collected in the country from the study of Gayoso et al. (2002) and used in INGEI (2020). This value is for native species and has a national spatial level. Error calculation is based on statistical data from the Biomass Inventory and Carbon Accountancy of the Universidad Austral de Chile (UACH); and iv. Wood Density (5.6%) calculated using basic density data collected from native species growing in Chile. Finally, these uncertainties are combined following IPCC approach 1 (error propagation), resulting in total uncertainty of 18.85%</p>			
Any comment:				

Parameter:	Dead organic matter of native forest (DOM).
Description:	<p>The native forest is classified by different forest types and structures. Each forest type has its own dead organic matter value in some cases, depending on data availability. The mixed forest is calculated as a weighted average value of the forest types present in the region and according to the forest surface present for the activity of deforestation of the period.</p> <p>For the missing DOM value of the forest types and some of the structures, a weighted average value was calculated in the region and according to the forest type surface present at the final year in the reference level (2013).</p>
Data unit:	Tons of carbon in dead organic matter ha ⁻¹ (tC ha ⁻¹).
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	Forest native data are national data and published in INGEI (2020).

Value applied:	Forest type	Structure	AGB (tC ha ⁻¹)
		Alerce	Adult
	Alerce	Young	121.4
	Alerce	Adult/Young	121.4
	Alerce	Stunted	121.4
	Cipres de las Guaitecas	Adult	62.11
	Cipres de las Guaitecas	Young	62.11
	Cipres de las Guaitecas	Adult/Young	62.11
	Cipres de las Guaitecas	Stunted	62.11
	Araucaria	Adult	133.4
	Araucaria	Young	133.4
	Araucaria	Adult/Young	133.4
	Araucaria	Stunted	133.4
	Cipres de la Cordillera	Adult	62.11
	Cipres de la Cordillera	Young	62.11
	Cipres de la Cordillera	Adult/Young	62.11
	Cipres de la Cordillera	Stunted	62.11
	Lenga	Adult	43.4
	Lenga	Young	43.4
	Lenga	Adult/Young	43.4
	Lenga	Stunted	43.4
	Coihue de Magallanes	Adult	140.1
	Coihue de Magallanes	Young	140.1
	Coihue de Magallanes	Adult/Young	140.1
	Coihue de Magallanes	Stunted	140.1
	Roble - Hualo	Adult	62.11
	Roble - Hualo	Young	62.11
	Roble - Hualo	Adult/Young	62.11
	Roble - Hualo	Stunted	62.11
	Roble - Rauli - Coihue	Adult	52.9
	Roble - Rauli - Coihue	Young	52.9
	Roble - Rauli - Coihue	Adult/Young	52.9
	Roble - Rauli - Coihue	Stunted	52.9
	Coihue - Rauli - Tepa	Adult	74.4
	Coihue - Rauli - Tepa	Young	74.4
	Coihue - Rauli - Tepa	Adult/Young	74.4
	Coihue - Rauli - Tepa	Stunted	74.4
	Esclerófilo	Adult	16.7
	Esclerófilo	Young	16.7
	Esclerófilo	Adult/Young	16.7
	Esclerófilo	Stunted	16.7
	Siempreverde	Adult	64.8
	Siempreverde	Young	64.8
	Siempreverde	Adult/Young	64.8
	Siempreverde	Stunted	64.8
QA/QC procedures applied	SOP_06_Field Operation Manual		

Uncertainty associated with this parameter:	Error estimated from permanent plots of the INFOR Continuous Forest Inventory Error: 28.4%
Any comment:	

Parameter:	Periodic annual increment (PAI) according to forest type																																																																		
Description:	Periodic annual increment (PAI) according to forest type and structure. Each forest type has its own biomass value in some cases, depend on data availability. For missing PAI value of the forest types and some of the structures a weighted average value was calculated in the region and according to the forest type surface present at the final year in the reference level (2013).																																																																		
Data unit:	Cubic meter per hectare and year (m ³ ha ⁻¹ year ⁻¹)																																																																		
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	Forest native data are national data and published in INGEI (2020)																																																																		
Value applied:	<table border="1"> <thead> <tr> <th>Forest type</th> <th>Structure</th> <th>PAI (m³ ha⁻¹ year⁻¹)</th> </tr> </thead> <tbody> <tr><td>Alerce</td><td>Mature</td><td>0.5</td></tr> <tr><td>Alerce</td><td>Young</td><td>0.5</td></tr> <tr><td>Alerce</td><td>Mature/Young</td><td>0.5</td></tr> <tr><td>Alerce</td><td>Stunted</td><td>0.5</td></tr> <tr><td>Ciprés de las Guaitecas</td><td>Mature</td><td>3.9</td></tr> <tr><td>Ciprés de las Guaitecas</td><td>Young</td><td>3.9</td></tr> <tr><td>Ciprés de las Guaitecas</td><td>Mature/Young</td><td>3.9</td></tr> <tr><td>Ciprés de las Guaitecas</td><td>Stunted</td><td>3.9</td></tr> <tr><td>Araucaria</td><td>Mature</td><td>4.6</td></tr> <tr><td>Araucaria</td><td>Young</td><td>4.6</td></tr> <tr><td>Araucaria</td><td>Mature/Young</td><td>4.6</td></tr> <tr><td>Araucaria</td><td>Stunted</td><td>4.6</td></tr> <tr><td>Ciprés de la Cordillera</td><td>Mature</td><td>5</td></tr> <tr><td>Ciprés de la Cordillera</td><td>Young</td><td>2.7</td></tr> <tr><td>Ciprés de la Cordillera</td><td>Mature/Young</td><td>2.7</td></tr> <tr><td>Ciprés de la Cordillera</td><td>Stunted</td><td>5</td></tr> <tr><td>Lenga</td><td>Mature</td><td>5.8</td></tr> <tr><td>Lenga</td><td>Young</td><td>3.9</td></tr> <tr><td>Lenga</td><td>Mature/Young</td><td>3.9</td></tr> <tr><td>Lenga</td><td>Stunted</td><td>5.8</td></tr> <tr><td>Coihue de Magallanes</td><td>Mature</td><td>2.6</td></tr> </tbody> </table>	Forest type	Structure	PAI (m ³ ha ⁻¹ year ⁻¹)	Alerce	Mature	0.5	Alerce	Young	0.5	Alerce	Mature/Young	0.5	Alerce	Stunted	0.5	Ciprés de las Guaitecas	Mature	3.9	Ciprés de las Guaitecas	Young	3.9	Ciprés de las Guaitecas	Mature/Young	3.9	Ciprés de las Guaitecas	Stunted	3.9	Araucaria	Mature	4.6	Araucaria	Young	4.6	Araucaria	Mature/Young	4.6	Araucaria	Stunted	4.6	Ciprés de la Cordillera	Mature	5	Ciprés de la Cordillera	Young	2.7	Ciprés de la Cordillera	Mature/Young	2.7	Ciprés de la Cordillera	Stunted	5	Lenga	Mature	5.8	Lenga	Young	3.9	Lenga	Mature/Young	3.9	Lenga	Stunted	5.8	Coihue de Magallanes	Mature	2.6
Forest type	Structure	PAI (m ³ ha ⁻¹ year ⁻¹)																																																																	
Alerce	Mature	0.5																																																																	
Alerce	Young	0.5																																																																	
Alerce	Mature/Young	0.5																																																																	
Alerce	Stunted	0.5																																																																	
Ciprés de las Guaitecas	Mature	3.9																																																																	
Ciprés de las Guaitecas	Young	3.9																																																																	
Ciprés de las Guaitecas	Mature/Young	3.9																																																																	
Ciprés de las Guaitecas	Stunted	3.9																																																																	
Araucaria	Mature	4.6																																																																	
Araucaria	Young	4.6																																																																	
Araucaria	Mature/Young	4.6																																																																	
Araucaria	Stunted	4.6																																																																	
Ciprés de la Cordillera	Mature	5																																																																	
Ciprés de la Cordillera	Young	2.7																																																																	
Ciprés de la Cordillera	Mature/Young	2.7																																																																	
Ciprés de la Cordillera	Stunted	5																																																																	
Lenga	Mature	5.8																																																																	
Lenga	Young	3.9																																																																	
Lenga	Mature/Young	3.9																																																																	
Lenga	Stunted	5.8																																																																	
Coihue de Magallanes	Mature	2.6																																																																	

	Coihue de Magallanes	Young	3.7
	Coihue de Magallanes	Mature/Young	3.7
	Coihue de Magallanes	Stunted	2.6
	Roble - Hualo	Mature	5.1
	Roble - Hualo	Young	3.5
	Roble - Hualo	Mature/Young	3.5
	Roble - Hualo	Stunted	5.1
	Roble - Raulí - Coihue	Mature	6.6
	Roble - Raulí - Coihue	Young	4.1
	Roble - Raulí - Coihue	Mature/Young	4.1
	Roble - Raulí - Coihue	Stunted	6.6
	Coihue - Raulí - Tepa	Mature	5.8
	Coihue - Raulí - Tepa	Young	4.9
	Coihue - Raulí - Tepa	Mature/Young	4.9
	Coihue - Raulí - Tepa	Stunted	5.8
	Esclerófilo	Mature	1.5
	Esclerófilo	Young	1.6
	Esclerófilo	Mature/Young	1.6
	Esclerófilo	Stunted	1.5
	Siempreverde	Mature	6
	Siempreverde	Young	4.1
	Siempreverde	Mature/Young	4.1
	Siempreverde	Stunted	6
QA/QC procedures applied	SOP_06_Field Operation Manual		
Uncertainty associated with this parameter:	<p>SOP_06 Field Operations Manual was implemented during fieldwork to estimate PAI in the National Forest Inventory, for some forest types were possible to adjust a Probability Distribution Function (PDF). For the forest types with a limited number of sampling plots, uncertainty propagation with Monte Carlo analysis uses the calculation of the measurement uncertainty for PAI based on the 95% CI of the removal rate by forest type, calculated with Continuous Forest Inventory data of INFOR.</p> <ul style="list-style-type: none"> ● PAI Araucaria Adulto, PAI Lenga Adulto, PAI Lenga Renoval, PAI Roble - Hualo Adulto, PAI Roble - Raulí - Coihue Adulto, PAI Roble - Raulí - Coihue Renoval, PAI Coihue - Raulí - Tepa Adulto, PAI Coihue - Raulí - Tepa Renoval, PAI Esclerófilo Adulto, PAI Siempreverde Adulto, PAI Siempreverde Renoval= adjust a Probability Distribution Function (PDF) ● PAI Alerce Adulto = 58.47% (The higher uncertainty of the errors estimated for PAI is assumed due to a lack of data.) ● PAI Ciprés de las Guaitecas Adulto = 58.47% (The higher uncertainty of the errors estimated for IPA is assumed due to a lack of data.) ● PAI Ciprés de la Cordillera Adulto =15.83% (Error estimated from permanent plots of the INFOR Continuous Forest Inventory) ● PAI Ciprés de la Cordillera Renoval = 9.97% (Error estimated from permanent plots of the INFOR Continuous Forest Inventory) ● PAI Coihue de Magallanes Adulto = 13.42% (Error estimated from permanent plots of the INFOR Continuous Forest Inventory) 		

	<ul style="list-style-type: none"> ● PAI Coihue de Magallanes Renoval = 7.68% (Error estimated from permanent plots of the INFOR Continuous Forest Inventory) ● PAI Roble - Hualo Renoval = 54.47% (The higher uncertainty of the errors estimated for PAI is assumed due to a lack of data) ● PAI Esclerófilo Renoval = 21.31% (Error estimated from permanent plots of the INFOR Continuous Forest Inventory)
Any comment:	

Parameter:	Combustion factor
Description:	Emission factor for degradation due to forest fires
Data unit:	Non-dimensional
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	Intergovernmental Panel on Climate Change (IPCC). 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4, Chapter 2, Table 2.6 All other temperate forests
Value applied:	0.45
QA/QC procedures applied	
Uncertainty associated with this parameter:	Error estimated using the standard deviation and median default emission factor of the IPCC 2006. Error: 36%
Any comment:	

Parameter:	N ₂ O emission factor
Description:	Emission factor for degradation due to forest fires
Data unit:	g kg ⁻¹ of burned dry material
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	Intergovernmental Panel on Climate Change (IPCC). 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4, Chapter 2, Table 2.5 International - Extra tropical forest
Value applied:	0.26
QA/QC procedures applied	
Uncertainty associated with this parameter:	Error estimated using the standard deviation and median default emission factor of the IPCC 2006. Error: 43.8%
Any comment:	

Parameter:	CH ₄ emission factor
Description:	Emission factor for degradation due to forest fires
Data unit:	g kg ⁻¹ of burned dry material
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	Intergovernmental Panel on Climate Change (IPCC). 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4, Chapter 2, Table 2.5 International - Extra tropical forest
Value applied:	4.7
QA/QC procedures applied	
Uncertainty associated with this parameter:	Error estimated using the standard deviation and median default emission factor of the IPCC 2006. Error: 29.0%
Any comment:	

Deforestation FREL/FRL

Parameter:	$\Delta A_{TO_OTHERS_{i,t}}$ = Areas of different Forest Types(i) converted to another category of land use during the 2001 – 2013 period.																												
Description:	Chile has eleven different Native Forest Types in the PRE area.																												
Data unit:	Total hectares (ha/year) of the 2001-2013 period.																												
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Forest Type</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Alerce</td> <td>119.3</td> </tr> <tr> <td>Araucaria</td> <td>337.3</td> </tr> <tr> <td>Ciprés de la Cordillera</td> <td>35.4</td> </tr> <tr> <td>Ciprés de las Guaitecas</td> <td>9.2</td> </tr> <tr> <td>Coihue - Raulí - Tapa</td> <td>653.3</td> </tr> <tr> <td>Coihue de Magallanes</td> <td>143.9</td> </tr> <tr> <td>Esclerófilo</td> <td>407.2</td> </tr> <tr> <td>Lenga</td> <td>2,519.3</td> </tr> <tr> <td>Roble - Hualo</td> <td>104.4</td> </tr> <tr> <td>Roble - Raulí - Coihue</td> <td>1,714.6</td> </tr> <tr> <td>Siempreverde</td> <td>1,873.9</td> </tr> <tr> <td>Without Forest Type</td> <td>144.6</td> </tr> <tr> <td>Total (ha)</td> <td>8,062.4</td> </tr> </tbody> </table>	Forest Type	Area	Alerce	119.3	Araucaria	337.3	Ciprés de la Cordillera	35.4	Ciprés de las Guaitecas	9.2	Coihue - Raulí - Tapa	653.3	Coihue de Magallanes	143.9	Esclerófilo	407.2	Lenga	2,519.3	Roble - Hualo	104.4	Roble - Raulí - Coihue	1,714.6	Siempreverde	1,873.9	Without Forest Type	144.6	Total (ha)	8,062.4
Forest Type	Area																												
Alerce	119.3																												
Araucaria	337.3																												
Ciprés de la Cordillera	35.4																												
Ciprés de las Guaitecas	9.2																												
Coihue - Raulí - Tapa	653.3																												
Coihue de Magallanes	143.9																												
Esclerófilo	407.2																												
Lenga	2,519.3																												
Roble - Hualo	104.4																												
Roble - Raulí - Coihue	1,714.6																												
Siempreverde	1,873.9																												
Without Forest Type	144.6																												
Total (ha)	8,062.4																												
Source of data and description of measurement/calculation methods and procedures applied:	Matrices of change in land use taken from Land Use Change Maps. Multipixel mosaics are used for the detection of changes in land use, focused in polygons of native forest. From the mosaic, the MIICA method is applied for the identification of spectral gains and losses, which through different techniques of post-processing allow identifying areas of forest losses and gains. The application of method establishes a series of requirements for the tiles, related to the removal of clouds, cloud shadows and artifacts. In addition, the map of use and change of use is linked to the information that comes from the Native Forest Cadastres of CONAF, therefore, the map of Land Use Change is the result of the application of the MIICA method, and the Cadastre of Native Forest. The Land Use Change Map is presented as a product through a coverage geographical area called "Traceability", which has as a characteristic the																												

	<p>monitoring periods available for a certain region, which allows giving monitoring of historical land uses for each polygon.</p> <p>The final product is regional, characterized by stunted, mature, young mature, mixed and young forests converted into areas with no vegetation, urban and industrial areas, waterbodies, areas where succulents, wetlands, scrubland, perennial snow and glaciers, grasslands and farmland have formed.</p>
QA/QC procedures applied:	<p>For the generation of deforestation activity data and as part of the QA / QC process, the different procedures implemented are documented in SOPs that allow the estimates to be standardized over time.</p> <p>SOP_01: Selection of REDD+ satellite mosaics</p> <p>SOP_02: Elaboration of LULUCF maps</p>
Uncertainty for this parameter:	<p>The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013).</p> <p>Error = Maule 111.3%, Ñuble 72.3%, Biobío 109.6%, Araucanía 191.6%, Los Ríos 96.6%, Los Lagos 89.1%</p>
Any comment:	<p>Link:</p> <p>https://plataforma.encrv.cl/static/erpa/mr3/deforestacion/Herramienta_Deforestacion_NR2_MR3_v021.xlsx</p>

Degradation – forest remaining forest FREL/FRL

Parameter:	A_{DegFF} = Area of degradation of forests remaining forests monitored during 2001 - 2010 period, in areas not affected by browning (NBA).																
Description:	<p>We have 6 regions for the PRE area, Maule, Ñuble, Biobio, La Araucanía, Los Ríos and Los Lagos. The Biobio Region was divided in two Region. The province of Ñuble, which was part of Biobio Region, is a new Region. The surface of the total area remains equal.</p> <p>The surface area was described by degradation of native forest that remains as such.</p>																
Data unit:	Total hectares (ha/year) of the 2001-2010 period.																
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Region</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Maule</td> <td>73,201</td> </tr> <tr> <td>Ñuble</td> <td>29,480</td> </tr> <tr> <td>Biobío</td> <td>50,825</td> </tr> <tr> <td>La Araucanía</td> <td>57,880</td> </tr> <tr> <td>Los Ríos</td> <td>29,709</td> </tr> <tr> <td>Los Lagos</td> <td>116,395</td> </tr> <tr> <td>Total</td> <td>357,490</td> </tr> </tbody> </table>	Region	Area	Maule	73,201	Ñuble	29,480	Biobío	50,825	La Araucanía	57,880	Los Ríos	29,709	Los Lagos	116,395	Total	357,490
Region	Area																
Maule	73,201																
Ñuble	29,480																
Biobío	50,825																
La Araucanía	57,880																
Los Ríos	29,709																
Los Lagos	116,395																
Total	357,490																
Source of data and description of measurement/calculation methods and procedures applied:	The data comes from INFOR's National Forest Inventory (IFN) plots, combined with spectral information from the Landsat series. This information integrates the variables of the state of the forests on the number of trees per hectare, basal area and volumes recorded by the																

	monitoring of IFN plots, with the spectral data from Landsat to estimate carbon stocks in a spatially explicit way.
QA/QC procedures applied:	Since one input for AD on degradation are the Land Use Change Maps in order to define areas of forest remaining forest, same QA/QC procedures and SOP are used during the process. Additional procedures are applied, and proper SOP were developed. SOP_05_ Method for estimating in forest remaining forests the carbon variation. SOP_06: Field Operations Manual
Uncertainty for this parameter:	Degradation mapping accuracy estimated by INFOR. Error: 32.8%
Any comment:	Link: https://plataforma.encrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx

Degradation - Substitution activity FREL/FRL

Parameter:	A_{DegNFF} = Surface of degradation areas resulting from the conversion of forests into plantations during the 2001-2013 period.																												
Description:	The total of areas by forest type that was degradation to plantation were registered																												
Data unit:	Total hectares (ha/year) of the period 2001-2013																												
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Forest Type</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Alerce</td> <td>0.6</td> </tr> <tr> <td>Araucaria</td> <td>8.1</td> </tr> <tr> <td>Ciprés de la Cordillera</td> <td>15.2</td> </tr> <tr> <td>Ciprés de las Guaitecas</td> <td>0.8</td> </tr> <tr> <td>Coihue - Raulí - Tapa</td> <td>335.3</td> </tr> <tr> <td>Coihue de Magallanes</td> <td>2.5</td> </tr> <tr> <td>Esclerófilo</td> <td>1,423.8</td> </tr> <tr> <td>Lenga</td> <td>186</td> </tr> <tr> <td>Roble - Hualo</td> <td>523.1</td> </tr> <tr> <td>Roble - Raulí - Coihue</td> <td>2,881.3</td> </tr> <tr> <td>Siempreverde</td> <td>1,376.2</td> </tr> <tr> <td>Without Forest Type</td> <td>1,577.6</td> </tr> <tr> <td>Total (ha)</td> <td>8,330.4</td> </tr> </tbody> </table>	Forest Type	Area	Alerce	0.6	Araucaria	8.1	Ciprés de la Cordillera	15.2	Ciprés de las Guaitecas	0.8	Coihue - Raulí - Tapa	335.3	Coihue de Magallanes	2.5	Esclerófilo	1,423.8	Lenga	186	Roble - Hualo	523.1	Roble - Raulí - Coihue	2,881.3	Siempreverde	1,376.2	Without Forest Type	1,577.6	Total (ha)	8,330.4
Forest Type	Area																												
Alerce	0.6																												
Araucaria	8.1																												
Ciprés de la Cordillera	15.2																												
Ciprés de las Guaitecas	0.8																												
Coihue - Raulí - Tapa	335.3																												
Coihue de Magallanes	2.5																												
Esclerófilo	1,423.8																												
Lenga	186																												
Roble - Hualo	523.1																												
Roble - Raulí - Coihue	2,881.3																												
Siempreverde	1,376.2																												
Without Forest Type	1,577.6																												
Total (ha)	8,330.4																												
Source of data and description of measurement/calculation methods and procedures applied:	To estimate degradation of native forests converted to plantations, the equation used to estimate deforestation is applied, since it is assumed that, to establish a plantation, all the carbon content present in the preceding native forest must be reduced to zero.																												
QA/QC procedures applied:	For the generation of degradation by substitution activity data and as part of the QA / QC process, the different procedures implemented are documented through a series of protocols or SOPs that allow the estimates to be standardized over time. SOP_01: Selection of REDD+ satellite mosaics SOP_02: Elaboration of LULUCF maps																												

Uncertainty for this parameter:	The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013). Error = Maule 191.8%, Ñuble 139.9%, Biobío 134.9%, Araucanía 113.4%, Los Ríos 138.6%, Los Lagos 100.0%
Any comment:	Link: https://plataforma.encrcv.cl/static/erpa/mr3/sustitucion/Herramienta_Sustitucion_NR2_MR3_v011.xlsx

Degradation – Forest fire activity FREL/FRL

Parameter:	A = Area burned between 2001-2010 in the ERP Regions.																																																																																				
Description:	The surface of burned areas was recorded to estimate the degradation of the native forest.																																																																																				
Data unit:	Total hectares (ha) of the 2001-2010 period.																																																																																				
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Region /Year</th> <th>Maule</th> <th>Biobío</th> <th>La Araucanía</th> <th>Los Lagos</th> <th>Los Ríos</th> <th>Ñuble</th> </tr> </thead> <tbody> <tr> <td>2001</td> <td>25.45</td> <td>69.35</td> <td>63.59</td> <td>9.35</td> <td>0.9</td> <td>20.02</td> </tr> <tr> <td>2002</td> <td>147.16</td> <td>7,443.15</td> <td>18,764.58</td> <td>2,551.85</td> <td>904.11</td> <td>117.05</td> </tr> <tr> <td>2003</td> <td>504.35</td> <td>30.31</td> <td>225.91</td> <td>27.45</td> <td>2.91</td> <td>128.24</td> </tr> <tr> <td>2004</td> <td>170.79</td> <td>196.52</td> <td>268.41</td> <td>90.9</td> <td>175.24</td> <td>14.73</td> </tr> <tr> <td>2005</td> <td>139.97</td> <td>117.83</td> <td>71.7</td> <td>47.29</td> <td>18.67</td> <td>277.88</td> </tr> <tr> <td>2006</td> <td>62.35</td> <td>57.37</td> <td>73.2</td> <td>207.35</td> <td>6.92</td> <td>89.67</td> </tr> <tr> <td>2007</td> <td>9.39</td> <td>747.4</td> <td>39.32</td> <td>52.15</td> <td>4.77</td> <td>199.4</td> </tr> <tr> <td>2008</td> <td>344.05</td> <td>143.71</td> <td>307.22</td> <td>4,233.93</td> <td>118.82</td> <td>86.68</td> </tr> <tr> <td>2009</td> <td>3,998.72</td> <td>898.29</td> <td>725.71</td> <td>598.09</td> <td>270.55</td> <td>59.43</td> </tr> <tr> <td>2010</td> <td>431.86</td> <td>581.15</td> <td>41.78</td> <td>0.63</td> <td>0.75</td> <td>398.57</td> </tr> <tr> <td>Total period</td> <td>5,834.09</td> <td>10,285.08</td> <td>20,581.42</td> <td>7,818.99</td> <td>1,503.64</td> <td>1,392.37</td> </tr> </tbody> </table>	Region /Year	Maule	Biobío	La Araucanía	Los Lagos	Los Ríos	Ñuble	2001	25.45	69.35	63.59	9.35	0.9	20.02	2002	147.16	7,443.15	18,764.58	2,551.85	904.11	117.05	2003	504.35	30.31	225.91	27.45	2.91	128.24	2004	170.79	196.52	268.41	90.9	175.24	14.73	2005	139.97	117.83	71.7	47.29	18.67	277.88	2006	62.35	57.37	73.2	207.35	6.92	89.67	2007	9.39	747.4	39.32	52.15	4.77	199.4	2008	344.05	143.71	307.22	4,233.93	118.82	86.68	2009	3,998.72	898.29	725.71	598.09	270.55	59.43	2010	431.86	581.15	41.78	0.63	0.75	398.57	Total period	5,834.09	10,285.08	20,581.42	7,818.99	1,503.64	1,392.37
Region /Year	Maule	Biobío	La Araucanía	Los Lagos	Los Ríos	Ñuble																																																																															
2001	25.45	69.35	63.59	9.35	0.9	20.02																																																																															
2002	147.16	7,443.15	18,764.58	2,551.85	904.11	117.05																																																																															
2003	504.35	30.31	225.91	27.45	2.91	128.24																																																																															
2004	170.79	196.52	268.41	90.9	175.24	14.73																																																																															
2005	139.97	117.83	71.7	47.29	18.67	277.88																																																																															
2006	62.35	57.37	73.2	207.35	6.92	89.67																																																																															
2007	9.39	747.4	39.32	52.15	4.77	199.4																																																																															
2008	344.05	143.71	307.22	4,233.93	118.82	86.68																																																																															
2009	3,998.72	898.29	725.71	598.09	270.55	59.43																																																																															
2010	431.86	581.15	41.78	0.63	0.75	398.57																																																																															
Total period	5,834.09	10,285.08	20,581.42	7,818.99	1,503.64	1,392.37																																																																															
Source of data and description of measurement/calculation methods and procedures applied:	The Forest Fire Protection Department and its Digital Information System for Operations Control provides annualized statistical information on the occurrence of forest fires for the entire country, which in recent years it has been improved by adding the spatial location of fires.																																																																																				
QA/QC procedures applied:	SOP_05_ Method for estimating in forest remaining forests the carbon variation.																																																																																				
Uncertainty for this parameter:	Area burned uncertainty estimated by INGEI (2020) Error: 15%																																																																																				
Any comment:	Link: https://plataforma.encrcv.cl/static/erpa/mr3/incendios/Herramienta_Incendios_NR2_MR3_v018.xlsx																																																																																				

Enhancement activity – No forest to native forest FREL/FRL

Parameter:	$\Delta A_{TOOTHERS, t}$ = Area of used non-forest land converted into forest during the reference level																												
Description:	The areas that correspond to non-forest lands were quantified in hectares to later estimate the carbon capture balances of these changes in land use. In this data forest plantations with exotic species are included as non-forest land.																												
Data unit:	Total hectares (ha/year) of the period 2001-2013																												
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Forest Type</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Alerce</td> <td>23</td> </tr> <tr> <td>Araucaria</td> <td>103</td> </tr> <tr> <td>Ciprés de la Cordillera</td> <td>125</td> </tr> <tr> <td>Ciprés de las Guaitecas</td> <td>21</td> </tr> <tr> <td>Coihue - Raulí - Tapa</td> <td>202</td> </tr> <tr> <td>Coihue de Magallanes</td> <td>13</td> </tr> <tr> <td>Esclerófilo</td> <td>4,863</td> </tr> <tr> <td>Lenga</td> <td>320</td> </tr> <tr> <td>Roble - Hualo</td> <td>490</td> </tr> <tr> <td>Roble - Raulí - Coihue</td> <td>3,585</td> </tr> <tr> <td>Siempreverde</td> <td>1,417</td> </tr> <tr> <td>Without Forest Type</td> <td>2,360</td> </tr> <tr> <td>Total (ha)</td> <td>13,522</td> </tr> </tbody> </table>	Forest Type	Area	Alerce	23	Araucaria	103	Ciprés de la Cordillera	125	Ciprés de las Guaitecas	21	Coihue - Raulí - Tapa	202	Coihue de Magallanes	13	Esclerófilo	4,863	Lenga	320	Roble - Hualo	490	Roble - Raulí - Coihue	3,585	Siempreverde	1,417	Without Forest Type	2,360	Total (ha)	13,522
Forest Type	Area																												
Alerce	23																												
Araucaria	103																												
Ciprés de la Cordillera	125																												
Ciprés de las Guaitecas	21																												
Coihue - Raulí - Tapa	202																												
Coihue de Magallanes	13																												
Esclerófilo	4,863																												
Lenga	320																												
Roble - Hualo	490																												
Roble - Raulí - Coihue	3,585																												
Siempreverde	1,417																												
Without Forest Type	2,360																												
Total (ha)	13,522																												
Source of data and description of measurement/calculation methods and procedures applied:	<p>A semi-automated technique is applied to detect changes using satellite images. The Multi-index method or MIICA (Jin et al., 2013) detects changes in land use for the period under study.</p> <p>The MIICA methodology is based on the combination of 2 spectral indices (dNBR, dNDVI) which, through integration rules, provide coverage of land use change, indicating the magnitude and directionality of the change. (Profit and loss).</p> <p>The MIICA methodology used images from the Landsat 8 sensor and was applied through a series of codes in programming language (Javascript, R) complemented with Google Earth Engine cloud processing, in GIS programs and R software, with the objective of obtaining an efficient land use change map.</p>																												
QA/QC procedures applied:	<p>For the generation of enhancement (non-forest to forest) activity data and as part of the QA / QC process, the different procedures implemented are documented through a series of protocols or SOPs that allow the estimates to be standardized over time.</p> <p>SOP_01: Selection of REDD+ satellite mosaics SOP_02: Elaboration of LULUCF maps,</p>																												
Uncertainty for this parameter:	<p>The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013).</p> <p>Error = Maule 80%, Ñuble 50.5%, Biobío 136.5%, Araucanía 192.2%, Los Ríos 65.1%, Los Lagos 138.5%</p>																												

Any comment:	Link: https://plataforma.encrcv.cl/static/erpa/mr3/aumento/Herramienta_Aumentos_NR2_MR3_v032.xlsx
---------------------	--

Enhancement activity – forest remains forest in non-conservation areas FREL/FRL

Parameter:	A_{EnhFF} = Areas of non-conservation native forest that remains forest during the 2001– 2010 period for the Sixth Region of the ERP, in areas not affected by browning (NBA).																
Description:	The areas that in 2001-2010 are forest in non-conservation area and remain as such, the hectares were estimated.																
Data unit:	Total hectares (ha/year) of the 2001-2010 period.																
Value monitored during this Monitoring / Reporting Period:	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Region</th> <th style="text-align: center;">Area</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Maule</td> <td style="text-align: center;">88,778</td> </tr> <tr> <td style="text-align: center;">Ñuble</td> <td style="text-align: center;">33,323</td> </tr> <tr> <td style="text-align: center;">Biobío</td> <td style="text-align: center;">65,805</td> </tr> <tr> <td style="text-align: center;">La Araucanía</td> <td style="text-align: center;">87,901</td> </tr> <tr> <td style="text-align: center;">Los Ríos</td> <td style="text-align: center;">47,402</td> </tr> <tr> <td style="text-align: center;">Los Lagos</td> <td style="text-align: center;">139,986</td> </tr> <tr> <td style="text-align: center;">Total (ha)</td> <td style="text-align: center;">463,195</td> </tr> </tbody> </table>	Region	Area	Maule	88,778	Ñuble	33,323	Biobío	65,805	La Araucanía	87,901	Los Ríos	47,402	Los Lagos	139,986	Total (ha)	463,195
Region	Area																
Maule	88,778																
Ñuble	33,323																
Biobío	65,805																
La Araucanía	87,901																
Los Ríos	47,402																
Los Lagos	139,986																
Total (ha)	463,195																
Source of data and description of measurement/calculation methods and procedures applied:	The data comes from INFOR's National Forest Inventory IFN plots, combined with spectral information from the Landsat series. This information integrates the variables of the state of the forests on the number of trees per hectare and basal area recorded by the monitoring of IFN plots, with the spectral data from Landsat to estimate carbon stocks in a spatially explicit way.																
QA/QC procedures applied:	<p>Since one input for AD on enhancement in areas of forest that remain as forest are the Land Use Change Maps in order to define areas of forest remaining forest, same QA/QC procedures and SOP are used during the process. Additional procedures are applied, and proper SOP were developed.</p> <p>SOP_05: Method for estimating in forest remaining forests the carbon variation.</p> <p>SOP_06: Field Operations Manual Inventory</p>																
Uncertainty for this parameter:	Degradation mapping accuracy estimated by INFOR. Error: 32.8%																
Any comment:	Link: https://plataforma.encrcv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx																

Conservation activity FREL/FRL

Parameter:	$\Delta A_{TO_OTHERS_{i,t}}$ = Areas of conservation native forest that remains as such during the 2001-2010 period in the Six Region of the ERP, in areas not affected by browning (NBA).																
Description:	The areas that in 2001 to 2010 are forest in conservation area and remain as such																
Data unit:	Total hectares (ha) of the period 2001-2010																
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Region</th> <th>Area</th> </tr> </thead> <tbody> <tr> <td>Maule</td> <td>3,315</td> </tr> <tr> <td>Ñuble</td> <td>8,882</td> </tr> <tr> <td>Biobío</td> <td>15,509</td> </tr> <tr> <td>La Araucanía</td> <td>27,794</td> </tr> <tr> <td>Los Ríos</td> <td>26,371</td> </tr> <tr> <td>Los Lagos</td> <td>88,396</td> </tr> <tr> <td>Total (ha)</td> <td>170,267</td> </tr> </tbody> </table>	Region	Area	Maule	3,315	Ñuble	8,882	Biobío	15,509	La Araucanía	27,794	Los Ríos	26,371	Los Lagos	88,396	Total (ha)	170,267
Region	Area																
Maule	3,315																
Ñuble	8,882																
Biobío	15,509																
La Araucanía	27,794																
Los Ríos	26,371																
Los Lagos	88,396																
Total (ha)	170,267																
Source of data and description of measurement/calculation methods and procedures applied:	The data comes from INFOR's National Forest Inventory (IFN) plots, combined with spectral information from the Landsat series. This information integrates the variables of the state of the forests on the number of trees per hectare and basal area recorded by the monitoring of IFN plots, with the spectral data from Landsat to estimate carbon stocks in a spatially explicit way.																
QA/QC procedures applied:	<p>Since one input for AD on enhancement in areas of forest that remain as forest are the Land Use Change Maps in order to define areas of forest remaining forest, same QA/QC procedures and SOP are used during the process. Additional procedures are applied, and proper SOP were developed.</p> <p>SOP_05: Method for estimating in forest remaining forests the carbon variation.</p> <p>SOP_06: Field Operations Manual</p>																
Uncertainty for this parameter:	Degradation mapping accuracy estimated by INFOR. Error: 32.8%																
Any comment:	<p>Link:</p> <p>https://plataforma.encrcv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_Conservacion_NR2_MR3_v14.xlsx</p>																

Emissions and removals from browning affected forest area FREL/FRL

Parameter:	Browning = Areas of native forest that remains as such affected by browning during the 2001– 2010 period in the six Region of the ERP.			
Description:	The areas that in 2001 to 2010 are forests affected by browning in forest areas that remain as such.			
Data unit:	Total hectares (ha) of the 2001-2010 period.			
Value monitored during this Monitoring / Reporting Period:	Region	Degradation (Ha)	Enhancement (Ha)	Conservation (Ha)
	Maule	24,394	31,978	976
	Ñuble	7,157	8,850	1,342
	Biobío	10,009	14,065	2,666
	La Araucanía	7,725	11,916	776
	Los Ríos	3,323	6,640	299
	Los Lagos	1	0	0
	Total (ha)	52,609	73,449	6,059
Source of data and description of measurement/calculation methods and procedures applied:	<p>As could be seen in certain tables by activity data described above, emissions accounting in forest remaining forest was carried out in areas not affected by browning (NBA) excluding the areas affected by browning (BA). This occurs due to areas affected by browning are considered as a non-anthropogenic emission source because the carbon fluxes that occurs on these areas are not related to human activities as the deforestation activity. It is a non-anthropogenic source because it is generated by the decreases in precipitation falls, and water availability. The areas affected by browning correspond to those areas of forest that remain as forests that present phenological anomalies because of the impact of the megadrought. These anomalies were detected in the integral productivity of native forest in the ERP implementation area and are under the 5th percentile data productivity anomaly (GAC,2023). The phenological anomaly results in the desiccation of the crowns, loss of foliage and even the mortality of individuals.</p> <p>Down below is a map with the areas of the 5th percentile anomalies distribution. These areas were used in each monitoring report to exclude the emission related to the non-anthropogenic emissions in each period. They correspond to areas of native forest between the regions of Maule and La Araucanía, together with the area of the RORACO forest type extended to</p>			

QA/QC procedures applied:	<i>N/A it is only used as a stratification input.</i>
Uncertainty for this parameter:	<i>N/A</i>
Any comment:	The same anomalies raster layer was used to segregate the browning areas in the NREF and Reporting Periods this allows that non-anthropogenic and anthropogenic emissions and removals are kept separate. The segregation considers report all the carbon fluxes which occur in those areas (gain, loss and neutral) from each period and excluding them from the account.

Periodic Annual Increment for mixed forest

Parameter:	Periodic annual increment (PAI) for mixed forest														
Description:	The mixed forest is calculated as a weighted average value of the forest types present in the region and according to the forest surface present for the activity of enhancement of the period (from no forest to native forest).														
Data unit:	Cubic meter per hectare and year ($\text{m}^3 \text{ha}^{-1} \text{year}^{-1}$)														
Source of data or description of the method for developing the data including the spatial level of the data (local, regional, national, international):	Forest native data are national data and published in INGEI (2020)														
Value applied:	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Region</th> <th style="text-align: center;">PAI NREF ($\text{m}^3 \text{ha}^{-1} \text{year}^{-1}$)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Maule</td> <td style="text-align: center;">2.1</td> </tr> <tr> <td style="text-align: center;">Ñuble</td> <td style="text-align: center;">2.8</td> </tr> <tr> <td style="text-align: center;">Biobío</td> <td style="text-align: center;">3.7</td> </tr> <tr> <td style="text-align: center;">Araucanía</td> <td style="text-align: center;">4.2</td> </tr> <tr> <td style="text-align: center;">Los Ríos</td> <td style="text-align: center;">4.1</td> </tr> <tr> <td style="text-align: center;">Los Lagos</td> <td style="text-align: center;">4.2</td> </tr> </tbody> </table>	Region	PAI NREF ($\text{m}^3 \text{ha}^{-1} \text{year}^{-1}$)	Maule	2.1	Ñuble	2.8	Biobío	3.7	Araucanía	4.2	Los Ríos	4.1	Los Lagos	4.2
Region	PAI NREF ($\text{m}^3 \text{ha}^{-1} \text{year}^{-1}$)														
Maule	2.1														
Ñuble	2.8														
Biobío	3.7														
Araucanía	4.2														
Los Ríos	4.1														
Los Lagos	4.2														
QA/QC procedures applied	SOP_06_Field Operation Manual														
Uncertainty associated with this parameter:	<p>SOP_06 Field Operations Manual was implemented during fieldwork to estimate PAI in the National Forest Inventory, for some forest types were possible to adjust a Probability Distribution Function (PDF). For the forest types with a limited number of sampling plots, uncertainty propagation with Monte Carlo analysis uses the calculation of the measurement uncertainty for PAI based on the 95% CI of the removal rate by forest type, calculated with Continuous Forest Inventory data of INFOR.</p> <ul style="list-style-type: none"> ● PAI Mixed Forest = 28.7% (Average of PAI error for all forest types given lack of data.) 														
Any comment:															

3.2 Monitored Data and Parameters

a) Deforestation activity MR3

Parameter:	$\Delta A_{TO_OTHERS,i,t}$ = Areas of different Forest Types (i) converted to another category of land use during the 2022-2023 period.																												
Description:	Chile has 11 different Native Forest Type in the PRE area.																												
Data unit:	Total hectares (ha) of the 2022-2023 period.																												
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Forest Type</th> <th>Area(ha)</th> </tr> </thead> <tbody> <tr> <td>Alerce</td> <td>29</td> </tr> <tr> <td>Araucaria</td> <td>2</td> </tr> <tr> <td>Cipres de la Cordillera</td> <td>55</td> </tr> <tr> <td>Cipres de las Guaitecas</td> <td>39</td> </tr> <tr> <td>Coihue - Rauli - Tapa</td> <td>504</td> </tr> <tr> <td>Coihue de Magallanes</td> <td>8</td> </tr> <tr> <td>Esclerófilo</td> <td>1,780</td> </tr> <tr> <td>Lenga</td> <td>142</td> </tr> <tr> <td>Roble - Hualo</td> <td>157</td> </tr> <tr> <td>Roble - Rauli - Coihue</td> <td>966</td> </tr> <tr> <td>Siempreverde</td> <td>2,843</td> </tr> <tr> <td>Without Forest Type</td> <td>379</td> </tr> <tr> <td>Total</td> <td>6,902</td> </tr> </tbody> </table>	Forest Type	Area(ha)	Alerce	29	Araucaria	2	Cipres de la Cordillera	55	Cipres de las Guaitecas	39	Coihue - Rauli - Tapa	504	Coihue de Magallanes	8	Esclerófilo	1,780	Lenga	142	Roble - Hualo	157	Roble - Rauli - Coihue	966	Siempreverde	2,843	Without Forest Type	379	Total	6,902
Forest Type	Area(ha)																												
Alerce	29																												
Araucaria	2																												
Cipres de la Cordillera	55																												
Cipres de las Guaitecas	39																												
Coihue - Rauli - Tapa	504																												
Coihue de Magallanes	8																												
Esclerófilo	1,780																												
Lenga	142																												
Roble - Hualo	157																												
Roble - Rauli - Coihue	966																												
Siempreverde	2,843																												
Without Forest Type	379																												
Total	6,902																												
Source of data and description of measurement/calculation methods and procedures applied:	Matrixes of change in land use taken from land-use change maps. Regional, characterized by stunted, adult, young adult, mixed and young forests converted into areas with no vegetation, urban and industrial areas, waterbodies, areas where succulents, wetlands, scrubland, perennial snow and glaciers, grasslands and farmland have formed.																												
QA/QC procedures applied:	SOP_02_LULUCF Maps Elaboration_ERPA3 SOP_03_ Standardization and quality control protocol for land use change maps QAQC_03_ Standardization and Quality control for land use change maps_ERPA3																												
Uncertainty for this parameter:	The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013) and the estimator of the total area using the separate ratio estimator (formulas from sec. 6.10 of W.G. Cochran, Sampling Techniques, 3rd Edition, 1977) Error = Maule 25%, Ñuble 183%, Biobío 133%, Araucanía 88%, Los Ríos 100%, Los Lagos 48%.																												
Any comment:	The information presented in this table is a consolidated summary of the data from transitions in section 5.2, organized by forest type. Hectares deforested available on tab "B-NB_RP3_Resumen": total hectares cell G11; Forest type consolidation table: cells B15:C29. Spreadsheet link:																												

	<p>https://plataforma.encrv.cl/static/erpa/mr3/deforestacion/Herramienta_Deforestacion_NR2_MR3_v021.xlsx</p> <p>The error values come from the spreadsheet “U%_2022-2023_v2_ERPA3” tab “resumen” column D. Located in:</p> <p>https://plataforma.encrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/U%_2022-2023_v2_ERPA3.xlsx</p> <p>More information about the uncertainty process available in:</p> <p>https://plataforma.encrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/Incertidumbre-Mapas-RP3.zip</p>
--	--

b) Degradation – forest remaining forest MR3

Parameter:	A_{DegFF} = area of degradation of forests that remain as forests monitored during the 2022-2023 period.																
Description:	The area was described by degradation of native forest remaining forest in areas not affected by browning (NBA).																
Data unit:	Total hectares (ha) of the 2022-2023 period.																
Value monitored during this Monitoring / Reporting Period:	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Region</th> <th style="text-align: center;">Area (ha)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Maule</td> <td style="text-align: center;">50,266</td> </tr> <tr> <td style="text-align: center;">Ñuble</td> <td style="text-align: center;">20,229</td> </tr> <tr> <td style="text-align: center;">Biobío</td> <td style="text-align: center;">42,053</td> </tr> <tr> <td style="text-align: center;">La Araucanía</td> <td style="text-align: center;">52,985</td> </tr> <tr> <td style="text-align: center;">Los Ríos</td> <td style="text-align: center;">28,545</td> </tr> <tr> <td style="text-align: center;">Los Lagos</td> <td style="text-align: center;">81,634</td> </tr> <tr> <td style="text-align: center;">Total</td> <td style="text-align: center;">275,712</td> </tr> </tbody> </table>	Region	Area (ha)	Maule	50,266	Ñuble	20,229	Biobío	42,053	La Araucanía	52,985	Los Ríos	28,545	Los Lagos	81,634	Total	275,712
Region	Area (ha)																
Maule	50,266																
Ñuble	20,229																
Biobío	42,053																
La Araucanía	52,985																
Los Ríos	28,545																
Los Lagos	81,634																
Total	275,712																
Source of data and description of measurement/calculation methods and procedures applied:	<p>The data comes from INFOR's National Forest Inventory (IFN) plots, combined with spectral information from the Landsat series. This information integrates the variables of the state of the forests on the number of trees per hectare, basal area and volumes recorded by the monitoring of IFN plots, with the spectral data from Landsat to estimate carbon stocks in a spatially explicit way.</p> <p>The estimation of the variation in carbon content on forests that remain as such for FREL/FRL and monitoring report for Degradation, Restoration of Forest remaining forests and Forestry Conservation activities is estimated based on information coming from the Continuous Inventory of Forest Ecosystems and the application of remote sensing techniques on LANDSAT satellite images.</p>																
QA/QC procedures applied:	SOP_05.0_Forest Carbon Flux estimation assessment_ERPA3 SOP_06_Field Operation Manual																
Uncertainty for this parameter:	Degradation mapping accuracy estimated by INFOR. Error: 32.8%																
Any comment:	<p>The information presented in this table is a consolidated summary of the data from transitions in section 5.2, organized by regions.</p> <p>All information to be considered comes from the sheets whose names end with “_NBA” (areas not affected by browning). Degradation hectares available on tab “DEG_NC_RP3_Resumen_NBA” cells C11:D18, Link to spreadsheet:</p> <p>https://plataforma.encrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx</p>																

c) Degradation - Substitution activity MR3

Parameter:	A_{DegNFF} = Surface of degradation areas resulting from the conversion of forests into plantations during the 2022-2023 period.																												
Description:	The total of areas by forest type that was degraded to plantation were registered.																												
Data unit:	Total hectares (ha) of the 2022-2023 period.																												
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Forest Type</th> <th>Area (ha)</th> </tr> </thead> <tbody> <tr> <td>Alerce</td> <td>0</td> </tr> <tr> <td>Araucaria</td> <td>0</td> </tr> <tr> <td>Ciprés de la Cordillera</td> <td>17</td> </tr> <tr> <td>Ciprés de las Guaitecas</td> <td>0</td> </tr> <tr> <td>Coihue - Raulí - Tepa</td> <td>1</td> </tr> <tr> <td>Coihue de Magallanes</td> <td>0</td> </tr> <tr> <td>Esclerófilo</td> <td>247</td> </tr> <tr> <td>Lenga</td> <td>0</td> </tr> <tr> <td>Roble - Hualo</td> <td>16</td> </tr> <tr> <td>Roble - Raulí - Coihue</td> <td>51</td> </tr> <tr> <td>Siempreverde</td> <td>6</td> </tr> <tr> <td>Without Forest Type</td> <td>143</td> </tr> <tr> <td>Total</td> <td>480</td> </tr> </tbody> </table>	Forest Type	Area (ha)	Alerce	0	Araucaria	0	Ciprés de la Cordillera	17	Ciprés de las Guaitecas	0	Coihue - Raulí - Tepa	1	Coihue de Magallanes	0	Esclerófilo	247	Lenga	0	Roble - Hualo	16	Roble - Raulí - Coihue	51	Siempreverde	6	Without Forest Type	143	Total	480
Forest Type	Area (ha)																												
Alerce	0																												
Araucaria	0																												
Ciprés de la Cordillera	17																												
Ciprés de las Guaitecas	0																												
Coihue - Raulí - Tepa	1																												
Coihue de Magallanes	0																												
Esclerófilo	247																												
Lenga	0																												
Roble - Hualo	16																												
Roble - Raulí - Coihue	51																												
Siempreverde	6																												
Without Forest Type	143																												
Total	480																												
Source of data and description of measurement/calculation methods and procedures applied:	To estimate degradation of native forests converted to plantations, the equation used to estimate deforestation is applied, since it is assumed that, to establish a plantation, all the carbon content present in the preceding native forest must be reduced to zero.																												
QA/QC procedures applied:	SOP_02_LULUCF Maps Elaboration_ERPA3 SOP_03 Standardization and quality control protocol for land use change maps QAQC_03_ Standardization and Quality control for land use change maps_ERPA3																												
Uncertainty for this parameter:	The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013) and the estimator of the total area using the separate ratio estimator (formulas from sec. 6.10 of W.G. Cochran, Sampling Techniques, 3rd Edition, 1977). Error = Maule 77%, Ñuble 305%, Biobío 198%, Araucanía 258%, Los Ríos 95%, Los Lagos 83%																												
Any comment:	The information presented in this table is a consolidated summary of the data from transitions in section 5.2, organized by forest type. Hectares deforested available on tab "B-PL_RP3_Resumen": total hectares cell G11; Forest type consolidation table: cells B15:C29. Spreadsheet link:																												

	<p>https://plataforma.enccrv.cl/static/erpa/mr3/sustitucion/Herramienta_Sustitucion_NR2_MR3_v011.xlsx</p> <p>The error values come from the spreadsheet “U%_2022-2023_v2_ERPA3” tab “resumen” column F. Spreadsheet available in: https://plataforma.enccrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/U%_2022-2023_v2_ERPA3.xlsx</p> <p>More information about the uncertainty process available in: https://plataforma.enccrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/Incertidumbre-Mapas-RP3.zip</p>
--	--

d) Degradation – Forest fire activity MR3

Parameter:	A = Area burned between 2022-2023 in the ERP Regions.		
Description:	The surface of burned areas was recorded to estimate the degradation of the native forest.		
Data unit:	Total hectares (ha) of the 2022-2023 period.		
Value monitored during this Monitoring / Reporting Period:	Region	2022's area (ha)	2023's area (ha)
	Maule	569	9,711
	Ñuble	184	5,695
	Biobío	1,427	28,331
	La Araucanía	4,308	14,566
	Los Ríos	81	1,034
	Los Lagos	82	57
	Total (ha)	6,651	59,394
Source of data and description of measurement/calculation methods and procedures applied:	The Forest Fire Protection Department and its Digital Information System for Operations Control (SIDCO), provides annualized statistical information on the occurrence of forest fires for the entire country, which in recent years has been improved by adding the spatial location of fires.		
QA/QC procedures applied:	SOP_07_ForestFire_Polygons		
Uncertainty for this parameter:	Area burned uncertainty estimated by INGEI (2020) Error: 15%		
Any comment:	<p>Surface of burned area available on tab “Incendios_RP3” cells B25:D31. Link to spreadsheet: https://plataforma.enccrv.cl/static/erpa/mr3/incendios/Herramienta_Incendios_NR2_MR3_v018.xlsx</p> <p>Uncertainty of burned areas corresponding to non-CO2 gases estimated by INGEI (2020) page 413 table 332 4.A.1. Available in: https://snichile.mma.gob.cl/wp-content/uploads/2022/06/Informe_del_Inventario_Nacional_de_GEI_serie_1_990-2018.pdf</p>		

e) Enhancement activity – No forest to native forest MR3

Parameter:	$\Delta A_{\text{TOOTHERS}, t}$ = Non-forest land use area converted to forest during the crediting period.																												
Description:	The areas that correspond to non-forest lands were quantified in hectares to later estimate the carbon capture balances of these land changes use. In this data forest plantations with exotic species are included as non-forest land.																												
Data unit:	Total hectares (ha) of the 2022-2023 period.																												
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Forest Type</th> <th>Area (ha)</th> </tr> </thead> <tbody> <tr> <td>Alerce</td> <td>0</td> </tr> <tr> <td>Araucaria</td> <td>0</td> </tr> <tr> <td>Cipres de la Cordillera</td> <td>0</td> </tr> <tr> <td>Cipres de las Guaitecas</td> <td>0</td> </tr> <tr> <td>Coihue - Rauli - Tepa</td> <td>0</td> </tr> <tr> <td>Coihue de Magallanes</td> <td>0</td> </tr> <tr> <td>Esclerófilo</td> <td>0</td> </tr> <tr> <td>Lenga</td> <td>0</td> </tr> <tr> <td>Roble - Hualo</td> <td>0</td> </tr> <tr> <td>Roble - Rauli - Coihue</td> <td>4</td> </tr> <tr> <td>Siempreverde</td> <td>0</td> </tr> <tr> <td>Without Forest Type (mixed forest)</td> <td>0</td> </tr> <tr> <td>Total (ha)</td> <td>4</td> </tr> </tbody> </table>	Forest Type	Area (ha)	Alerce	0	Araucaria	0	Cipres de la Cordillera	0	Cipres de las Guaitecas	0	Coihue - Rauli - Tepa	0	Coihue de Magallanes	0	Esclerófilo	0	Lenga	0	Roble - Hualo	0	Roble - Rauli - Coihue	4	Siempreverde	0	Without Forest Type (mixed forest)	0	Total (ha)	4
Forest Type	Area (ha)																												
Alerce	0																												
Araucaria	0																												
Cipres de la Cordillera	0																												
Cipres de las Guaitecas	0																												
Coihue - Rauli - Tepa	0																												
Coihue de Magallanes	0																												
Esclerófilo	0																												
Lenga	0																												
Roble - Hualo	0																												
Roble - Rauli - Coihue	4																												
Siempreverde	0																												
Without Forest Type (mixed forest)	0																												
Total (ha)	4																												
Source of data and description of measurement/calculation methods and procedures applied:	<p>A semi-automated technique is applied to detect changes using satellite images. The Multi-index method or MIICA (Jin et al., 2013) detects land use changes for the period under study.</p> <p>The MIICA methodology is based on the combination of 2 spectral indexes (dNBR, dNDVI) which, through integration rules, provide coverage of land use change, indicating the magnitude and directionality of the change. (Gain and loss).</p> <p>The MIICA methodology used images from the Landsat 8 sensor and was applied through a series of codes in programming language (JavaScript, R) complemented with Google Earth Engine cloud processing, in GIS programs and R software, with the objective of obtaining an efficient land use change map.</p>																												
QA/QC procedures applied:	<p>SOP_02_LULUCF Maps Elaboration_ERPA3</p> <p>SOP_03 Standardization and quality control protocol for land use change maps</p> <p>QAQC_03_ Standardization and Quality control for land use change maps_ERPA3</p>																												
Uncertainty for this parameter:	The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013) and the estimator of the total area using the separate ratio estimator (formulas from sec. 6.10 of W.G. Cochran, Sampling Techniques, 3rd Edition, 1977)																												

	Error = Maule NA, Ñuble NA, Biobío NA, Araucanía NA, Los Ríos 0%, Los Lagos NA. If the error does not apply is because no enhancement activity was mapped.
Any comment:	<p>The error applies to Los Ríos because is the only region with enhancement activity mapped. The error values come from the spreadsheet "U%_2022-2023_v2_ERPA3" tab "resumen" column A.</p> <p>Spreadsheet available in: https://plataforma.enccrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/U%_2022-2023_v2_ERPA3.xlsx</p> <p>More information about the uncertainty process available in: https://plataforma.enccrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/Incertidumbre-Mapas-RP3.zip</p> <p>The information presented in this table is a consolidated summary of the data from transitions in section 5.2, organized by forest type.</p> <p>Hectares deforested available on tab "NB_B_RP3_Resumen": total hectares cell E12; Forest type consolidation table: cells N4:N018. Spreadsheet link: https://plataforma.enccrv.cl/static/erpa/mr3/aumento/Herramienta_Aumentos_NR2_MR3_v032.xlsx</p>

f) Enhancement activity – forest remains forest in non-conservation areas MR3

Parameter:	A_{EnhFF} = Areas of non-conservation native forest that remains forest during the 2022-2023 period for the six Region of the ERP.																
Description:	The number of hectares of forest that remains as forest during the period 2022 - 2023 was estimated, in non-conservation areas considering that they are not within an area affected by browning (NBA).																
Data unit:	Total hectares (ha) of the 2022-2023 period.																
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Region</th> <th>Area (ha)</th> </tr> </thead> <tbody> <tr> <td>Maule</td> <td>59,625</td> </tr> <tr> <td>Ñuble</td> <td>19,811</td> </tr> <tr> <td>Biobío</td> <td>33,628</td> </tr> <tr> <td>La Araucanía</td> <td>49,037</td> </tr> <tr> <td>Los Ríos</td> <td>30,213</td> </tr> <tr> <td>Los Lagos</td> <td>77,062</td> </tr> <tr> <td>Total (ha)</td> <td>269,376</td> </tr> </tbody> </table>	Region	Area (ha)	Maule	59,625	Ñuble	19,811	Biobío	33,628	La Araucanía	49,037	Los Ríos	30,213	Los Lagos	77,062	Total (ha)	269,376
Region	Area (ha)																
Maule	59,625																
Ñuble	19,811																
Biobío	33,628																
La Araucanía	49,037																
Los Ríos	30,213																
Los Lagos	77,062																
Total (ha)	269,376																
Source of data and description of measurement/calculation methods and procedures applied:	The data comes from INFOR's IFN plots, combined with spectral information from Landsat series. This information integrates the variables of the state of the forests on the number of trees per hectare and basal area recorded by the monitoring plots, with the spectral data from Landsat to estimate carbon stocks in a spatially explicit way.																
QA/QC procedures applied:	SOP_05_Forest Carbon Flux estimation assessment_ERPA3																

	SOP_06_Field Operation Manual
Uncertainty for this parameter:	Degradation mapping accuracy estimated by INFOR. Error: 32.8%
Any comment:	All information to be considered comes from the sheets whose names end with “_NBA” (areas not affected by browning). Enhancement hectares available on tab “DEG_NC_RP3_Resumen_NBA” cells H11:I18, Link to spreadsheet: https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx The information presented in this table is a consolidated summary of the data from transitions in section 5.2, organized by regions.

g) Conservation activity MR3

Parameter:	$\Delta A_{TO_OTHERS,t}$ = areas of conservation of native forest that remains as such during the 2022-2023 period in the six Region of the ERP.																
Description:	The areas that in 2022-2023 are forest in conservation area and remain as such.																
Data unit:	Total hectares (ha) of the 2022-2023 period.																
Value monitored during this Monitoring / Reporting Period:	<table border="1"> <thead> <tr> <th>Region</th> <th>Area (ha)</th> </tr> </thead> <tbody> <tr> <td>Maule</td> <td>2,770</td> </tr> <tr> <td>Ñuble</td> <td>6,437</td> </tr> <tr> <td>Biobío</td> <td>10,791</td> </tr> <tr> <td>La Araucanía</td> <td>23,237</td> </tr> <tr> <td>Los Ríos</td> <td>26,443</td> </tr> <tr> <td>Los Lagos</td> <td>116,325</td> </tr> <tr> <td>Total (ha)</td> <td>186,003</td> </tr> </tbody> </table>	Region	Area (ha)	Maule	2,770	Ñuble	6,437	Biobío	10,791	La Araucanía	23,237	Los Ríos	26,443	Los Lagos	116,325	Total (ha)	186,003
Region	Area (ha)																
Maule	2,770																
Ñuble	6,437																
Biobío	10,791																
La Araucanía	23,237																
Los Ríos	26,443																
Los Lagos	116,325																
Total (ha)	186,003																
Source of data and description of measurement/calculation methods and procedures applied:	The data comes from IFN plots, combined with spectral information from the Landsat series. This information integrates the variables of the state of the forests on the number of trees per hectare and basal area recorded by the monitoring of IFN plots, with the spectral data from Landsat to estimate carbon stocks in a spatially explicit way.																
QA/QC procedures applied:	SOP_05_Forest Carbon Flux estimation assessment_ERPA3 SOP_06_Field Operation Manual																
Uncertainty for this parameter:	Degradation mapping accuracy estimated by INFOR. Error: 32.8%																
Any comment:	All information to be considered comes from the sheets whose names end with “_NBA” (areas not affected by browning). Total degradation hectares available on tab “DEG_CON_RP3_Resumen_NBA” cells M10:N18, Link to spreadsheet: https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_Conservacion_NR2_MR3_v14.xlsx The information presented in this table is a consolidated summary of the data from transitions in section 5.2, organized by regions.																

h) Emissions and removals from browning affected forest area MR3

Parameter:	Browning = Areas of native forest remaining forest affected by browning during the 2022 – 2023 period in the six Region of the ERP.			
Description:	The areas that in 2022 to 2023 are forests affected by browning in forest areas that remain as such.			
Data unit:	Total hectares (ha) of the 2022-2023 period.			
Value monitored during this Monitoring / Reporting Period:	Region	Degradation (Ha)	Enhancement (Ha)	Conservation (Ha)
	Maule	17,157	22,685	900
	Ñuble	5,450	5,285	1,088
	Biobío	8,919	8,032	2,014
	La Araucanía	6,219	6,585	517
	Los Ríos	2,806	3,039	170
	Los Lagos	0	0	0
	Total (ha)	40,551	45,626	4,689
Source of data and description of measurement/calculation methods and procedures applied:	<p>For the third monitoring period, the same methodology applied in both the NREF, RP1 and RP2 was carried out regarding the segregation of non-anthropogenic emission through the exclusion of the areas affected by browning (BA) in forest remaining forest. These areas are considered as a non-anthropogenic emission source because the carbon fluxes that occur on these areas are not related to human activities as the deforestation activity and it is generated by the decreases in precipitation falls, and water availability. The areas affected by browning correspond to those areas of forest that remain as forests that present phenological anomalies because of the impact of the megadrought. These anomalies were detected in the integral productivity of native forest in the ERP implementation area and are under the 5th percentile data productivity anomaly (GAC,2023). The phenological anomaly results in the desiccation of the crowns, loss of foliage and even the mortality of individuals.</p> <p>The same anomalies raster layer was used to segregate the browning areas in the NREF and Reporting Periods and considers all the carbon fluxes which occur in those areas (gain, loss and neutral) from each period. This allows non-anthropogenic and anthropogenic emissions and removals are kept separate.</p>			
QA/QC procedures applied:	The present table corresponds to a post-stratification process; consequently, quality assurance and quality control (QA/QC) procedures are not applied.			
Uncertainty for this parameter:	The present table corresponds to a post-stratification process; consequently, uncertainty is not estimated.			
Any comment:	Regarding the provisions established towards monitoring browning area recovery, the areas will continue to be monitored as part of the PRE's accounting area in accordance with the established methodology and monitoring plan. These areas are not being excluded and it is expected that, if they remain as forest, the recovery or loss of the stock can be detected, or that emissions can be detected in the event that they are deforested, which will be reported in the third monitoring event to guarantee the			

account of emissions resulting from any land use changes and any other anthropogenic activities in the areas affected by browning.

Notwithstanding the above, it is not feasible to propose that these areas can recover their initial condition prior to the disturbance, since even if restoration or recovery actions are carried out, there is no certainty of the result they may have in reversing the effect of water deficit and stress.

The raster layer of phenological anomalies could be found in the following link:

<https://plataforma.enccrv.cl/static/erpa/mr3/mapas/BROWNING-MR3.zip>

All information to be considered comes from the sheets whose names end with “_BA” (areas affected by browning).

Conservation values come from tab “DEG_CON_RP3_Resumen_BA”, cell N18. Link to spreadsheets:

https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_Conservacion_NR2_MR3_v14.xlsx

Degradation and Enhancement values come from tab “DEG_NC_RP3_Resumen_BA”, cells D18 and I18. Link to spreadsheet:

https://plataforma.enccrv.cl/static/erpa/mr3/bosque-permanente/Herramienta_BP_No_Conservacion_NR2_MR3_v14.xlsx

4 QUANTIFICATION OF EMISSION REDUCTIONS⁴⁹

4.1 ER Program Reference level for the Monitoring / Reporting Period covered in this report

Year of Monitoring / Reporting Period t	Average annual historical Emissions from deforestation over the Reference Period (tCO ₂ -e/yr)	If applicable, average annual historical Emissions from forest degradation over the Reference Period (tCO ₂ -e/yr)	If applicable, average annual historical enhanced Removals from afforestation/reforestation (AR) (tCO ₂ -e/yr)	If applicable, average annual historical enhanced Removals from other activities besides A/R (tCO ₂ -e/yr)	Adjustment, if applicable (tCO ₂ -e/yr)	Reference Level (tCO ₂ -e/yr)
2022	5,140,727	11,914,436	-542,444	- 10,197,948	0	6,314,771
2023	5,140,727	11,914,436	-542,444	- 10,197,948	0	6,314,771
Total	10,281,454	23,828,872	-1,084,888	- 20,395,896	0	12,629,542

4.2 Estimation of Emissions by Sources and Removals by Sinks included in the ER Program's scope

Year of Monitoring / Report Period t	Emissions from deforestation (tCO ₂ -e/yr)	If applicable, Emissions from forest degradation (tCO ₂ -e/yr)*	If applicable, enhanced Removals from afforestation/reforestation (AR) (tCO ₂ -e/yr)	If applicable, enhanced Removals from other activities besides A/R (tCO ₂ -e/yr)	Net Emissions and Removals (tCO ₂ -e/yr)
2022	1,657,537	32,021,995	-1,059,097	-29,257,530	3,362,905
2023	1,657,537	32,021,995	-1,059,097	-29,257,530	3,362,905
Total	3,315,074	64,043,990	-2,118,194	-58,515,060	6,725,810

⁴⁹ Spreadsheet available in https://plataforma.encrv.cl/static/erpa/mr3/resultados/CHI_MR3_fcpf_er_mr_template_tool_sections_4_7_8_annex4_copy_v17.xlsm

4.3 Calculation of Emission Reductions

Total Emissions, Removals and Emission Reductions:

T.1	Deforestation	If applicable, forest degradation	If applicable, enhanced Removals from afforestation/ reforestation (A/R)	If applicable, enhanced Removals from other activities besides A/R*	Adjustment, if applicable	Total (tCO_{2-e})
Emissions or Removals in the Reference Level (tCO_{2-e})	10,281,454	23,828,872	-1,084,888	-20,395,896	0	12,629,542
Emissions or Removals under the ER Program during the Reporting Period (tCO_{2-e})	3,315,074	64,043,990	-2,118,194	-58,515,060	0	6,725,810
Emission Reductions during the Reporting Period (tCO_{2-e})	6,966,380	-40,215,118	1,033,306	38,119,164	0	5,903,732

Annual Emissions, Removals and Emission Reductions⁵⁰:

T.2	Deforestation		If applicable, forest degradation		If applicable, enhanced Removals from afforestation/ reforestation (A/R)		If applicable, enhanced Removals from other activities besides A/R*		Adjustment, if applicable		Total (tCO _{2-e})					
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023				
Emissions or Removals in the Reference Level (tCO _{2-e})	5,140,727	5,140,727	11,914,436	11,914,436	-542,444	-542,444	-	-	10,197,948	10,197,948	0	0	6,314,771	6,314,771		
Emissions or Removals under the ER Program during the Reporting Period (tCO _{2-e})	1,657,537	1,657,537	32,021,995	32,021,995	-	-	1,059,097	1,059,097	-	-	29,257,530	29,257,530	0	0	3,362,905	3,362,905
Emission Reductions during the Reporting Period (tCO _{2-e})	3,483,190	3,483,190	-	-	20,107,559	20,107,559	516,653	516,653	19,059,582	19,059,582	0	0	2,951,866	2,951,866		

* Please list below which of the ER Program Measures other than A/R that are being considered to generate enhanced Removals:

⁵⁰ The total untruncated value can be found in: https://plataforma.enccrv.cl/static/erpa/mr3/resultados/Resultados_MRV_ERPA_RP3_v17.xlsx. Automatically truncated values in: https://plataforma.enccrv.cl/static/erpa/mr3/resultados/CHI_MR3_fcpf_er-mr_template_tool_sections_4_7_8_annex4_copy_v17.xlsm

Proportion of Emission Reductions per REDD+ activity:

T.5	Emission Reductions during the Reporting Period (tCO _{2-e})		
	Year	2022	2023
	Total	2,951,866	2,951,866
	Emission Reductions from enhanced Removals from afforestation/reforestation as a percentage of the total FCPF ERs (%)	17.50258989%	17.50258989%
	If applicable, enhanced Removals from other activities besides A/R (%)	645.67910603%	645.67910603%
	If applicable, forest degradation (%)	-681.18129346%	-681.18129346%
	Deforestation (%)	117.99959754%	117.99959754%
	Adjustment, if applicable (%)	0.00000000%	0.00000000%

Optional calculation: If the Emission Reductions from both deforestation and forest degradation are more than zero, ER Programs can optionally estimate the Emission Reductions from enhanced Removals from afforestation/reforestation as a percentage of the total FCPF ERs in step N of section 8 using the table (T.6) below.

Add "year" columns as needed.

T.6	Year	2022	2023
	Emission Reductions from enhanced Removals from afforestation/reforestation as a percentage of the total FCPF ERs (%)	0.00000000%	0.00000000%

5 UNCERTAINTY OF THE ESTIMATE OF EMISSION REDUCTIONS

For this monitoring period, was no applied the pro-rata approach.

5.1 Identification, assessment and addressing sources of Uncertainty

In the table below, the country identified and discussed a list of the main sources of uncertainty and if its contribution to the total uncertainty of Emission Reductions is high or low, and whether they are systematic or random. In addition, the table includes the measures implemented to address these sources of uncertainty as part of the Monitoring Cycle.

Since a sampling approach is not used for Activity Data and emission factors are estimated from a model-based estimator, the uncertainty estimate of reduced emissions has deviated from the Guidelines on uncertainty ERs.

Sources of uncertainty	Systematic and/or random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High / Low)	Addressed through QA/QC?	Residual uncertainty estimated?
Activity Data					
Measurement	Systematic and random	<p>Land-use and land-use change areas: The Activity Data for deforestation, substitution, restitution, area increase of native forest, and permanent forest lands come from Land-use changes maps.</p> <p>A Protocol have been prepared to facilitate the replication of the mapping steps from the digital processing of satellite images. All procedures required to prepare land-use and land-use change maps are described in the Methodological Protocol for the land-use and land-use change mapping in Native Forest (SOP 02). This protocol includes inputs, data sets, and the methodological steps necessary to generate thematic cartography and statistical reports at the national level on the extension, distribution, and land-use change.</p> <p>The land-use change detection maps are prepared with the Multi-Index Integrated Change Analysis methodology (MIICA - Jin et al., 2013), both for the reference and reporting periods. The application of the MIICA methodology uses the Landsat 7 multipixel mosaics for the reference period and Landsat 8 for the monitoring period.</p> <p>Land-use change control polygons (ground truth) are taken proportionally to each of the regions' surface to establish the spectral thresholds of the zones of change and the evaluated index for each IPCC land-use category. Next, the polygons are verified visually on the time series of high-resolution images provided by the Google Earth software. Finally, land-use allocation of the loss vector layer is done applying a supervised</p>	High	<p>Yes: SOP_01_Satellite mosaic elaboration_ERPA3 QAQC_01_Mosaics elaboration metadata_ERPA3</p> <p>https://plataforma.encrv.cl/static/erpa/mr3/sop/SOP_01_MR3.zip</p> <p>SOP_02_LULUCF Maps Elaboration_ERPA3 https://plataforma.encrv.cl/static/erpa/mr3/sop/SOP_02_MR3.zip</p> <p>QAQC_03_Standardization and Quality control for land use change maps_ERPA3 https://plataforma.encrv.cl/static/erpa/mr3/sop/SOP_03_MR3.zip</p>	NO

Sources of uncertainty	Systematic and/or random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High / Low)	Addressed through QA/QC?	Residual uncertainty estimated?
		<p>classification method to the multi-pixel mosaic. Additionally, temporal tracking of land-use changes is done by integrating the polygons of areas of change resulting from each monitoring period into the existing layers of change maps.</p> <p>The topological conditions, data geometry, databases, and map attributes are reviewed in detail. Then, any discrepancies or inconsistencies are sent to the responsible team for resolution (SOP 03). After the solution, the inconsistency is double checked.</p> <p>The result of the activity data measurement is reviewed to ensure consistency, according to the sum of REDD+ activities areas and the surface region. This process is applied during the integration of final calculation results, and in case of finding inconsistencies, the integration must stop, and the input data must be verified.</p> <p>Finally, Uncertainties associated with AD are due to the production process of land use maps. The uncertainties of the AD for deforestation, substitution, restitution, area increase of native forest, and permanent forest activities are associated with the errors of the satellite image processing during the preparation of land-use change maps.</p> <p>The uncertainty of land-use change maps is estimated by comparing the results of the land-use change category on the map and the reference observations corresponding to a sample of visually interpreted points. Factors influencing the estimation of uncertainty are the sampling design and the sample size used to assess the precision and accuracy of the maps. The errors related to land-use change are calculated following the Good Practice Guidelines for estimating the precision of change of use described in Olofsson et al. (2013). This approach is applied with the FAO Collect Earth tool. The sample size of the accuracy assessment of the land-use change maps is calculated considering the user's precision parameters for each land use or category of change. These parameters are obtained from a pre-sampling. The sample size is calculated assuming a standard error of the precision of 0.01 using the equation of Cochran (1977). The evaluation points are selected with a stratified random sampling design for each IPCC sub-use in each region.</p>			
Measurement	Systematic and random	Permanent forest degradation and carbon enhancement: The Activity Data for	High	Yes, for a and b sources:	NO

Sources of uncertainty	Systematic and/or random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High / Low)	Addressed through QA/QC?	Residual uncertainty estimated?
		<p>degradation and carbon enhancement in permanent forest lands comes from satellite imaging and NFI biomass information integration.</p> <p>A Protocol has been prepared to facilitate replicating the mapping process from the digital processing of satellite images and NFI biomass information (SOP 05). All procedures are described in the Protocol to prepare carbon flux, stock, and degradation mapping in the permanent forest. This protocol includes methods description, spatial and dasometric information, and satellite data processing required to estimate activity data for degradation and carbon enhancement.</p> <p>The sources of error for estimating carbon degradation and enhancement activity data on permanent forest lands are:</p> <p>Uncertainty associated with the forest density charts used to determine the direction of carbon flux (neutral, loss or gain) for each pixel. This uncertainty has been estimated in 32.8%.</p> <p>Uncertainty associated with integrating the multi-pixel mosaic satellite data with the dasometric variables. This uncertainty has been estimated by calculating the Standard Error of Estimation of the volume function k_{nn}. This uncertainty has been estimated in 57%.</p>		<p>SOP_05: Forest Carbon Flux estimation assessment_ERPA3 https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_05_MR3.zip</p> <p>SOP_06: SOP06 Field Operations Manual https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_06_MR3.zip</p>	
Representativeness	Systematic	<p>Land-use and land-use change areas: Multi-pixel mosaics are prepared with a temporal range with cloud-free pixels to obtain representative satellite images of the beginning and end of each period. The multi-pixel mosaic is an image composed of pixels of different images extracted from the definition of a range or time window. The selection of each pixel seeks to define the best information available in a specific area, prioritizing above all that they are pixels free of cloud and cloud shadows. Given the high cloud cover present in southern Chile, a ± 3 months window is used for the start and end date of the analyzed period. For example, considering the period 2022 - 2023, the start date is January 1, 2022, the range or time window will correspond from October 1, 2021, to March 31, 2022; the multipixel mosaic time window for the end of period (December 31, 2023) is from October 1, 2023, to March 31, 2024.</p>	Low	<p>Yes:</p> <p>SOP_01_Satellite mosaic elaboration_ERPA3 QAQC_01_Mosaics elaboration metadata_ERPA2 https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_01_MR3.zip</p>	NO
Sampling	NA	Land-use and land-use change areas: This source of uncertainty is not applicable. It is	NA	NA	NA

Sources of uncertainty	Systematic and/or random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High / Low)	Addressed through QA/QC?	Residual uncertainty estimated?
		not required to use a sampling technique to estimate ADs for carbon deforestation, substitution, restitution, area increase of native forest, and permanent forest lands. The AD estimation is made with a total pixel count of the carbon content map for each land-use change category.			
	NA	Permanent forest degradation and carbon enhancement: This source of uncertainty is not applicable. It is not required to use a sampling technique to estimate ADs for carbon degradation and enhancement. The AD estimation is made with a total pixel count of the carbon content map for each flow category (biomass gain or loss).	NA	NA	NA
Extrapolation	NA	This source of uncertainty is not applicable. Extrapolation is not applied to estimate REDD+ activities, the sample-based estimation area method is not used. All REDD+ activities are calculated from spatially explicit information.	NA	NA	NA
Approach 3	NA	This source of uncertainty is not applicable. Activity data were estimated conducting tracking of lands or IPCC Approach 3 for reference and monitoring periods.	NA	NA	NA
Emission Factor					
BH measurement H measurement Plot delineation Wood density estimation Biomass allometric model	Systematic and Random	<p>Aerial Biomass</p> <p>The measurement uncertainty for aerial biomass estimate depends on the land-use carbon density data source:</p> <p>Aerial biomass of native and mixed forest: SOP_06 Field Operations Manual was implemented during fieldwork for the estimation of AGB in the National Forest Inventory. For some forest types were possible to adjust a Probability Distribution Function (PDF). For the forest types with a limited number of sampling plots, uncertainty propagation with Monte Carlo analysis uses the following information:</p> <p>DBH measurement error (0.2%). Calculation based on Continuous Forest Inventory data of INFOR.</p> <p>Volume estimation error (0.07%). Calculation based on Continuous Forest Inventory data of INFOR.</p> <p>Biomass Expansion Factor (BEF) error (18.0%). BEF comes from information collected in the country from the study of Gayoso et al. (2002) and used in INGEI (2020). This value is for native species and has a national spatial level. Error calculation is based on statistical data from the Biomass Inventory and Carbon</p>	Low	Yes, for a: SOP_06: Field Operation Manual https://plataforma.enccrv.cl/statistic/erpa/mr3/sop/SOP_06_MR3.zip	Yes

Sources of uncertainty	Systematic and/or random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High / Low)	Addressed through QA/QC?	Residual uncertainty estimated?
		<p>Accountancy of the Universidad Austral de Chile (UACH).</p> <p>Wood Density (5.6%). Calculated using basic density data collected from native species growing in Chile. A bibliographic review of basic densities of the forest species in Chile was carried out and there were no modifications for the value exposed from Gayoso et al. (2002) and INGEI (2020).</p> <p>Finally, these uncertainties are combined following IPCC approach 1 (propagation of error), resulting in total uncertainty of 18.85%.</p> <p>Aerial biomass of non-forest uses: Monte Carlo analysis uses error estimation published in INGEI (2020) and Gayoso (2006) and Expert judgment estimates (IPCC, 2006). The error of carbon density for wetlands, water bodies, and other non-vegetations uses was assumed zero due to a lack of data.</p> <p>Annual Periodic Increment (IPA Spanish acronym): SOP_06 Field Operations Manual was implemented during fieldwork to estimate IPA in the National Forest Inventory, for some forest types were possible to adjust a Probability Distribution Function (PDF). For the forest types with a limited number of sampling plots, uncertainty propagation with Monte Carlo analysis uses the calculation of the measurement uncertainty for IPA based on the 95% CI of the removal rate by forest type, calculated with Continuous Forest Inventory data of INFOR.</p>			
Sampling	Random	<p>The Continuous Inventory of Forestry Ecosystems, henceforth referred to as the Continuous Inventory, managed by INFOR, and has been operational since 2000. The Continuous Inventory was designed under a statistical bi-stage design in three circular sample plot clusters in an area equivalent to 500m² distributed in a systematic area of 5x7km. The sampling units have been systematically distributed over the national territory from the Maule to the Magallanes region.</p>	High	<p>Yes:</p> <p>QA / QC applied in SOP06</p> <p>https://plataforma.encrv.cl/statistic/erpa/mr3/sop/SOP_06_MR3.zip</p>	Yes

Sources of uncertainty	Systematic and/or random	Analysis of contribution to overall uncertainty	Contribution to overall uncertainty (High / Low)	Addressed through QA/QC?	Residual uncertainty estimated?
Other parameters (e.g. Carbon Fraction, root-to-shoot ratios)	Systematic and Random	Root-to-shoot ratio (R factor-40% error): R factor comes from information collected in the country (Gayoso et al., 2002; INGEI, 2020). This value is within the range indicated in the 2006 IPCC Guidelines for temperate forests (between 0.20 and 0.46, according to Table 4.4; Chapter 4; Volume 4) and within of the values available worldwide, which provide R factors that range between 0.09 and 0.33. This value is for native species and has a national spatial level, and was selected to the GHG national report Error calculation based on statistical data from the Biomass Inventory and Carbon Accountancy of the Universidad Austral de Chile (UACH). Finally, aerial biomass and R factor uncertainties are combined following IPCC approach 1 (propagation of error), resulting in total uncertainty of 44.2%.	High	Yes Semi-automated tools were developed to reduce potential errors in integration & calculations	Yes
Representativeness	NA	This source of uncertainty is not applicable. Chile generates estimates of carbon densities per forest type, and non-forest land uses. Different forest types and structures classify the native forest. Each forest type has its biomass value depending on data availability. Also, non-forest lands include the following uses: Urban and Industrial Areas, agricultural land, grassland, scrub, arborescent scrub, shrub planting, succulent scrub, succulent formations, plantations, wetlands, areas deprived of vegetation, eternal snows and glaciers, waterbodies and unrecognized areas.	NA	NA	NA
Integration					
Model	Systematic	Calculation tools have been prepared to estimate Emission Reductions, including the FREL and Monitoring Period for REDD activity. In these tools, you can review the formulas used to estimate ERs. The country prepared these tools to ensure the same calculation methods are applied for all monitoring events and avoid errors during the processing and data preparation.	Low	Yes Semi-automated tools were developed to reduce potential errors in integration & calculations	No
Integration	Systematic	The Emission factors were calculated for each region and forest type according to AGB sampling plots' location to assure the comparability between transition classes of the Activity Data and those of the Emission Factors. This source of uncertainty is considered in the sampling error of the AGB inventory.	Low	Yes: SOP_06_Field Operation Manual https://plataforma.enccrv.cl/static/erpa/mr3/sop/SOP_06_MR3.zip	No

5.2 Uncertainty of the estimate of Emission Reductions⁵¹

Parameters and assumptions used in the Monte Carlo method

The following table shows the parameters and assumptions used in the Monte Carlo Analysis to estimate the uncertainty of the Emission Reduction for the Monitoring Period. The parameter where the type of Probability Distribution Function (PDF) is fitted indicates the p-value of the adjustment obtained for the distribution function and its parameters.

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
Activity Data				
Non-Forest land - Forest Maule Reference Period (ha/yr)	6,239	10.9%	Normal	Activity Data uncertainty used in Monte Carlo Analysis was calculated using the confidence limits of the sampling-based land-use change estimation areas for the reference and monitoring periods.
Non-Forest land - Forest Ñuble Reference Period (ha/yr)	546	10.9%	Normal	
Non-Forest land - Forest Biobio Reference Period (ha/yr)	1,795	8.84%	Normal	
Non-Forest land - Forest Araucanía Reference Period(ha/yr))	2,545	7.9%	Normal	
Non-Forest land - Forest Los Ríos Reference Period (ha/yr)	1,468	9.4%	Normal	
Non-Forest land - Forest Los Lagos Reference Period (ha/yr)	929	11.0%	Normal	
Non-Forest land - Forest Maule Monitoring Period (ha/yr)	79,466.07	10.9%	Normal	
Non-Forest land - Forest Ñuble Monitoring Period (ha/yr)	6,682.69	10.9%	Normal	
Non-Forest land - Forest Biobio Monitoring Period (ha/yr)	22,417.47	10.9%	Normal	
Non-Forest land - Forest Araucanía Monitoring Period (ha/yr))	32,940.88	7.9%	Normal	
Non-Forest land - Forest Los Ríos Monitoring Period (ha/yr)	18,975.29	9.4%	Normal	
Non-Forest land - Forest Los Lagos Monitoring Period (ha/yr)	11,929.75	11.0%	Normal	
Forest land – Non-Forest Maule Reference Period (ha/yr)	634	11.1%	Normal	

⁵¹ Map uncertainty estimation available in:

https://plataforma.enccrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_mapas/Incertidumbre-Mapas-RP3.zip

Global uncertainty estimation available in:

https://plataforma.enccrv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_global/Incertidumbre-Global-RP3.zip

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions	
Forest land – Non-Forest Ñuble Reference Period (ha/yr)	424	11.1%	Normal		
Forest land – Non-Forest Biobio Reference Period (ha/yr)	1,147	3.4%	Normal		
Forest land – Non-Forest Araucanía Reference Period(ha/yr))	1,319	9.9%	Normal		
Forest land – Non-Forest Los Ríos Reference Period (ha/yr)	1,281	8.0%	Normal		
Forest land – Non-Forest Los Lagos Reference Period (ha/yr)	3,256	23.4%	Normal		
Forest land – Non-Forest Maule Monitoring Period (ha/yr)	1,073	11.1%	Normal		
Forest land – Non-Forest Ñuble Monitoring Period (ha/yr)	99	11.1%	Normal		
Forest land – Non-Forest Biobio Monitoring Period (ha/yr)	138	3.4%	Normal		
Forest land – Non-Forest Araucanía Monitoring Period (ha/yr))	98	9.9%	Normal		
Forest land – Non-Forest Los Ríos Monitoring Period (ha/yr)	190	8.0%	Normal		
Forest land – Non-Forest Los Lagos Monitoring Period (ha/yr)	1,854	23.4%	Normal		
Aum No Conserv Bajo C en 2001, entre [B-C] en 2010 RP (ha/yr)	47,034	32.8%	Normal		Degradation mapping accuracy estimated by INFOR.
Aum No Conserv Entre [B-C] en 2001 y sobre B en 2010 RP (ha/yr)	165,411	32.8%	Normal		
Aum No Conserv Bajo C en 2001 y sobre B en 2010 RP (ha/yr)	162,204	32.8%	Normal		
Aum No Conserv Bajo C en 2001 y bajo C en 2010 RP (ha/yr)	66,668	32.8%	Normal		
Aum No Conserv Entre [B-C] en 2001, entre [B-C] en 2010 RP (ha/yr)	21,878	32.8%	Normal		
Aum No Conserv Bajo C en 2022, entre [B-C] en 2023 MP (ha/yr)	25,342	32.8%	Normal		
Aum No Conserv Entre [B-C] en 2022 y sobre B en 2023 MP (ha/yr)	107,634	32.8%	Normal		
Aum No Conserv Bajo C en 2022 y sobre B en 2023 MP (ha/yr)	81,786	32.8%	Normal		

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
Aum No Conserv Bajo C en 2022 y bajo C en 2023 MP (ha/yr)	40,273	32.8%	Normal	
Aum No Conserv Entre [B-C] en 2022, entre [B-C] en 2023 MP (ha/yr)	14,341	32.8%	Normal	
Deg No Conserv Sobre B en 2001 y bajo C en 2010 RP (ha/yr)	105,699	32.8%	Normal	
Deg No Conserv Entre [B-C] en 2001 y bajo C en 2010 RP (ha/yr)	38,888	32.8%	Normal	
Deg No Conserv Sobre B en 2001, Entre [B-C] en 2010 RP (ha/yr)	129,910	32.8%	Normal	
Deg No Conserv Bajo C en 2001 y bajo C en 2010 RP (ha/yr)	62,074	32.8%	Normal	
Deg No Conserv Entre [B-C] en 2001, entre [B-C] en 2010 RP (ha/yr)	20,919	32.8%	Normal	
Deg No Conserv Sobre B en 2022 y bajo C en 2023 MP (ha/yr)	86,350	32.8%	Normal	
Deg No Conserv Entre [B-C] en 2022 y bajo C en 2023 MP (ha/yr)	25,756	32.8%	Normal	
Deg No Conserv Sobre B en 2022, Entre [B-C] en 2023 MP (ha/yr)	110,112	32.8%	Normal	
Deg No Conserv Bajo C en 2022 y bajo C en 2023 MP (ha/yr)	38,736	32.8%	Normal	
Deg No Conserv Entre [B-C] en 2022, entre [B-C] en 2023 MP (ha/yr)	14,758	32.8%	Normal	
Aum Conserv Bajo C en 2001, entre [B-C] en 2010 RP (ha/yr)	8,479	32.8%	Normal	
Aum Conserv Entre [B-C] en 2001 y sobre B en 2010 RP (ha/yr)	35,783	32.8%	Normal	
Aum Conserv Bajo C en 2001 y sobre B en 2010 RP (ha/yr)	24,973	32.8%	Normal	
Aum Conserv Bajo C en 2001 y bajo C en 2010 RP (ha/yr)	10,996	32.8%	Normal	
Aum Conserv Entre [B-C] en 2001, entre [B-C] en 2010 RP (ha/yr)	5,204	32.8%	Normal	
Aum Conserv Bajo C en 2022, entre [B-C] en 2023 MP (ha/yr)	7,334	32.8%	Normal	

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
Aum Conserv Entre [B-C] en 2022 y sobre B en 2023 MP (ha/yr)	40,371	32.8%	Normal	
Aum Conserv Bajo C en 2022 y sobre B en 2023 MP (ha/yr)	27,996	32.8%	Normal	
Aum Conserv Bajo C en 2022 y bajo C en 2023 MP (ha/yr)	9,631	32.8%	Normal	
Aum Conserv Entre [B-C] en 2022, entre [B-C] en 2023 MP (ha/yr)	4,746	32.8%	Normal	
Deg Conserv Sobre B en 2001 y bajo C en 2010 RP (ha/yr)	25,257	32.8%	Normal	
Deg Conserv Entre [B-C] en 2001 y bajo C en 2010 RP (ha/yr)	7,991	32.8%	Normal	
Deg Conserv Sobre B en 2001, Entre [B-C] en 2010 RP (ha/yr)	36,182	32.8%	Normal	
Deg Conserv Bajo C en 2001 y bajo C en 2010 RP (ha/yr)	10,415	32.8%	Normal	
Deg Conserv Entre [B-C] en 2001, entre [B-C] en 2010 RP (ha/yr)	4,987	32.8%	Normal	
Deg Conserv Sobre B en 2022 y bajo C en 2023 MP (ha/yr)	31,176	32.8%	Normal	
Deg Conserv Entre [B-C] en 2022 y bajo C en 2023 MP (ha/yr)	8,386	32.8%	Normal	
Deg Conserv Sobre B en 2022, Entre [B-C] en 2023 MP (ha/yr)	40,132	32.8%	Normal	
Deg Conserv Bajo C en 2022 y bajo C en 2023 MP (ha/yr)	11,212	32.8%	Normal	
Deg Conserv Entre [B-C] en 2022, entre [B-C] en 2023 MP (ha/yr)	5,019	32.8%	Normal	
Forest land - Forest Plantation Maule RP (ha/yr)	1,846	11.1%	Normal	Activity Data uncertainty used in Monte Carlo Analysis was calculated using the confidence limits of the sampling-based land-use change estimation areas for the reference and monitoring periods.
Forest land - Forest Plantation Ñuble RP (ha/yr)	771	11.1%	Normal	
Forest land - Forest Plantation Bío-Bío RP (ha/yr)	1,478	3.4%	Normal	
Forest land - Forest Plantation La Araucanía RP (ha/yr)	2,732	9.9%	Normal	
Forest land - Forest Plantation Los Ríos RP (ha/yr)	894	8.0%	Normal	
Forest land - Forest Plantation Los Lagos RP (ha/yr)	609	23.4%	Normal	
Forest land - Forest Plantation Maule MP (ha/yr)	170	11.1%	Normal	
Forest land - Forest Plantation Ñuble MP (ha/yr)	61	11.1%	Normal	
Forest land - Forest Plantation Bío-Bío MP (ha/yr)	1	3.4%	Normal	

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions	
Forest land - Forest Plantation La Araucanía MP (ha/yr)	1	9.9%	Normal		
Forest land - Forest Plantation Los Ríos MP (ha/yr)	1	8.0%	Normal		
Forest land - Forest Plantation Los Lagos MP (ha/yr)	5	23.4%	Normal		
Forest fires area Maule RP (ha/yr)	583.4	15%	Normal	INGEI, 2020	
Forest fires area Ñuble RP (ha/yr)	139.2	15%	Normal		
Forest fires area Biobio RP (ha/yr)	1,028.5	15%	Normal		
Forest fires area Araucanía RP (ha/yr)	2,058.1	15%	Normal		
Forest fires area Los Ríos RP (ha/yr)	150.4	15%	Normal		
Forest fires area Los Lagos RP (ha/yr)	781.9	15%	Normal		
Forest fires area Maule MP (ha/yr)	5,140.0	15%	Normal		
Forest fires area Ñuble MP (ha/yr)	2,939.4	15%	Normal		
Forest fires area Biobio MP(ha/yr)	14,878.9	15%	Normal		
Forest fires area Araucanía MP(ha/yr)	9,437.3	15%	Normal		
Forest fires area Los Ríos MP(ha/yr)	557.5	15%	Normal		
Forest fires area Los Lagos MP(ha/yr)	115	15%	Normal		
Carbon content of Non-Forest Lands					
AGB Áreas Urbanas e Industriales	2.00	95%	Normal		(INGEI, 2020)
AGB Terrenos Agrícolas	10.00	75%	Normal	(INGEI, 2020)	
AGB Praderas y Matorrales Praderas	4.73	27.7%	Normal	(Gayoso, 2006)	
AGB Praderas y Matorrales Matorral-Pradera	9.04	34.6%	Normal		
AGB Praderas y Matorrales Matorral Arborescente	21.78	22.4%	Normal		
Carbon content of Native Forest					
BGB Terrenos Agrícolas	2.00	53.2%	Normal	Uncertainty for BGB of Non-Forest lands is based on propagation error estimate following IPCC approach 1 of Matorrals-Arborescente AGB error (22.42%) and Root shoot ratio -R Factor error (48.27%) estimated by Goyoso et al.	
BGB Praderas y Matorrales Praderas	8.13	53.2%	Normal		
BGB Praderas y Matorrales Matorral-Pradera	14.99	53.2%	Normal		
BGB Praderas y Matorrales Matorral Arborescente	35.25	53.2%	Normal		

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
				(2002), resulting in total uncertainty of 53.2%.
AGB Alerce Adulto (t dry biomass/ha)	339.109	18.85%	Normal	For the forest types with a limited number of sampling plots, uncertainty propagation with Monte Carlo analysis uses the following information: i. DBH measurement error (0.2%), calculation based on Continuous Forest Inventory data of INFOR; ii. Volume estimation error (0.07%), calculation based on Continuous Forest Inventory data of INFOR, iii. Biomass Expansion Factor (BEF) error (18.0%), BEF comes from information collected in the country from the study of Gayoso et al. (2002) and used in INGEI (2018). This value is for native species and has a national spatial level. Error calculation is based on statistical data from the Biomass Inventory and Carbon Accountancy of the Universidad Austral de Chile (UACh); and iv. Wood Density (5.6%) calculated using basic density data collected from native species growing in Chile. Finally, these uncertainties are combined following IPCC
AGB Alerce Renoval (t dry biomass/ha)	203.590	18.85%	Normal	
AGB Ciprés de las Guaitecas Adulto (t dry biomass/ha)	221.848	18.85%	Normal	
AGB Araucaria Adulto (t dry biomass/ha)	β : 222.628; k: 1.886	PDF	Gama 2; P:0.998; n: 16	
AGB Araucaria Renoval (t dry biomass/ha)	219.131	18.85%	Normal	
AGB Ciprés de la Cordillera Adulto (t dry biomass/ha)	97.116	18.85%	Normal	
AGB Ciprés de la Cordillera Renoval (t dry biomass/ha)	124.019	18.85%	Normal	
AGB Lengua Adulto (t dry biomass/ha)	μ : 207.038; s: 84.017	PDF	Logistic; P:0.958; n:10	
AGB Lengua Renoval (t dry biomass/ha)	α : 0.431; β :0.439	PDF	Beta4; P:0.776; n:8	
AGB Coihue de Magallanes Adulto (t dry biomass/ha)	129.148	18.85%	Normal	
AGB Roble - Hualo Adulto (t dry biomass/ha)	β : 17.695; k: 5.884	PDF	Gamma (2); P:0.808; n: 17	
AGB Roble - Raulí - Coihue Adulto (t dry biomass/ha)	λ : 0.006	PDF	Exponential; P:0.850; n: 65;	
AGB Roble - Raulí - Coihue Renoval (t dry biomass/ha)	λ : 0.006	PDF	Exponential; P:0.709; n: 71	
AGB Coihue - Raulí - Tepa Adulto (t dry biomass/ha)	β : 1.162; γ :414.153	PDF	Weibull (2); P: 0.831; n: 57	
AGB Coihue - Raulí - Tepa Renoval (t dry biomass/ha)	β : 117.880; k: 1.720	PDF	Gamma (2); P:0.989; n: 12	
AGB Esclerófilo Adulto (t dry biomass/ha)	β : 0.721; γ :12.840	PDF	Weibull (2); P: 0.858; n: 33	
AGB Siempreverde Adulto (t dry biomass/ha)	μ : 5.765; σ : 0.646	PDF	Log-normal; P: 0.194; n: 49	
AGB Siempreverde Renoval (t dry biomass/ha)	β : 1.584; γ :139.543	PDF	Weibull (2); P: 0.673; n: 25	

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
AGB Araucanía Mixed Forest Monitoring Period (t dry biomass/ha)	149.68	18.85%	Normal	approach 1 (propagation of error), resulting in total uncertainty of 18.85%
AGB Los Ríos Mixed Forest Monitoring Period (t dry biomass/ha)	176.65	18.85%	Normal	
AGB Los Lagos Mixed Forest Monitoring Period (t dry biomass/ha)	203.36	18.85%	Normal	
AGB Ñuble Mixed Forest Monitoring Period (t dry biomass/ha)	106.22	18.85%	Normal	
AGB Maule Mixed Forest Monitoring Period (t dry biomass/ha)	41.61	18.85%	Normal	
AGB Biobio Mixed Forest Monitoring Period (t dry biomass/ha)	75.62	18.85%	Normal	
AGB Maule Mixed Forest Reference Period (t dry biomass/ha)	69.85	18.85%	Normal	
AGB Biobio Mixed Forest Reference Period (t dry biomass/ha)	222.86	18.85%	Normal	
AGB Araucanía Mixed Forest Reference Period (t dry biomass/ha)	255.00	18.85%	Normal	
AGB Los Ríos Mixed Forest Reference Period (t dry biomass/ha)	192.95	18.85%	Normal	
AGB Los Lagos Mixed Forest Reference Period (t dry biomass/ha)	221.75	18.85%	Normal	
AGB Ñuble Mixed Forest Reference Period (t dry biomass/ha)	162.94	18.85%	Normal	
BGB Araucanía Mixed Forest Monitoring Period (t dry biomass/ha)	42.94	44.2%	Normal	Uncertainty for Below Ground Biomass BGB is based on propagation error estimate following IPCC approach 1 of Above Ground Biomass-AGB error (18.85%) and Root shoot ratio -R Factor error (40.0%) estimated by Gayoso et al. (2002), resulting in total uncertainty of 44.2%.
BGB Los Ríos Mixed Forest Monitoring Period (t dry biomass/ha)	50.68	44.2%	Normal	
BGB Los Lagos Mixed Forest Monitoring Period (t dry biomass/ha)	58.34	44.2%	Normal	
BGB Ñuble Mixed Forest Monitoring Period (t dry biomass/ha)	30.47	30.47	Normal	
BGB Maule Mixed Forest Monitoring Period (t dry biomass/ha)	11.94	44.2%	Normal	

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
BGB Biobio Mixed Forest Monitoring Period (t dry biomass/ha)	21.70	44.2%	Normal	
BGB Maule Mixed Forest Reference Period (t dry biomass/ha)	20.04	44.2%	Normal	
BGB Biobio Mixed Forest Reference Period (t dry biomass/ha)	63.94	44.2%	Normal	
BGB Araucanía Mixed Forest Reference Period (t dry biomass/ha)	73.16	44.2%	Normal	
BGB Los Ríos Mixed Forest Reference Period (t dry biomass/ha)	55.36	44.2%	Normal	
BGB Los Lagos Mixed Forest Reference Period (t dry biomass/ha)	63.62	44.2%	Normal	
BGB Ñuble Mixed Forest Reference Period (t dry biomass/ha)	46.75	44.2%	Normal	
Dead matter Araucanía Mixed Forest MP (t dry biomass/ha)	58.91	28.4%	Normal	Error estimated from permanent plots of the INFOR Continuous Forest Inventory
Dead matter Los Ríos Mixed Forest MP (t dry biomass/ha)	58.69	28.4%	Normal	
Dead matter Los Lagos Mixed Forest MP (t dry biomass/ha)	63.54	28.4%	Normal	
Dead matter Ñuble Mixed Forest MP (t dry biomass/ha)	40.51	28.4%	Normal	
Dead matter Maule Mixed Forest MP (t dry biomass/ha)	19.10	28.4%	Normal	
Dead matter Biobio Mixed Forest MP (t dry biomass/ha)	33.85	28.4%	Normal	
Dead matter Maule Mixed Forest RP (t dry biomass/ha)	21.35	28.4%	Normal	
Dead matter Biobio Mixed Forest RP (t dry biomass/ha)	52.84	28.4%	Normal	
Dead matter Araucanía Mixed Forest RP (t dry biomass/ha)	74.08	28.4%	Normal	
Dead matter Los Ríos Mixed Forest RP (t dry biomass/ha)	52.99	28.4%	Normal	
Dead matter Los Lagos Mixed Forest RP (t dry biomass/ha)	61.87	28.4%	Normal	
Dead matter Ñuble Mixed Forest RP (t dry biomass/ha)	47.76	28.4%	Normal	
Annual Periodic Increase of Native Forest				
IPA Araucanía Mixed Forest Monitoring Period (t dry biomass/ha)	4.10	28.7%	Normal	Average of IPA error for all forest types given lack of data.
IPA Los Ríos Mixed Forest Monitoring Period (t dry biomass/ha)	4.10	28.7%	Normal	

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
IPA Los Lagos Mixed Forest Monitoring Period (t dry biomass/ha)	4.89	28.7%	Normal	
IPA Ñuble Mixed Forest Monitoring Period (t dry biomass/ha)	2.44	28.7%	Normal	
IPA Maule Mixed Forest Monitoring Period (t dry biomass/ha)	4.24	28.7%	Normal	
IPA Biobio Mixed Forest Monitoring Period (t dry biomass/ha)	3.97	28.7%	Normal	
IPA Maule Mixed Forest Reference Period (t dry biomass/ha)	2.06	28.7%	Normal	
IPA Biobio Mixed Forest Reference Period (t dry biomass/ha)	3.71	28.7%	Normal	
IPA Araucanía Mixed Forest Reference Period (t dry biomass/ha)	4.19	28.7%	Normal	
IPA Los Ríos Mixed Forest Reference Period (t dry biomass/ha)	4.14	28.7%	Normal	
IPA Los Lagos Mixed Forest Reference Period (t dry biomass/ha)	4.17	28.7%	Normal	
IPA Ñuble Mixed Forest Reference Period (t dry biomass/ha)	2.77	28.7%	Normal	
IPA Alerce Adulto (m3/ha/yr)	0.5	58.47%	Normal	The higher uncertainty of the errors estimated for IPA is assumed due to a lack of data.
IPA Ciprés de las Guaitecas Adulto (m3/ha/yr)	3.9	58.47%	Normal	
IPA Araucaria Adulto (m3/ha/yr)	$\mu: 4.882; \sigma: 2.516$	PDF	Normal; P:0.923; n: 16	
IPA Ciprés de la Cordillera Adulto (m3/ha/yr)	5.0	15.83%	Normal	Error estimated from permanent plots of the INFOR Continuous Forest Inventory
IPA Ciprés de la Cordillera Renoval (m3/ha/yr)	2.7	9.97%	Normal	
IPA Lenga Adulto (m3/ha/yr)	$k: 5; \gamma: 0.921$	PDF	Erlang; P:0.986; n:10	
IPA Lenga Renoval (m3/ha/yr)	$\mu: 2.995; \beta: 2.054$	PDF	Fisher-Tippett (2); P:0.907; n:8	
IPA Coihue de Magallanes Adulto (m3/ha/yr)	2.6	13.42%	Normal	

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
IPA Coihue de Magallanes Renoval (m3/ha/yr)	3.7	7.68%	Normal	Error estimated from permanent plots of the INFOR Continuous Forest Inventory
IPA Roble - Hualo Adulto (m3/ha/yr)	$\mu: 1.534; \sigma: 0.507$	PDF	Log Normal; P:0.873; n: 17	
IPA Roble - Hualo Renoval (m3/ha/yr)	3.5	54.47%	Normal	The higher uncertainty of the errors estimated for IPA is assumed due to a lack of data.
IPA Roble - Raulí - Coihue Adulto (m3/ha/yr)	$\mu: 1.335; \sigma: 1.106$	PDF	Log Normal; P:0.257; n: 65;	
IPA Roble - Raulí - Coihue Renoval (m3/ha/yr)	$\beta: 1.777; \gamma: 4.664$	PDF	Weibull (2); P:0.760; n: 71	
IPA Coihue - Raulí - Tepa Adulto (m3/ha/yr)	$\beta: 1.403; \gamma: 6.264$	PDF	Weibull (2); P: 0.789; n: 57	
IPA Coihue - Raulí - Tepa Renoval (m3/ha/yr)	$\mu: 4.364; s: 1.558$	PDF	Logistic; P:0.825; n: 12	
IPA Esclerófilo Adulto (m3/ha/yr)	$\beta: 0.667; \gamma: 0/875$	PDF	Weibull (2); P: 0.512; n: 33	
IPA Esclerófilo Renoval (m3/ha/yr)	1.6	21.31%	Normal	Error estimated from permanent plots of the INFOR Continuous Forest Inventory
IPA Siempreverde Adulto (m3/ha/yr)	$\alpha: 13.411; \beta: 29.589$	PDF	Beta4; P: 0.940; n: 49	
IPA Siempreverde Renoval (m3/ha/yr)	$\mu: 4.664; s: 0/893$	PDF	Logistic; P: 0.994; n: 25	
Degradation and Enhancement in permanent forest				
Carbon stock change in permanent forest	Values depending on density diagram change and forest type	57%	Normal	Error estimation based on the standard error of the k-nn algorithm volume estimation.
Carbon content of forest lands (forest fires)				

Parameter included in the model	Parameter values	Error sources quantified in the model	Probability distribution function	Assumptions
AGB Maule (t dry biomass/ha/yr)	80.35	18.85%	Normal	This uncertainty is estimated following IPCC approach 1 (propagation of error), resulting in total uncertainty of 18.85%.
AGB Biobio (t dry biomass/ha/yr)	149.88	18.85%	Normal	
AGB Araucanía (t dry biomass/ha/yr)	252.33	18.85%	Normal	
AGB Los Ríos (t dry biomass/ha/yr)	310.35	18.85%	Normal	
AGB Los Lagos (t dry biomass/ha/yr)	230.41	18.85%	Normal	
AGB Ñuble (t dry biomass/ha/yr)	149.88	18.85%	Normal	
BGB Maule (t dry biomass/ha/yr)	23.05	44.2%	Normal	Uncertainty for Below Ground Biomass BGB is based on propagation error estimate following IPCC approach 1 of Above Ground Biomass-AGB error (18.85%) and Root shoot ratio -R Factor error (40.0%) estimated by Goyoso et al. (2002), resulting in total uncertainty of 44.2%.
BGB Biobio (t dry biomass/ha/yr)	43.00	44.2%	Normal	
BGB Araucanía (t dry biomass/ha/yr)	72.39	44.2%	Normal	
BGB Los Ríos (t dry biomass/ha/yr)	89.04	44.2%	Normal	
BGB Los Lagos (t dry biomass/ha/yr)	66.10	44.2%	Normal	
BGB Ñuble (t dry biomass/ha/yr)	43.00	44.2%	Normal	
Dead matter Maule (t dry biomass/ha)	52.60	28.4%	Normal	Error estimated from permanent plots of the INFOR Continuous Forest Inventory
Dead matter Biobio (t dry biomass/ha)	122.10	28.4%	Normal	
Dead matter Araucanía (t dry biomass/ha)	165.50	28.4%	Normal	
Dead matter Los Ríos (t dry biomass/ha)	146.90	28.4%	Normal	
Dead matter Los Lagos (t dry biomass/ha)	157.00	28.4%	Normal	
Dead matter Ñuble (t dry biomass/ha)	122.10	28.4%	Normal	
Other Factors				
Combustion factor	0.45	36.0%	Normal	IPCC, 2006
Emission Factor CH4	4.7	29.0%	Normal	
Emission Factor N2O	0.26	43.8%	Normal	

Quantification of the uncertainty of the estimate of Emission Reductions ⁵²

		Reporting Period		Crediting Period	
		Total Emission Reductions*	Forest degradation**	Total Emission Reductions*	Forest degradation**
A	Median	1,775,301	-20,177,950	1,240,659	-61,635,424
B	Upper bound 90% CI (Percentile 0.95)	17,057,144	-10,629,169	45,160,054	-33,407,724
C	Lower bound 90% CI (Percentile 0.05)	-13,455,591	-29,477,804	-43,037,656	-89,606,374
D	Half Width Confidence Interval at 90% (B – C) / 2	15,256,367	-9,424,317	44,098,854	-28,099,325
E	Relative margin (D / A)	859.4%	46.7%	260.05%	26.6%
F	Uncertainty discount	15%	NA	15%	NA

*Remove forest degradation from the estimate if forest degradation has been estimated with proxy data.

**Remove the column if forest degradation has not been estimated using proxy data.

5.3 Sensitivity analysis and identification of areas of improvement of MRV system⁵³

The following table shows the results for the sensitivity analysis of Emission Reductions (ERs) uncertainty. ERs estimate of carbon enhancement contributes 57.9% of total ERs uncertainty. The main contribution is coming from ERs' uncertainty in removals of lands converted to forest, with the 37.9%.

In addition to the above, for this reporting period, the contributions of activities in forests that remain as forests, in enhancement and degradation remain. These are the three areas that represent the greatest difficulty for the elaboration of activity data in the NFMS.

REDD Activity	Component	Uncertainty Contribution
Carbon enhancement	Removals in forest remaining as forest	20%
	Removals in lands converted to forest	37.9%
Total removals		57.9%
Conservation	Removals in forest remaining as forest	6.5%
	Emissions in forest remaining as forest	8.9%
Conservation Total		15.4%
Deforestation Total		2.7%
Degradation	Emissions in forest remaining as forest	21.8%
	Emissions from forests converted to plantations.	4.0%
	Forest fires	0.7%
Degradation Total		26.6%
Grand Total		102.5%

Table 1 Results for the sensitivity analysis of ERs' global uncertainty.

⁵² Values from **Total Emission Reductions** come from tab "RP1-RP2-RP3" and values from Forest degradation come from tab "Degradacion" both of them from the spreadsheet available in:

https://plataforma.encrcv.cl/static/erpa/mr3/analisis-incertidumbre/Incertidumbre_acumulada_Chile_V2.xlsx

For more information consult tab "Incertidumbre y Sensibilidad" from:

https://plataforma.encrcv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_global/IncertidumbreGlobal_RP3_v5.xlsx

⁵³ Values from table 1 come from tab "Incertidumbre y Sensibilidad" cells Q13:T22. Grand total cell S22 from spreadsheet:

https://plataforma.encrcv.cl/static/erpa/mr3/analisis-incertidumbre/incertidumbre_global/IncertidumbreGlobal_RP3_v5.xlsx

6 TRANSFER OF TITLE TO ERS

6.1 Ability to transfer title⁵⁴

From a regulatory point of view, Chile does not have a specific legal framework to determine the transfer or the ownership of ERs. However, for the purposes of the FCPF ERPA, the ability of the Program Entity to transfer ER title is demonstrated based on reliance on benefit sharing arrangements supported by different legal norms and other mechanisms that give effect to criterion 36 of the FCPF Methodological Framework.

The 2016 ERPD established that the ER Program of Chile would define a Benefit Sharing Plan (BSP), which is based on the basic principle that the distribution of benefits associated to result-based payment is conditional on a previous transfer of carbon rights (Annex 2). The BSP prioritizes the delivery of benefits to small and medium landowners and indigenous peoples but does not exclude large landowners who are eligible for benefits achieved through REDD+ financing.

In 2019, it was defined that CONAF's ability to transfer ER Titles could be managed through three possibilities:

- a) Possessing the legal capacity to do so, in which case the respective legal framework must be cited.
- b) Agreements and/or sub-agreements with potential holders of land and resource tenure rights.
- c) Benefit-sharing agreements under the Benefit Distribution Plan.

These were explained in the document [“Note on the Ability of Program Entity to Transfer Title to Emission Reductions \(ERs\) Forest Carbon Partnership Facility, Carbon Fund”](#), which was timely shared with the FCPF. In June 2020 CONAF conducted an exploratory analysis on the legal nature of emission reductions, which resulted in the Legal Opinion document, which obtained among other conclusions, that the country can dispose of ERs on the framework of the international climate change regime applied voluntarily in Chile. In this way, the country decides to generate reduced emissions in a jurisdictional accounting area, in order to facilitate GHG accounting and avoid claims. The Legal Opinion also determined that ownership of lands where GHG capture capacity enhancements are produced is not relevant for determining a possible ER title transfer, as there is no ownership regarding this reduction but rather an obligation of the country that must be fulfilled. In fact, the Legal Opinion concluded that individuals can own a specific parcel of land, but not the emission reductions produced by their land (or vegetation resources inside it) because this ER is a national asset for public use.

For this Reporting Period 2022-2023, as was also the case in previous Reporting Periods, the ER results come from the emissions reduction from reduced deforestation activity, which is directly related to CONAF's regular actions on forest lands. The reduction of emissions from deforestation corresponds to a result of the government's direct management of forest resources through the application and enforcement of national legislation that prevents irregular and unsustainable extraction of native forests.

The following paragraphs provide an overview of how each of the three alternative mechanisms of the FCPF Methodological Framework is addressed by Chile. It is worth mentioning that all three possibilities and combinations thereof were considered.

- a) Possessing the legal capacity to do so, in which case the respective legal framework must be cited

The government of Chile ratified the UNFCCC and the Paris Agreement, converting its Nationally Determined Contribution (NDC) commitments into obligations and, the appointment of CONAF as REDD+ focal point was made official. Both decisions lead to the validation of a special title for leading the ER generation within the FCPF framework, which is aligned with the system the UNFCCC and the Paris Agreement have developed to obtain emission reduction-based payments for REDD+. In fact, in 2019 Chile demonstrated its ability to receive payments

⁵⁴ In April 2025, Chile approved the bill that creates the National Forestry Service SERNAFOR, which replaces CONAF as the new public forestry institution of Chile. For all purposes the Service will be the legal successor of the National Forestry Corporation. All mentions of the National Forestry Corporation contained in laws, regulations, decrees, resolutions, official letters, circulars, acts, contracts or agreements, instructions and other documents shall be understood to refer to the Service created by this law.

for reduced emissions through the Green Climate Fund, applying to the payment window for the period 2015, 2015 and 2016, with a budget of USD 63 million.

The foregoing is consistent with the internal legal system, since according to CONAF's Statutes Article 3, CONAF has the exclusive purpose of "Contributing to the conservation, improvement, management and use of the protected forest resources and areas of wildlife of the country", also including among its functions the possibility of creating agreements and contracts with different organizations to achieve this purpose.

During this third reporting period 2022-2023, CONAF maintained its regular forest management and inspection activities, based on the implementation of the Native Forest Law 20,283 and the execution of forest management plans, the prevention of forest fires and the control of illegal logging and irregular extraction. During this period, the program developed by the Government "Siembra por Chile" remained in operation, in the implementation of actions to contribute to economic reactivation and job creation, including forestry activities. During 2020, the pilot phase of +Bosques, the ENCCRV's payment for results program began, and from 2022 to 2023 the implementation continues through the first and second implementation cycle of the Benefit Sharing Plan.

2) Agreements and/or sub-agreements with potential holders of land and resource tenure rights

As mentioned above, the BSP is based on the basic principle that the distribution of benefits associated to result-based payment is conditional on a previous transfer of carbon rights. One mechanism to operationalize this requirement of the BSP is the signing of "Additional Agreements" between land/resource ownership title holders and CONAF. CONAF is empowered to formalize such Agreements, which is mentioned in the previously mentioned Article 3 of its statutes, more specifically in its article which states: "Implement all kinds of actions and enter into all kinds of conventions or contracts aimed at the obtention or related to such purposes, with individuals or legal entities, national or foreign, under public or private law, even with its own partners". In line with this, there is no doubt the emission reduction objective is aligned with the objectives of CONAF, which is therefore empowered to enter into agreements and contracts with individuals for such purposes, in case it is necessary.

The signing of such Additional Agreements was a recommended option in the legal opinion regarding the transfer of the titles, to ensure that there would be no claims by forest landowners. These Additional Agreements would contain a clause specifically authorizing CONAF to transfer ER title and that these ERs will not be submitted to the voluntary CO2 market, with express provisions for prohibiting those who adhere to such Agreements of signing other similar instruments with public or private entities. These Additional Agreements are designed for those large landowners who do not apply to the ENCCRV BSP, since they would be the only ones with the capacity to generate a carbon project that can go through the MRV in a Voluntary Carbon Market. That is why this option of Agreements with potential forest landowners is presented, in case there is interest.

For MR3, no Additional Agreements have been signed with potential landowners within the ERP area, because the ability to generate ER in the accounting area of the PRE has not been generated or demonstrated. The only agreements signed are within the framework of the BSP. In this regard, there is a low risk of possible claims by third party owners of forest land, since no relevant interest has been detected in the generation of projects that generate carbon credits or emissions reductions, which is evident in the review of international carbon market registries.

To date, there are no projects within the accounting area that have generated tradable emissions that should be discounted from the ERPA with the FCPF Carbon Fund for this period (see 6.4). Based on this, the risk of claims within the program area remains very low. The BSP works as a mechanism to mitigate any potential conflict by compensating and recognizing actors in the territory, eliminating or diminishing the incentive to claim ownership of ERs.

Considering the above, measures such as collaboration agreements under the BSP framework with large private conservation areas may be relevant. These agreements follow the same structure as other BSP agreements and include: (i) the transfer of rights to CONAF for transactions of past and future ERs, including the commitment of result-based payment benefits; and (ii) provisions to ensure that participating stakeholders continue implementing emission reduction activities with the Program's safeguards.

At present, one such agreement has been signed with a large private conservation area, namely The Nature Conservancy (TNC), under the BSP framework in 2024. This agreement is part of the same group of BSP agreements reported in this period, with the only distinction being that TNC qualifies as a medium landowner.

c) Benefit-sharing agreements under the Benefit Distribution Plan

The third FCPF mechanism for justifying ER transfers is referring to the BSP. This option is more relevant to the context of Chile than the two other mechanisms, as it recognized that public policy outcomes are not necessarily prone to private appropriation.

CONAF has developed a BSP for the ENCCRV and ER Program under transparency, participation, and fairness standards according to criteria 29, 30, 31, 32 and 33 of the FCPF Methodological Framework. To date of this report, Chile has operationalized the BSP with the 4th version of the BSP document, while in June 2025 the 5th version⁵⁵ was implemented in a new public tender cycle.

This BSP has a harmonious relationship with the previously mentioned regulatory framework; it also ensures and promotes an adequate benefit sharing which meets the principles of environmental law and UNFCCC agreements, particularly in terms of poverty eradication and respect for the human rights of vulnerable groups, article 3 and the preamble of the Paris Agreement.

To ensure this outcome and reduce possible conflicts, CONAF designed the BSP and its updates through participative processes with gender and interculturality approaches, in accordance with the vision of communities within the territory. The foregoing to assure a fair, equitable and transparent distribution of resources considering the distribution of non-monetary benefits, which will be mainly focused on small and medium forest owners.

In conclusion, the BSP meets the requirements of the methodological framework and serves as a basis to validate that CONAF can transfer ERs according to the requirements. Collaboration agreements under the BSP, are the instrument that, in practice, ensures the transfer of title to the ERs to CONAF (and now to SERNAFOR) by obtaining the express authorization of the landowners.

For the third Reporting Period two operational cycles of the BSP have been executed, in 2022 and 2023, in which benefits have been awarded to the owners represented in direct property actions of sustainable forest management and forest management, preventive forestry, forest restoration and afforestation. For the 2022 BSP cycle, 214 collaboration agreements between beneficiaries and CONAF were signed on the public applications modality. Additionally, 93 agreements on pilots and prioritized projects were signed in 2025⁵⁶. The implementation area under these agreements is 3,183 hectares, in Maule – Los Lagos regions and for different applications and beneficiaries, as indicated at <http://concurso.enccrv.cl/>.

For the 2023 operational cycle, the collaboration agreements with beneficiaries began to be signed in 2024, since the award of the Public Tender was at the beginning of that year. Therefore, the signing of these agreements will be delivered in detail in the BSP status reporting template.

The Agreements between land/resource ownership title holders and CONAF, contain express provisions for prohibiting the signing of similar instruments with public or private entities; and explicitly authorize CONAF to transfer ERs generated in such lands because of projects implemented there.

Therefore, considering the three mechanisms described above or combination of them, the legal analysis determined that according to the FCPF Methodological Framework, the document “[Note on the Ability of Program Entity to Transfer Title to Emission Reductions \(ERs\) Forest Carbon Partnership Facility, Carbon Fund](#)” and the existing legal framework, CONAF is empowered to transfer ERs, as stated in Official Letter No. 74/2019, March 1st,

⁵⁵ Benefit Sharing Plan 5th version: <https://www.enccrv.cl/5ta-edicion-sdb>

⁵⁶ Collaboration agreements: <https://plataforma.enccrv.cl/static/erpa/mr3/convenios/Convenios.zip>

2019, submitted to the FCPF by CONAF. In addition, for this Reporting Period, the Program Entity has not been aware of any title contest in which interested parties in the RE Program area have challenged the capacity of the Program Entity.

6.2 Implementation and operation of Program and Projects Data Management System

The design of the data management system for the ER Program and its respective projects was presented in the 2016 ERPD document, according to the requirements of the FCPF Methodological Framework. This is a fundamental part of the Monitoring Plan and suggests as objectives: provide transparent data and information, which are consistent over time and suitable for measuring, reporting and allowing the verification of emissions by the considered sources, absorptions and sinks.

Then, the document “Additional Information for the ER Program Update, per recommendations issued in the Chair’s Summary in the 15th Meeting of the Carbon Fund” from 2018 updates the Monitoring Plan and describes the progress made in its implementation, including time planning for monitoring milestone implementation, systems and methodologies to be used and institutional arrangements involved. The objectives of the NFMS Monitoring and Measurement System (SMM, acronym in Spanish) were also updated, defining the following:

- Optimize generation processes and ensure the implementation of monitoring events for primary elements (Land use and Land use change maps) for the estimation of emissions and absorptions linked to REDD+.
- Generate interoperability protocols for the integration of information at various spatial scales, time scales, differentiated file formats and purposes, including information of Co-benefits and Safeguard Follow-up.
- Automate report generation processes and increase report transparency.
- Have a visualization and consultation platform, in order to facilitate the dissemination of results, that responds both to the verification criteria in international instances as well as to institutional necessities and citizen demands for information.

For Data Management System, the ENCCRV developed a web based platform including semi-automated information integration tools. Also contain a geospatial content manager with a web mapper viewer and a forest carbon calculator for the executed land/property projects in regions of Chile. From here, two key tools are developed to monitor ENCCRV projects, the property monitoring system and the safeguards information system.

This web applications were based on open programming languages to ensure and guarantee their durability, with an interoperability that applies to other systems developed under CONAF and associated with the ENCCRV at the institutional level, such as the Uncertainty Evaluation System (Sistema de Evaluación de Incertidumbre, in Spanish), the Land Prioritization System (Sistema de Priorización de Territorios, in Spanish) and the Co-Benefits System (Sistema de Co-Beneficios, in Spanish). These systems are integrated into a web based tool.

The development of this platform considered the following specific activities:

- Protocol elaboration for the standardization of spatial information and alphanumeric information generated in the ENCCRV framework.
- Standardization of the existing information and quality control of the information under development.
- Development of database architecture and model.
- Development of report generation tools.
- Development of web mapping viewer and geospatial content manager.
- Definition of the official registration system of the ER Program.
- Maintenance, adjustments, improvements, and new functionalities of the platform.
- Performance evaluation (tests) during the trial period.
- Technology transfer and training of pertinent/applicable CONAF personnel to carry out an internal execution of the platform.

This robust platform has made possible adequate storage and visualization of the generated information. The platform has been able to improve reconstruction tasks and data integration, elaborate reports, indicators and perform calculations at different scales for multiple needs. This is in accordance with and responds to compliance with international requirements and responses, and also to specific requests from institutional or public consultation.

The ENCCRV Platform constitutes a centralized system of REDD+ projects executed within the framework of the ENCCRV, which is fed by the territorial implementation teams of REDD+ projects of CONAF. The system currently supports REDD+ projects executed by CONAF and does not yet consider the use of private projects, because CONAF does not have the power to mandate the use of the system by other developers.

Currently, around a thousand REDD+ initiatives are hosted on the ENCCRV Platform. Most of them are projects within the framework of the Benefit Sharing Plan, so compliance with the requirements established by CONAF to access benefits is guaranteed. The area of interventions loaded in the system is 15,734 hectares, where the forest restoration and management actions have more than 10 thousand hectares, added to 2,215 ha of afforestation, 1,738 ha of wood energy, 955 ha of preventive forestry and 582 ha of post-fire restoration. To date, the system only stores REDD+ initiatives executed by the ENCCRV, and it is expected that in the future the other actions that CONAF executes can be included.

Region	REDD+ Initiatives
IV Coquimbo	39
IX La Araucanía	245
VII Maule	102
VIII Biobío	254
X Los Lagos	190
XIV Los Ríos	83
XVI Ñuble	102
Total	1,015

Table 2. Number of REDD+ projects in plataforma.enccrv.cl

In addition, during the reporting period, in 2022 progress was made in the development and implementation of the BSP Public Tender Platform, which corresponds to a public web tool, which allows the beneficiary population to freely apply for the benefits distributed by the BSP through its Public Tender, participating in the design of their own initiatives that are finally transformed into emission reduction projects. In 2023, the Public Tender Platform underwent improvements that incorporated lessons learned from the first cycle of operation of the Public Tender, and the conceptual design of the Project Management System also began, which is expected to strengthen the administrative-financial management of the execution of the projects framed in the BSP.

As long as this data management system remains limited to CONAF projects, to registry REDD project executed by another entities a procedure is carried out that considers a review of the international registration systems for reduced emissions transactions or carbon credits, with the aim of keeping this information controlled and so that it can be excluded, in the event that a payment is generated. This information is made available to the general public through the ENCCRV site, in the Redd+ information tracking system, accessible in 2.4 of <https://www.enccrv.cl/medicion-y-monitoreo>. The details of this information are presented in 6.4.

6.3 Implementation and operation of ER Transaction Registry

As previously mentioned, (6.2), the ENCCRV SMM defined the basic development of a Reduced Emission Transaction Registration System as one of its objectives. This tool responds to the FCPF Methodological Framework for those countries that aim to reach a result-based payment agreement with the Carbon Fund. It also responds to Articles 5 and 6 of the Paris Agreement on REDD+ through market-based approaches and other agreements, which makes it

possible for different countries to exchange reduced emissions caused by the implementation of REDD+, to achieve the goals established in their NDCs and avoid double counting.

The ERPD considered developing a ENCCRV Reduced Emission Transaction Registration System, which should be a national and centralized system which guaranteed that the reduced emissions generated within the ENCCRV framework could be adequately emitted, serialized, transferred, removed, or canceled. In addition, it should also offer clear connections to different sources of information contained in the platforms used within the SMM framework. Its main function would be to avoid the duplicate transaction of reduced emissions, and act as the main tool for the control of REDD+ emission reduction transaction reporting and accounting in Chile.

The design of this registration system began in 2018, is already created and described in more detail in the [ENCCRV SMM](#). It was developed under a system with IHS Markit adapted to the REDD+ activities quantified by CONAF.

Nevertheless, the World Bank designed the Carbon Assets Tracking System (CATS), a central platform to support operations under the FCPF CF and BioCF ISFL which is free and has flexible operating rules to be easily adapted to other World Bank platforms and future scenarios. Given this, Chile issued a formal letter to define the CATS platform as the official reduced emission transaction registration system of the ER Program and ENCCRV.

For this reporting period, the use of CATS to register ER transactions generated in the accounting area of the PRE, has not yet begun its practical operation. However, and out of the reporting period, in December of 2024, the MR2 verified ERs of the Chile ERP was transfer to the FCPF donors through the CATS web tool.

In order to avoid double counting, Chile executes a verification procedure for International ER Registrations to identify REDD+ projects that are executed in the country. International registrations are reviewed every two months, and the information that is collected gives rise to a data sheet where the information of the projects is entered, including the owner, the volume of transfer of ER, the year of **generation**, along with other background. This information is publicly available on the ENCCRV website, SMM section <https://www.enccrv.cl/medicion-y-monitoreo>.

In addition to the above, it must be taken into consideration that recently in 2023⁵⁷, the compensation regulation was approved and published in Chile, which regulates the operation of the Emissions Compensation System, which will allow offsetting emissions affected by the tax. This system considers the development and implementation of all the necessary infrastructure to offset local pollutants and other GHGs, including nature-based solutions projects, so greater interest is expected in the development of projects from private developers.

6.4 ERs transferred to other entities or other schemes

The ENCCRV ER Program corresponds to the first subnational program of result based payments associated with REDD+ in Chile. The reductions associated to the Emission Reduction Payment Agreement signed by Chile are insured in accordance with the estimates made in the FREL. This has encouraged Chile to develop a financing package for result – based payments mainly associated with the Green Climate Fund, which despite not considering transfers, would not affect compliance with the ER Program. Thus, work has been done to improve the registration and monitoring systems to avoid double counting or payments that can generate legal or other disputes in the implementation territory, so that this and other future initiatives can be implemented correctly.

Currently, there are seven LULUCF projects linked to the voluntary market implemented by VCS in Chile⁵⁸. **According to its own records, no credits due to emission reductions have been claimed during the 2022-2023 reporting period which significantly reduces potential inconveniences.** These are:

- [Valdivian Coastal Reserve Project](#), Los Ríos region. Project led by The Nature Conservancy (TNC), corresponding to a project in the planned degradation and deforestation REDD subcategory, generating around 58,154

⁵⁷ Available in <https://www.bcn.cl/leychile/navegar/imprimir?idNorma=1196414&idVersion=2023-09-29>

⁵⁸ See section 2.4 in: <https://www.enccrv.cl/medicion-y-monitoreo>

estimated annual emissions reductions. The registry of this project has not activities from 2016 and has expired in November 2023.

- [California Valley degraded land reforestation project](#), Los Lagos region. The initiative is led by the Agrícola y Forestal SNP Limitada Company, being an ARR project estimated to generate 1,193 estimated annual emissions reductions. The registry of this project has not activities from 2017.
- [Caelus project](#): under validation process, with 111 estimated annual emission reductions. The project is based on GHG emission reductions and removals generated by improving forest management practices to increase the carbon stock on land by extending the rotation age of a forest before harvesting. The emissions reductions of this project comes from exotic species forest, and are excluded from the REDD+ accountability.
- [Bosques Cautín S.A.](#) project: under validation process, with 124,951 estimated annual emissions reductions. The project is a forest developer operating in Chile, that has traditionally operate a silvicultural model for commercial timber, and is expanding its business model to dedicate different areas of forest plantations to carbon sinks. The emissions reductions of this project come from exotic species forest, and are excluded from the REDD+ accountability.
- [Bosques Cautin S.A Forest Carbon Project II](#): Under validation process, with 78,951 estimated annual emission reduction registered in December 2023. The project involves the conversion of logged forests into protected forests to enhance carbon sinks, integrating social, environmental, and climate change considerations. It primarily relies on exotic species, including *Eucalyptus globulus*, *Eucalyptus nitens*, and *Radiata pine*, for carbon sequestration. While 3,867 acres of native forest are conserved as buffer zones, the emissions reductions of this project come exclusively from exotic species plantations and are therefore excluded from REDD+ accountability.
- [Proventus project](#): under validation process, with 2,301 estimated annual emissions reductions. The project is based on changing the use of low productivity land to sustainable forest production systems, which will increase the forest cover and promote remnant natural forest improvement generating a landscape of biological corridors that bring about financial, social and environmental services. The emissions reductions of this project comes from exotic species forest, and are excluded from the REDD+ accountability.
- [Reforestation in degraded land, in Biobío region](#): project is in status “Late to Verify”. With 16,864 estimated annual emissions reductions. Is a reforestation project with local landowners and considers advanced propagation technology, mycorrhizal inoculation, to help restore and convert degraded grassland into productive forests in several regions of Chile. The registry of this project has not activities from 2018 and considers exotic species plantation. They are therefore excluded from monitoring emissions reductions.

CONAF has not defined procedures and agreements to sell or assign ERs of the ER Program area to other entities under a different GHG program or standard. Indeed, these projects could trade ER for the period 2022-2023. In order to avoid double counting, CONAF considers the exclusion of the ERs reported in as participants of a voluntary carbon market standard, thus avoiding considering ERs from areas committed to other buyers. In particular, for this period it was not possible to collect the geographical areas and transactions with other standards were not recorded either. For future reports, it is expected to have the information to identify project areas and discount ER in case they are registered.

7 REVERSALS

Regarding the strategy that the ER Program has proposed to prevent and minimize the potential for reversals, the ERPD document proposed several measures. Given that the program has not yet been implemented, many of these actions do not present concrete progress, but other measures associated with the permanent activity of CONAF do have progress for the period of this report, which are summarized below.

In relation to the risk associated with the lack of broad and sustained support from key stakeholders, progress has been made in analyzing the risk of land conflicts before designing and executing ENCCRV projects in the territories, establishing protocols and procedures for this within the framework of environmental and social management (MGAS). In addition, the ENCCRV has continued to be developed with expanded participatory processes, ensuring that their opinions and needs are included in the design of different key components of the ER Program, such as the [BSP](#).

Regarding the risk associated with the lack of institutional capacity and/or ineffective vertical/cross-sector coordination, an important inter and intra-institutional coordination has been maintained, carrying out multiple induction, training and dissemination activities on political and technical issues of the REDD + approach and on the ENCCRV.

Regarding the risk associated with the lack of long-term effectiveness in confronting underlying factors, progress has been made in improvements to the current forest policy and regulations, including improvements to the Native Forest Law, and the design of a new forest law that promote the recovery of areas burned by forest fires and promote reforestation with new generation plantations that take into account the country's climate scenarios and goals. Progress has also been made in governance, strengthening the issue of Climate Change at the institutional level through specific programs (wood energy, forestry extension, community forestry, others) and the strengthening of capacities in CONAF's technical structures.

Finally, the advances associated with reducing the risk of natural disturbances and disasters have focused on strengthening the efforts to prevent and combat forest fires in CONAF, including different institutional programs for education and preparation of communities for these events, as well as of improvements in infrastructures, equipment, capacities and technologies for the prediction and combat fire. Important progress has also been made in the monitoring and evaluation of fires, relevant inputs for restorative processes in affected areas.

Regarding the reversal management mechanism, Chile proposed using the Carbon Fund Buffer to store the credits associated with the risk of uncertainty and reversals. Specifically for reversals, it was proposed to use the reversal risk assessment tool that requires a specific amount to put in the buffer for each risk factor. These factors and an update of them are presented in more detail in section 7.3.

7.1 Occurrence of major events or changes in ER Program circumstances that might have led to the Reversals during the Reporting Period compared to the previous Reporting Period(s)

During the 2022-2023 monitoring period, it was evidenced that an anomalous event that occurred in the PRE accounting area impacted in the performance results of this report. The event was the Megadrought and through an investigation done in 2022, an effect in the Mediterranean and temperate forests of Chile was confirmed, presenting a browning trend in these forest areas and resulting in a diminished photosynthetic capacity of this area.

The megadrought and the warming trends of summer temperatures are two current climatological features that are not directly-antropogenic caused, but it requires further analysis to prove if these phenomena are influencing/impacting at least 25% of the accounting area of the program.

In this regard, the country developed a study on the Browning effect in the Mediterranean and temperate forests of Chile to determine and quantify the affected forest ratio and the degradation-derived emissions ratio caused by the megadrought. The mega-drought was reported to the Trustee in 2023, in a several discussions meetings.

- **Forest Fires**

Reversal risks identified in the 2016 ERPD have not experienced significant changes. Nevertheless, due to the magnitude and dynamics of the event known as [Mega Forest Fire](#) which impacted Chile in the summer of 2017, the potential of forests to acting as sinks is estimated to have been affected. Around 500,000 hectares were burnt during this event, of which an important surface corresponded to pastures, scrubs, and forest plantations, excluded by both the ER Program and the [FREL/FRL](#). The impact on the AC Native Forest was 38,000 hectares, being the Maule region the most affected with 28,000 ha, then 10,000 ha in the Biobío region and finally 570 ha in the Araucanía region. Of the 81 million tons of gross CO₂ equivalent emissions estimated for the entire event, 7.45 million tons CO₂ were associated with the native forest of the CA. This information, along with other details associated to the analysis of the aforementioned event, can be found in the document “Additional information for the update of the Emission Reduction Program of Chile, as per recommendations by the Chair’s Summary in the 15th Meeting of the Carbon Fund” from 2018 ([here](#)).

Fires in Chile are caused by anthropic actions and represents one of the main drivers of degradation and was identified as a main driver of forest degradation in the ERPD. Fire seasons in Chile are frequent events that occur during the summer season, where high temperature, low humidity and drought conditions can turn these frequent events into exceptional, barely controllable events. For this reporting period, an increase in the forest fire surface was monitored and reported, even higher than the reference level, with 33,023 hectares of burned forests.

- **Drought**

The degradation during the period is linked with the impact of drought and climate change on the state of vegetation, which has been scientifically proven by analyzing the impact of the decrease in rainfall on browning signs representing loss of vigor, especially in sclerophyll forests. In addition, this creates environmental conditions for forest fires to occur and propagate, which is one of the main causes of forest degradation identified.

Chile has experienced over a decade of drought nationwide. The precipitation deficit since 2010 is 30% ([CR2, 2015](#)). The center-south of the country, that is, the north of the CA, are those that have experienced the most significant variations ([ARCLIM](#)). Although the native forest has adapted to short drought periods, the duration of the current scenario is causing a significant increase in the native forest deterioration. ([CR2, 2020](#); [Miranda et al., 2020](#); [Garreaud et al., 2017](#)), along with an [increase in the forest fire regime](#). In particular, some species and forest types in the CA have displayed a higher sensitivity to precipitations and climate variables, being more affected ([Venegas-González et al., 2018](#); [Urrutia, R. & Rojas, Y., 2020](#)).

This scenario could impact the implementation and results of the Chilean ER Program, especially in the northern ERP regions. While there are scientific studies that have addressed some specific aspects of the drought, CONAF has undertaken to study its impact on the ER Program. These analyses will be aimed at:

- i) Determine the CA native forest surface being affected.
- ii) Assess the magnitude of these impacts on the native forest.
- iii) Estimate their effects over time.
- iv) Establish a correlation between these trends with emissions and captures from the native forest, both for the ER Program and the National REDD+ Strategy.

Recent studies (Miranda et al, 2020)⁵⁹ have addressed the impact of the 2010 – 2017 mega drought on the forests of central Chile, indicating its significant impact of the productivity of Mediterranean forests. In addition, a preliminary study conducted by the Forest Institute regarding degradation outcomes analyzed the 2000 – 2020 time series, seeking to identify drought events and their relationship with forests under browning conditions. As a result, the effect on browning in sclerophyll forests is made evident, which coincides with drought events in the evaluated period. The next graph displays the annual browning surface calculated based on Landsat ETM+ and OLI satellite

⁵⁹ Forest browning trends in response to drought in a highly threatened Mediterranean landscape of South America, Ecological Indicators (journal homepage: www.elsevier.com/locate/ecolind).

material, for the Maule region and the north area of the Biobío (Just before the Ñuble – Biobío division) considering NDVI ranges of <0.45 and >0.2 . The following figure is a synoptic depiction of the NDVI behavior for a stand in a sclerophyll forest, as an example.

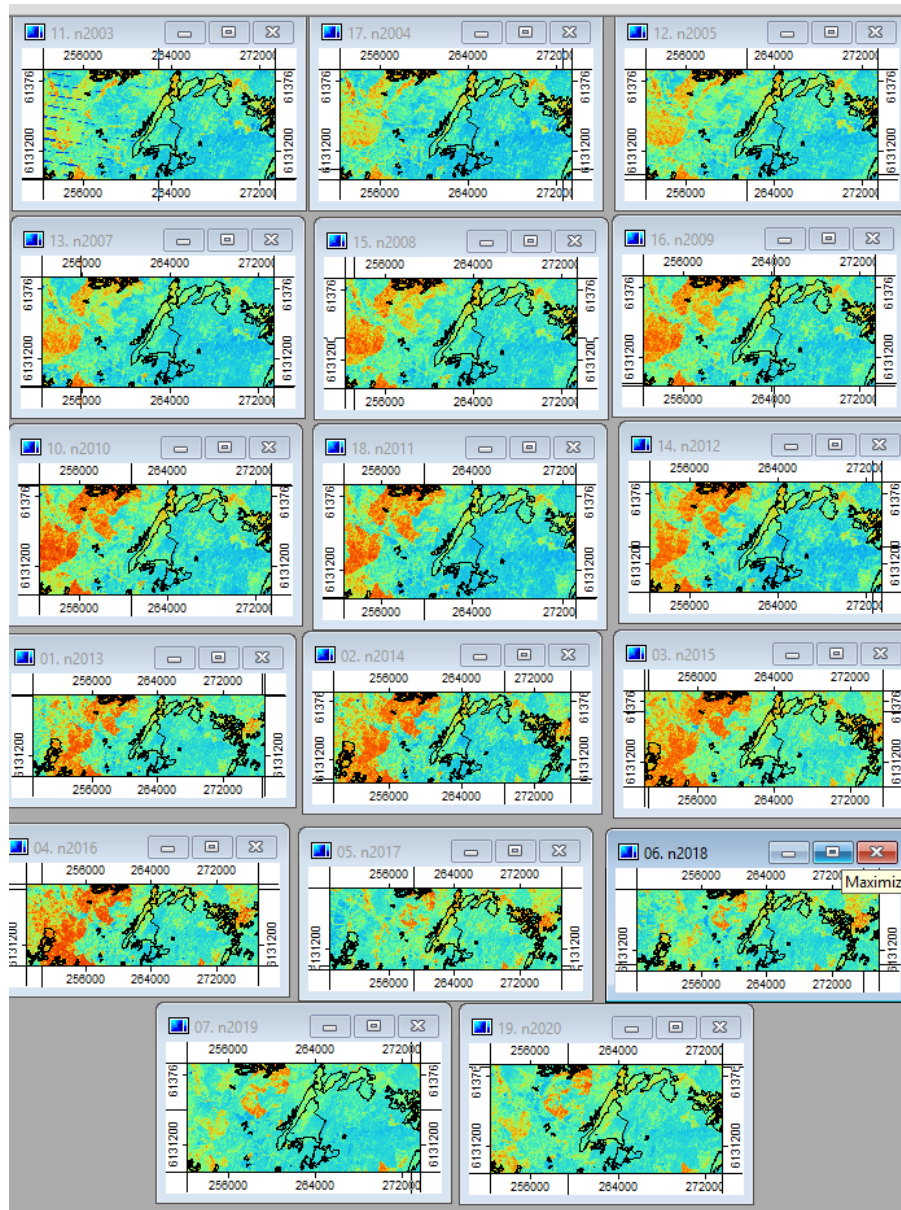


Figure 9 Synoptic view of NDVI behavior in sclerophyll forests (example).

This information was used to count the sclerophyll forest surface with signs of browning, based on the native forest registry for these regions. The occurrence of drought events in the period was added, corresponding to 2007, 2010 – 11, 2016 and 2019 – 20. As a result, the following graph summarizes the annual browning surface, highlighting the years with drought events in pink.

It is possible to conclude that, while browning is evident in the results, it would not be a new event only specific for the period associated to the mega drought but would rather be associated to a cycle of recurring drought weather events in the last two decades, which is related to climate change. Then, the peaks showing the largest browning effect in the graph coincide with historical drought events reported in Chile and are possibly related to El Niño/La Niña phenomena. It is also worth noting that the frequency of these events has increased from 6 to 7 years at 2 to

3 year rates, although their magnitude is greater with regard to the base year (2000), possibly indicating a resilience effect of this forest type.

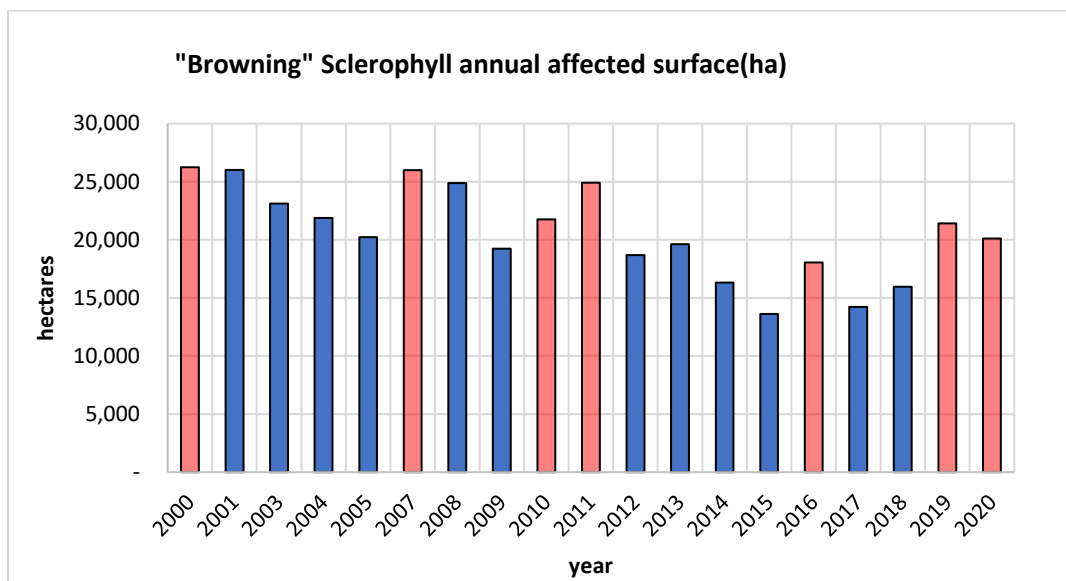


Figure 10 Annual yellowing evolution in Sclerophyll forests of the Maule region.

As demonstrated on a preliminary basis, there is evidence of a browning effect on sclerophyll forests, exacerbated by the mega drought. Nevertheless, more information is required for this to be determined. This requires more in-depth studies in order to determine the magnitude of these effects on the various forest types or species, at different latitudes where the impacts of the effects of mega drought are also different.

To be able to specify the impact, it is required to expand the time being evaluated including a period before the year 2000 which would allow to analyze spectral responses of forests in scenarios with no drought events, therefore knowing how plant formations respond to a lower water availability.

Literature also indicates that, along with the decline in rainfall and temperature increase, slope exposure could be an important factor in the loss of vegetation vigor, so it would be another variable worth evaluating. Definitely, once impacts have been detected on a preliminary basis, it is necessary to spatialize their occurrence in native forests, determining their effect in terms of captures and emissions.

In 2022 the GAC consulting develops a methodology to determine the effect of the megadrought in the forest remaining forest. The Chilean experts (GAC-UC) identified areas, by forest type, where vegetation anomalies in the primary productivity variable were frequent between 2001 and 2021. These areas under the impact of the megadrought are the areas affected by browning and correspond to those areas of forest that remain as forests that present phenological anomalies. So, in this study, browning was understood as an abrupt drop in the productivity of trees whose consequences translate into decreased growth or in mortality. The study area was the accountability forestland remaining forestland (FRF) area of the ERP.

7.2 Quantification of Reversals during the Reporting Period

Left in blank. There are no reversals events that occurred in the reporting period.

7.3 Quantification of Pooled Reversal Buffer replenishments

Left in blank. There are no reversals events that occurred in previous reporting periods.

7.4 Reversal Risk assessment

Risk Factor	Risk indicators	Default Reversal Risk Set-Aside Percentage	Discount	Resulting reversal risk set-aside percentage
Default risk	N/A	10%	N/A	10%
Lack of broad and sustained stakeholder support	<p><i>This risk was defined as Medium in the ERPD, considering that there are land tenure conflicts in Chile, uncertainty in the appropriation of benefit rights, and risks of an inappropriate inclusion of the different actors in the ER Program. In the period of this report, there has been progress in the country in improving these aspects, however, there are still relevant gaps that keep the risk level at medium.</i></p> <p><i>The main indicators of progress are:</i></p> <ul style="list-style-type: none"> • <i>There is a process of participation and inclusion in the formulation and implementation of the ERP, considering small landowners, medium landowners and indigenous communities.</i> • <i>Permanent operation of platforms to channel citizen demands, such as the CSM⁶⁰.</i> • <i>There are communication and validation channels with opportunities for formal participation in CONAF and MINAGRI, e.g. CONAF's COSOC, CTICC.</i> • <i>Adequate functioning and representativeness of the Regional REDD+ Groups⁶¹.</i> • <i>Efficient and transparent operation of the BSP.</i> • <i>Operation of the Safeguards Information System, and other monitoring activities.</i> <p><i>Dissemination of the ERP integrated into the institutional management of CONAF at the national and regional level (forestry dissemination and extension programs).</i></p>	10%	Medium risk, 5% deducted	5%
Lack of institutional capacities and/or ineffective	<p><i>This risk was defined as Low in the ERPD, considering the knowledge and skills gaps existing in the institutions involved and the lack of coordination between them. In the period covered by this report, Chile has taken measures to ensure an ever-greater</i></p>	10%	Low risk, 10% deducted	0%

⁶⁰ Inquiries from citizens are received through its website: <https://oirs.conaf.cl/>

⁶¹ The REDD+ Groups are regional BSP governance teams constituted by people representing civil society, indigenous peoples, NGO's, Academy, private sector, CONADI (National Indigenous Development Corporation) and local authorities such as municipalities. They are united at least once a year to follow up BSP regional criteria, promote local governance and decentralization of decision-making within the framework of the ENCCRV.

<p>vertical/cross sectorial coordination</p>	<p><i>articulation and strengthening of government institutions involved in the issue of climate change with the ER Program and the ENCCR, with formal entities such as the Intraministerial Technical Committee of Climate Change (CTICC, acronym in Spanish). These advances keep the risk level low.</i></p> <p><i>The main indicators of progress are: Strengthening of the institutional capacities of CONAF (DCCSE, other departments and regional offices) for the management of the ERP. Improvements in institutional conditions, management and logistical aspects that allow the proper functioning of the Regional REDD+ Groups. Signing of the agreements required between forestry and agricultural institutions for the correct implementation of the program in the territory. In 2023, a Letter of Agreement with the Agricultural Research Institute (INIA) of the Ministry of Agriculture was signed to design and implement the "Program for the technological transfer of silvicultural waste management alternatives". Another Letter of Agreement was signed with INFOR for the development of a "Technical advice to strengthen capacities for the supply of seeds and production of native plants within the framework of the +Bosques project". Ensure integration and coordination between the various CONAF extension programs and MINAGRI promotion instruments in the ERP regions. Maintain and expand the participation –when necessary – of other institutional coordination mechanisms linked to climate change and land management at the regional level (e.g. the Inter-ministerial Technical Committee on Climate Change, CTICC), the Technical Regional Committee on Climate Change and (CTRCC) and Regional Committee on Climate Change (CORECC). Integration of ENCCR into the environmental and climate policies of Chile for REDD+ compliance. Climate Change Adaptation Plan in the Agroforestry Sector, National Climate Change Action Plan 2017-2022, NDC of Chile (2020 update). Secure the additional financing required for the institutional operation of the ERP.</i></p>			
<p>Lack of long term effectiveness in addressing underlying drivers</p>	<p><i>This risk was defined as Medium in the ERPD, considering the deficiencies and limited scope of forest laws and their promotion instruments, which did not adequately address the causes and agents of deforestation and degradation. Risks of ineffectiveness in governance and the lack of continued funding to implement the ENCCR action</i></p>	<p>5%</p>	<p><i>Medium risk, 2% deducted</i></p>	<p>3%</p>

	<p><i>measures were also considered. In the period of this report, there has been progress in the country in improving these aspects, however, there are still relevant gaps that keep the risk level at medium.</i></p> <p><i>The main indicators of progress are: Integration of ENCCRV into the environmental and climate policies of Chile for REDD+ compliance. Climate Change Adaptation Plan in the Agroforestry Sector, National Climate Change Action Plan 2017-2022, NDC of Chile (2020 update). Financing for the institutional management of the ENCCRV and the ERP at the national and regional level, and leverage of additional funds for its execution in the territory (UN-REDD, GCF). Search for new long-term financing models. Within the framework of the Technical Consultancy financed by UN-REDD, during the second semester of the year 2024, the consultancy "Financial Planning Proposal for the Updating of the National Strategy for Climate Change and Vegetation Resources of Chile" was carried out, where different sources of financing and the requirements for which the country could apply were identified. Alignment of the action measures of the ENCCRV and the ERP with the actions defined under the national forest legislation (Law 20,283 and Decree 259) and forest extension regulation that ensures their execution over time. In 2022, a new instruction was issued by the Ministry of Agriculture to prevent the abuse of land subdivision regulations that could threaten agricultural production systems, the ecosystem and the socio-environmental balance of the localities in which they are located (Instruction N°637/2022). During 2024, Resolution N° 4.788 determines how to issue subdivision certificates for subdividing rural land⁶². In March 2020, the Comptroller General of the Republic ordered the cancellation of the "Native Forest Cutting Management Plans for the Recovery of Land for Agricultural Purposes" that did not require the obligation to reforest, because such a permit does not comply with the purpose of protecting, recovering and improving the native forest to ensure forest sustainability and environmental policy, as stated in the Native Forest Law.</i></p> <p><i>In 2025 was generally approved the National Forest Service Law project creation, for forest promotion,</i></p>			
--	---	--	--	--

⁶² <https://bosquenativo.cl/wp-content/uploads/2020/04/2020-03-16-dictamen-contraloria-1.pdf>

	<i>forest fire prevention and starts as a so relevant role for the forestry sector in Chile.</i>			
Exposure and vulnerability to natural disturbances	<p><i>This risk was defined as Medium in the ERPD, considering that although there is a permanent risk of earthquakes, volcanic eruptions and droughts in the AA, most of these disasters do not cause extensive damage to the forests and their temporary recurrence it is low.</i></p> <p><i>As evidenced in 7.1, droughts increased their recurrence in the AA, so the level of this risk should increase to a high risk. On the other hand, forest fires cause a lot of impact, degradation and emissions, but in Chile these events are classified as 100% of anthropogenic origin, therefore, they are not considered natural disturbances.</i></p> <p><i>It is then considered that this factor should increase its risk to a high level, in the period of this report.</i></p> <p><i>The main indicators of progress are:</i></p> <ul style="list-style-type: none"> • <i>High risk due to natural disasters, which could directly affect the capacity of the native forest in the intervention area to capture and store carbon, since these forests are one of the main sinks that contribute to the regulation of the water regime, through the precipitation and runoff regulation, the conservation and protection of soils, especially against erosion, and the conservation of biodiversity. Despite the fact that wildfires cause significant degradation, 99.7% of these fires are due to anthropogenic causes, which may be intentional, accidental or unknown, and only 0.3% are due to natural causes (volcanic eruptions, lightning strikes). However, as a result of the effects of climate change (rising temperatures, rising sea levels, retreating glaciers, and intensification of extreme weather events, such as droughts and floods), wild fires could increase in the future. This would increase the negative effects of the mega-drought in the northern regions of AA.</i> • <i>Increase and strengthen programs to reduce the occurrence, magnitude, and intensity of wildfires and strengthen institutional capacities to restore and conserve native forests that are most vulnerable to drought (through environmental education programs, fire prevention programs, post-fire mitigation programs).</i> 	5%	<i>High risk, 0% deducted</i>	5%

		Total reversal risk set-aside percentage	23%
		Total reversal risk set-aside percentage from ER-PD or previous monitoring report (whichever is more recent)	23%

For the monitoring period 2022-2023, the reversals risk assessment was updated with respect what was reported ERPD, in the risk factor Exposure and vulnerability to natural disturbances. In the ERPD this risk factor was assessed as Medium, assigning a percentage of 3%. In this 2022-2023 monitoring period the value was increased to the maximum, considering the High Risk of natural disturbances and disasters. As was observed and explained, 2018-2019 and 2020-2021 reporting periods were heavily affected by drought and climate change. The total reversal risk percentage is then 23%.

However, during September and October 2023, through discussions held with the Carbon Fund donors where Chile presented an adjustment to the emissions accounting methodology, it was proposed to apply the maximum risk of possible reversals established in the Buffer Guideline.

In this way, applying a completely conservative criterion and given the methodological adjustment in which the occurrence of non-anthropogenic disturbances is assessed, it was decided to apply 40% as the total risk of reversals.

8 EMISSION REDUCTIONS AVAILABLE FOR TRANSFER TO THE CARBON FUND⁶³

Year			2022	2023	TOTAL
A.	Emission Reductions during the Reporting period (tCO ₂ -e)	<i>from section 4.3</i>	2,951,866	2,951,866	5,903,732
B.	If applicable, number of Emission Reductions from reducing forest degradation that have been estimated using proxy-based estimation approaches (use zero if not applicable)		0	0	0
C.	Number of Emission Reductions estimated using measurement approaches (A-B)		2,951,866	2,951,866	5,903,732
D.	Percentage of ERs (A) for which the ability to transfer Title to ERs is clear or uncontested	<i>from section 6.1</i>	100%	100%	
E.	ERs sold, assigned or otherwise used by any other entity for sale, public relations, compliance or any other purpose including ERs accounted separately under other GHG accounting schemes or ERs that have been set-aside to meet Reversal management requirements under other GHG accounting schemes	<i>from section 6.4</i>	0	0	0
	If applicable, any buffer replenishments	<i>section 7.3 P</i>	0	0	0
F.	Total ERs [(B+C)*D-E] minus, if applicable, any replenishments as per section 7.3, P		2,951,866	2,951,866	5,903,732
G.	Conservativeness Factor to reflect the level of uncertainty from non-proxy based approaches associated with the estimation of ERs during the Crediting Period	<i>from section 5.2</i>	15%	15%	
H.	Quantity of ERs to be allocated to the Uncertainty Buffer $(0.15*B/A*F)+(G*C/A*F)$		442,779	442,779	885,558
I.	Total Reversal Risk set-aside percentage applied to the ER program	<i>from section 7.4</i>	40%	40%	

⁶³ Spreadsheet available in https://plataforma.enccrv.cl/static/erpa/mr3/resultados/CHI_MR3_fcpf_er_mr_template_tool_sections_4_7_8_annex4_copy_v17.xlsm. The truncated values were automatically calculated.

The values calculated came from tab "Section 8". For more information consult to: https://plataforma.enccrv.cl/static/erpa/mr3/resultados/Resultados_MRV_ERPA_RP3_v17.xlsx.

Year		2022	2023	TOTAL
J.	Quantity of ERs to be allocated to the Pooled Reversal Buffer (F-H)*I	1,003,634	1,003,634	2,007,268
K.	Number of FCPF ERs (F- H – J)	1,505,453	1,505,453	3,010,906
L.	Percentage of Emission reductions from enhanced removals from afforestation/reforestation as a percentage of the total FCPF ERs [Optional if the country wishes to generate enhanced Removals]	<i>From section 4.3</i> 0.00000000%	0.0000000 0%	
M	Number of FCPF ERs from enhanced removals from afforestation/reforestation (L * K) [Optional if the country wishes to generate enhanced Removals]	0	0	0

ANNEX A: QUANTIFICATION AND MONITORING OF DEFORESTED AREAS AFFECTED BY BROWNING

The browning phenomenon in Chile, caused by the megadrought, has been impacting Mediterranean and temperate forests, resulting in significant reductions in forest productivity. This effect is primarily due to decreased precipitation and water availability, resulting in phenological anomalies such as crown desiccation, foliage loss, and even tree mortality.

In 2022, a study conducted by Universidad Católica identified these areas, specifically focusing on the 5th percentile productivity anomaly, to map the impact of browning. This map was used to segregate affected areas within the ERP implementation zone, covering native forests between Maule and La Araucanía (Mediterranean sclerophyllous forest extension), as well as extended areas of the RORACO forest type resulting in the extension of the browning affected area from Maule to Los Ríos. The emissions resulting from browning areas are segregated from the carbon flux calculations associated with deforestation, degradation, and conservation activities. Nevertheless, the forest stratum affected by browning remains included within the scope of ERP implementation and monitoring area. This annex provides a transparent quantification of deforested areas affected by browning, utilizing the identified phenological anomaly layer for segregation.

To carry out this monitoring, the following layers were used:

-Deforestacion_2123_PRE.shp⁶⁴: the union of all deforested polygons from the period 2022-2023 and comes from the land-use land use change maps.

- G_MOV_PRE_2020_2021.tif⁶⁵: The raster layer of carbon flux monitoring in forest remaining forest from the 2020-2021 period. This raster contains information about the phenological anomalies layer created by the study conducted by Universidad Católica.

The first step to realize this quantification was to polygonise the 2020-2022 carbon flux layer (G_MOV_PRE_2020_2021.tif). Then, this layer was clipped using the boundaries of the deforested areas from the 2022-2023 period (Deforestacion_2123_PRE.shp).

The result of this step is a shapefile of deforested areas of the permanent forest, which contains the attribute table information from the G_MOV_PRE_2020_2021 layer. The main column of interest is the browning impact. Using this field, a filter was applied to select the areas affected by browning. After that, an intersection was made between the information from the historical land-use change maps and the Deforestacion_2123_PRE.shp layer. Finally, the layer def_mh_brown_polig.gdb.zip⁶⁶ was obtained, which contains information to quantify the deforested areas affected by browning, which was uploaded to the ERPA database on CONAF servers.

A table named deforestacion_bw was also created in the database, in which queries were performed to quantify the areas by forest type and structure. This information was used in the tool created called "Herramienta_Deforestacion_BW_NR2_MR3_v02"⁶⁷. The results of calculation are broken down below:

⁶⁴ Link: https://plataforma.encrv.cl/static/erpa/mr3/monitoreo-browning/Deforestacion_2023_PRE.zip

⁶⁵ Link: <https://plataforma.encrv.cl/static/erpa/mr2/mapas/CO2-MR2.zip>

⁶⁶ Link: https://plataforma.encrv.cl/static/erpa/mr3/monitoreo-browning/def_mh_brown_polig.gdb.zip

⁶⁷ Link: https://plataforma.encrv.cl/static/erpa/mr3/monitoreo-browning/Herramienta_Deforestacion_BW_NR2_MR3_v02.xlsx

Emission from deforestation in areas affected by browning-Monitoring period 2022-2023				
Region	Deforested area (ha)	Biomass (tCOe año-1)	Necromass (tCO2e año-1)	Total (tCO2e año-1)
Maule	122	10,032	11,592	21,624
Ñuble	17	4,245	2,723	6,968
Biobío	24	4,146	3,252	7,399
Araucanía	11	3,505	2,117	5,622
Los Ríos	33	10,524	6,507	17,031
Los Lagos	0	0	0	0
Total Area PRE	207	32,452	26,192	58,643

Table 3. Emission from deforestation in areas affected by browning- Monitoring period 2022-2023

ANNEX 1: INFORMATION ON THE IMPLEMENTATION OF THE SAFEGUARDS PLANS

I. Forest Carbon Partnership Facility (FCPF) requirements for managing environmental and social aspects of emission reduction programs

This report presents the implementation of the Environmental and Social Management Framework (MGAS⁶⁸), which defines the protocols, resources, and procedures necessary to ensure compliance with safeguards⁶⁹ during the implementation of the Direct Action Measures (MDA) of the National Strategy on Climate Change and Vegetation Resources (ENCCRV). The focus is on the accounting area covered by Chile's Emission Reduction Payment Agreement (ERPA) for the period from 1 January 2022 and 31 December 2023.

The report incorporates updated information from Annex 1 of the Emissions Reduction Monitoring Reports from both the period 2018-2019 and 2020-2021, as well as the Safeguards Self-Reports for 2020, 2021, 2022 and 2023, which were submitted to the Fund Management Team (FMT) and validated by the World Bank in 2021, 2022, 2023 and 2024, respectively. Considering this, no new information was included. Nevertheless, for all the mentioned reports, the information was compiled and updated from primary sources using a methodology that included surveys and interviews with professionals from the four CONAF's Technical Management departments involved in implementing activities and/or programs in the accounting area of the Emissions Reduction Program (PRE) during the period. For each of the mentioned four Technical Management departments, one professional was designated as counterpart to CONAF's Department of Climate Change and Ecosystem Services (DCCSE) and were tasked with completing a digital survey, which was later supplemented through work meetings.

At the end of 2021, the country received its first results-based payment (RBP) from the Green Climate Fund (GCF), which led to the development of the +Bosques project. During 2022, with the support of GCF funding, pilot projects were implemented as part of the ENCCRV's results-based payment (RBP) phase. In addition, the first public tender cycle was launched, considering the guidelines of the Strategy's Benefit Sharing Plan (BSP)⁷⁰ and its technical and administrative framework.⁷¹ At the end of 2022, the awarding of projects derived from the first public tender began, with implementation beginning mainly in 2023. The second tender cycle was held in 2023, and the implementation of the awarded projects began in 2024.

This report analyses safeguard compliance for the 2022-2023 period in relation to activities implemented with funding from the ENCCRV's RBP phase, specifically those linked to direct action measures. It also includes actions not awarded through the public tender process, which fall under the ENCCRV's Enabling Action Measures (MF). Under current funding, these measures focus on the improvement and construction of new nurseries, monitoring and oversight, and environmental education initiatives.

Finally, this report includes activities carried out by CONAF through various programs and initiatives (details in Table 1) within the accounting area and for the corresponding period. These activities are funded with national funds allocated by the Budget Directorate (DIPRES), under the Ministry of Finance, and contribute to the implementation

⁶⁸ Goes by “MGAS” by its Spanish acronym.

⁶⁹ See definition in the document "First Summary of Information on Safeguards" of the ENCCRV, p. 44, available at: <https://www.enccrv.cl/resumen-salvaguardas>

⁷⁰ <https://www.enccrv.cl/sdb-ingles-4ta-version>

⁷¹ The technical and administrative bases for the ENCCRV Public Tender cycles are available at: <http://concurso.enccrv.cl/Documentos2>

of the ENCCRV action measures and the fulfilment of Chile's Nationally Determined Contribution (NDC). The specific definition is as follows:

- CONAF institutional activities and programs funded by the Budget Directorate (DIPRES) (**national funds**); and⁷²
- Direct and enabling action measures for the RBP phase of the ENCCRV (**international funds**).

The main change compared to the previous reporting period is related to the types of activities carried out within the framework of RBP and their corresponding funding sources. Specifically, the category of **international funding** has shifted from "Pilots of the ENCCRV Implementation phase" to "Pilots of the ENCCRV RBP phase". As its name suggests, the activities reported under this category refer to pilot projects implemented through the ENCCRV +Bosques project. Another key update shown in Table 1 is a second budget allocation from the State, which complements the efforts made in 2021 through the Economic Reactivation Program.⁷³ This subnational program, implemented by CONAF since 2021, spans 12 regions between the Coquimbo to Magallanes Regions, covering a larger area, comprising the six regions of the accounting area and is part of the Temporary Emergency Fund established under Law No. 21,288. The financing for the 2022-2023 period, as detailed in Table 3 of Section 2.1, was provided through two initiatives: the "Economic reactivation program for the restoration of large-scale native forests - Planting for Chile" (2022) and the "Large-scale native forest restoration program" (2023).

The following table shows the activities and emission reduction programs implemented by CONAF during the reporting period in the Maule, Ñuble, Biobío, La Araucanía, Los Ríos and Los Lagos Regions.

8.1.1.1 TABLE 1. EMISSION REDUCTIONS ACTIVITIES AND PROGRAMS BY NATIONAL AND INTERNATIONAL FUNDING SOURCES (2022-2023)

Financing category	Activities/Programs linked to ERP	Year of execution
i) CONAF institutional activities and programs funded by the Budget Directorate	Bonus for activities carried out within the framework of Law No. 20,283, on the Recovery of Native Forests and Forestry Promotion	2022-2023
	Supervision of concessions in the National System of Protected Wilderness Areas (SNASPE)	2022-2023
	Implementation of conservation strategies in SNASPE units	2022-2023
	Preparation or updating of Management Plans with a strengthened SNASPE planning method	2022-2023
	Participatory Forestry Program	2022-2023
	Tree Planting Program	2022-2023
	Management plans and bonuses for activities carried out within the framework of Law No. 20,283	2022-2023

⁷² For more information on the results achieved at the national level with national funds, please see the 2023 public accounts document available at: https://www.conaf.cl/wp-content/uploads/2024/05/cuenta_publica_2023_2024-5-28.pdf

⁷³ National program implemented in 2022 by CONAF within the framework of the Temporary Emergency Fund – Law 21,288. More information available at: <https://www.conaf.cl/wp-content/uploads/2015/12/Reactivaci%C3%B3n-Econ%C3%B3mica.pdf>

Financing category	Activities/Programs linked to ERP	Year of execution
	Oversight of technical studies on native forest management approved by CONAF	2022-2023
	Oversight of extraction, logging or work plans	2022-2023
	Inspections at collection centres and on roadways	2022-2023
	Actions promoting sustainable firewood and biomass production	2022-2023
	Property inspections and compliance controls through SAT/LEMU	2022-2023
	Oversight of compliance with forestry legislation	2022-2023
	Oversight of third-party complaints	2022-2023
	Oversight and training for the Controlled Burning Program	2022-2023
	Promotion of initiatives that consider productive linkages	2022
	Economic Reactivation Program for Large-Scale Native Forest Restoration – Planting for Chile	2022
	Large-Scale Native Forest Restoration Program	2023
	Implementation of conservation strategies in SNASPE units	2022
	Wildfire Community Preparedness Program	2022-2023
	Wildfire prevention training	2023
	Preventive forestry training	2023
	Training for teachers in systemic environmental education	2023
	Fire assessment in protected wilderness areas	2023
	Creation, expansion, and recategorization of protected wilderness areas	2023
	Development of conservation education plans in protected wilderness areas	2023
	Development of community protection plans in risk areas	2022-2023
	Training, dissemination, and technical transfer related to the benefits of urban ecosystems, forest formations, and xerophytic forests, as well as the promotion of participation in CONAF programs	2023
ii) Pilot projects of ENCCRV results-based payment phase financed with international funds	+Bosques pilot projects of the ENCCRV	2022

Financing category	Activities/Programs linked to ERP	Year of execution
iii) Actions from the ENCCRV RBP ⁷⁴ phase financed with international funds.	Direct action and enabling measures of the ENCCRV	2023 (GCF funding)

Source: Prepared by the authors based on information from CONAF Technical Management

II. Monitoring and reporting requirements

1. The entities responsible for implementing the Safeguards Plan have adequate resources to fulfil their assigned obligations and responsibilities as outlined in the plan.

Below is a summary of the key resources and provisions supporting the fulfilment of obligations and responsibilities in implementing the MGAS during the reporting period.

8.1.1.2.1.1 KEY INSTITUTIONAL PROVISIONS FOR THE IMPLEMENTATION OF SAFEGUARD PLANS

CONAF, operating under the authority of the Ministry of Agriculture, has an organizational structure that includes technical, administrative, and support management functions, executed through various directorates, departments, units, and secretariats, as shown in Figure 1.

⁷⁴ In 2019, Chile secured funding from the Green Climate Fund, and in 2022, the implementation of territorial emission reduction activities progressed under the pilot phase of the +Bosques project. The implementation of the territorial projects awarded through the 2022 public tender, which are funded by the GCF program “Proyecto +Bosques” began in 2023.

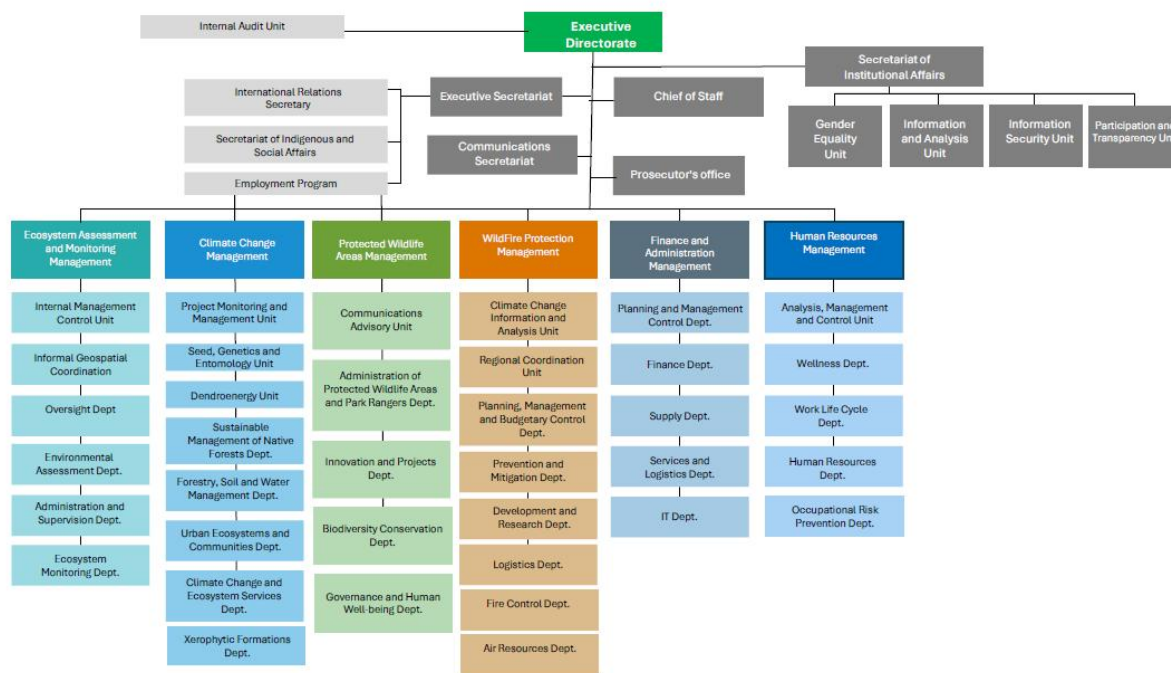


Figure 1. Organizational chart of the CONAF structure at the central level for the period 2022-2023

Source: Updated based on the MGAS

During 2022 and 2023, significant institutional strengthening changes were made to the management of environmental and social safeguards, both internally and at the national legislative level, which reflect key institutional provisions. The following section outlines these updates by year:

a. 2022

CONAF central level:

1. Under Resolution No. 644/2022, and in response to the adaptation of resources to the new guidelines from the Executive Directorate on enhancing management and implementing improvements to institutional operations, it is resolved to modify the name of the Forest and Climate Change Management Unit to "Forest and Xerophytic Ecosystem Conservation Management Unit" (GCEBX).
2. In addition, Resolution No. 644/2022 establishes a new management structure and set of functions. A key change is the renaming of the Department of Climate Change and Environmental Services to the Department of Climate Change and Ecosystem Services (DCCSE). The department's revised objective is: *"reducing the social, environmental and economic vulnerability generated by climate change, desertification, land degradation and drought on vegetation resources and human communities that depend on them, in order to increase the resilience of ecosystems and contribute to mitigating climate change by promoting the reduction and capture of greenhouse gas emissions in Chile"*. The DCCSE is also responsible for overseeing the Implementation, Monitoring, Reporting and Verification (MRV), and Safeguards system.

These changes are intended as strengthening measures aimed at ensuring full compliance with the institution's mission, and supporting the sustainable management of forests, thereby contributing to the global reduction of GHG emissions. This is reflected in the text of CONAF's mission, which indicates that it will seek to: *"guarantee the conservation, restoration and sustainable management of the country's forest and xerophytic ecosystems, through actions aimed at conservation, ecosystem management, monitoring and tree planting, to satisfy the current and future demand for ecosystem goods and services and contribute to the territorial development of Indigenous Peoples, vulnerable communities and the valuation of biodiversity in a scenario of climate crisis"*.

3. Regarding the cross-cutting support provided by the Attorney General's Office and the Department of Environmental Assessment, the specific roles related to the institutional management of safeguards remain unchanged from the 2018-2021 period. In addition, a significant intra-institutional linkage has been established with the Gender Equality Unit. This unit, in place since 2014, has had its role enhanced under the State administration starting in 2022, leading to an expanded team and the development of an institutional Gender Policy.

Regional level:

4. Memorandum No. 4727/2022, titled Strengthening Safeguards Management during the RBP phase of the ENCCRV, outlines several key measures for the six regions implementing the RBP phase: i) the appointment (designation) of a professional from the regional team, for each of the six regions, who will act as a technical counterpart to the central safeguards team, with the aim of promoting the gradual decentralization of management functions and ensuring continuity in strengthening regional capacities;⁷⁵ ii) the establishment of a monthly safeguards meeting between the central office team and the regional team to maintain a continuous communication channel, which is intended to facilitate feedback, technical discussion and the implementation of the ENCCRV safeguards guidelines and commitments; and finally iii) the advance planning of field support activities by the central safeguards team to guide and assess the technical and operational feasibility of the different safeguards instruments and tools.

These decisions have a significant operational impact on safeguards management in the six regions currently implementing ENCCRV action measures. The designation of a regional professional for each of these regions, as well as the coordinated programming of activities, supports the gradual decentralization of safeguards management and ensures the on-going strengthening of regional team capacities.

b. 2023

National level:

6. Significant progress was made on the bill establishing the National Forestry Service (Sernafor) and amending the General Law on Urban Planning and Construction. As of 2023, the bill is in its second constitutional stage in the Senate. It proposed the creation of a decentralized public agency under the Ministry of Agriculture, which would succeed CONAF – a public-private organization. The new service's mandate would encompass the conservation, protection, restoration, creation, development,

⁷⁵ In practice, this means that the safeguards professional enhances their capacity to manage the socio-environmental risks of territorially implemented projects and assumes a regional leadership role in ensuring safeguard compliance.

management, and sustainable use of the country's forests and other vegetation formations, as well as their associated natural components.

From a safeguards management perspective, the creation of this new service would provide greater authority and operational capacity to effectively promote the conservation of vegetation formations and associated natural components. Currently, CONAF operates under budgetary constraints and administrative procedures that differ from those of the public sector, limiting its ability to fully exercise its mandate, including the inability to propose legislation on matters within its jurisdiction. For example, under the new Rural and Wildfire Prevention Law,⁷⁶ Sernafor would have the authority to collect fines with tax benefits, which is something CONAF can currently only pursue by filing complaints through local courts.

7. The enactment of Law No. 21,600 marked the creation of the National System of Protected Areas (SNAP) and the Biodiversity and Protected Areas Service (SBAP). This legislation aims to promote the conservation of biological diversity and the protection of Chile's natural heritage. It establishes SBAP as a public service under the Ministry of the Environment, tasked with overseeing biodiversity conservation, with the National System of Protected Areas serving as its main instrument for achieving this mandate.
8. In 2023, an evaluation was carried out of the proposed amendments to Law No. 20,283 on Native Forest Recovery and Forestry Promotion. Among other updates, the amendments aim to strengthen sustainable forest management of native forests, expand the area under sustainable forestry practices, and enhance the participation of small and medium-sized landowners, indigenous communities, and other stakeholders. This proposal will be validated by the Native Forest Advisory Council and the Forest Policy Council before its implementation.

In addition, for the 2022-2023 reporting period, CONAF's central office continued its collaboration with various units and committees related to safeguards management, including the following:

- **CONAF Civil Society Council (COSOC):** This non-binding consultative mechanism facilitates citizen participation (participatory processes) by engaging representatives from civil society. Its primary purpose is to provide a platform for sharing opinions that authorities consider in their decision-making processes. Within this framework, the ENCCRV responds to the council's recommendations as a public policy instrument, particularly regarding safeguards, local community participation, guidelines, and consultation with Indigenous Peoples.⁷⁷
- **ENCCRV +Bosques Project Steering Committee:** This strategic decision-making body, limited to the timeframe and specific objectives of each ENCCRV project, is responsible for allocating the necessary resources to ensure monitoring and compliance with the plans and actions outlined in the environmental and social management frameworks (MGAS). It should be noted that, in 2022, a process was carried out to integrate civil society observers into the Steering Committee meetings. CONAF formally invited 18

⁷⁶ In October 2023, a bill aimed at preventing forest and rural wildfires was introduced. It mandates the identification of urban-rural forest interface zones within territorial planning and requires the incorporation of wildfire prevention measures, including the establishment of forest buffer zones. The bill is part of a broader wildfire management package that includes the National Plan for Wildfire Prevention, Mitigation and Management; the Community Preparedness program; enhanced inter-institutional coordination; and initiatives in civic and environmental education, among others.

⁷⁷ Minutes of COSOC meetings are available at: <https://www.conaf.cl/quienes-somos/consejo-de-la-sociedad-civil/>

stakeholders from diverse areas related to the project and the forestry sector, including women's organizations, Indigenous Peoples, academia, and others. Two virtual meetings were held to explain the selection process and the role of the observers. Ultimately, nine individuals confirmed their participation as observers. Throughout 2023, the Steering Committee operated effectively with the active involvement of these civil society observers.

Almost all of these strengthening measures have continued to operate in the same way during 2024 and the first semester of 2025. The only exception is that on May 23, 2025, Law No. 21,744 was published, creating the National Forestry Service (SERNAFOR). Further details are given in 5.3. Section of this report.

8.1.1.3.1.2. HUMAN AND FINANCIAL RESOURCES OF THE PARTICIPATING ENTITIES AND PARTIES

During the reporting period, the work of strengthening the Social and Environmental Safeguards team at the institutional level continued. The team is jointly led by professionals from the DCCSE and the Secretariat for Indigenous and Social Affairs (SAIS), forming a multidisciplinary team with expertise across various fields and fostering collaborative work. Specifically, in 2022, the Safeguards section included three professionals: a section head, an environmental safeguards specialist, and another social safeguards specialist. For its part, the SAIS had three professionals comprised of a head and two specialists in Indigenous and social affairs. This organizational structure remained unchanged throughout the 2022-2023 period.

Regarding the Safeguards team of the +Bosques project during the results-based payment phase of the ENCCRV in 2022, its structure, roles and responsibilities remained consistent with those reported in the 2020-2021 period. This continuity aimed to ensure effective compliance with the safeguards outlined in the Social and Environmental Management Framework of both the ENCCRV and the project itself.⁷⁸ In this regard, the team continued to be composed of an environmental and social safeguards coordinator, a specialist in indigenous and social affairs, an environmental specialist and a specialist in the gender approach.⁷⁹

During 2023, the organization of the Safeguards team was restructured to strengthen institutional management and enhance the implementation of safeguards. Thus, the revised team included a total of seven professionals: three hired directly by CONAF and four funded through the +Bosques project. The team was composed of a team leader, two environmental safeguards specialists, and three social safeguards specialists – each focusing respectively on gender, Indigenous Peoples, and community participation – along with an environmental and social safeguards management officer.

Regarding the +Bosques project of the RBP phase of the ENCCRV, the details of the modifications made in 2023 that are associated with the changes mentioned in the previous paragraph are explained below (see Figure 2):

- The four positions in the Safeguards team contracted with **RBP** funding at the central level became, as of January 2023, part of the DCCSE organizational structure, reporting directly to the head of the Safeguards section. This is a key milestone in strengthening institutional management and implementing a homogeneous technical criterion related to respect and compliance with the ENCCRV safeguards.⁸⁰

⁷⁸ <https://www.enccrv.cl/esmp-ingles>

⁷⁹ In 2021, FAO, in its role as implementing agency, began recruiting members for the Safeguards team of the +Bosques project, which will operate continuously through 2026.

⁸⁰ This initiative was also supported by the Implementation and MRV section of the department.

- The position of gender approach specialist was transferred from reporting to the head of the Safeguards section to being dependent on the head of the DCCSE. This was done to strengthen the mainstreaming of the gender approach by ensuring technical support for the Safeguards team within its roles and responsibilities.
- The position of coordinator of the project's environmental and social safeguards team, upon being integrated into the DCCSE organizational structure, was given additional responsibilities for management control, planning and reporting, among others. Thus, the responsibility for coordinating the team fell to the section head.
- The positions of Indigenous Peoples and environmental specialists maintained the same roles and responsibilities as in 2022.

It is expected that the professionals and structure will continue during the 1st cycle of distribution of benefits with ERPA funds in the year 2025.

Finally, the Regional Technical teams maintained their territorial implementation role for the development of the ENCCRV throughout the reporting period, thus ensuring the relevant safeguards were addressed and respected. In each region, this team is led by the Climate Change and Ecosystem Services Coordinator, in close collaboration with the head of the Ecosystem Conservation Department and with the support of the person in charge of safeguards at the regional level. In the case of those regions where pilot projects and/or projects were carried out in Indigenous territories, direct support for safeguard management by the SAIS continued at the regional and central levels.⁸¹ The following figure indicates the priority areas that contribute to safeguard management at the regional level, in coordination with their respective counterparts at the central level. However, all institutional units collaborate and share the responsibilities required for the implementation of the ENCCRV.

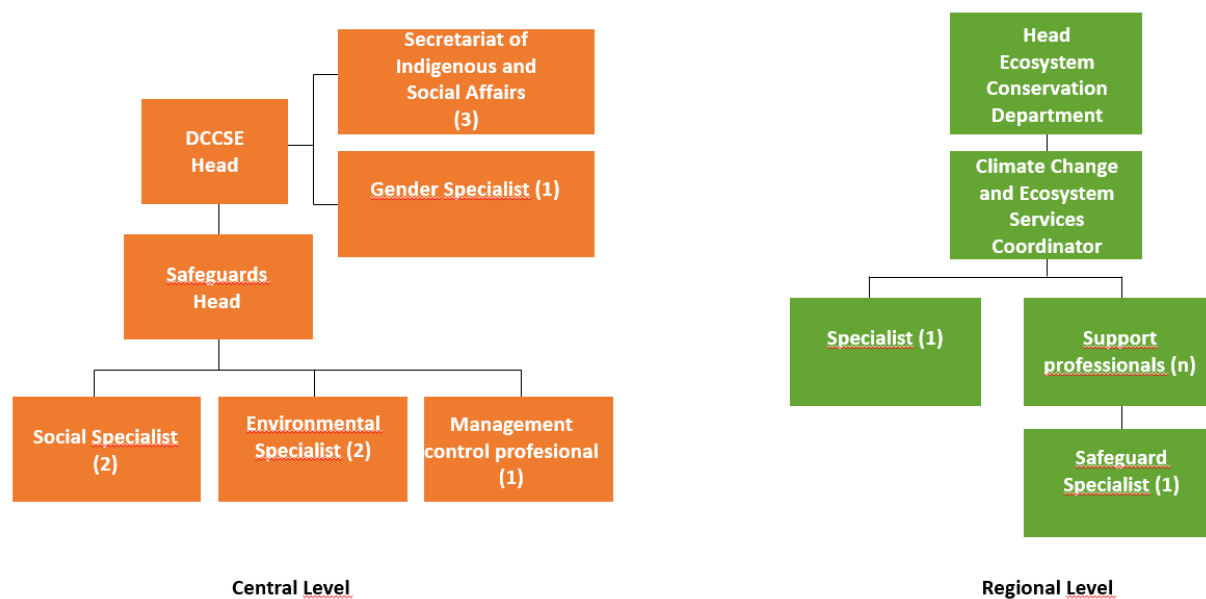


Figure 2. Establishment of the environmental and social safeguards team at the central level and in the six regions where the +Bosques project will be implemented, by 2023

To date, this structure and roles remain unmodified.

⁸¹ The regional safeguards officer is only present in the six regions where the RBP phase of the ENCCRV is implemented. See the 2022 ERPA report, section 1.1, for details of these roles.

The relationship and flow of information between the central units and the Regional Technical teams is shown in the following figure.

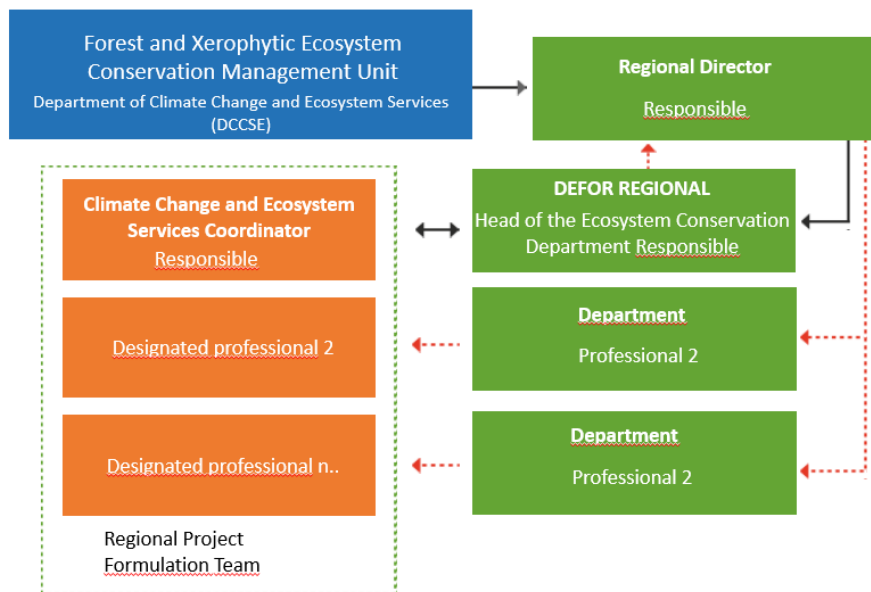


Figure 3. Technical management and safeguards flow applicable to the ENCCR for the reported period Source: MGAS

The activities associated with the team responsible for safeguards, both at the central and regional levels, involve budgetary expenditures for the 2022-2023 period, which are categorized as: i) salaries for professionals at the central level; ii) travel expenses; iii) other capacity-building activities;⁸² and iv) salaries for professionals in the regions. All of this is aimed at ensuring the management of safeguards within the institutional ERP. The details of these expenditures are provided in the following table:

Table 2. Expenses (in USD) associated with the management of ERP safeguards (2022-2023)

2022-2023 period	Financing source	
	International (USD)	National (USD)
Central office – salaries	249 869	215 925
Regional office – salaries	275 535	314 154
Central office – expenses	17 554	
Regional office – expenses	35 419	

⁸² For more details, see section 1.4.

Other expenses	2 000		
Total 2022-2023 (USD)	580 377	530 079	1 110 456

Table 2 classifies the expenses associated with the management of ERP safeguards according to the source of funding. In this regard, the GCF was the main international source of financing, while CONAF used national resources allocated by the Budget Directorate (Dipres).

8.1.1.4.1.3. IMPLEMENTATION OF INSTITUTIONAL ARRANGEMENTS

Regarding governance, institutional organization and decision-making procedures, the arrangements described in the previous section were implemented in all ENCCRV projects and CONAF activities during the 2022-2023 period, with the proper functioning of the responsible entities and safeguards teams at the central and regional levels. The operational advantages of designating safeguards technical counterparts in regional teams are highlighted. These designations continued during 2024 and the first semester of 2025.

According to section 1.1, each of the four CONAF's Technical Management departments involved in implementing activities and/or programs in the accounting area of the Emissions Reduction Program (PRE) has a designated professional as the DCCSE's information counterpart on safeguards issues at the central level. This designation serves to provide information on the safeguards-related work of their respective offices and, specifically, to collaborate in the preparation of reports. As in previous reports, this role keeps being functional and considered sufficient for current requirements. Its cost has been assumed by CONAF. During the reporting period, and for the execution of the 1st cycle of distribution of benefits from the ERPA, it is expected that this role remains the same.

8.1.1.5.1.4. CAPACITY BUILDING FOR THE EMISSIONS REDUCTION PROGRAM AND SAFEGUARD PLANS

It should be noted that CONAF, within the framework of the ENCCRV, developed a national environmental education program focused on climate change, plant resources, and environmental services. This program serves as the basis for the development of the ENCCRV's enabling measure named "Environmental Education and Diffusion Program" activities. It includes: i) a manual for the implementation of the educational program;⁸³ ii) a manual for the evaluation and monitoring of the educational program;⁸⁴ and iii) a training program for officials.

In addition, activities focused on the dissemination, strengthening, and institutionalization of the REDD+ approach and safeguards have been carried out for CONAF professionals and teams dedicated to the development and implementation of environmentally sustainable projects. Also, environmental education activities have been developed for other stakeholders, such as territorial stakeholders and/or potential beneficiaries, the educational community, and beneficiaries of the ENCCRV's +Bosques project. As a result, the following activities have been implemented during the reporting period:

- 17 capacity-building talks for CONAF professionals on topics such as: use of drones, Protected Wilderness Areas, biomass utilization, nursery improvement and maintenance, participatory methodologies for working with rural and indigenous communities, biofuels, and others.

⁸³ <https://www.enccrv.cl/programa-de-educacion>

⁸⁴ https://redd.unfccc.int/uploads/4833_66_manual_de_aplicacio_CC_81n.pdf

- 25 talks for territorial stakeholders and/or potential beneficiaries on topics such as: biomass and energy poverty, climate change and the importance of native forests, native species planting techniques, dendroenergy, preventive forestry, solid biofuels, nurseries, native seed collection, and the gender approach in the rural sector.
- 28 workshops for both schools and universities, on topics such as: greenhouse effect and climate change, solid biofuels, environmental education, native plant identification, propagation of native flora, planting of native trees, ecology and biodiversity, climate adaptation, and post-wildfire ecological restoration.
- Six workshops for beneficiaries, on topics such as: beekeeping, native tree planting, native plant production and recognition, wildfire management, and essential oil extraction.
- A guided tour for seniors.

A total of 3 064 people participated in these activities, of whom 49 percent were women (1 490) and 19 percent were Indigenous People (585).

As part of the safeguards support provided to the regional teams, the central safeguards team implemented complementary capacity-building, training, and technical support activities focused on the mitigation measures of the MGAS and the ENCCRV's +Bosques project. These activities, aimed at safeguard compliance, included virtual training sessions related to Indigenous Peoples' rights and gender equality, technical support from regional teams in the application of procedures and use of the Safeguards Information System and safeguards tools at the various stages of project implementation.

During 2022 and 2023, with the aim of implementing and increasing the participation of relevant stakeholders in the management of ENCCRV projects, workshops and dissemination activities were developed in the six ERP regions, which aimed to disseminate the BSP, including its risks and benefits, as described below:

- Development of the consultancy Characterization of potential beneficiaries of the ENCCRV +Bosques project: Between April and December 2022, 12 focus groups were established, two for each region and six exclusively for women, as well as carrying out 30 interviews with key actors, with the aim of collecting qualitative information on the livelihoods, needs and expectations of the potential beneficiaries of the project (small forest owners, especially women and Indigenous Peoples).
- Dissemination of the Benefit Sharing Plan:
 - 19 provincial-level workshops, covering the six project regions, attended by potential beneficiaries, organizations, and other stakeholders. The workshops aimed at disseminating the application process and requirements for the first BSP public tender, emphasizing the gender perspective and the participation of Indigenous Peoples.
 - 54 video clips with success stories from beneficiaries.
 - 206 press releases at both the national and regional levels.
 - Broadcast on 11 local radio stations.
 - 28 brochures and posters with their respective Mapudungun versions.
- REDD+ group formation workshops in 2022: following an open application process from 20 September to 7 November 2022, six regional workshops were held to identify representatives for REDD+ groups. This resulted in the selection of 51 individuals nationwide, with 48 percent women and nine (18 percent) Indigenous Peoples representing small forest owners, civil society, Indigenous Peoples, unions, NGOs,

municipalities, women's organizations, academia, and others. The content disseminated during the workshops included an introduction to the ENCCRV, the BSP, and its social and environmental safeguards.

- Regional REDD+ group workshops: in 2023, eight regular workshops were held to review and approve the respective BSP Regional Technical Proposals. A total of 31 people participated in the REDD+ groups, of whom 35 percent were women and 19 percent were Indigenous Peoples. Attendees included representatives from municipalities, public services, INFOR (National Institute of Forestry), NGOs, academia, small and medium-sized forest owners, and the private sector.

2. *The activities of the Emissions Reduction Program are implemented in accordance with the management and mitigation measures specified in the Safeguard Plans*

8.1.1.62.1 THE ENVIRONMENTAL AND SOCIAL DOCUMENTS PREPARED DURING THE IMPLEMENTATION OF THE PROGRAM ARE BASED ON THE MAIN PREVENTION AND MITIGATION MEASURES SPECIFIED IN THE SAFEGUARD PLANS.

As described in section 1 of this report, the implementation of the ENCCRV as a public policy instrument of CONAF has been carried out based on two types of activities: those carried out with funding allocated through the Budget Law, and those carried out through funds from multilateral organizations (international funds) that are administered directly or indirectly by CONAF, under the name "actions of the RBP phase of the ENCCRV".

This financing system implies, for safeguards management at the approach level, the need to identify and report on the use of appropriate tools for the prevention of environmental and social risks and the mitigation of any impacts that may arise. For this purpose, the analysis of environmental and social risks conducted in 2016 in the Strategic Environmental and Social Assessment (SESA)⁸⁵ was used as a basis. Considering this assessment, it was possible to align the elements of national environmental and social regulations and consider their contribution to respecting and complying with the OP/WB.

In this regard, and at the level of addressing safeguards, since the 2018-2019 report, a review of the operational institutional instruments in force for the reporting period has been carried out. These instruments, in accordance with the current legal and regulatory framework in Chile, contribute to risk prevention and/or the mitigation of socio-environmental impacts for the emission reduction activities listed in Table 1, in line with the applicable safeguard requirements reflected in the MGAS and BSP processes. The results of this review are presented in Table 3, which analyses the prevention measures contained in each of the instruments and their status of application for the reporting period.

The development of Table 3 involved coordination with professionals from the four CONAF Technical Management Units, who were designated as counterparts to the National Environmental and Social Safeguards Team and completed a digital questionnaire including key information on respect and compliance with safeguards. This information was subsequently supplemented through interviews and work meetings.

This table contains a list of CONAF management instruments aligned with the OP/WB as reflected in the MGAS, and with the BSP processes, as well as their implementation status for the 2022-2023 reporting period, the main prevention and/or mitigation measures considered in these instruments and the activities that contribute to emissions reduction within the ERP.

⁸⁵ <https://www.enccrv.cl/sesa-final>

Regarding the systematization of this information, it is possible to confirm that all activities carried out during the 2022-2023 period and reported in the following table were consistent with the adoption of the technical and operational guidelines defined both in the current legal and regulatory framework and in the institutional management instruments. Specifically, a list of CONAF management instruments aligned with the OP/WB is included, as well as their implementation status for the reporting period, the main prevention and/or mitigation measures considered in these instruments, and the activities aligned with the ENCCRV that contribute to the ERP.

The prevention and mitigation measures outlined in Table 3, within the framework of OP 4.10, should be interpreted as “a set” of socio-environmental management tools and instruments that, in accordance with the provisions of the MGAS, contribute to compliance with the regulatory requirements of said operational policy, as well as guaranteeing respect for and protection of the collective rights of indigenous peoples. Consequently, these measures seek to prevent or mitigate the potential impacts that could be generated on their territories as a result of the activities planned within the scope of the PRE.

In addition, and considering that it was the subject of FMT questions in previous self-reports, the national approach to addressing OP 4.12 in the ENCCRV is preventive, which is materialized through the exclusion of activities that could require physical resettlement of individuals or families, and through participatory processes applied as part of the Environmental and Social Assessment in those cases in which their economic and/or subsistence activities could be affected, while seeking to reach agreements and avoid the involuntary resettlement of economic activities. To facilitate the implementation of these requirements, in late 2023 a set of guidelines were developed to determine the scope of involuntary resettlement generated by actions and projects executed in the RBP phase of the ENCCRV. More information is provided in Table 7.

For a discussion of stakeholder participation more generally, including an explanation about the distinction among the FMT concept of the “Stakeholder Consultations”, ENCCRV participatory processes and legally mandated “Public consultations”, and the difference between participatory processes executed in BSP activities and those executed in ER CONAF activities not ruled by the BSP, please refer to sub-section 2.3

Finally, it should be noted that, unlike the Direct Measures of the ENCCRV that were awarded through the 2022 public tender, the Enabling Measures that are being implemented through the +Bosques project apply the instruments in a differentiated manner,⁸⁶ as can be seen in Table 3.

⁸⁶ The Enabling Measures currently being implemented correspond to those contemplated for the +Bosques project and, specifically, MT6, IF6, MT7, and GA1. The measures can be reviewed in more detail at: <https://www.encrv.cl/actividades-y-medidas-de-accion>

8.1.1.7 TABLE 3. INSTITUTIONAL INSTRUMENTS CONTAINING PREVENTION/MITIGATION MEASURES LINKED TO THE ENVIRONMENTAL

AND SOCIAL SAFEGUARDS DESCRIBED IN THE MGAS.

8.1.1.8 SOURCE: PREPARED BY THE AUTHORS BASED ON INFORMATION PROVIDED BY CONAF'S TECHNICAL MANAGEMENT UNITS.

– 87
A
c
c
o
r
d
i
n
g
t
o
t
h
e
c
r
o
s
s
-
c
u
t
t
i
n
g
t
h
e
m
e
s
o
f
t
h
e
i
n
t
e
g
r
a
t
e
d
s
a
f
e
g
u
a
r
d
s
f
r
a
m
e

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
OP 4.01 Environmental assessment (corresponding to SG7 Risk and Impact Assessment and included in SG2 Transparency and Governance⁸⁷)			
Environmental Assessment Guide "Criteria for CONAF's participation in the SEIA" ⁸⁸	Implemented	Defines the aspects and criteria to be considered by CONAF in the evaluation process of projects submitted to the SEIA.	Direct Measures of the ENCCRV
Safeguards forms of the Land management plan - Application form	Update of the "Application form"	A planning tool that, starting in 2022, will be part of the application phase of the BSP public tender and will be implemented on the tender platform. It includes a preventive analysis of potential risks or impacts associated with the implementation activities of specific projects, should they be awarded.	Direct Measures of the ENCCRV
Environmental and Social Feasibility Assessment Questionnaire	Implemented	This tool, which, starting in 2022, is part of the application phase of the BSP public tender. It is carried out in the field, with its results entered into the ENCCRV tender platform. Its purpose is to identify potential risks in project implementation. This will determine the actions to be taken if the project is awarded.	Direct Measures of the ENCCRV
Gender Action Plan +Bosques project (GAP) ⁸⁹	Implemented	Support effective participation in the implementation of the ENCCRV (Regulations for Sustainable Development) through recognition, assimilation, capacity development, and leadership to ensure gender considerations in REDD+ actions. Through the implementation of this plan, the +Bosques project is expected to promote the active participation of women and ensure that they can derive value from the forestry activities carried out.	Direct Measures of the ENCCRV
Environmental and Social Management Plan for the +Bosques project (ESMP)	Implemented ⁹⁰	A plan that presents a detailed framework for the management of environmental and social impacts and risks associated with the +Bosques project, including a set of actions, tools and institutional arrangements to ensure full compliance with the safeguards.	Direct Measures of the ENCCRV; Strengthening nurseries under ENCCRV Enabling Measure GA1. ⁹¹
Environmental education program focused on climate change, vegetation resources, and environmental services	Implemented	A program that encompasses the fundamental aspects of the institutional strategic approach to environmental education for climate change and lays the foundation for a series of educational actions to address the challenges posed by climate change.	Enabling Measures of the ENCCRV
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts to be financed according to surface area and eligible action measures, together	Direct Measures of the ENCCRV

ework of the National Approach to Safeguards of the ENCCRV. <https://www.enccrv.cl/salvuardas-ambientales-y-sociales>

⁸⁸ <https://www.conaf.cl/centro-documental/guia-de-evaluacion-ambiental-criterios-para-la-participacion-de-conaf-en-el-seia-conaf-2020/>

⁸⁹ <https://www.greenclimate.fund/document/gender-action-plan-fp120-chile-redd-plus-results-based-payments-results-period-2014-2016>

⁹⁰ <https://www.enccrv.cl/esmp-ingles>

⁹¹ Investments in nursery infrastructure are made through a public tender and, for those processes that do not participate in the tender, an Environmental and Social Assessment (ESA) is carried out and an ESMP is prepared.

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
		with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	
Guide for the Participation of Local and Indigenous Communities in ENCCRV Projects ⁹²	Implemented	A practical tool to support participation processes throughout the project cycle, providing regional teams with guidance, concepts, methodologies, and techniques to ensure respect for and compliance with safeguards. Its application particularly facilitates the work of those who implement the Action Measures (MDA), by guaranteeing the right to participation and the integration of the other standards of the National Safeguards Approach. The Consultation and Participation safeguard is recognized as a pillar of the ENCCRV safeguards, as its full and effective implementation through the involvement of stakeholders allows for the management of the other cross-cutting areas and ensures full compliance with all safeguards.	Direct Measures of the ENCCRV
OP 4.04 Natural habitats (included in SG8 Conservation of natural habitats and biodiversity and SG2 Transparency and governance)			
Supreme Decree No. 16 - Approval of the classification of species 16th Process ⁹³	Implemented	It establishes the conservation category of the different native species of the country in accordance with the procedure established in the regulation for the classification of wild species (DS No. 29 2011 MMA)	Activities carried out within the framework of Law No. 20,283
Supreme Decree No. 10 of 2023 MMA. Approval of the classification of species 18th Process ⁹⁴	Updated	It establishes the conservation category of the different native species of the country in accordance with the procedure established in the regulation for the classification of wild species (DS No. 29 2011 MMA)	Activities carried out within the framework of Law No. 20,283
SNASPE Ecotourism Concessions Inspection Manual	Implemented	Recreational services and, in general, those associated with special interest tourism must ensure that such development is compatible with the general and specific objectives that motivated the creation of protected wilderness areas.	Inspection of concessions in the SNASPE

⁹² Available at: <https://www.enccrv.cl/guia-participacion-comunidades>

⁹³ Available at: <https://clasificacionespecies.mma.gob.cl/procesos-de-clasificacion/160-proceso-de-clasificacion-de-especies-2019/#:~:text=El%2003%20de%20agosto%20de,con%20los%20procedimientos%20del%20RCE.>

⁹⁴ Available at: <https://clasificacionespecies.mma.gob.cl/procesos-de-clasificacion/180-proceso-de-clasificacion-de-especies-2022/>

– 95
h
t
t
p
s
:
/
/
w
w
w
.
c
o
n
a
f
.
c
l
/
c
e
n
t
r
o
-
d
o
c
u
m
e
n
t
a
l
/
m
a
n
u
a
l
-
p
a
r
a
-
l
a
-
p
l
a
n
i
f
i
c

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
SNASPE Manual for the Management Planning of Protected Areas ⁹⁵	Implemented	It establishes the guidelines associated with zoning and territorial analysis, cultural conservation objects and objects of human well-being, participation aspects, climate change vulnerability analysis, logical framework matrix, operational plans, monitoring, among others, in order to ensure the protection of the protected wilderness areas that are part of the SNASPE.	Development or updating of management plans using the SNASPE's strengthened planning method; implementation of conservation strategies in SNASPE units
Protected Areas according to Law 18,378	Implemented	It establishes prohibitions on the cutting of trees and shrubs present in 16 areas within the territory of the Emissions Reduction Program, through Supreme Decrees, leaving CONAF in charge of authorizing and supervising the provisions of this law and its associated decrees.	Preparation or updating of management plans with the strengthened SNASPE planning method
Environmental and Social Management Plan for the +Bosques project (ESMP)	Implemented	Plan that presents a detailed framework for the management of environmental and social impacts and risks associated with the +Bosques project, where a set of actions, tools and institutional arrangements are described to ensure full compliance with the safeguards.	Direct Measures of the ENCCRV
Environmental education program focused on climate change, vegetation resources, and environmental services	Implemented	It encompasses the fundamental aspects of the institutional strategic approach to environmental education for climate change and lays the foundation for educational initiatives to address the challenges posed by climate change.	Enabling Measures of the ENCCRV
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts to be financed according to surface area and eligible action measures, together with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	Direct Measures of the ENCCRV
OP 4.09 Pest Management (included in SG 10 Pollution Prevention and Integrated Pest Management and SG 12 Health, Safety and Decent Rural Work and SG2 Transparency and Governance)			
List of SAG pesticides ⁹⁶	Implemented	List of authorized pesticides, approved according to the WHO classification, taking into consideration a rigorous evaluation process and requirements indicated in the international	Participatory Forestry Program; Large-Scale Native Forest Restoration Program

acion-del-manejo-de-las-areas-protegidas-del-snaspe/
⁹⁶ <https://www.sag.gob.cl/content/lista-de-plaguicidas-2023>

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
		conventions signed by Chile (Resolution No. 1,557 of 2014)	
Pesticide applicator certification ⁹⁷	Implemented	Establishment of guidelines for obtaining a card that recognizes that the applicator is trained in the use and handling of agricultural pesticides, according to the reference framework established by SAG (exempt resolution No. 2029/2017).	Participatory Forestry Program; Large-Scale Native Forest Restoration Program
Basic Guide to Good Practices for Small and Medium-Sized Forest Plantations ⁹⁸	Implemented	It establishes a series of technical recommendations aimed at site preparation, soil recovery and planting that includes aspects such as correct management of plant waste, pest and disease control techniques, among others.	Activities carried out within the framework of Law No. 20,283
Risk prevention and induction manual for staff of the Forest and Xerophytic Ecosystem Conservation Management System ⁹⁹	Implemented	It is part of CONAF's occupational risk prevention policy and contains a list of risks associated with personnel activities, as well as recommended preventive measures and safe work methods. Chapter 6, "Risk Prevention in Farm Activities", outlines measures for pesticide use and personal protection.	Participatory Forestry Program; Large-Scale Native Forest Restoration Program
Environmental and Social Management Plan for the +Bosques project (ESMP)	Implemented	Plan that presents a detailed framework for the management of environmental and social impacts and risks associated with the +Bosques project, where a set of actions, tools and institutional arrangements are described to ensure full compliance with the safeguards.	Direct Measures of the ENCCRV
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts to be financed according to surface area and eligible action measures, together with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	Direct Measures of the ENCCRV
OP 4.36 Forests and Plantations (included in SG8 Conservation of natural habitats and biodiversity, SG9 Sustainable management of forests and natural resources and SG2 Transparency and governance)			

⁹⁷ <https://www.sag.gob.cl/tramites/solicitud-de-credencial-de-reconocimiento-como-aplicador-de-plaguicidas-de-uso-agricola>

⁹⁸ <https://www.curriculumnacional.cl/portal/Educacion-Tecnico-Profesional/Especialidad-Forestal/Plan-3/217214:CONAF-2013-Guia-basica-de-buenas-practicas-para-plantaciones-forestales-de-pequenos-y-medianos-propietarios>

⁹⁹ Available on the CONAF intranet

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
CONAF National Forestry Extension Program	Implemented	Collaborate with institutional professionals in tasks associated with the implementation of Law No. 20,283, such as providing professional advice to small and medium-sized forest owners who do not have the means to hire these services; training owners for the correct execution of tasks, and supervision of these tasks during their development, among others.	Participatory Forestry Program; Large-Scale Native Forest Restoration Program
Technical procedures manual for the tree planting program	Implemented	Promote the generation of ecosystem services by planting trees in urban and peri-urban parks, considering the use of plants with heritage and cultural value (native and/or conservation species), while contributing to the dissemination of the benefits they provide to society to improve the quality of life of the population.	Tree planting program
Application form for the tree planting program ¹⁰⁰	Implemented	It contains a list of aspects that the applicant must take into account when applying to the tree planting program, including the commitment to care for plants according to the technical recommendations of CONAF and the acceptance of monitoring and evaluation actions, among others.	Tree planting program
Considerations for the formulation of the Native Forest Management Plan, Law No. 20,283	Implemented	It establishes the technical requirements for planning the management of ecological heritage or the sustainable use of forest resources on a given site, including safeguarding water quality and avoiding soil deterioration.	Management plans awarded
Forms for management plans ¹⁰¹	Implemented	Set of standards and technical requirements associated with the management, organization, and preservation of native forests, or according to the forest type, as well as certificates of accreditation of management plans and activities contemplated in Law No. 20,283 (includes a form for correction plans).	Management Plans awarded; Oversight of technical studies on native forest management approved by CONAF; Oversight of extraction plans, logging, or work plans
Competition rules for the Native Forest Conservation, Recovery and Sustainable Management Fund ¹⁰²	Updated	Tender Rules for 2022 and 2023. Establishes in detail the various eligible activities according to sections A), B) and C) of Law 20,283 on the recovery of Native Forests.	Activities carried out within the framework of Law No. 20,283
Supreme Decree No. 68, list of tree and shrub species native to the country	Implemented	Based on a series of scientific studies, the list of native shrub and forest species in the country that may be eligible for bonuses is defined.	Activities carried out within the framework of Law No. 20,283

-
- 100 <https://www.conaf.cl/manejo-de-ecosistemas/programa-de-arborizacion/entrega-de-plantas/>
- 101 <https://www.conaf.cl/tramites/permisos-bosque-nativo-y-formaciones-xerofiticas/>
- 102 <https://concursolbn.conaf.cl/seccion/documentos.php>

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
Supreme Decree No. 16. Approval of the species classification 16th Process	Implemented	It establishes the conservation category of the different native species of the country according to the procedure established in the regulation for the classification of wild species (DS No. 29).	Bonus for activities carried out within the framework of Law No. 20,283
Supreme Decree No. 10. Approval of the classification of species 18th Process	Updated	It establishes the conservation category of the different native species of the country according to the procedure established in the regulation for the classification of wild species (DS No. 29).	Activities carried out within the framework of Law No. 20,283
Free transit guides for the transport of native forest products	Implemented	It certifies that the primary products of the native forest (as listed) come from a cut authorized by CONAF through a management plan, management norm or simple cutting permit.	Activities carried out within the framework of Law No. 20,283; Inspections at collection centres and on roadways
CONAF's Wood Energy Strategy 2015-2030	Implemented	It promotes the sustainable production and efficient use of forest biomass as a non-conventional renewable energy to contribute to the country's energy security and independence, through the inclusion and delivery of capacities to small-scale owners of native forests, plantations and micro-enterprises in the sector.	Actions that promote the production of sustainable firewood and biomass
National Firewood Certification System ¹⁰³	Implemented	This certification standard, composed of four principles verified through documents, measurements, records, and other means of proof, highlighting the origin of the firewood and requiring compliance with the Forest Management Plan, has come to be administered by the Ministry of Energy and is currently called the Firewood Quality Seal. CONAF's work continues through the Dendroenergy Strategy to ensure that users who collect and sell firewood achieve certification status.	Actions that promote the production of sustainable firewood and biomass
Guide to good practices on tools to combat and prevent illegal logging activities and associated trade ¹⁰⁴	Not implemented ¹⁰⁵ In 2023, the proposal continues to be reviewed within the framework of EGILAT. ¹⁰⁶	It provides a series of tools and technologies to establish traceability and determine the origin of wood in order to support the management of inspection and controls at collection centres and on roadways.	Inspections of collection centers and on roadways; Property inspections and compliance controls through SAT/LEMU

¹⁰³ <https://www.sellocalidadlena.cl/>

¹⁰⁴ <https://www.conaf.cl/centro-documental/buenas-practicas-en-herramientas-para-combatir-y-prevenir-las-actividades-de-tala-ilegal-y-comercio-asociado/>

¹⁰⁵ CONAF is not authorized to certify the legal trade of timber products. However, companies involved in this trade use copies of the logging management plans issued by CONAF under Law 20,283 and transport dispatch guides to validate that the timber was harvested with authorization from a CONAF management plan.

¹⁰⁶ APEC Expert Group on Illegal Logging and Associated Trade.

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
CONAF's Forest Administration and Monitoring System (SAFF)	Implemented	Tool that supports institutional management to protect ecosystems and environmental heritage from illegal practices in forest resources.	Review of third-party complaints; Monitoring of forestry legislation compliance; Monitoring of extraction plans, simple cutting, or work plans
Instructions and form for the filing of complaints by third parties for alleged violations of forestry legislation ¹⁰⁷	Implemented	The form, which can be submitted in person, in writing, or through the institutional website, allows complaints to be classified according to the type of natural resource affected, highlighting the section focused on Native Forest, Water Resources, and others. The latter may include species or sites of cultural significance for local and indigenous communities.	Monitoring of third-party complaints
Logging and Extraction Monitoring Unit (LEMU) ¹⁰⁸	Implemented	The Forest Extraction and Harvest Monitoring System is a remote sensing tool that allows for the detection of changes in vegetation cover at the national level, facilitating territorial deployment and the allocation of monitoring resources.	Property inspections and compliance controls through SAT/LEMU
National Fire Use Guidelines ¹⁰⁹	Implemented	It establishes criteria and measures to be implemented in each region with the aim of ensuring that fire is used as a safe tool for managing plant waste, in addition to defining the special situations in which the use of fire implies the generation of burning plans, highlighting the existence of Native Forest on the property (Araucanía Region only) and proximity to SNASPE (all regions of the country).	Controlled burning program inspections and training
Guide to burning alternatives as part of the training program	Implemented	Project for alternative fire use to reduce negative externalities, such as environmental pollution and the risk of wildfires.	Controlled burning program inspections and training
Environmental and Social Management Plan for the +Bosques project (ESMP)	Implemented	Plan that presents a detailed framework for the management of environmental and social impacts and risks associated with the +Bosques project, where a set of actions, tools and institutional arrangements are described to ensure full compliance with the safeguards.	Direct Measures of the ENCCRV

¹⁰⁷ <https://oficinavirtual.conaf.cl/denunciaTerceros/index.php?x=1>

¹⁰⁸ <https://sites.google.com/conaf.cl/lemuconaf/inicio>

¹⁰⁹ https://avisoenlinea.conaf.cl/documentos/Instruc_Adm_Uso_Fuego.pdf

– 110
S
e
e
T
a
b
l
e
9
.
f
o
r
m
o
r
e
d
e
t
a
i
l
s
a
b
o
u
t
h
o
w
t
h
e
M
G
A
S
o
f
f
e
r
s
m
a
n
a
g
e
m
e
n
t
p
r
o
c
e
d
u
r

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
General Guidelines of the Large-Scale Native Forest Restoration Program – Planting for Chile	Updated	It establishes the framework within which activities will be developed, along with general project assignment criteria, technical criteria, administrative procedures, and a description of reporting and monitoring. Priority is given to activities to initiate in situ restoration processes, the Seed Collection Program, and nursery strengthening. The restoration practices to be implemented by the program are indicated, prioritizing conservation and protection zones for soils, wetlands, headwaters, and water bodies.	Large-Scale Native Forest Restoration Program
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts to be financed according to surface area and eligible action measures, together with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	Direct Measures of the ENCCRV
OP 4.10 Indigenous Peoples (corresponding to SG4 Indigenous Peoples and included in SG2 Transparency and Governance)¹¹⁰			
Regional participatory forestry programs	Implemented	Aimed at promoting the motivation and active collaboration of all involved parties/social actors, enabling them to share ideas and experiences, in order to seek solutions in a participatory manner.	Participatory Forestry Program
Application rules for the Native Forest Conservation, Recovery and Sustainable Management Fund ¹¹¹	Updated	Application rules for 2022 and 2023. Establishes in detail the various eligible activities according to sections A), B) and C) of Law 20,283 on the recovery of native forests.	Training, dissemination, and technical transfer regarding the benefits of urban ecosystems and forest and xerophytic formations, as well as the promotion of participation in CONAF programs
SNASPE Ecotourism Concessions Inspection Manual	Implemented	This implies that concession contracts in protected wild areas that overlap with ADI (Indigenous Development Areas) must reflect the existing agreements between CONAF and CONADI, specifically regarding the definition of the form of participation of the existing indigenous communities in the ADI.	Inspection of concessions in the SNASPE

es.
111 <https://concursoibn.conaf.cl/login/index.php>

– 112
h
t
t
p
s
:
/
/
w
w
w
.
c
o
n
a
f
.
c
l
/
c
e
n
t
r
o
-
d
o
c
u
m
e
n
t
a
l
/
m
a
n
u
a
l
-
p
a
r
a
-
l
a
-
p
l
a
n
i
f
i
c

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
Manual for the Management Planning of SNASPE Protected Areas ¹¹²	Implemented	It establishes community participation as a central axis in planning to involve the community in the management of the SNASPE and strengthen its various territorial units, as well as to better incorporate their valuable natural and cultural heritage and contribute to the development of their areas of influence through the SNASPE advisory councils.	Development or updating of management plans using the SNASPE's strengthened planning method; Implementation of conservation strategies in SNASPE units
Framework for Community Participation in the Management of SNASPE	Implemented	Technical theoretical framework for updating the scope and mechanisms for public participation in the protected areas of the National System of Protected Wilderness Areas (SNASPE).	Preparation or updating of management plans with the improved SNASPE planning method
Manual for SNASPE staff: tools for managing socio-environmental conflicts in State Protected Wilderness Areas ¹¹³	Implemented	Manual aimed at strengthening the institutional management of Protected Wilderness Areas administration teams in the prevention and management of socio-environmental conflicts, through a series of proposed approaches and tools.	Implementation of conservation strategies in SNASPE units
Institutional strategy for training park rangers and administrators of Protected Wilderness Areas	Implemented	The strategy remained in force until 2021 and has not been formally replaced, although its guidelines and lines of action continue to be applied in operational management. Continuity is ensured in capacity building in priority areas, such as collaborative management of socio-environmental conflicts, implementation of participatory mechanisms for territorial agreements, and incorporation of intercultural approaches that recognize the traditional knowledge and collective rights of indigenous peoples and local communities, in line with national and international regulatory frameworks.	Implementation of conservation strategies in SNASPE units
Methodology for the Development of Community Wildfire Prevention Plans ¹¹⁴	Implemented	The methodology aims to strengthen and improve community participation in wildfire prevention and for this purpose it includes a series of technical recommendations and tools (annexes) that facilitate this process, such as: the formation of a community council, the checklist of community workshops and the validation of the draft plan with the community.	Wildfire Preparedness Program for Communities; Development of Community Protection Plans in Risk Areas
+Bosques Project Action Plan for Indigenous Peoples (IPAP) ¹¹⁵	Not implemented Submitted to the GCF, not yet approved.	Plan that defines the procedures to ensure that all project activities implemented in the territories of Indigenous Peoples are carried out under the principles of Free, Prior and Informed Consent (FPIC), with full respect for their rights, culture, traditional knowledge and practices, territorial and development vision, and traditional decision-making	Direct Measures of the ENCCRV

acion-del-manejo-de-las-areas-protegidas-del-snaspe/

¹¹³ Manual para personal del SNASPE; Herramientas para la Gestión de Conflictos Socio Ambientales en Áreas Silvestres Protegidas del Estado
<https://www.conaf.cl/centro-documental/manual-para-la-gestion-del-snaspe/?ind=1718802803436&filename=MANUAL%20DE%20CONFLICTO%20AP%20CONAF%202018.pdf&wpdmdl=59557&refresh=68c06b5ce5fc01757440860>

¹¹⁴ <https://www.conaf.cl/incendios/prevencion-y-mitigacion/comunidades-preparadas-frente-a-los-incendios-forestales/>

¹¹⁵ <https://www.enccrv.cl/ipap-ingles>

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
		processes.	
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts to be financed according to surface area and eligible action measures, together with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	Direct Measures of the ENCCRV
Guidance note for determining the scope of involuntary resettlement generated by actions and projects implemented in the RBP phase of the ENCCRV	Implemented	It is a supplement to Annex 7 of the MGAS and seeks to operationalize the way in which the scope of Involuntary Resettlement is determined in relation to uses, with the aim that both regional technical teams and anyone responsible for implementation can apply it in the territories where investments in the results-based payment phase operate and it is identified that these same investments, or any decision taken regarding the territory, have an effect that limits, displaces, or extinguishes the different types of "uses" (productive, subsistence, recreational, traditional, culturally significant, religious, medicinal, etc.) that individuals, indigenous communities, local communities, organizations, or other human groups have been giving to the ecosystem services that are part of their livelihoods and ways of life.	Direct Measures of the ENCCRV
Guide for the Participation of Local and Indigenous Communities in ENCCRV Projects	Implemented	A practical tool to support participation processes throughout the project cycle, providing regional teams with guidance, concepts, methodologies, and techniques to ensure respect for and compliance with safeguards. Its application particularly facilitates the work of those who implement the Action Measures (MDA), by guaranteeing the right to participation and the integration	Direct Measures of the ENCCRV

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
		of the other standards of the National Safeguards Approach. The Consultation and Participation safeguard is recognized as a pillar of the ENCCRV safeguards, as its full and effective implementation through the involvement of stakeholders allows for the management of the other cross-cutting areas and ensures full compliance with all safeguards.	
OP 4.11 Physical Cultural Resources (corresponding to SG6 Cultural Heritage and included in SG2 Transparency and Governance)			
Manual for the Management Planning of SNASPE Protected Areas	Implemented	It establishes the guidelines associated with zoning and territorial analysis, cultural conservation and human well-being targets, participation aspects, climate change vulnerability analysis, logical framework matrix, operational plans and monitoring, among others, in order to ensure the protection of the ASPs.	Preparation or updating of management plans with the improved SNASPE planning method
Framework for community participation in the management of SNASPE	Implemented	Technical theoretical framework for updating the scope and mechanisms for citizen participation (participatory processes) in protected areas of the National System of Protected Wilderness Areas (SNASPE).	Preparation or updating of management plans with the improved SNASPE planning method
Implementation of conservation strategies in SNASPE units	Implemented	Training in conflict management, agreement management, and respect for the knowledge and rights of Indigenous Peoples and local communities.	Implementation of conservation strategies in SNASPE units
Forms for management plans	Implemented	Set of standards and technical requirements associated with management, voluntary regulation of management activities, and forest preservation of native forests.	Management plans awarded
+Bosques project Action Plan for Indigenous Peoples (IPAP) ¹¹⁶	Not implemented Submitted to the GCF, not yet approved.	Plan that defines the procedures to ensure that all project activities implemented in the territories of Indigenous Peoples are carried out under the principles of FPIC, with full respect for their rights, culture, traditional knowledge and practices, territorial and development vision, and traditional decision-making processes.	Direct Measures of the ENCCRV
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts to be financed according to surface area and eligible action measures, together with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the	Direct Measures of the ENCCRV

–
116
h
t
t
p
s
:
/
w
w
.
e
n
c
c
r
v
.
c
l
/
i
p
a
p
-
i
n
g
l
e
s

– 117
117
S
e
e
T
a
b
l
e
9
.
f
o
r
m
o
r
e
d
e
t
a
i
l
s
a
b
o
u
t
h
o
w
t
h
e
M
G
A
S
o
f
f
e
r
s
m
a
n
a
g
e
m
e
n
t
p
r
o
c
e
d

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
		obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	
Guide for the Participation of Local and Indigenous Communities in ENCCRV Projects	Implemented	A practical tool to support participation processes throughout the project cycle, providing regional teams with guidance, concepts, methodologies, and techniques to ensure respect for and compliance with safeguards. Its application particularly facilitates the work of those who implement the Action Measures (MDA), by guaranteeing the right to participation and the integration of the other standards of the National Safeguards Approach. The Consultation and Participation safeguard is recognized as a pillar of the ENCCRV safeguards, as its full and effective implementation through the involvement of stakeholders allows for the management of the other cross-cutting areas and ensures full compliance with all safeguards.	Direct Measures of the ENCCRV
OP 4.12 Involuntary resettlement¹¹⁷			
Framework for community participation in the management of SNASPE	Implemented	Technical theoretical framework for updating the scope and mechanisms for citizen participation (participatory processes) in the protected areas of the National System of Protected Wilderness Areas (SNASPE).	Preparation or updating of management plans with the improved SNASPE planning method
Implementation of conservation strategies in SNASPE units	Implemented	Training in conflict management, agreement management, respect for the knowledge and rights of Indigenous Peoples and local communities	Implementation of conservation strategies in SNASPE units
Forms for management plans	Implemented	Set of standards and technical requirements associated with management, voluntary regulation of management activities, and forest preservation of native forests.	Management plans awarded
+Bosques project Action Plan for Indigenous Peoples (IPAP) ¹¹⁸	Not implemented, Submitted to the GCF, not yet approved.	Plan that defines the procedures to ensure that all project activities implemented in the territories of Indigenous Peoples are carried out under the principles of FPIC, with full respect for their rights, culture, traditional knowledge and practices, territorial and development vision, and traditional decision-making processes.	Direct Measures of the ENCCRV
Technical and Administrative Terms and Conditions of ENCCRV's Public Tender	Implemented, Updated annually	They establish aspects such as: objectives, territorial scope, beneficiary population, application requirements, exclusion criteria and calendar, amounts	Direct Measures of the ENCCRV

ures.

118 <https://www.enccrv.cl/ipap-ingles>

CONAF management instruments, in line with the MGAS	Status as of 2023	Description of prevention/mitigation measure	Activities in which it is applied
		to be financed according to surface area and eligible action measures, together with the competitive system (stages, attention, withdrawal, and collaboration agreements), the professional support and advice provided by CONAF throughout the operational cycle, the obligations of beneficiaries with regard to information and socio-environmental diagnoses—according to the MGAS to comply with safeguards—and the evaluation mechanisms with their criteria and weightings.	
Guidance note for determining the scope of involuntary resettlement generated by actions and projects implemented in the RBP phase of the ENCCRV	Implemented	It is a supplement to Annex 7 of the MGAS and seeks to operationalize the way in which the scope of Involuntary Resettlement is determined in relation to uses, with the aim that both regional technical teams and anyone responsible for implementation can apply it in the territories where investments in the results-based payment phase operate and it is identified that these same investments, or any decision taken regarding the territory, have an effect that limits, displaces, or extinguishes the different types of “uses” (productive, subsistence, recreational, traditional, culturally significant, religious, medicinal, etc.) that individuals, indigenous communities, local communities, organizations, or other human groups have been giving to the ecosystem services that are part of their livelihoods and ways of life.	Direct Measures of the ENCCRV
Guide for the Participation of Local and Indigenous Communities in ENCCRV Projects	Implemented	A practical tool to support participation processes throughout the project cycle, providing regional teams with guidance, concepts, methodologies, and techniques to ensure respect for and compliance with safeguards. Its application particularly facilitates the work of those who implement the Action Measures (MDA), by guaranteeing the right to participation and the integration of the other standards of the National Safeguards Approach. The Consultation and Participation safeguard is recognized as a pillar of the ENCCRV safeguards, as its full and effective implementation through the involvement of stakeholders allows for the management of the other cross-cutting areas and ensures full compliance with all safeguards.	Direct Measures of the ENCCRV

Source: Prepared by the authors based on information provided by CONAF's technical management units.

For the reporting period, the following significant updates are included, which are highlighted in grey, in Table 3:

- i. One aspect that needs to be clarified is the national approach to addressing OP 4.12 on the ENCCRV, which is preventive. This is realized by excluding activities that could require the physical resettlement of individuals or families. In terms of economic activities that could be affected and restrictions in access, involuntary restriction is also listed explicitly in the excluded activities in the MGAS¹¹⁹ these are identified in the Environmental and Social Assessment process and managed through participatory processes, seeking to reach agreements with those who carry out the activity, thereby avoiding the involuntary resettlement of economic activities or restrictions in access. There is a process framework as part of the MGAS (Annex 7) "Resettlement Policy Framework and Procedural Standards". Also, in 2023, another tool was published and is noted in Table 3 of this report: "Guidelines to determine the scope of involuntary resettlement generated by actions and projects executed in the RBP phase of the National Strategy on Climate Change and Vegetation Resources (ENCCRV)".¹²⁰
- ii. Update of the SNASPE Ecotourism Concession Inspection Manual. The guide to good practices on tools to combat and prevent illegal logging activities and associated trade was being updated during 2023, so it has not been used during this period in activities to ensure the traceability and origin of wood at collection centres and in transit, as well as for property inspections and compliance controls through SAT/LEMU. However, the activities were carried out in compliance with the requirements of the forestry regulatory framework and, specifically, Law No. 20,283.
- iii. Regarding the SNCL (National Firewood Certification System), administered by the Ministry of Energy, it has been replaced and is now called the Firewood Quality Seal (*Sello Calidad de Leña*). However, CONAF continues to be responsible for actions that promote sustainable firewood and biomass production through the Dendroenergy Strategy, which promotes inclusion and builds capacities of small-scale owners of native forests, plantations, and microenterprises in the sector. This work consists of applying standards that are verified through documents, indicators, records, and other means of proof, highlighting the origin of the firewood and requiring compliance with the Forest Management Plan. Thus, these users who collect and market firewood can achieve certification status to obtain the Firewood Quality Seal.
- iv. The Economic Recovery Program is implemented by CONAF within the framework of the Temporary Emergency Fund – Law No. 21,288. In 2022, corresponding to the second budget allocation by the State, the program was modified, incorporating specific guidelines to focus on native forests and exclude the replacement of exotic species plantations. To this end, a new management instrument was developed, called General Guidelines of the Economic Reactivation Program – Sowing for Chile (*Siembra por Chile*), implemented as part of the Economic reactivation plan for large-scale native forest restoration - Siembra por Chile, which was issued through Memorandum No. 2628/2022. This establishes the framework under which the activities will be developed, as well as the general guidelines, technical and administrative criteria, and a description of reporting and monitoring of activities associated with the economic reactivation program activity for small and medium-sized forest owners, which is part of the Chilean government's initiatives to stimulate the economy and promote job creation through the recovery of forest ecosystems.
- v. In 2023, another update of the activities related to the Large-Scale Native Forest Restoration Program "Siembra por Chile"¹²¹ was carried out, considering that these began as part of the post-COVID-19 pandemic economic

¹¹⁹ Is excluded: "Involuntary restriction of income, access, or negative impact on essential resources, such as sources of income, means of subsistence, or other essential assets."

¹²⁰ Available at: <https://www.enccrv.cl/minuta-orientadora>

¹²¹ Economic reactivation plan for large-scale native forest restoration – Siembra por Chile, issued through Memorandum No. 1279/2023.

reactivation program. During the 2023 period, these activities focused on large-scale restoration initiatives, the incorporation of xerophytic formations and adaptation to the multifunctionality of small and medium-sized properties and peasant ways of life, through the execution of livestock exclusion fencing, site preparation for regeneration, delivery of plants and inputs for enrichment, recovery and reforestation of native forests, activities to control invasive species that compete with forest regeneration, habitat restoration and individual protection, among others.

- vi. Regarding the "Implementation of Conservation Strategies in SNASPE units" activity, although the safeguards approach instruments have not been modified, CONAF made the strategic decision in 2022 to collaborate in strengthening the Species Recovery, Conservation, and Management (RECOGE) plans, developed by the Ministry of the Environment and implemented in SNASPE units. This modifies the way in which public education activities are organized, focusing on those aligned with the RECOGE plans.
- vii. An important resource is the Community Wildfire Protection Plans, which are territorial tools designed to identify and analyse risks to develop a wildfire protection plan for the community according to its risk level. These are used to generate a preventive plan that establishes strategic guidelines for mitigating the occurrence of wildfires and achieve better emergency preparedness. These instruments are intended to support municipalities that wish to actively participate in protecting their environment with local leaders, thus achieving multidisciplinary collaboration in wildfire prevention.
- viii. Regarding the activities of the ENCCRV's +Bosques project, in December 2022, two management instruments were submitted at the request of the Green Climate Fund (GCF): the Environmental and Social Management Plan (ESMP) and the Indigenous Peoples' Action Plan (IPAP). The ESMP began to be implemented in 2023, as it was approved by the GCF in July of that year. The IPAP was not implemented during the reporting period, expecting for its approval from the GCF; however, progress was made in clarifying concepts and comments by the GCF. Similarly, the +Bosques project's Gender Action Plan (GAP) is currently being implemented. This instrument contains specific goals to be achieved through the execution of the +Bosques project and is used as a reference to establish work guidelines for the professional teams in charge of the entire project cycle. It is not a document intended for use by the general public.
- ix. Considering that during the reporting period, the Direct Measures of the RBP phase of the ENCCRV are no longer implemented under the "pilot" modality but under the modality of "territorial projects" awarded through a public tender, it was necessary to update the environmental assessment instruments, such as the Project Document and the Feasibility Study, including modifications that are explained in greater detail in sections 2.3 and 5.1.
- x. Incorporation of the Risk Prevention and Induction Manual for staff of the Forest and Xerophytic Ecosystem Conservation Management System, identified through the gap analysis process comparing national legislation with the OP/WB requirements for this report (see Table 5 in section 5.1), and considered a relevant instrument in pest management, specifically with regard to the provision of guidelines for the safe performance of work in CONAF nurseries and plantations.
- xi. Inclusion in Table 3 of the Environmental Education Program Focused on Climate Change, Vegetation Resources, and Environmental Services as a management tool for the ENCCRV's Enabling Measures.
- xii. Finally, it is highlighted that some activities specific to SNASPE's network, such as the park ranger training strategy, have not been updated and continue to be implemented in parallel with the creation of the SBAP. In addition, the annual update of some instruments, such as the Classification of Species in Conservation Category, and the technical and administrative bases for public tenders under the Native Forest Law and the ENCCRV, are important changes that professionals responsible for implementing Law No. 20,283 must keep in mind when developing management plans and supervising and disseminating institutional programs.

8.1.1.92.2. THE ENTITIES RESPONSIBLE FOR IMPLEMENTING THE SAFEGUARD PLANS MAINTAIN CONSISTENT AND COMPLETE RECORDS OF THE EMISSIONS REDUCTION PROGRAM ACTIVITIES.

Regarding the records associated with the activities of the Emissions Reduction Program, it is confirmed that all activities carried out by CONAF with a national budget in the period 2022-2023, have their respective management indicators within the Institutional Management Information System (SIGI).¹²² This means that there are complete and coherent records linked to the management instruments listed in Table 3 and the mitigation/prevention measures of the MGAS, which include: i) letters of commitment from beneficiaries, ii) attendance lists for training and technical assistance activities, iii) Forest Management Plans, iv) results reports, v) meeting minutes and field visit forms, and vi) environmental and social feasibility studies, among others.

The SIGI indicators are reviewed and validated by Regional Management Control Officers to identify the main differences between established goals and achieved results. These are ultimately reflected in regional results reports, which after being reviewed and summarized, contribute to the generation of a consolidated results report at the national level. If any deviation is identified between planning and actual progress, an institutional SIGI follow-up report is prepared containing corrective action measures. In this context, some modifications to the indicators were identified for the 2023 period. Nevertheless, the activities continue to be carried out, and the modifications are intended to improve their coverage and effectiveness, as indicated below:

3. Formal modifications that make compliance reporting more efficient: for example, training activities related to Law No. 20,283 are reported as part of a single indicator that brings together all dissemination, training and technical assistance activities (including productive linkage), with the exception of the wildfires area, which involves the reporting of prevention training activities, including separate reports with specific indicators linked to preventive forestry, community preparedness and teacher training.
4. Changes in measurement units: given the availability of better information, changes were identified in absolute value measurements by replacing them with proportional values aligned with the indicator's objective. For example, the Wood Energy Program moved from measuring the volume of dry firewood (according to standard INN 2907) collected through projects or programs executed by CONAF or in partnership with third parties, to measuring the percentage of total firewood with certification standards produced by the program's beneficiaries. The other case relates to property inspections and compliance controls through SAT/LEMU, moving from counting the number of inspections and controls carried out, considering higher targets each year, to measuring the proportion of land area: "percentage of inspected area of native forest land, plantations, and xerophytic formations, relative to the area where findings were detected through satellite image monitoring".
5. New approach to supervision: the case that will have the greatest impact on the environmental aspect in the medium-term consists of a paradigm shift in the prioritization of supervision activities, under the management model called "timely supervision", which seeks to redesign supervisory processes to detect deforestation early through the use of satellite images and geospatial information and expand the focus of recovery from loss of forest and xerophytic formations towards the restoration of ecosystem services, always ensuring compliance with the legislation. The model consists of three stages: i) monitoring and early

¹²² SIGI is the information system designed to measure institutional performance and is intended to control, monitor, and evaluate the results of institutional management.

detection, ii) supervision of environmental components and possible environmental damage, and iii) recovery of damage to the ecosystem.¹²³

Regarding the implementation records of the ENCCRV's +Bosques project, semi-annual and annual progress reports were developed, which contain a safeguards section seeking to ensure compliance with the ENCCRV's MGAS and its own environmental and social management framework (MGAS),¹²⁴ as described below:

- +Bosques project: an Annual Progress Report (APR) is submitted annually to the GCF corresponding to the previous year's implementation. This report includes, in addition to the progress made in terms of technical and budgetary execution, a summary of all prevention/mitigation activities and measures taken to comply with both the ENCCRV's MGAS and the project's environmental and social management framework.

In general, this report provides information on the socio-environmental context, training activities, and implementation in the territory. It presents a safeguards analysis that includes: a description of management measures, associated instruments, those responsible for implementation, effectiveness evaluations, supporting documents for verifying prevention and/or mitigation measures, conclusions, and lessons learned.

Regarding the implementation records of the ENCCRV's +Bosques project, the ENCCRV's SIS is the key tool for monitoring the procedures established in the MGAS and for reporting safeguard compliance in projects awarded through the ENCCRV's public tender and, therefore, those actions in the RBP phase financed with international funds.

The information on projects submitted through the ENCCRV tender is systematized and managed through the Tender Platform. Once the projects are awarded, a scheduled migration to the ENCCRV platform is carried out,¹²⁵ allowing for project formulation to proceed through the collection of environmental and social characterization information, environmental and social assessment, generation of the ESMP, and monitoring the implementation of the activities and prevention measures planned for the projects.

The use of the ENCCRV platform is still under development, considering that the regional teams are in the process of capacity building, and therefore, the data uploaded does not yet allow for results consistent with the actual progress of the projects.

During 2024 and first semester of 2025, the same processes as described above continue to be applied.

8.1.1.10 2.3. DEGREE OF IMPLEMENTATION OF THE ENVIRONMENTAL AND SOCIAL MEASURES ESTABLISHED IN THE SAFEGUARD PLANS, QUALITY OF ENGAGEMENT WITH KEY STAKEHOLDERS, AND MONITORING ARRANGEMENTS.

¹²³ During 2024, the form for the corrective management plan required for forestry law violations is being modified to include more detailed information on ecosystem restoration activities and facilitate monitoring. This is a much broader initiative than the restoration of individuals and overcomes the lack of differentiation between native forests, xerophytic formations, and plantations required by the current form, which was established in 2010.

¹²⁴ The +Bosques project, in accordance with specific project procedures, the GCF, and the FAO, developed its own social and environmental management framework, known as the MGAS (Social and Environmental Management Framework). This framework complements the role played by the ENCCRV's MGAS (Social and Environmental Management Framework). It is available as an annex to the "Funding Proposal," starting on page 128 at: <https://www.fao.org/3/ca6470es/ca6470es.pdf>

¹²⁵ The systems that make up this platform are: Co-Benefit System, Property Monitoring System, and Safeguards and Forest Carbon Information System.

The management instruments presented in Table 3 as social and environmental mitigation/prevention measures aligned with the MGAS are used continuously, effectively, and in accordance with the applicable national legal and regulatory framework for the 2022-2023 reporting period.

However, it is important to highlight that with the entry into operation of the ENCCRV Benefit Sharing Plan at the end of 2022, the mitigation measures originally presented in the MGAS underwent modifications and/or adaptations as part of the continuous improvement process and in response to the new procedures for implementing territorial intervention projects¹²⁶. In this regard, the main updates are summarized below:

- Replacement of the project design form with the ENCCRV tender platform's application form:¹²⁷ considering the new voluntary and public application scheme, it was identified that it was necessary to rethink the purpose and scope of the design form with a more concise and easily understandable form for applicants, which was defined as the "Application form". This update makes applications more accessible and easier for both the teams providing technical assistance and for individuals or organizations interested in participating in the tender.
- Adaptation of the technical, economic, environmental, and social feasibility procedure: the Feasibility Study was incorporated as part of the critical risk evaluation process for public tender applications. This was done to determine early on whether or not the initiative is admissible through on-site verification of socio-environmental risks that could result in irreversible negative impacts. This action takes place during the application evaluation visit conducted by the regional technical team. For those proposed initiatives that identify high-impact risks with a high probability of occurrence, the person in charge of the evaluation proposes alternatives for modifying project activities. Once the proposed changes are validated by the project applicant, would imply positive environmental and social feasibility. This does not disregard reversible and/or low-impact risks, for which appropriate preventive measures will be defined once the project is awarded and the formulation stage begins. These filters are key to making the human resource effort involved in providing technical assistance more efficient, since they ensure that resources are directed towards awarded projects, eliminating those deemed unviable from a safeguards perspective, thus optimizing resource allocation.
- Applicability of the Environmental and Social Assessment (ESA) and the Environmental and Social Management Plan (ESMP): the application criteria for these tools and procedures was defined for awarded projects. In this regard, it should be emphasized that this does not substantially modify the sequence of steps established in the ESMP but rather clarifies that the Feasibility Study represents a filter that makes the work of the regional teams more efficient.

In addition, and in line with the implementation of the prevention/mitigation measure established in the MGAS regarding the entry of ENCCRV projects into the Environmental Impact Assessment System (SEIA),¹²⁸ a summary of the relevance queries for entry into the SEIA in the period 2022-2023 is presented. The Environmental Assessment Service (SEA) received a total of nine relevance queries registered according to the typology outlined in Article 10 of Law No. 19,300, as listed below:

¹²⁶ These improvements are being reflected in an updated MGAS (see 5.2 section of this report), in coordination with the Bank, which is expected to be finalized by the end of 2025.

¹²⁷ <http://concurso.enccrv.cl/>

¹²⁸ The framework of Law No. 19,300 on the General Bases of the Environment, functions as a preventive instrument, since it ensures the evaluation, identification and implementation of mitigation prevention measures are instructed correctly and transversally for various topics, such as: Physical cultural heritage, Indigenous Peoples, Sustainable forest management, Critical natural habitats, Management of chemical substances, and participatory processes, among others.

- +Bosques project, Ñuble Region: post-wildfire ecological restoration in the Ñuble National Reserve.
- +Bosques project, Biobío Region: native forest restoration in Nonguén National Park.
- +Bosques project, La Araucanía Region: ecological restoration in the Cerro Ñielol Natural Monument; ecological restoration with native species in Villarrica National Park; post-wildfire ecological restoration in the China Muerta National Reserve.
- +Bosques project, Los Lagos Region: erosion control to promote the establishment of vegetation in flood-affected areas of Corcovado National Park; control of invasive alien species in the Futaleufú National Reserve; passive-active restoration of the Lahuen Ñadi Natural Monument.
- +Bosques project, Los Lagos Region: restoration of an area invaded by *Pinus spp.* in the Alerce Andino National Park, Correntoso sector.

The response to the inquiries resulted in the project's inapplicability or requirement for inclusion in the SEIA through an Environmental Impact Assessment (EIA) and/or an Environmental Impact Statement (DIA¹²⁹), as it did not meet the criteria or conditions for generating significant environmental impacts. Therefore, no specific monitoring actions are required for these initiatives; instead, the actions established in the MGAS are applied, as in all other projects, which includes the development of an ESA and evaluation and monitoring through the respective ESMP, among other activities.

Regarding the MGAS measures related to Consultation and Participation safeguard, since an EIA¹³⁰ and/or a DIA were not required, as established in Law No. 19,300 on the General Bases of the Environment, the ENCCRV territorial intervention projects did not involve any public consultations mandated by law, nor did they involve indigenous consultations as established in Supreme Decree No. 66 on the Regulations Governing the Indigenous Consultation Process under Article 6 of ILO Convention 169.

It has become necessary to explicitly clarify the distinction between the FMT concept of “stakeholder consultations,” ENCCRV participatory processes, and legally mandated “Public Consultations,” as well as how participation is addressed within the ENCCRV context.

In Chile, “Consulta Pública” (Public Consultation) refers to formal processes mandated by law, such as those required under Law No. 19,300 within the framework of the Environmental Impact Assessment System (SEIA), and “Consulta Indígena” (Indigenous Consultation) under Supreme Decree No. 66, which implements ILO Convention 169.

As ENCCRV activities do not trigger these legal consultation requirements, as they are designed to avoid significant environmental impacts and therefore do not require entry into the SEIA. For this reason, in the present report, particularly regarding MGAS measures related to the Consultation and Participation safeguard, the terminology has been adapted. The concept of “participatory process” (“proceso participativo”) is used in place of “citizen consultation,” in order to avoid confusion with legally mandated processes.

Based on this clarification, participation within the ENCCRV context can be described as follows:

For both the formulation and the 2024 update of the Benefit Sharing Plan (BSP), a participatory process was conducted. This process followed a methodology based on a series of focus group sessions, with participants

¹²⁹ “Declaración de Impacto Ambiental” Within the framework of Law No. 19,300 on the General Bases of the Environment.

¹³⁰ “Estudio de Impacto Ambiental” Within the framework of Law No. 19,300 on the General Bases of the Environment.

organized into nine stakeholder groups. It is documented in Annex 2 of the Monitoring Report (MR), where the BSP is described.

Participation is also incorporated through the Guide for the Participation of Local and Indigenous Communities in ENCCRV Projects (Section 2.1 of this report), as well as through representative mechanisms such as regional REDD+ working groups.

Therefore, while not always explicitly labeled as “consultations,” structured participatory processes are systematically implemented in BSP-related activities.

Regarding participation in activities classified as “CONAF institutional activities and programs funded by the Budget Directorate,” no ENCCRV-specific participatory processes were conducted under the ENCCRV framework. Instead, safeguards analysis is carried out by technical counterparts from CONAF’s management units.

However, these programs may include their own participatory processes aimed at risk prevention. Such processes are embedded within each program’s methodology (as referenced in Table 3) and are subject to standard state auditing mechanisms, rather than being governed or audited by ENCCRV.

As a result, while ENCCRV can confirm that these processes contribute to safeguards and risk mitigation, it cannot report on them in the same standardized manner as for participatory processes conducted under the BSP.

Even so, it is noteworthy that the BSP territorial intervention projects being implemented during the reporting period established preventive measures aimed at integrating the opinions of beneficiaries regarding project activities, risks, potential impacts, and measures, as well as the roles and responsibilities for the implementation and monitoring of the measures and their proposals (ESMPs).

Evidence of these activities is provided through meeting minutes, presentations promoting the public tender, and records of participatory processes, among others, ensuring respect for the rights and cultures of indigenous and local communities and adopting a gender approach that seeks to promote women’s participation. Thus, the participatory design and planning resulted in a technical proposal that was validated by all key stakeholders.

The monitoring arrangements for all ENCCRV initiatives involve two main levels. First, there is the monitoring and supervision carried out by the National Safeguards Team on an ongoing basis, which includes developing monitoring forms, checklists, and conducting on-site technical support visits. The second level highlights the monitoring, evaluation, and recording of safeguards management activities carried out by the regional teams, either directly in the case of activities executed by CONAF professionals or indirectly in the case of activities executed by contractors or subcontractors, through the respective ESMP, in accordance with the provisions of section 4.3.3 of the MGAS.

Finally, for further information on the quality monitoring and supervision provisions established in the MGAS and implemented by CONAF during the reporting period, please refer to sections 2.2, 2.4, and 3.3.

8.1.1.11 2.4. THE COMPLAINTS AND FEEDBACK MECHANISM (MRS) IS FUNCTIONAL.

For the reporting period, the ENCCRV Complaints and Feedback Mechanism (MRS)¹³¹ continues to operate within the Public Information and Service System (SIAC) through the CONAF Information, Complaints, and Suggestion Offices (OIRS). This is the official channel through which beneficiaries and the general public can submit their inquiries, complaints, congratulations, opinions, petitions, and suggestions, in order to identify risks and impacts that could be affecting the results of the ENCCRV and other programs implemented by CONAF. It is important to remember that the OIRS are part of the SIAC as the official state system, allowing any interested party to access public service channels, always in coordination with the General Secretariat of Government (SEGEOB), considering the availability of multiple access points or communication channels. Figure 4 shows the SIAC public service channels, including the OIRS.



Figure 4. CONAF Public Information and Service System (SIAC)

Source: CONAF, 2018

For the reporting period, CONAF has provided the corresponding responses and follow-up through its internal systems, which are part of the SIAC, both in the manner and within the timeframes established by Law No. 20,880 on Integrity in Public Office, which regulates the transparency of public administration and the right of access to information from State administrative bodies. It is worth noting that Law No. 20,880 establishes response times, administrative procedures with detailed traceability, and the specific responsibilities of officials who, due to their position or responsibilities, must provide the information requested by users.

Added to this legal framework is the entry into force on 13 June 2022, of the "**Regional Agreement on Access to Information, Public Participation and Access to Justice in Environmental Matters in Latin America and the Caribbean**",¹³² known as the Escazú Agreement, which is an international treaty that seeks to ensure the full and effective implementation in the region of the right to access environmental information, participate in environmental decision-making, and seek justice in environmental matters. Operationally, the Office of Agrarian Studies and Policies (ODEPA) is the focal point of MINAGRI for compliance with this agreement, with the DCCSE representing CONAF in intra-ministerial bodies. Within this framework, Chile has begun implementing the

¹³¹ See Informative Note No. 22 at <https://www.encrv.cl/nota-informativa-22>

¹³² <https://www.bcn.cl/leychile/navegar?idNorma=1183363&tipoVersion=0>

agreement. Under the leadership of the Ministry of the Environment and the DCCSE, the relevant MINAGRI services were asked to report on actions underway or planned that comply with the strategic guidelines of the Participatory Implementation Plan of the Escazú Agreement¹³³ and that contribute to people's right to access information, participate in decision-making, and seek justice in environmental matters

Below, the grievances and feedback submitted to CONAF's OIRS during the reporting period are analysed, considering their relevance to the activities being implemented under the ERPA in six of the country's 16 regions, from the Maule Region to the Los Lagos Region. For this analysis, information related to two main topics was used: climate change and Indigenous affairs, incorporating the latter with the aim of generating a more comprehensive study, considering the grievances and requests that may arise in the context of the actions of the ENCCRV. Tables 4 and 5 show a breakdown of the submissions by type and region. It should be noted that for 2023 it was possible to record data disaggregated by gender.

Table 4. Submissions received in the reporting period (2022)

Type of submission	Maule	Biobío	Araucanía	Los Lagos	Central	TOTAL
Queries	1	1	3	5	13	23
Information request	0	0	2 ¹³⁴	0	3	5
Complaints	0	0	0	0	1 ¹³⁵	1
Suggestions	0	0	0	0	1	1
TOTAL	1	1	5	5	18	30

As can be seen in the table above, which provides information for the reporting period (2022), a total of 30 submissions were received, 47 percent of which were submitted by women and 53 percent by men. The majority of these were "Queries" with 23 submissions, followed by five "Information requests", one "Suggestion" and one "Complaint." Sixty-three percent were submitted virtually into the system. The most frequently addressed topics were:

- ENCCRV information requests and access to benefits (818)
- Information on Protected Wilderness Areas (9)
- Carbon credits (4)
- Environment, education, and climate change (5)
- Other topics (4)

While the Central Office received the largest number of submissions, many of these were general inquiries. At the regional level, however, these were mainly submissions related to Native Plant Reforestation Programs.

¹³³ <https://mma.gob.cl/wp-content/uploads/2024/04/Plan-Nacional-de-implementacion-participativa-del-Acuerdo-de-Escazu-Chile-2024-2030.pdf>

¹³⁴ One of the submissions, dated 25 April 2022, corresponds to a request for an interview on academic matters regarding the desertification phenomenon, and the second request, dated 30 May 2022, corresponds to a request for information on the authorization procedure for lighting a fire in a traditional ceremony on properties not related to ENCCRV activities.

¹³⁵ The complaint relates to a user who was stranded inside Conguillío National Park due to a lack of coordination with her tour operator during a snowstorm.

Table 5. Submissions received in the reporting period (2023)

Type of submission	Maule		Biobío		Los Lagos		La Araucanía		Los Ríos		Central Office		TOTAL
	F	M	F	M	F	M	F	M	F	M	F	M	
Query	1		2		1	5	3			1	8	12	33
Complaint				1									1
Opinion												1	1
Information request				1		1				1		1	4
Suggestion						1					1	1	3
Total by Gender	1	0	2	2	1	7	3	0	0	2	9	15	42
Total General	1		4		8		3		2		24		42

Source: OIRS report from CONAF, 2023¹³⁶

As presented in the table, during the 2023 period, a total of 42 submissions were received by the OIRS related to climate change and Indigenous affairs. Of these, 38 percent were submitted by women, while 62 percent were submitted by men. Furthermore, of the total requests, 12 percent were submitted by Indigenous Peoples. The preferred format for submitting grievances or requests is online (63 percent), another 26 percent were submitted by email, 10 percent by phone, and only 1 percent in person.

Regarding the types of submissions, the vast majority were Queries (79 percent), followed by Information requests (10 percent) and Suggestions (7 percent), while only one Opinion (2 percent) and one Complaint (2 percent) were submitted. The most frequently addressed issues were:

- ENCCRV information requests and access to benefits (4)
- Information on Protected Wilderness Areas (8)
- Carbon credits (5)
- Environment, education, and climate change (12)
- Other issues (13)

The Central Office concentrated the largest number of submissions with 57 percent, followed by Los Lagos with 19 percent, while the rest of the regions are between 2 and 10 percent. From another perspective, the Central Office also received 46 percent of the total submissions related to Other issues, while requests for information from the ENCCRV concentrated 75 percent of the total. It is important to note that of the requests classified as Other issues, at least three of them were related to requests to inspect company procedures, not related to the ENCCRV, while a fourth case corresponded to a complaint about an alleged CONAF authorization approving forest felling, establishing in the response that this authorization was not found in the institutional records and guidance was provided for making complaints about illegal logging, while the remaining nine cases correspond to miscellaneous submissions, among which a great interest in obtaining more information on the carbon market and the initiatives that are being

¹³⁶ Starting in 2023, the data is disaggregated by gender, with this information available in the self-report for the period.

developed in the country in relation to climate change could be seen, which indicates that it is necessary to consider expanding the delivery of information related to these topics.

II. The objectives and results expected in the Safeguard Plans have been achieved.

8.1.1.12 3.1 OVERALL EFFECTIVENESS OF THE MANAGEMENT AND MITIGATION MEASURES ESTABLISHED IN THE SAFEGUARD PLANS.

It is noteworthy that both the MGAS prevention and mitigation measures, as well as those established in Table 3 on institutional management instruments, are aligned with the legal and regulatory framework described in Section 3 of the MGAS. This allows their functionality to be linked to one or more OP/WB, thereby allowing, when evaluating the effectiveness of each instrument, to determine the extent to which they contributed to the relevant OP/WB.

In terms of the occurrence of impacts and the analysis of their resulting mitigation measures to determine overall effectiveness, it is noteworthy that for each activity implemented in 2022-2023, the same methodology was applied as in previous periods. This means that, based on the judgment of the regional managers and safeguards counterparts from each of the four technical management units, the analysis validated whether the impacts from the previous period remained the same or whether new ones were identified. It also indicated what corrective or mitigation actions were incorporated. The information was recorded on digital spreadsheets, based on data compiled from previous reporting periods, as well as the risks and impacts described in the ENCCRV's Security and Risk Assessment System (SESA). It was subsequently supplemented and validated through interviews or working meetings with the safeguards counterparts designated by each technical unit.

Regarding the overall effectiveness based on the analysis described, it was concluded that the anticipated impacts and risks were adequately prevented, in accordance with the MGAS and the World Bank's Operational Policies, including activities with national and international funding. The results of the analysis of the risks anticipated by the SESA and assessed for the reporting period are explained in section 4.1 of this report.

8.1.1.13 3.2. ARE QUALITY ASSURANCE, MONITORING, AND SUPERVISION PROVISIONS EFFECTIVE IN IDENTIFYING AND CORRECTING DEFECTS WHERE EMISSIONS REDUCTION PROGRAM ACTIVITIES HAVE NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SAFEGUARD PLANS?

The quality assurance, monitoring, and supervision schemes established in the MGAS and implemented by CONAF during the reporting period include follow-up reports from the Institutional Management Information System (SIGI), compliance reports on the Environmental and Social Management Plans (ESMP), periodic safeguards reports, field visits and monitoring forms, training, and ongoing monitoring of all submissions received by the ENCCRV's complaints and feedback mechanism.

The implementation of these monitoring and supervision provisions was carried out by the central team, including staff from the GCEBX advisory unit and CONAF management within the framework of the SIGI and with the support of professionals from the regions involved. In this regard, these arrangements were effective in identifying and correcting deviations linked to the implementation of the MGAS measures and other institutional management instruments during the implementation of emissions reduction program activities.

In addition, one of the monitoring and supervision activities to identify situations in which the implementation of MGAS prevention/mitigation measures has failed or has been insufficient corresponds to the compliance reports

and the framework of social and environmental indicators available in the SIS. However, considering that as of December 2023 there has been no significant progress in uploading the awarded projects from the 2022 tender and pilot projects to the SSP/SIS platform, it is not yet possible to effectively verify compliance with safeguards through the framework of indicators and compliance reports. This aspect is being addressed through the corrective actions described in section 5.2.

8.1.1.14 3.3 DESCRIPTION OF THE GENERAL MONITORING PROVISIONS TO ENSURE THE IMPLEMENTATION OF THE SAFEGUARD PLANS, AS WELL AS SUBSEQUENT ENVIRONMENTAL AND SOCIAL DOCUMENTS PREPARED DURING THE IMPLEMENTATION OF THE PROGRAM AND THEIR EFFECTIVENESS.

As previously mentioned, the quality monitoring and supervision provisions established in the MGAS and implemented by CONAF during the reporting period primarily include periodic safeguards reports, field visits and monitoring forms, training, and ongoing monitoring of all submissions received by the ENCCRV's complaints and feedback mechanism.

The main support activities in 2022 were focused on providing support for the formation of REDD+ Groups; dissemination of the public tender with key stakeholders in the territory; periodic virtual sessions on gender issues, Indigenous Peoples and communities, and safeguards in general; procedures and tools for applying safeguards during the implementation phase; operationalization of safeguards in project cycles through the development of guidelines in the implementation manual; and progress on the Safeguards Information System, among others. During 2022, although visits were made from central to regional teams, a systematic count of these visits was not yet implemented, as was done from 2023 onwards.

The general monitoring provisions to ensure the implementation of the MGAS and its management instruments in 2023 are implemented at two main levels. First, the monitoring and supervision carried out by the National Safeguards Team on an ongoing basis, which resulted in the semi-annual review of the OIRS results, as well as the execution of virtual and on-site support activities by the regional teams, which involved 53 safeguards meetings and nine field visits per region during 2023 (see Table 7), and allowed the collection of verifiers such as field monitoring sheets, meeting minutes, attendance lists, checklists, safeguards visit reports, and the application of a feedback survey. These documents made it possible to systematize lessons learned, including the need to: carry out theoretical and practical initiatives in the field; continue to promote a gender approach and increased participation; strengthen capacities related to the comprehensive application of safeguards in the tender cycles of the ENCCRV; strengthen support for the use of the SIS, and develop opportunities for exchange between regional teams. The support planning for 2024 reflects these needs and can be reviewed in more detail in section 5.2.

8.1.1.15 TABLE 7. SAFEGUARD SUPPORT ACTIONS FOR REGIONAL TEAMS (2023)

Region	Field visits	No. of regional meetings
Maule	1	7
Ñuble	2	9
Biobío	2	9
Araucanía	2	12
Los Ríos	1	9

Los Lagos	1	7
Total	9	53

At the second level, it is important to highlight the safeguards management monitoring, evaluation and information collection activities carried out by the regional teams, either directly when they involved activities carried out by CONAF professionals or indirectly when they involved activities carried out by contractors or subcontractors, through the respective Environmental and Social Management Plan (ESMP), in accordance with the provisions of section 4.3.3 of the MGAS.

8.1.2 IV. The program's activities pose emerging environmental and social risks, and the impacts have not been identified or anticipated in the Safety Plans prepared prior to the signing of the ERPA.

8.1.2.14.1. CURRENT RELEVANCE OF THE SCOPE OF POTENTIAL RISKS AND IMPACTS IDENTIFIED DURING THE STRATEGIC ENVIRONMENTAL AND SOCIAL ASSESSMENT (SESA) FOR THE ACTIVITIES OF THE EMISSIONS REDUCTION PROGRAM.

The potential risks and impacts identified in the SESA continue to be the basis for analysing their occurrence during the 2022-2023 reporting period. However, it should be noted that CONAF is better prepared due to its accumulated experience, including both project execution during the implementation phase and the RBP phase. This experience meant that, during the reporting period, the risks and impacts had a low probability of occurring, since for the activities executed in the regions (the area from the Maule Region to Los Lagos Region), the technical teams (including safeguards specialists) at both the central and regional levels possess extensive empirical knowledge, which is complemented by the ongoing application of the instruments and procedures defined in the ENCCRV's MGAS.

Regarding the MGAS management instruments to avoid and/or mitigate risks and impacts during the evaluation period of the public tender, these remained fully in force and consist on a robust battery of procedures that cover in a preventive manner all of the gaps identified between between national legislation and the OP/WB and are listed and described in Table 9., section 5.1., were supplemented by periodic strengthening initiatives such as meetings and workshops, where new documents were also disseminated to receive feedback and prepare their final versions, including the "Guide to the participation of local and Indigenous communities in ENCCRV projects", the "Guidelines for obtaining Free, Prior and Informed Consent (FPIC) in projects under the National Strategy on Climate Change and Vegetation Resources", and the "Guidelines to determine the scope of involuntary resettlement generated by actions and projects executed in the RBP phase of the National Strategy on Climate Change and Vegetation Resources (ENCCRV)".

In summary, as a result of the application of the MGAS instruments, the monitoring of the different types of risks and impacts generated by the implemented activities and/or actions, the strengthening of the management capacity of the regional teams, and the generation of supporting documents, it was possible to reduce the occurrence of risks and deepen the institutionalization of safeguards.

Moreover, it is possible to conclude that while the risks and impacts identified in the SESA continue to be relevant because they were identified in a strategic assessment process, it is necessary to evaluate whether some of these should be eliminated from the list that forms the basis of the SESA, while others should include slight adjustments, since many of them have not occurred during the years elapsed in the RBP phase and the institution has been

strengthened in terms of addressing, respecting, and complying with safeguards, thereby strengthening its capacity to anticipate potential risks that may arise as part of the implementation of the ENCCR action measures.

Please refer to section 5.3., that presents the summary of relevant aspects of the 2024 period and part of 2025. In that section, there is information on the materialization of a risk recorded in 2024 in the Los Lagos Region of the +Bosques project, and the consequent, but limited, impact that was appropriately mitigated

8.1.2.4.2 ACTIVITIES OF THE EMISSIONS REDUCTION PROGRAM THAT HAVE PRESENTED RISKS OR IMPACTS NOT PREVIOUSLY IDENTIFIED IN SAFEGUARD PLANS DEVELOPED BEFORE THE SIGNING OF THE ERPA, TOGETHER WITH PROPOSED ACTIONS FOR THEIR MANAGEMENT.

According to the data corresponding to the period 2022-2023 on the activities executed by CONAF through the different institutional management instruments implemented by the four Technical Management units and that are part of their regular work, the results shown in the first three rows of Table 8 indicate the activities that contributed to the reduction of emissions and the prevention/mitigation actions regarding unanticipated risks detected in the period. In the case of the activities carried out with the support of the GCF¹³⁷ during the 2022-2023 period, the risks were correctly handled by professionals specifically dedicated to implementation activities, which showed that, the risks present according to the SESA and the funding proposal, were managed adequately.

The respective conclusions indicated in the preceding paragraphs were obtained from the activities of review and analysis carried out by the National Safeguard Team of the ECCRV together with the professionals designated by each of the four Technical Management units for the elaboration of this report, as well as the regional teams in the area covered by the ERP.

Table 8. Potential risks not previously identified in the SESA, and actions for their management

ERP related Activity or Program	Emergent potential risk	Prevention/mitigation measures adopted in 2022 - 2023 period
Preparation of management plans with the improved planning method.	(1) Impact on private and community interests in relation to the restrictions identified in the processes of formulation of management plans.	(1) Creation of local governance models in protected areas in the process of formulating management plans to contribute to decision making and execution of activities within the protected area.
Actions for the formulation of proposals for the creation, expansion or recategorization of Protected Wilderness Areas executed in the period.	(1) Impact on people's life systems, local communities and Indigenous Peoples derived from the recategorization of the limits of protected areas, which can generate use restrictions (e.g. ancestral practices, restriction in collection of medicinal herbs, fruits, fungi, etc.).	(1) During the 2022 period an indigenous consultation process began with respect to the redefinition of limits of the Puyehue National Park. ¹³⁸

¹³⁷ During 2022-2023, only GCF funds were implemented by CONAF

¹³⁸ This consultation is being carried out by the Ministry of National Assets, according to Decree No. 66 of the 2013 Social Development Ministry, which regulates indigenous consultations in Chile. CONAF is participating as a technical entity, providing background related to its competencies and support necessary for the development and reporting of the consultation. This process is currently underway and, once it is completed, the final report will be published with the agreements reached between the consulted groups and the State, which is represented by the Ministry of National Assets.

<p>Supervision and/or training in controlled burning, of potential users of fire in rural areas, preferably in those communities defined as critical.</p>	<p>(1) In 2022, a slight increase was detected, in the occurrence of fires caused by “controlled burns”¹³⁹ (crop residue or other vegetative material) that haven’t been previously notified to CONAF¹⁴⁰, compared to previous years.</p>	<p>(1) Increase in presence in the territory, by means of supervision of the use of fire for controlled burning, as well as focusing efforts on unnotified controlled burns. An internal review was carried out through the CEEI (Institutional Efficiency Agreement) to learn about the opinion of fire users and review bibliographic information on alternatives adapted to the reality and type of waste generated in the country.</p>
<p>Actions from the ENCCRV RBP phase financed with international funds. (ENCCRV +Bosques project)</p>	<p>(Risk identified on the Funding Proposal of the +Bosques project) Lack of alternative activities that generate income and loss of economic opportunities for local communities and indigenous peoples due to changes in land use planning, which result from a change in use purpose and/or restriction of activities to be carried out in the area of implementation of an action measure.</p>	<p>(1) Strengthening of institutional capacities and instruments linked to Free, Prior and Informed Consent to socialize and inform the local population about the objective and scope of planned activities and receive suggestions and feedback from local stakeholders in order to reduce negative risks and impacts. To this end, the Mapuche Intercultural Forest Model (MOFIM) has been widely shared as a methodological tool for the development of participatory activities with communities belonging to Indigenous Peoples.</p> <p>(2) Development of evaluation and monitoring activities related to the execution of project activities, with the participation of beneficiaries and the general public, to identify and manage any negative impacts and identify opportunities for improvement¹⁴¹.</p> <p>(3) Preparation of the project's Comprehensive Environmental Education, Training and Technological Transfer Plan, to strengthen the capacities of various actors regarding sustainable forest management of native forest and vegetational resources, with an emphasis on women, indigenous peoples and vulnerable groups (within the framework of the environmental education program focused on climate change, vegetational resources and environmental services).</p> <p>(4) Implementation of activities that generate benefits related to the management of the use of native forest biomass under the framework of the CONAF dendroenergy program.</p>

¹³⁹ A controlled burn is the act of using fire to remove vegetation in a targeted manner, confined or limited to a predetermined area, in accordance with pre-established technical standards, in order to keep the fire under control.

¹⁴⁰ In accordance with Supreme Decree No. 276 of 1980, issued by the Ministry of Agriculture, Regulations on Burning, the owner or possessor of the property must declare to the National Forestry Corporation, with due advance notice, their intention to use fire in the form of controlled burning.

To this end, interested parties may obtain and submit the corresponding Burning Notice form at the Regional, Provincial, or Area Office of the Corporation closest to the location of the property, as well as at other locations determined by the Corporation.

¹⁴¹ One of the tools to identify negative impacts and opportunities for improvement is a process framework as part of the MGAS (Annex 7)

"Resettlement Policy Framework and Procedural Standards". Also, in 2023, another tool was published and is noted in Table 3 of this report:

"Guidance note for determining the scope of involuntary resettlement generated by actions and projects implemented in the RBP phase of the ENCCRV"

Source: Own elaboration based on information provided by CONAF technical management units (2022-2023).

Finally, it should be noted that, although the activities of the ERP in the reporting period led to the identification of new potential risks and/or prevention/mitigation measures that had to be included in the management of the safeguards, it is confirmed that there were no significant impacts identified during the reporting period in the territory from the Maule Region to the Los Lagos Region. Based on the same analysis it can be concluded that both the OP/WB and the other safeguards activated for the ECCRV have been respected.

V. Corrective actions necessary to improve the effectiveness of safeguard plans

8.1.2.35.1. EVALUATION OF THE GENERAL IMPLEMENTATION OF SAFEGUARD PLANS (MGAS)

It is essential to keep in mind that CONAF carries out activities related to capacity building, the updating of processes and institutional arrangements, among others, in order to facilitate the applicability of the measures included in the MGAS. This should be understood as a gradual process, which seeks to position this document within the institution as a management tool for the prevention of socio-environmental risks and impacts that could be generated during the implementation of the activities related to the reduction of emissions.

In all the activities implemented within the framework of the ECCRV during the 2022-2023 period in the six regions of the ERPA, the guidelines established in the MGAS, together with the guidelines of the +Bosques project and the GCF have been applied. Specifically, the environmental and social feasibility analysis process and verification of compliance with the exclusion criteria were applied as part of the evaluation process for all the initiatives in the tender. In addition, environmental and social assessments (EAS) were applied to all the projects awarded in the tender, as part of their design. Also, for those initiatives to be developed in Protected Wilderness Areas, the Environmental Assessment Service SEA was consulted about the relevance of entry to the Environmental Impact Assessment System SEIA¹⁴² and monitoring actions were established through the ESMP for all the projects entered through the public tender in 2022 and 2023.

In addition, and in relation to the seven gaps identified between national legislation and the OP/WP as indicated in Chapter 3 of the MGAS, it is highlighted that, since its publication in 2018 until 2023, and as a result of the experience in the implementation of the +Bosques project, it has been possible to strengthen the implementation of its protocols and procedures in an adequate and relevant manner during the RBP phase of the ECCRV. In this regard, special attention has been paid to the procedural aspects, means of verification and training of professionals to ensure the fulfilment of the safeguards. In Table 7, a summary of the relevant advances made to address the corresponding gaps, in the period 2022-2023 are presented.

In Table 9, specifically with regard to the MGAS Gap identified for OP 4.10 “B.7”—which states that “the Environmental Impact Assessment System (SEIA) does not expressly provide for indigenous consultation processes for Environmental Impact Statements (DIA)” — points 1, 2, 3, 4, 5, and 6 in the right column “Progress in addressing the gap” should be interpreted as measures or actions taken by CONAF to prevent this gap or risk from resulting in a real impact on the rights of indigenous peoples and, consequently, in a possible non-compliance of OP 4.10. In this

¹⁴² Within the framework of Law No. 19,300 on the General Bases of the Environment, the SEIA functions as a preventive instrument, since it ensures the correct evaluation, identification and implementation of mitigation prevention measures related to various topics, such as: physical cultural heritage, indigenous peoples, sustainable forest management, critical natural habitats, management of chemical substances, and participation processes, among others.

sense, they constitute institutional measures aimed at addressing, in advance, the possible need to carry out indigenous consultation processes, in accordance with current regulations and applicable international standards.

Table 9. Summary of the analysis of gaps between national legislation and the OP/WB according to the MGAS, adjusted for the reporting period (2022-2023)

OP/WB	Gap between national legislation and OPs	Progress in addressing the gap
4.01	<p>B.1. The national legislation related to forest projects only requires the entry to the SEIA of development projects or forest plantations that are executed on fragile soils and land covered with native forest (as defined in art 3, letter m of the General Regulation D.S. No. 40/2013).</p>	<p>The national safeguard approach considers an integrated framework, in which all projects are evaluated, through the ESA procedure described in Chapter 4 of the MGAS.</p> <p>In the RBP phase of the ECCRV, some operational adaptations have been implemented within the ESA process, which have helped to strengthen the preventive criteria established in the MGAS and simultaneously facilitated operational decision-making in regional teams. In the public tender of 2023 these adaptations were applied for the first time, incorporating the lessons learned from the first tender in 2022.</p> <p>Regarding these adaptations, it is highlighted that the activities of environmental categorization and environmental and social feasibility analysis were adjusted according to the work carried out in the field by the regional teams, which evaluated their applicability at the end of the 2022 tender.</p> <p>In addition, the contracting activities of forest operations companies for the execution of direct measures, which in the MGAS are classified as activities implemented by TORs, have also been adjusted according to the operational needs and the updates of the legal framework, through the development of protocols, contractual clauses and procedures that strengthen the management for the fulfilment of the safeguards within the guidelines established in the MGAS.</p> <p>Finally, projects within State Protected Wilderness Areas (ASP) must be executed under the rules and guidelines established in the respective management plans of the ASP and a relevance assessment with the Environmental Assessment Service (SEA) must be carried out to determine the pertinence of entry to the SEIA, under the technical indications established by the environmental regulations. In addition, projects must be reviewed by CONAF's Protected Areas management unit to ensure that they meet the guidelines of the management plans of each unit.</p>
4.04	<p>B.2. In national legislation, beyond the description of the area of influence in a DIA or EIA, no specific environmental assessment measures are established for those relevant natural habitats that are not covered by any environmental protection category within the SEIA or that are not subject to significant alterations that require entry into the SEIA, through any of the clauses indicated in article 10 of Law No. 19,300 and its regulations, including</p>	<p>For the purposes of ENCCRV activities, the same procedures outlined for OP 4.01 are currently followed, specifically for natural habitats. The Environmental and Social Feasibility Study process for proposed initiatives corresponds to the first filter, as it allows the technical team to determine whether the initiative's risks can be adequately addressed during the formulation and implementation stages, or if, on the contrary, it is necessary to modify the initiative's activities to reduce the probability of high-impact risks occurring. At this stage, it is also expected to identify those initiatives that cannot be executed because they contain high-impact risks that cannot be prevented or mitigated, either because an agreement cannot be reached with the applicants on the suggested modifications or due to factors inherent to the initiative's environmental and social circumstances. It is at this stage that it is determined whether the initiative requires a consultation on the relevance of entering the SEIA and the process of consultation begins.</p> <p>Subsequently, the awarded projects must go through the ESA development process, which includes the following activities:</p> <ol style="list-style-type: none"> 1. Identification of the ecosystem's core elements to be addressed, which

	<p>article 3 of D.S. No. 40/2013.</p>	<p>require the definition of specific preventive measures to reduce potential risks. Examples of this include the identification of species in conservation categories or water sources in the field, which are compared with the management plans required by law and based on which technical recommendations are derived for the teams in charge of the operations.</p> <ol style="list-style-type: none"> 2. Specific recommendations for forestry operations: another relevant action is the generation of recommendations for forestry operations, particularly highlighting the establishment of timber harvesting routes and forest waste disposal, based on the soil protection component. 3. Specific recommendations for ASP projects: the mandatory requirement is to develop a participatory process that includes the stakeholders identified in the territorial stakeholder map. Furthermore, it is important to ensure that all intervention actions are governed by the management plan relevant to the unit. For intervention areas bordering Protected Wilderness Areas (ASPs), in addition to the necessary SEA resolution indicating that entry into the SEIA is not required, the environmental assessment is based on the same risk assessment category and precautionary principle. That is, mechanisms for the participation of all stakeholders, including Indigenous and/or local communities and municipalities, must be ensured. In turn, all restrictions associated with a native forest conservation area must be applied. <p>Finally, another a step forward in addressing this gap is the enactment of Law No. 21,600 on 21 August 2023, which created the Biodiversity and Protected Areas Service. Although it was not implemented during the reporting period, it expands the area of protected habitats through Article 30, determining that the new service must classify the country's ecosystems according to their conservation status. When the necessary regulations are drafted and this comes into effect, the restriction standard for interventions in natural habitats will be raised. Also noteworthy in this regard is Law No. 21,455, known as the Climate Change Framework Law (LMCC), which was published in June 2022. Its recent incorporation allows for addressing obstacles related to climate change, strengthening management instruments, and promoting compliance with international commitments, such as the Paris Agreement. It also adds the variable of climate change to the relevant environmental components in the regulatory framework of the SEIA.</p>
<p>4.36</p>	<p>B.3. As noted for OP 4.01, national legislation regarding forestry projects only requires the entry into the SEIA of development projects or forestry operations considered industrial, according to article 3, clause m) and m1), D.S No. 40/2013.</p>	<p>When analysing the gap description for OP 4.01, it was identified that the gap determination did not consider that forestry legislation applies to projects that do not require SEIA registration. This also applies to OP 4.36, which requires that for CONAF programs, activities carried out in native forests must comply with the requirements of Law No. 20,283. This is also true of the restrictions indicated in this table related to OP 4.04, which explain that when a native forest contains or constitutes a habitat for protected plant species or species classified as conservation species, its management must safeguard this diversity. This is consistent with the activities outlined in the MGAS, which indicates that projects that involve the conversion of native forests, forest degradation, or the degradation of critical habitats will not be funded, constituting an exclusion rule. Also, the aforementioned law contemplates the implementation of Conservation Management Plans (as applicable), which is a plan that prohibits all cutting, elimination, destruction or uprooting of individuals and alteration of the habitat of protected plant species, with the sole exception corresponding to the execution of works for sanitary purposes or other basic services that are defined as being of national interest and that do not affect the continuity of the species in the basin. Although Law No. 20,283 is not a new precedent for the MGAS, its application in ENCCRV activities addresses this gap, since it establishes as a minimum requirement for the implementation of activities the</p>

		<p>existence and availability of an approved native forest management plan.</p> <p>In addition to the implementation of Law No. 20,283, for the execution of ENCCRV Direct Measures, OP/WB 4.36 applies in all cases involving native forest interventions, using the same procedures established in the MGAS. These include analysis of project relevance assessment s with the SEIA, conducting the Environmental and Social Assessment (ESA), generating the Environmental and Social Management Plan, and monitoring the issuance of means of verification, among others, thus supporting the ENCCRV's environmental and social commitments.</p>
4.09	<p>B.4. Chile's Agriculture and Livestock Service (SAG) publishes a list of authorized, restricted and prohibited pesticides; however, there may be discrepancies between the lists of pesticides authorized by this organization and the recommendations established by the World Health Organization (WHO), which is the standard that must be met in the case of this OP.</p>	<p>Risk management for pest and disease management for the direct action measures of the ENCCRV has been developed in accordance with the guidelines of Chapter 4 of the MGAS and Annex 4, which contains the protocol on pest and disease control – OP/WB 4.09. According to this text, technical teams must define the need for pest control actions, which entails describing, monitoring, and reporting on the application of this protocol. In addition, during the implementation of direct action measures in the reporting period, operational adaptations associated with this safeguard were applied for the first time to the projects awarded in the 2022 tender. These measures strengthened the prevention criteria established in the MGAS and simultaneously facilitated operational decision-making within the regional teams. These measures include:</p> <ol style="list-style-type: none"> 1. Verification of the hazard level of pesticides, excluding WHO classes Ia) and Ib) from the SAG¹⁴³ list of authorized pesticides, or, failing that, considering preventive actions for product formulations in class II. 2. Restriction on pesticide use: The application of pesticides in the field is not authorized under any risk category. The only exception is for plant production activities in nurseries, where only the use of WHO category III and IV products is authorized (blue and green labels, respectively). <p>The consultation process with the CONAF technical management units highlighted the existence of a registry of agrochemicals used in CONAF's nursery and plantation operations. All ERP regions maintain a registry of agrochemicals used. Based on the registry for 2023, a review was carried out and general recommendations were issued. In this regard, it should be noted that all reported products are authorized by the SAG, and progress has been made in generating recommendations to replace those pesticides in categories I and II that are still in use. It should be noted that this report does not distinguish between products used in plantations with native or exotic species, a fact that limits the analysis associated with emissions reduction activities.</p>
4.11	<p>B.5 Although national legislation considers plans for the treatment of physical cultural heritage – for example, the Environmental Impact Assessment Guide for National Monuments establishes that a monitoring plan, a plan for compliance with national legislation and a plan with appropriate mitigation, repair or compensation measures</p>	<p>During the period covered by this report, no cases were recorded that required the development of physical cultural resource management plans, pursuant to OP 4.11 and Chilean regulations related to physical cultural heritage and resources. This is primarily explained by two factors:</p> <ol style="list-style-type: none"> 1. Small scale of the projects: since these are interventions related to the restoration, conservation and increase of vegetation resources on properties belonging mainly to small-scale forest owners, the physical interventions have not involved the execution of major civil works or interventions to the soil, subsoil, forests and vegetation resources, since the areas allocated to these projects are small and with low probabilities of impact. In this regard, the physical interventions have mainly involved minor works, such as: i) the installation of fences, ii) soil preparation and, iii) the establishment of plants, which has resulted in a low or zero probability of affecting the physical cultural resources. 2. Participatory processes as a preventive measure: the likelihood of impact

¹⁴³ The Agricultural and Livestock Service (SAG) establishes the toxicological classification of pesticides used in agriculture in accordance with the World Health Organization (WHO) criteria for classifying pesticides by risk. This classification consists of five categories: extremely hazardous (Ia), very hazardous (Ib), moderately hazardous (II), slightly hazardous (III), and products that normally pose no hazard (IV).

	<p>must be formulated – it is not clear whether these measures combined are equivalent to the "management plan" required by OP/WB 4.11.</p>	<p>on physical cultural resources has been minimized as a result of the implementation participatory processes, which have involved carrying out an FPIC process. This process, from the planning phases through to the execution of interventions, has directly involved the affected population, including Indigenous and/or local communities, and has influenced the definitions and decisions regarding the type of intervention, location and land area allocated to each project and activity, the type of tree species to be considered, technical specifications, the type and quality of inputs, and the areas to be excluded, among others. The final result is the recovery of local knowledge regarding the uses, purposes, and classifications of each part of the territory, and the identification of the areas where physical cultural resources could potentially be affected.</p> <p>3. Application of the MOFIM: in the case of interventions or projects on Indigenous lands, the use of the Mapuche Intercultural Forest Model (MOFIM), an instrument approved by the Executive Directorate of CONAF, through Resolution No. 148/2022 as a "Territorial planning methodology with an intercultural approach, for the formulation and implementation of initiatives, plans and projects in lands and territories of Indigenous Peoples", has prevented interventions in areas of physical cultural heritage of Indigenous Peoples, by considering the social, productive, environmental and cultural areas present in the territory, and identifying in this process the areas where there are physical cultural resources of an anthropological, archaeological, historical or cultural value, all of which are excluded from the interventions.</p> <p>Monitoring and evaluation of the safeguarding of physical cultural heritage: this activity that has been carried out both for CONAF institutional activities and programs, through periodic meetings with the professional teams from the CONAF technical management units, and for the territorial projects of the RBP phase of the ENCCRV financed with international funds, through monthly meetings between the National Safeguards Team and the regional teams of the ERP area, with the objective of maintaining the flow of information and supporting the analysis on the need to activate safeguards and apply the respective instruments of the MGAS, including the Procedural standards for physical cultural heritage OP/WB 4.11.</p>
<p>4.12</p>	<p>B.6. Chilean legislation does not establish a protocol for community participation in the planning and implementation of resettlement as envisioned by the World Bank. Additionally, the types of compensation established by law do not include variables required by the World Bank, such as depreciation, lost earnings, and travel expenses.</p>	<p>For all action measures and activities (projects, plans, or initiatives) implemented within the framework of the ENCCRV, it was established that their implementation should not generate involuntary physical resettlement, which has continued throughout the reporting period. However, regarding involuntary resettlement of uses, which entail involuntary restrictions on access to resources used by beneficiaries or other indirectly affected parties, it can be concluded that no cases were reported during the reporting period. To this end, the gap identified for this safeguard has been addressed through the following activities:</p> <ol style="list-style-type: none"> 1. Regular monitoring and evaluation of safeguards: through meetings with professionals from technical management units for the case of CONAF institutional activities and programs and meetings of the National Safeguards Team and regional teams for investments in the RBP phase of the ENCCRV financed with international funds. 2. Development of Guidelines on Involuntary Resettlement: to contribute to strengthening the criteria and capacities of the ENCCRV implementation teams regarding the scope of potential risks and impacts resulting from involuntary resettlement based on territorial interventions, the National Safeguards Team developed a set of guidelines for the regional teams to determine and assess, on a case-by-case basis, any potential involuntary resettlement as a result of the actions and projects executed in the RBP phase of the ENCCRV. The document is available at the following link: https://www.enccrv.cl/minuta-orientadora.

		<p>Participatory processes as a preventive measure: as with respect for and compliance with other safeguards, a practical way to avoid any involuntary resettlement and address the gaps identified for this safeguard has been the implementation of participatory processes that include FPIC, from the design stages to project closure. This has made it possible to avoid risks and impacts related to involuntary resettlement by making decisions in consensus with the beneficiaries. In the case of indigenous lands, the application of the Mapuche Intercultural Forest Model is added as a tool that reduces these risks by characterizing the territory with an intercultural approach, which respects the eco-cultural uses of the different spaces where physical actions are implemented.</p>
<p>4.10</p>	<p>B.7. The Environmental Impact Assessment System (SEIA) does not expressly require indigenous consultation processes for DIAs.</p>	<p>Regarding the progress made in addressing the gap identified for the period in the case of OP 4.10 on Indigenous Peoples, the following activities are described below:</p> <ol style="list-style-type: none"> 1. Indigenous consultations: considering that no administrative or legal measures that could directly affect Indigenous Peoples have been implemented in the ERP area due to actions carried out within the framework of the RBP phase of the ENCCRIV financed with international funds that have required a DIA, the execution of Indigenous consultations has not been necessary. 2. In terms of CONAF institutional activities and programs, specifically for the preparation of management plans (administrative measures) in Protected Wilderness Areas located in indigenous territories: CONAF has been requesting reports on indigenous consultation processes¹⁴⁴ from the Undersecretariat of Social Services pursuant to the provisions of Article 13 of Decree No. 66 of the Ministry of Social Development and Family, the result of which has been that in some cases Indigenous consultations must be implemented and in other cases the undersecretariat has deemed them unnecessary. Additionally, through Resolution No. 1133/2023 of CONAF, the internal procedure for requesting reports on indigenous consultations from the Undersecretariat of Social Services of the Ministry of Social Development and Family was updated, with the objective that these requests include robust and sufficient information, so that this department correctly evaluates the eventual application of indigenous consultations, as an indigenous right established in Article 6 of ILO Convention No. 169. 3. Strengthening institutional management in matters of Indigenous and social affairs: through Resolution No. 731/2021, the Executive Directorate of CONAF institutionally strengthened the Indigenous and Social Affairs Unit (UAIS), renaming it as the Secretariat of Indigenous and Social Affairs (SAIS). In line with the above, the SAIS has eight Indigenous and Social Affairs Officers in those regions or territories with a rural Indigenous population, to provide cross-cutting support to the regional Indigenous affairs teams. This work is essential for the various ENCCRIV actions that benefit Indigenous peoples. In particular, the Biobío, Araucanía, and Los Lagos Regions have Indigenous and Social Affairs Officers, who provide direct support from the SAIS to the other ERP regions, namely the Maule, Ñuble, and Los Ríos Regions. 4. Development of guidelines for participatory processes: for participatory processes in territorial projects carried out within the framework of the RBP phase of the ENCCRIV, the "Guide for the Participation of Local and Indigenous Communities in Projects of the National Strategy on Climate Change and Vegetation Resources" was developed. This guide provides methodological input to promote active participation by regional teams

¹⁴⁴ Reports issued by the Undersecretariat of Social Services that indicate to the body responsible for proposing an administrative or legal measure whether to implement or reject an indigenous consultation in accordance with Article 6 of ILO Convention 169, after analysing the possibility that the measure would directly affect Indigenous Peoples.

		<p>and decision-making according to the FPIC standard with a community approach, while also considering the means of verification and monitoring of agreements for these participatory processes. The guide is available at: https://www.enccrv.cl/guia-participacion-comunidades</p> <p>5. Application of MOFIM: broad indigenous community support for actions carried out within the framework of the "RBP phase of the ENCCRV financed with international funds" has been achieved through the application of the Mapuche Intercultural Forest Model (MOFIM), an instrument formalized by the Executive Directorate of CONAF through Resolution No. 148/2022, as a "Territorial Planning Methodology with an Intercultural Approach, for the Formulation and Implementation of Initiatives, Plans and Projects in Lands and Territories of Indigenous Peoples". The results of its application, including identifying areas likely to be affected and that could impact indigenous ways of life and livelihoods, has made it possible to avoid interventions in cultural heritage sites, involuntary resettlement and negative impacts in areas of cultural significance. All of this is achieved by characterizing the territory, prior to any intervention, according to its social, productive, environmental and cultural dimensions.</p> <p>6. Decalogue of good practices for CONAF workers: through Resolution 1175/2023, the Executive Directorate approved the Decalogue of good practices for work with indigenous people or communities. The development of this instrument, together with being part of the institutionalization process of the indigenous issue, which seeks to add "public value" to the functions and actions carried out by CONAF workers, was the result of the proposals submitted by more than 100 officials belonging to the different territories and regions who participated in the course "Worldview of Indigenous Peoples" in 2021 and 2022. It should also be noted that the process of developing the decalogue included the participation and contributions of the Regional Representatives of Indigenous and Social Affairs, based on their experience accumulated over years working with Indigenous Peoples, which is defined as "institutional capital" for management in indigenous territories.</p> <p>Institutional capacity building on Indigenous issues: between 2021 and 2022, SAIS offered various courses within the framework of CONAF's Annual Training Plan called "Worldview of Indigenous Peoples". The aim of these courses was to strengthen staff's knowledge of Indigenous Peoples. They covered topics such as the legal framework, worldview, development of relational skills, socio-environmental conflict resolution, planning with an intercultural approach, and other topics related to the staff's needs when working with Indigenous Peoples and communities. During the two-year period, approximately 110 staff members from different territories and regions of the country received training. At the end of the course the participants received a certificate, accrediting the knowledge they acquired.</p>
--	--	--

Source: Own elaboration based on MGAS

8.1.2.45.2. CORRECTIVE ACTIONS, AREAS FOR IMPROVEMENT, AND PRELIMINARY PROGRAMMING

Under the principle of continuous improvement, the actions described below primarily constitute improvements, which are expected to be addressed between 2024 and 2025:

- MGAS update process: considering the progress of the ENCCRV in its results-based payment phase, as well as the new national circumstances and their impact on the gaps previously identified, the diagnosis carried

out based on the survey applied to the regional teams, the absence of a continuous improvement and adaptive management approach that establishes a frequency of review or update of the instrument, the importance of having an integrated safeguards approach (including the gender approach) as a framework for its application to current project typologies, and of adapting safeguards management and compliance procedures according to the BSP, the need is identified to advance during 2024 in the MGAS update process to achieve the following objectives: i) incorporate the National Safeguards Approach as a framework for the application of safeguards in the various types of CONAF projects; ii) formalization of the mainstreaming of the gender approach within the socio-environmental safeguards of ENCCRV projects; iii) strengthen the principle of continuous improvement and adaptive management of the instrument; and iv) update and simplify safeguards management and compliance procedures according to BSP updates.

- Monitoring the implementation of the Safeguards Information System (SIS): considering that only in 2023 was there enough information available to begin the data upload process for projects awarded in the 2022 ENCCRV public tender, and that the regional implementation teams were also in a learning process, adapting their procedures and workload for the use of the tool, during 2023 a series of corrective support and monitoring actions were carried out, according to the guidelines indicated in Memorandum No. 1425/2023 of the GCEBX on Considerations for the use of the ENCCRV platform, which establishes a series of activities, responsibilities and deadlines for uploading projects from the pilot stage and the 2022 public tender in order to promote its continuous adoption as a work tool. In this regard, two priority actions are planned: i) troubleshooting and/or updating specific to the use of the system, such as the review and update of indicator calculation formulas, and the review and improvement of the operational risk database, among others; and ii) continuing the process of providing support from the central office to the regional teams.
- Strengthening institutional safeguards management: while significant progress has been made in the process of institutionalizing safeguards, a technical approach that allows for the efficient and strategic integration of the safeguards approach into institutional work is still needed, reflecting the reality of the emissions reduction programs and activities implemented by CONAF. To this end, actions are contemplated in the following areas:
 - Within the framework of potential actions to be analysed by the DCCSE that facilitate progress in meeting the goals of the Nationally Determined Contribution (NDC) for the Land Use, Land-Use Change and Forestry (LULUCF) sector, and considering that the institutional activities carried out with national funds are governed exclusively by current environmental, forestry and labour legislation, the development of technical guidelines on safeguards compliance is planned.
 - Although work was carried out during 2023 on the development of an instrument for the evaluation and promotion of good practices related to environmental and social safeguards in the Dendroenergy program at the national level, this instrument will begin to be applied to users starting in January 2024 together with the characterization survey of collection centres, which will generate information that will be entered into a new module within the Forest Management System (SIGEFOR) and will provide information on weighted compliance by item, facilitating the management and monitoring of compliance with good practices and safeguard requirements.
 - During 2024, monitoring and review of the means of verification that reflect compliance with the management indicator "SIGI GCEBX17" is planned, which is the first GCEBX management indicator directly linked to compliance with safeguards that aims to promote the effective participation of women in the implementation of the ENCCRV. It highlights their priorities, needs, roles and specific responsibilities, in order to define positive actions within the projects through capacity building, leadership development and empowerment. The goal is to ensure that 30 percent of small-scale forest owner projects (individual and collective) awarded in the RBP phase of the ENCCRV

incorporate a gender-sensitive implementation framework considering the effective participation of women.

- Continuity of safeguards monitoring and follow-up activities: as a key aspect of safeguards management, and in line with the MGAS, it is necessary to ensure the continuity of monitoring and evaluation activities as summarized below:
 - a. Continue implementing on-site support provided by the National Safeguards Team, in accordance with the provisions of Memorandum No. 198/2023 of the GCEBX included in the quarterly program of regional safeguards visits, with the aim of providing feedback and strengthening the skills associated with the implementation of operational procedures and environmental and social safeguards management tools promoted by CONAF.
 - b. Continue holding monthly safeguards meetings to ensure on-going communication between the National Safeguards Team and the regional implementation teams on key aspects such as challenges in the development of activities with local and Indigenous communities, potential environmental impacts, monitoring of safeguards management and compliance indicators, and on-going capacity building for regional teams, among other aspects.
 - c. Plan and execute inter-regional exchange opportunities to generate opportunities for the exchange of information and successful experiences related to the application of project safeguards, the generation of non-carbon benefits, and positive actions for the integration of Indigenous Peoples, women, and other vulnerable groups, with an emphasis on lessons learned in key areas such as hiring local workers, supervising contractors' work, and sustainability actions for the ENCCRV's Direct Action Measures, among others.
 - d. Monitor the application and compliance with the guidelines established in the gender instruments in accordance with Memorandum No. 1623/2023 of the GCEBX, which disseminates the ENCCRV's gender-focused instruments and invites participants to learn about their objectives, scope of application and goals.
- Update of the SEIA relevance assessment procedure: regarding initiatives that require a relevance assessment to determine the pertinence of entry to the SEIA, since these are areas under legal protection of the State (Article 10, clause p, Law No. 19,300), a relevance assessment for entry is carried out with the Environmental Assessment Service (SEA) prior to project execution. Considering the reality of project execution, procedural changes are being evaluated at the institutional level to expedite processing times for the application of regulations. One of the proposed alternatives is a regional technical committee to evaluate the applicability of the relevance assessment for entry into the SEIA, which is an aspect that will be clarified in the new version of the MGAS.
- Strengthening the identification and quantification of non-carbon benefits of ENCCRV action measures: continue strengthening access to project benefits by the ENCCRV target population through training activities for beneficiaries at the regional level, aimed at addressing issues associated with sustainable livelihoods in the forestry sector, as well as promoting the leadership of women linked to native forests. Specifically, within the activities that have been initiated and are planned to continue during 2024 are the development of sustainable livelihoods and agroforestry workshops for beneficiaries of the 2022 and 2023 ENCCRV tenders, the development of the TORs for a consultancy to analyse the opportunity cost of the implemented action measures, and the holding of a leadership workshop for rural women within the framework of the strategy, among others.
- Development and implementation of the sustainability strategy for the ENCCRV's Direct Action Measures: with the aim of continuing the improvement of the enabling conditions and capacities of territorial stakeholders, as well as ensuring the sustainability of territorial interventions through actions that prevent their deterioration, during 2023 the information was collected that allowed progress to be made on the

design of a sustainability strategy for the ENCCRV's Direct Action Measures. In this regard, the final approval and start of implementation of the strategy is expected during the second half of 2024, highlighting among its activities the execution of an evaluation of the results and start-up of the BSP governance plan, specifically through the application of a survey of participants in the regional REDD+ Groups and the civil society observers before the Steering Committee of the +Bosques project, considering Memorandum No. 1484/2023 of the GCEBX on the considerations that require disclosure for the people who make up the REDD+ Groups of the ENCCRV's BSP.

During 2024 and the first half of 2025, the activities presented in this section have continued to be further developed. Additionally, a constant focus on SIS improvements such as actualization of risks and systematisation of territorial ESMP, improvements in safeguard indicators and random monitoring of territorial projects among other improvements.

.3. SUMMARY OF RELEVANT ASPECTS OF THE 2024 PERIOD AND FIRST SEMESTER OF 2025

The key developments for the 2024 period and part of 2025, are indicated below to ensure continuity with the 2022-2023 reporting period for emission reduction activities and programs, categorized by national and international financing sources.

In 2024 and 2025, emission reduction activities continued to be implemented through two main channels: i) institutional activities and programs carried out by CONAF with funding from the Budget Directorate, and ii) actions of the RBP phase of the ENCCRV, including the execution of projects awarded through the 2023 and 2024 public tender.

The main changes in activities for 2024 involve wildfire-related efforts. The activity formerly known as "Development of community protection plans in fire risk zones", which CONAF carried out through 2023, will transition to municipal responsibility under Law No. 21,364, starting in 2024. This law establishes the National Disaster Prevention and Response System and delegates this function to municipalities in coordination with SENAPRED. The activity will be renamed the "Community Disaster Risk Reduction Plan", with CONAF serving as a technical support agency by providing fire risk maps and general guidelines for municipalities to incorporate into their plans.

As a result of this organizational shift within CONAF, it became possible – for the first time – to incorporate support for the Community Wildfire Preparedness Program, which has benefitted 29 communities between the Maule and Los Lagos Regions, and 56 communities nationwide.

Regarding institutional arrangements and capacity development, 2024 was very similar to 2023, with no significant changes in the functioning of CONAF team activities.

In terms of the management and mitigation measures, these were implemented through institutional instruments that included prevention and mitigation measures aligned with the environmental and social safeguards outlined in the MGAS. Notably, significant progress was made in developing instruments related to the ENCCRV's +Bosques project, particularly the approval of the Indigenous Peoples Action Plan (IPAP) by the GCF in 2024.

As for the operation of the complaints and feedback mechanism, all submissions to the MRS were processed and responded to within the established 10-day timeframe, in compliance with Law 19,880, which ensures the right to access information and timely assistance. In 2024, most submissions continued to be virtual inquiries, most of which were not directly related to the implementation of the ENCCRV.

In terms of continuous improvement, the procedures established in the MGAS for addressing SESA-related risks have remained effective. A key development in 2024 was the approval of the ENCCRV Sustainability and Strengthening of Enabling Conditions Plan. This plan aims to enhance institutional and beneficiary capacities to ensure the long-term sustainability, scalability and quality of the ENCCRV action measures implemented across the territories.

Regarding risks and impacts, an unforeseen impact was recorded in 2024 in the Los Lagos Region of the +Bosques project. This event occurred after a third-party contractor applied an antifungal preservative to a fence, which inadvertently attracted bees belonging to a project beneficiary. This led to a decline in honey quality, requiring the beneficiary to discard the affected hives and frames. Mitigation protocols were promptly activated, including an order to immediately halt the application of the product. Additionally, an agreement was reached with the beneficiary for compensation related to the loss of economic activity, which has since been implemented by FAO. While the incident did not contravene national legislation, it was an unanticipated outcome, as there were no prior reports of similar impacts from the product's use, and it does not pose on-going risks to project implementation.

As part of a broader evaluation and corrective action, this event has contributed to institutional learning in 2024 regarding the standardization of due diligence procedures in response to unexpected incidents. Although protocols were already in place for work-related accidents involving third-party contractors, potential violations of forestry laws, and conflict resolution in community projects, no previous unforeseen environmental impacts had been recorded. In response, the +Bosques project team is now developing a dedicated incident management protocol, which will include clear procedures for communication and response.

The most significant aspect to be reported during the first semester of 2025, is that on May 23, Law No. 21,744 was published, creating the National Forestry Service (SERNAFOR), which will be the successor and legal continuation of CONAF. All references to the National Forestry Corporation contained in laws, regulations, decrees, resolutions, official letters, circulars, acts, contracts or agreements, instructions, and other documents shall be understood to refer to the Service created by this law.

The purpose of the Service shall be the protection, promotion, conservation, preservation, recovery, restoration, management, and regulation of the sustainable use of the country's forests and other vegetation formations and the components of nature associated with them, as well as the development of new forests and other vegetation formations on soils suitable for forestry (APF).

The variety of functions assigned to SERNAFOR will enable it to fully assume the role currently performed by CONAF, projecting its actions with a strengthened, specialized public institution with greater regulatory scope. These changes are expected to be implemented starting in 2026.

ANNEX 2: INFORMATION ON THE IMPLEMENTATION OF THE BENEFIT-SHARING PLAN

I. Requirements of FCPF on Benefit Sharing Plans

BSP Implementation Status Report is the primary tool for the Program Entity to provide evidence on whether the BSP has been implemented in accordance with the terms of the agreed BSP, in line with the relevant applicable laws, including national laws and any legally binding national obligations under relevant international law, and that such information is provided in a transparent manner. This requirement is specified in the FCPF Methodological Framework (Criterion 29-33) and in the General Conditions applicable to Emission Reductions Payment Agreement (ERPA), and in the ERPA itself.

The BSP Implementation Status Report should include core information and data that Program Entities are required to report, as specified in this template. Any additional information can be provided in an annex to the report depending on the specific content of the BSP. The Program Entity should submit the report six months after receiving the first payment and every year thereafter¹⁴⁵. The report will be considered valid and accepted only after all the core sections of the report using this template are filled with relevant details.

II. BSP Implementation Status

Reporting Period:	Date of Submission:
December 2024 to May 2025	16 - 06 - 2025

1. Overall fund disbursement: *[information below is extracted from the detailed excel Table 1 from Tab 2 prepared and submitted with this report]*

¹⁴⁵ The first **BSP Implementation Status Report** should be submitted six months after the Program Entity receives the first payment and every year thereafter (as of June 30). The Emission Reduction Monitoring Report (ERMR) can refer to the latest annual BSP Implementation Status Report before a payment is made (where this template will replace Annex 2 of the ERMR). Countries that are still undergoing their first reporting period validation and verification (and, therefore, haven't received a first payment yet) will continue to maintain Annex 2 to report on the **readiness** of the BSP.

Table 1: Summary of the funds distributed by the Program Entity (PE) as per the BSP (includes advance payments)

Source of funds	Total commitment (contract value) (1)	Total received by PE - Payment 1 (2)	Total received by PE – Payment 2 (3)	Total disbursed by PE (4)	% Disbursed (5) = (4) / ((2)+(3))	Comments
FCPF ERPA	5.130.000 USD					

Source: Own elaboration.

During that period, the ERPA through the BSP did not distribute any benefits to the beneficiary population. Consequently, no funds have been disbursed to date.

2. BSP revision¹⁴⁶: were there any changes made to the BSP during the Reporting Period (as specified above in section II)

Yes No

If **yes**, please explain what changes have been made, why, and how they were consulted with the stakeholders.

In 2024, the 5th version of the BSP was updated. Among the reasons for this update were the lessons learned from the implementation process of the ENCCRV's first results-based payment program; these are detailed in section 5.4 of this report.

Among the main changes introduced in this new edition of the BSP, the following stand out:

- **New financing mechanisms:** Mechanisms other than the REDD+ results-based payment approach are included.
- **Resource distribution:** Ensures that resources are distributed across the country and to communities in a fair, equitable, and transparent manner, regardless of the financing mechanism.
- **Expanded territorial scope:** The BSP shifts from a subnational to a national approach to gradually integrate all regions.
- **Resource allocation:** It is redefined using more efficient criteria, prioritizing demographic and social factors to improve territorial equity.
- **Direct allocation:** A mechanism is established to distribute residual budget from Direct Action and Enabling Measures, responding to citizen demands.

¹⁴⁶ Any revisions to the BSP whether major and/or minor changes should be documented in this report, and the revised BSP should be submitted to the World Bank including the FCPF Facility Management Team (FMT).

- **National coverage:** For the first time, the entire national territory is covered by Facilitating Action Measures.
- **Administrative simplification:** Processes are simplified to reduce the workload of the implementation teams.

The participatory process for updating the Strategy and the Benefit Sharing Plan took place in 2024 through three instances of citizen participation: 5 regional virtual workshops in March 2024, 1 virtual workshop for women in July 2024, and 23 in-person workshops held between July and August 2024. These three events resulted in a total participation of 649 people, of whom 47% were women and 30% were indigenous peoples.

Various sectors were convened to participate in the workshops, with their participation broken down as follows: Small and medium-sized landowners (30.3%), Indigenous peoples (17.4%), the private sector (14.1%), social organizations (13.9%), Institutions (8.9%), Women’s groups (9.7%), consultants and extension workers (4.9%), and academics (0.6%). The systematization of the results from these workshops initially contributed to updating the BSP for the publication of its 5th edition. The information regarding participation is presented in the following table:

Table 1. Distribution of macrozone participation, BSP participatory process 2024.

Macrozone	Regions	Women	Men	Indigenous Peoples	Total participants
Arid	Arica and Parinacota, Tarapacá and Antofagasta	53	41	63	94
Semi-arid	Atacama and Coquimbo	36	37	32	73
Mediterranean	Valparaíso, Metropolitana and O'Higgins	49	95	12	144
Temperate	Maule, Ñuble, Biobío, La Araucanía, Los Ríos and Los Lagos	138	131	70	269
Austral	Aysén and Magallanes	30	39	20	69
Total participants		306	343	197	649

Source: BSP 5ta edición, 2024

3. Overall summary of the BSP implementation during the reporting period.

Please include a brief overview of the status of BSP implementation. Detailed information can be included in an annex to this report. Please avoid repeating the same information from the BSP and provide links to external documents when possible.

During the period under review, the ERPA, acting through the BSP, did not conduct activities related to the distribution of benefits to the beneficiary population, as the corresponding public tender is scheduled to open in late July of this year.

The development of the BSP was formulated in 2017 based on inputs from participatory processes linked to the ENCCRIV; this led to the first three versions, developed between 2018 and 2019. However, the fourth version was shaped by two participatory processes held in 2019 and 2020, which consolidated the distributive and governance framework based on stakeholder proposals. Subsequently, between 2022 and 2024, the implementation of the BSP alongside the Green Climate Fund (GCF) provided key insights that prompted its update and national expansion. This process included participatory sessions across all 16 regions of the country, integrating diverse perspectives to strengthen the system's equity, traceability, and legitimacy.

Regarding the implementation status of the BSP, it has been underway since 2021. Pilot initiatives were conducted during that first year, leading to the introduction of public bidding processes starting in 2022. Between 2022 and 2024, three public tenders were held, resulting in the awarding of over 1,165 projects across the Maule to Los Lagos regions. These projects encompass approximately **19,381 hectares** to be managed through actions aligned with the ENCCRIV. To date, all BSP implementation activities have been carried out with **GCF** support; however, starting in 2025, ERPA funding will also be available to ensure the continuity of the fourth edition of the ENCCRIV public tender.

3.1 Have there been any challenges faced in the distribution of funds to beneficiaries? If yes, please describe them and how they will or have been addressed.

During the period analyzed, the ERPA, through the BSP, did not carry out any activities related to the distribution of benefits to the target population. Consequently, no difficulties requiring intervention have been identified as of yet.

However, through the implementation of the fourth version of the BSP for previous periods, we were able to identify certain shortcomings and the improvements needed to address them. The most important ones are listed below:

- The approach to distributing funds among the country's regions did not incorporate social or demographic variables, so an equitable distribution of regional budgets for implementing the BSP was not achieved. It was necessary to incorporate these variables to improve the distribution among regions.
- The absence of a mechanism for redistributing funds (budget) among regions made it necessary to incorporate a mechanism to enable regional redistribution across ENCCRIV programs, thereby preventing potential problems in interregional implementation.
- Ambiguity in the definition of landowners, which made it difficult to verify their status, necessitated a more detailed clarification of these definitions.

- BSP is not a nationwide program; it was necessary to expand its scope.
- The BSP lacked a specific mechanism for the direct allocation of benefits in project execution that would guarantee an equitable, fair, and transparent distribution when such projects were not subject to a public tender process. It was necessary to incorporate direct allocation mechanisms.
- Shortcomings in the administrative and financial management aspects of the ENCCR systems that support the BSP. These aspects were incorporated into the ENCCR systems.

It is therefore important to note that all of these shortcomings were addressed in the fifth version of the BSP, which will govern the administration and management of the ERPA.

3.2 Are the governance and funds flow arrangements as described in the BSP and operations manuals (if relevant) functioning well? Please provide as an annex a summary of meetings, consultations with stakeholders and decisions undertaken during the reporting period to implement and monitor the benefit sharing plan.

The governance framework associated with the implementation of the BSP operates in accordance with the guidelines and provisions set forth in the latest updated version of the BSP, ensuring compliance with the defined frameworks.

Furthermore, the ERP Operational Manual addresses the establishment of the governance bodies set forth in the BSP that are related to the various management instruments. To this end, various governance bodies are established for the implementation of the BSP; at the regional level, this is carried out through the operations of the regional REDD+ Groups, which are present in the six regions where the ERPA is being implemented, and whose functions include approving and/or modifying the criteria of the evaluation mechanism, as well as providing recommendations for the Annual Implementation Report (AIR), which is the management tool that reports on progress in implementation and the projection for each annual cycle of the activities to which a budget has been allocated. Another governance body within the BSP is the CTICC, whose purpose is to provide recommendations on the AIR, enabling monitoring of the program's progress. Finally, there are entities responsible for outreach: the COSOC and CORECC, which facilitate greater and more effective dissemination of management tools and related activities. The following table summarizes the different levels of governance and the responsibilities involved:

Table 2: Governance instances and responsibilities

Level	Governance instance	Actions to be implemented
Central	CONAF Central	Implementation of the BSP and document development
	CTICC	Provide recommendations
	COSOC	Socialization
Regional	CONAF Regional	Provides information on the measures implemented in their region
	Grupo REDD+	Review the progress made on the action measures implemented in their region
	CORECC	Socialize

Source: Own elaboration.

Given the reporting period, it is not possible to include an annex with the requested information, as the meetings are currently taking place throughout June. This information will be fully incorporated by early July.

3.3 Is the FGRM functioning and accessible to people in the target areas with uptake channels? Is there evidence on the number and types of feedback and grievances, and how they were addressed? Please briefly describe them here and as relevant please also include links.

The FGRM, known in the country as the ENCCRV's Complaints and Suggestions Mechanism (MRS), operates through CONAF's Information, Complaints and Suggestions Offices (OIRS, by its Spanish acronym), is available to the public in areas where the BSP has been implemented with support from the FVC—from the Maule Region to the Los Lagos Region—to handle any requests for information, including inquiries, requests, opinions, suggestions, complaints, reports, and compliments from the general public. This mechanism offers various service

channels, including online options via email or the website: <http://oirs.conaf.cl>, as well as by phone and in person through CONAF's regional offices. The following table lists the regional contacts for accessing the OIRS:

Table 3. OIRS Contacts by Region/Province.

Región/Provincia	Phone	Email	Address
Maule Region	712209517	talca.oirs@conaf.cl	4 Norte 1673, Talca
Talca Province	712230038		6 Norte 1240, Talca
Cauquenes Province	732310800		Km 2,4 camino a Parral S/N, reformulariocinto INIA
Curicó Province	752310231		Argomedo 380 Curicó
Province of Linares	732210109		Manuel Rodríguez 580, Linares
Ñuble Region	422226009	nuble.oirs@conaf.cl	Avda. O'Higgins 3430, Panamericana Norte, Chillán
Biobío Region	412624022	biobio.oirs@conaf.cl	Barros Arana 514, 3er piso, Local A, Concepción
Biobío Province	432321086		José Manso de Velasco 275, Los Ángeles
Arauco Province	412611241		Av. presidente Frei 288, Cañete
Concepción Province	412225348		Aníbal Pinto 140 Concepción
Araucanía Region	452298149	temuco.oirs@conaf.cl	Francisco Bilbao 931, 2do. piso, Temuco
Los Ríos Region	642244101	losrios.oirs@conaf.cl	Esmeralda 415 La Unión
Valdivia Province	632283404		Los Castaños 100 - Isla Tejas Valdivia

Ranco Province	642244300		Calle Arturo Prat 1194, La Unión
Los Lagos Region	652486115	loslagos.oirs@conaf.cl	Ochagavía 458, Puerto Montt

Source: Own elaboration.

For the indicated period, the Emissions Reduction Program has not yet been implemented; therefore, there are no requests related to the MRS for the ERPA. However, there is a protocol for handling requests, which provides for the review and forwarding of incoming requests under the categories of “Climate Change” or “Indigenous Affairs” for analysis and the generation of a response within a period not exceeding 10 business days, in accordance with Law No. 19,880. Furthermore, among the lessons learned regarding the OIRS’s operation as the official MRS for the ENCCRV during the implementation of the BSP, a series of adjustments have been made to improve its operations. The main points addressed are outlined below:

- Strengthening the MRS in the MGAS update through two key areas: continuous and timely dissemination of information about the MRS and the implementation of the MRS field application protocol.
- Supporting regional teams by providing training on the MRS field application protocol.
- Dissemination via instant messaging channels: a brochure with information from the OIRS, adapted for each region to be shared on WhatsApp; link: MRS Brochures
- Incorporation of information on the OIRS’s operations into the Administrative Bases of the Competition, starting in 2023.

3.4 In cases where capacity building initiatives are ongoing, confirm whether the Program Entity has completed required capacity building measures to ensure system effectiveness. What other measures are still outstanding?

The ERPA, through the BSP, did not record any activity regarding the distribution of benefits to the target population during the analyzed period. Consequently, no capacity-building initiatives have been developed under this framework as of yet. However, capacity-building has been strengthened through the country’s BSP thanks to support from the Green Climate Fund (GCF), benefiting more than 5,404 people trained in environmental education across the regions from Maule to Los Lagos.

Regarding the gender breakdown, 54% of the total trainees were women and 45% were men, while 0.2% preferred not to disclose their gender. Furthermore, 18.7% of the total participants identified as belonging to an indigenous group. Additionally, technical capacity-building has been promoted—including compliance with and respect for Environmental and Social Safeguards—among the professionals hired

through this fund. It is expected that this knowledge will be transferred to the new professionals joining the Emissions Reduction Program (ERPA), who will play a key role in the implementation and distribution of benefits associated with this new fund granted to the country.

4. Status of Benefit Distribution [Indicate the payment period, e.g., first ER payment, etc.]. If there has been any delay in overall disbursement of funds, please explain.

The ERPA, through the BSP, reported no activity regarding the distribution of benefits to the target population during the period analyzed. The general disbursement of benefits is currently underway in accordance with the ENCCR V Public Tender timeline, and is expected to commence next year following the closing of the tender and the respective awarding of funds.

Regarding the delays in the disbursement of funds, these were primarily due to lags in the signing of transfer agreements. These agreements required signatures from all three Chilean institutions involved, a process contingent upon both internal institutional coordination and external inter-agency alignment. In this regard, it is worth noting that although the tender involving both financing sources was postponed, the opening of the 2025 Public Tender was planned to ensure no impact on beneficiary applications, allowing both programs to complement each other within the same tender cycle.

4.1 Indicate the overall number of beneficiaries who received benefits, and please provide this information as per the arrangements described in the BSP. For instance, number of beneficiaries should be disaggregated as follows:

- type of benefits: monetary and non-monetary
- gender
- type of beneficiaries: (public organizations, private sector, IPs, communities, CSOs, etc.). geographic location of the beneficiaries (e.g., village, province)

The ERPA, through the BSP, no activity regarding the distribution of benefits to the target population was recorded during the analyzed period. However, the public tender scheduled to begin in the second half of 2025, pursuant to the fifth edition of the Benefit Sharing System, it provides for the delivery of non-monetary benefits to the population.

Types of Beneficiaries: The target population will primarily focus on small-scale forest owners, who may apply individually, collectively, or under 'special rules' collective schemes. Additionally, an 'Other Interested Parties' category will allow benefits to be granted to medium-scale owners (both individuals and legal entities), as well as state-owned lands, municipalities, organizations, and universities belonging to the Council of Rectors of Chilean Universities (CRUCH).

To provide further context, a summary of the +Bosques Program implementation between the Maule and Los Lagos regions is provided below. Through GCF funding of the +Bosques Program, the first ENCCRV Public Tender was held in 2022, resulting in 397 awarded projects, equivalent to 4,748 hectares for intervention. In 2023, the second edition resulted in 464 awards, totaling 6,996 hectares. In 2024, the third edition saw 304 projects awarded, covering 7,637 hectares. Detailed information, including the number of female beneficiaries and members of indigenous groups, is presented in the following table:

Table 4. Results of projects awarded in 2022, 2023 and 2024.

Figures for Public Tender modality	2022	2023	2024	Total	Percentage
Projects awarded	397	464	304	1.165	-
Area to be intervened (ha)	4.748	6.996	7.637	19.381	-
Number of beneficiaries	2.147	1.718	2.865	6.730	-
Number of women beneficiaries	1.044	827	1.412	3.283	48%

Number of people belonging to Indigenous Peoples	1.366	588	1.597	3.551	51%
--	-------	-----	-------	-------	-----

Source: BSP 5ta edición, 2024.

Type of Benefits: The transfer of benefits under the Public Tender is non-monetary; that is, it is materialized through the implementation of afforestation, revegetation, restoration, and sustainable management projects for vegetational resources, aiming to generate environmental, social, and economic benefits at the territorial level. Although the Strategy includes a total of 26 Action Measures, the public tender provides funding for 6 of these 26 measures:

- Afforestation and revegetation program in prioritized communes/areas (MT.4).
- Strengthening of the ecological restoration program in prioritized communes/areas (MT.5).
- Post-forest fire ecosystem restoration program (IF.2).
- Preventive silviculture program with an emphasis on the urban-rural interface (IF.3).
- Institutional forest management program focused on public and private lands (US.1).
- Strengthening of the dendroenergy program and the country's energy matrix (US.3).

Detailed information regarding activities and their associated costs for each of these six measures is formalized in the Technical Terms of Reference (Bases Técnicas) generated for each Public Tender cycle, as amounts and activities vary annually. For instance, this information can be found in section 2, "Activities to be Funded," of the 2024 Public Tender Technical Terms of Reference.

Review Process: The application and admissibility review process is detailed and formalized in the Administrative Terms and Conditions for each Public Tender cycle. These terms define Admissible Applications as all initiatives that do not meet any exclusion criteria, are technically, economically, socially, and environmentally feasible, and provide all mandatory information and verifiers required in the application and evaluation section.

Likewise, Inadmissible Applications are defined as those initiatives that fall under one or more of the five cases of non-admissibility:

- Application of exclusion criteria.
- Lack of relevant information.
- Lack of technical, economic, environmental, or social feasibility.
- Violation of current forestry legislation.
- Inability to contact the applicant.

For all aforementioned cases, the tender platform includes a "removal section" where a formal record (*acta*) is generated and completed by the technical assistance professional. This record outlines the grounds for inadmissibility and is accompanied by a verifier where applicable; it does not require the applicant's signature.

The Administrative Terms and Conditions also outline the Processing of Admissible Initiatives. Once the initiative information has been compiled, it is reviewed by a Regional Evaluation Commission. The purpose of this commission is to verify the quality, consistency, and accuracy of both the information and documentation submitted to determine the initiative's admissibility. If the Evaluation Commission deems the initiative technically, socially, environmentally, and economically feasible, it will approve the application; conversely, if the initiative is deemed not feasible, its removal will be requested.

Deadlines: The periods and deadlines for submitting initiatives are established annually in the Administrative Terms and Conditions for each Public Tender cycle. This document formalizes the Inquiry Period, during which the registration and data entry process for applicants is addressed. Furthermore, the Tender System Deadlines are established, specifying the start and end dates for the following stages:

- Application process.
- Design, formulation, and evaluation process.
- Initiative admissibility process.
- Pre-award process and claims period.
- Award process.

Agreements: The commitments and agreements established between the National Forestry Corporation (CONAF) and the beneficiaries are specified in the Public Tender's Administrative Terms and Conditions, with detailed information provided in the Collaboration Agreement Annex. The Agreement must be signed by the owner(s) and the representative of the CONAF Regional Directorate. This document defines the details of the awarded project, as well as the rights and obligations of the parties, including aspects related to the emission reduction transaction and its accounting.

4.2 Following the BSP and operations manuals (if relevant), please provide information on the mechanisms for benefit distribution. For example, a BSP may include the submission of project proposals or selected investments, community action plans, institutional work plans etc. for beneficiaries to receive benefits. For each type of benefit to be distributed, summarize the status of approval and allocation.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. However, as complementary information, it is noted that the fourth version of the BSP was previously implemented under the +Bosques

Program; through this program, resources were distributed via a public tender where the target population applied by submitting projects that were subsequently evaluated and selected.

The selection mechanism for the public tender is described in further detail in the fifth version of the BSP document, which has remained largely unchanged since the fourth version. In general terms, the mechanism consists of applying a polynomial formula composed of cross-cutting variables (ecosystemic, indigenous, gender, territorial, and socioeconomic) to each submitted project. This formula assigns a score to each project, which is then used to select initiatives for execution, taking into account regional surface area targets and their respective budgets as established by the System. The type of benefit provided is always non-monetary and consists of the execution of the activities defined in each project on the properties of the beneficiaries whose projects were awarded. To date, the System has awarded projects in the regions of Maule, Ñuble, Biobío, La Araucanía, Los Ríos, and Los Lagos.

4.3 Are the eligibility criteria to access benefits as described in the latest BSP still relevant? If there have been any revisions to the criteria during the reporting period, please describe.

The ERPA, through the BSP, no activity regarding the distribution of benefits to the target population was recorded during the analyzed period.

In a complementary manner, it is noted that the eligibility criteria are linked to the 'Evaluation Mechanism', which, according to the fifth edition of the Benefit Sharing Plan (BSP), is defined as the 'process in which initiatives are appraised through variables and criteria that allow for the assignment of a score for their selection.'

It is noteworthy that the project evaluation mechanism included in the fourth version of the BSP was first implemented in the 2022 Public Tender and remained operational throughout 2023 and 2024. For the 2025 period, the mechanism remains in effect, and its functioning is described in detail in the administrative and technical terms of the current tender.

Furthermore, as in previous years, the participation of Regional REDD+ Groups is expected; they hold the authority to adjust a percentage of the established criteria and define an evaluation mechanism adapted to the specific characteristics of each region. The final structure of the regional weightings is specified in the technical terms of the current tender.

The evaluation mechanism applied in 2022 and 2023 was reviewed for its 2024 implementation cycle. It was concluded that including more than five or six criteria per variable negatively affected the ranking calculation, as the high number of criteria rendered the absence of any

single one insignificant in the final weighting. Consequently, for 2024, only two core criteria per variable were defined. This does not prevent Regional REDD+ Groups from incorporating one or two additional criteria into variables they deem relevant based on their regional reality.

Currently, the Evaluation and Prioritization Mechanism assigns scores to initiatives using five Cross-cutting Variables:

- Socioeconomic Variable (SV): Promotes actions to reduce social and economic vulnerability, prioritizing vulnerable groups and considering co-financing and the valuation of non-carbon benefits.
- Gender Variable (GV): Seeks to enhance the roles and participation of women in forestry development, prioritizing initiatives by direct female beneficiaries and those that strengthen their skills or productive activities.
- Indigenous Variable (IV): Prioritizes actions addressing the social and cultural vulnerability of indigenous peoples, including the enhancement of ecosystems or sites of cultural significance.
- Ecosystemic Variable (EV): Directs actions toward preservation and sustainable management, prioritizing activities in ecosystems vulnerable to climate change and maximizing ecosystem services (soil, water, biodiversity).
- Territorial Variable (Tve): Highlights governance and territorial planning, prioritizing areas defined as high-priority by the Territorial Prioritization System (SPT).

By incorporating these variables into the scoring process, the BSP incentivizes applicants to design and execute projects that focus not only on emission reductions but also on maximizing social and environmental impacts in line with the system's pillars of equity, fairness, and transparency.

4.4 Provide information on the processes and timeline for distributing the benefits (e.g., whether the benefits are distributed one-time or continuous/periodic).

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. However, benefits derived from the ERPA are expected to be distributed to the target population starting in 2026, following the awarding of projects through the ENCCRV Public Tender to be held during the current year. The magnitude and location of the resources to be distributed will depend on the tender processes, which are expected to conclude by the end of this year.

In this regard, although a formal schedule does not exist for this reporting period, the probable start date for the 2025 Public Tender cycle is planned for July 2025, concluding with the awarding of funds in December 2025. Regarding the execution of the awarded projects, these will be scheduled for 2026, taking into account ecological periods.

4.5 Provide information on any specific agreements signed with the beneficiaries for them to receive the benefits, and the key terms of such agreements.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. Consequently, there has been no delivery of benefits nor specific agreements signed with beneficiaries.

However, as with the Green Climate Fund's +Bosques Program, the agreement with beneficiaries will be public and must be signed by the owners of the awarded properties. This agreement is referenced in several sections of the Administrative Terms and Conditions for each tender, including those for the 2025 cycle, of which the ERPA is a part.

Starting with the 2025 call for proposals, the Agreement Annex will be integrated into the Administrative Terms and Conditions document itself. Previously, this annex was attached separately; however, from this version forward, it will be available as an internal annex within the same file.

In this regard, both the Administrative Terms and Conditions and the Agreement Annex will be publicly available on the tender platform, allowing interested parties to review them in detail before beginning their application.

The agreement establishes the responsibilities of both parties, CONAF and the property owners. This information is outlined in the Agreement Annex and detailed in the 2025 Public Tender Administrative Terms and Conditions, within the framework of the Green Climate Fund (+Bosques Program) and the Emissions Reduction Program (ERPA).

4.6 Describe the mechanisms that are in place to verify how benefits are used and whether those payments provide incentives to participate in the ER program activities.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. However, the current implementation of the BSP through the ongoing +Bosques Program includes the field deployment of ENCCRV professionals, who verify that distributed benefits materialize into projects whose activities are developed satisfactorily. Furthermore,

forestry operators contracted for project execution must meet a series of requirements to ensure compliance with the safeguard standards established by the country.

.3 Verification Mechanisms for the Use of Benefits

Distributed benefits are non-monetary in nature and materialize through the execution of projects aligned with the objectives of the National Strategy on Climate Change and Vegetational Resources (ENCCRV). Verification is guaranteed through a comprehensive monitoring and management process, described in the following activities:

- On-site Verification by Professionals: The current implementation of the BSP utilizes the field deployment of ENCCRV professionals. These experts verify that distributed benefits effectively materialize into projects and that activities are carried out satisfactorily.
- Continuous Monitoring and Follow-up: Once projects are awarded or selected, the National Forestry Corporation (CONAF) and the property owner sign a Collaboration Agreement establishing the rights and duties related to the agreed non-monetary benefits. Regional technical teams then initiate the monitoring of the implemented activities.
- Safeguard Compliance: Forestry operators contracted for project execution must comply with specific requirements to ensure respect for the country's safeguard standards. Safeguard management (risk prevention and mitigation) is a cross-cutting element, supported by the Safeguards Information System.
- Interconnected Management Systems: Tracking and traceability of project execution are conducted through the ENCCRV Information Management Platform. This includes the Property Tracking System (SSP), which allows for the monitoring of implemented activities and features a module for technical silvicultural and forest carbon monitoring. Similarly, the Safeguards Information System (SIS) enables field teams to track compliance across all environmental and social safeguard pillars.
- Central Supervision: The CONAF central team can verify information entered by regional teams through supervision visits to regional offices and/or beneficiary territories.
- Incentives for Program Participation: Non-monetary benefits incentivize participation by channeling funds directly into the execution of projects that generate significant positive results at the local and communal levels.

.4 Payment Verification Mechanisms for the ERPA

Regarding the tracking of payments to be made under the Emissions Reduction Program (ERPA), CONAF, in its capacity as a public institution, must maintain all necessary information for the purposes of periodic financial reporting. These reports require all documentation and inputs mandated by the oversight institutions to which expenditures must be accounted for.

In this context, the relevant information is contained within Mercado Público, the State's official procurement platform managed by ChileCompra. Through this platform, public agencies acquire goods and services in a transparent, competitive, and regulated manner. This electronic system involves institutions such as ministries, public services, municipalities, hospitals, and state universities, alongside providers ranging from large corporations and SMEs to individual contractors.

Procurement is conducted through various mechanisms, such as public and private tenders, framework agreements, and, in exceptional cases, direct contracts. Mercado Público is primarily governed by Law No. 19,886 and its regulations, aiming to ensure transparency and probity in the use of public resources, foster free competition, and promote the participation of SMEs in government procurement.

4.7 Describe the financial management arrangements and financial control mechanisms that are in place for recording the distribution of benefits, tracking payments, and maintaining accounting and internal controls.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. Consequently, there has been no delivery of benefits nor specific agreements signed with beneficiaries.

Regarding financial management, monthly Financial Reports will be submitted concerning the resources provided by INFOR (Forestry Institute), attaching all supporting documentation for the expenditures incurred. The submission and content of these reports must refer to the activities committed to in the AOP (Annual Operating Plan).

The accountability for expenditures shall be conducted exclusively through the Electronic Accountability System (SISREC) of the Office of the Contraloría General de la República. Reporting must be performed using authentic digitized documents uploaded to the System and electronic documents, following validation by the CONAF certifying officer (*ministro de fe*), justifying each expenditure made in the corresponding month. The aforementioned is detailed in the document: RESOURCES TRANSFER AGREEMENT: FORESTRY INSTITUTE - NATIONAL FORESTRY CORPORATION; under section 'SIXTH: ACCOUNTABILITY'

4.8 Provide information on how beneficiaries are using and reporting the benefits received. Are the systems in place able to track the use of the funds? Please describe any challenges encountered.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. The distribution of ERPA benefits is scheduled to start in 2026; therefore, as of the date of this report, no information is available to complete Tables 3, 4, and 5.

Table 3. Total monetary benefit distribution breakdown. The table below is a generic template, please adjust as per the BSP. [information below is extracted from the detailed excel Table 3 from Tab 2 prepared and submitted with this report]

Total monetary benefits distributed per beneficiary							
Category	Subcategory	Amount allocated		Amount distributed		Balance	
		(US\$)	%	(US\$)	%	(US\$)	%
Government	National	-	-	-	-	-	-
	Regional	-	-	-	-	-	-
	Municipal	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	
CSOs	-	-	-	-	-	-	
IPs	-	-	-	-	-	-	
Local Communities	-	-	-	-	-	-	
Other (please specify)	-	-	-	-	-	-	
TOTAL		0	0	0	0	0	0

Source: Own elaboration.

Note: Categories and subcategories should follow the BSP and as relevant for the program.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. Consequently, it is not yet possible to complete Table 3.

Table 4. Total non-monetary benefit distribution breakdown. The table below is a generic template, please adjust as per the BSP. [information below is extracted from the detailed excel Table 4 from Tab 2 prepared and submitted with this report]

Total non-monetary benefits distributed per beneficiary							
Category	Subcategory	Amount allocated		Amount distributed		Balance	
		(US\$)	%	(US\$)	%	(US\$)	%
Government	National	-	-	-	-	-	-
	Regional	-	-	-	-	-	-
	Municipal	-	-	-	-	-	-

Private Sector	-	-	-	-	-	-	-
CSOs	-	-	-	-	-	-	-
IPs	-	-	-	-	-	-	-
Local Communities	-	-	-	-	-	-	-
Other (please specify)	-	-	-	-	-	-	-
TOTAL		0	0	0	0	0	0

Source: Own elaboration.

Note: Categories and subcategories should follow the BSP and as relevant for the program.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. Consequently, it is not yet possible to complete Table 4.

Table 5. Benefit distribution to local communities divided by monetary and non-monetary and gender. The table below is a generic template, please adjust as per the BSP. [information below is extracted from the detailed excel Table 5 from Tab 2 prepared and submitted with this report].

	Total monetary				Total non-monetary			
	No. of people	US\$ amount disbursed	% total	TOTAL	No. of people	US\$ amount disbursed	% total	TOTAL
Men	-	-	-	-	-	-	-	-
Women	-	-	-	-	-	-	-	-
TOTAL	0	0	0	0	0	0	0	0

Source: Own elaboration.

The ERPA, through the BSP, recorded no activity regarding the distribution of benefits to the target population during the analyzed period. Consequently, it is not yet possible to complete Table 5.

5 Key issues and actions

5.1 Based on experience with the implementation of the BSP during the reporting period, identify and explain other key issues encountered not already described above, and how and when they are going to be addressed.

The ERPA, through the BSP, did not distribute any benefits to the beneficiary population during the period under review.

5.2 Are there any other emerging risks that may affect implementation, sustainability or effectiveness of the BSP? Please describe.

The ERPA, through the BSP, did not carry out any activities relating to the distribution of benefits to the beneficiary population during the period under review. However, emerging risks have been identified during the implementation of the BSP linked to activities funded by the FVC; in this regard, we can note that in 2024, an unforeseen environmental impact was identified in the Los Lagos region. This impact was specifically caused by the application of an antifungal preservative to fences installed by a forestry contractor (third-party execution). This product attracted bees belonging to the project beneficiary, affecting the quality of their honey and forcing them to discard some of their hives. Although the impact does not breach national legislation nor does it pose a structural risk to the implementation of the BSP, protocols were applied involving immediate mitigation measures, including the suspension of the product's use and financial compensation. It is important to note that all actions associated with the unforeseen event were recorded and verified by the relevant verifiers, who were supported by the Regional Team; furthermore, the safeguard monitoring mechanisms in the ERPA area were strengthened.

Furthermore, an emerging risk associated with the Community Forest Fire Prevention Plans was identified; this risk relates to the implementation phase of these plans, as the clearing and reduction of vegetation carried out by members of each community could expose them to a certain degree of accident risk and/or generate socio-environmental impacts. To address this risk, CONAF has committed to providing support through training. This preventive measure strengthens the sustainability of the BSP and demonstrates institutional capacity to anticipate and manage emerging risks.

5.3 Is the Benefit Sharing distribution contributing to the core objectives and legitimacy of the ER Program and effectively rewarding/incentivizing the adoption or sustainability of emission reduction measures? Please describe as relevant.

The ERPA, through the BSP, did not distribute benefits to the beneficiary population during the period under review. In this regard, there were significant delays in the transfer of funds between institutions, which led to a delay in the launch of the 2025 public tender. However, these delays do not affect the BSP or the transfer of benefits. Similarly, although there is a delay in the scheduled dates for the competition, this will not pose a problem for implementation.

5.4 Describe any lessons learned and, if relevant, recommendations for BSP improvement or modifications.

During the period under review, the ERPA, through the BSP, did not distribute any benefits to the beneficiary population.

However, it is worth noting that the 5th version of the BSP was updated in 2024. Among the reasons for this update were the lessons learned from the implementation process of the ENCCRV's first results-based payments program, which can be summarized as follows:

- **Expanding and making more flexible the scope of financing that can be distributed through the System; the difficulties in accessing international financing linked to results-based payments, which depend on a country's ability to demonstrate reductions in greenhouse gas emissions. It is necessary to leverage other types of financing.**
- **There is widespread dissatisfaction in regions not included in the NREF/NRF because they do not participate in the distribution of resources; for this reason, it was decided to expand the scope from the subnational to the national level.**
- **Adjust the regional resource allocation mechanism due to its inequitable and inflexible distribution, which does not allow for the redistribution of the budget in response to needs or unforeseen circumstances in the regions.**
- **To clarify and expand on the guidelines regarding the implementation of the budget not linked to territorial implementation (cross-cutting projects, enabling measures, operational expenditure).**
- **Clarify the definitions of the specific beneficiary population for the SBD, as the definition set out in national legislation contains ambiguities that are open to interpretation.**
- **Simplification of administrative processes, given that the implementation process revealed an excessive workload for regional teams.**

6 If relevant, please provide information on any other indicators as contained in the BSP and operational manuals (if relevant), including the explanation of un-met indicators.

During the period under review, the ERPA, through the BSP, did not distribute any benefits to the beneficiary population.

ANNEX 3: INFORMATION ON THE GENERATION AND/OR ENHANCEMENT OF PRIORITY NON-CARBON BENEFITS

Priority Non-Carbon benefits

1. List the **set of priority Non-Carbon benefits that were identified in the ERPD** and provide necessary details on activities for generation and enhancement of these Non-Carbon benefits.

The priority non-carbon benefits for the ENCCRV established in the 2016 ERPD are six in total, three in the social sphere and three in the environmental sphere. Each of them has a monitoring indicator associated with it, for which a national baseline was calculated in 2020 according to the methodology described in general terms below.

Priority Non-Carbon Benefit	<ul style="list-style-type: none"> ● Details on activities for generation and enhancement <ul style="list-style-type: none"> ○ Relevant Indicators as defined in ERPD ○ Results of indicators (information to justify the generation and enhancement of non-carbon benefits)
Decrease in soil loss	Dimension: Environmental
	Area: Soil resources
	Monitoring indicator: Soil loss per unit area
	Definition: soil loss produced by water erosion is the expression of the amount of soil loss due to runoff in specific areas under certain crops and management systems (Wischmeier and Smith, 1978) ¹⁴⁷
Contribution to the regulation of water balance	Dimension: Environmental
	Area: Water resources
	Monitoring indicator: Hillside runoff / Slope runoff using the SCS curve number method.
	Definition: Hillside runoff, or slope runoff, or excess precipitation, or effective precipitation corresponds to equivalent terms understood as the portion of the precipitation available for direct runoff. As noted above, this indicator is estimated with the SCS curve number (CN) method, whose outcome is adjusted according to 2 existing methods. It should be noted that these curve number fitting methods have not been validated in Chile, except for some isolated applications in the national territory, so their application must be carefully studied.
Recovery, Maintenance and / or increase of connectivity (biological structure)	Dimension: Environmental
	Area: Biodiversity
	Monitoring indicator: Vegetation structural fragmentation - connectivity index.
	Definition: The different current states (land uses) of natural vegetation formations respond directly to interventions, which can be natural or anthropogenic, historical, or recent. Therefore, these states constitute a habitat with either more or less conditions for the characteristic biota of any potential vegetation species in each of the ecological regions of the country. Thus, the areas with existing uses closest in structure to the potential vegetation constitute the habitat network for biodiversity and its fragmentation (degree of discontinuity or functional discretion) determining a greater or lesser risk for the conservation of ecosystems in a landscape.
Cultural identity	Dimension: Social.
	Area: Socio-cultural.
	Monitoring indicator: Indicator of species of Cultural Significance (Rate of change of the richness of species of cultural significance).
	Definition: this indicator corresponds to the rate of change, with respect to a base year, of the richness of species of cultural significance in "areas of cultural interest" product of projects benefited by the REDD+ activities of the ENCCRV, specifically linked to conservation, sustainable management and / or the coverage of species that generate cultural services valued by indigenous communities.
	Dimension: Social

¹⁴⁷ Wischmeier, W.H. and Smith, D.D. (1978) Predicting Rainfall Erosion Losses. A Guide to Conservation Planning. The USDA Agricultural Handbook No. 537, Maryland. Retrieved from: <https://naldc.nal.usda.gov/download/CAT79706928/PDF>

Priority Non-Carbon Benefit	<ul style="list-style-type: none"> ● Details on activities for generation and enhancement <ul style="list-style-type: none"> ○ Relevant Indicators as defined in ERPD ○ Results of indicators (information to justify the generation and enhancement of non-carbon benefits)
Employment and occupation	Area: Socio-economic
	Monitoring indicator: Employment gap according to gender: Variation in the employment rate of women Variation of the gender gap in occupation
	Definition: It corresponds to the percentage variation in the employment rate of women in the forestry sector (agriculture, hunting and forestry). It corresponds to the variation in the gender gap in employment in the forestry sector (agriculture, hunting and forestry).
Income and production ¹⁴⁸	Dimension: Social
	Area: Socio-economic
	Monitoring indicator: Average monthly income: Percentage of variation in the average monthly income of workers in the forestry sector (agriculture, hunting and forestry) in year t = i with respect to the base year. Interannual variation of the average income of workers in the forestry sector (agriculture, hunting and forestry).

For the monitoring of priority non-carbon benefits, a protocol was defined in 2020 for the collection and recording of information on territorial implementation activities. Given that the implementation of activities under the ENCCRV started in 2021, and their monitoring in 2022 and 2023, to account for the impact on non-carbon benefits, an approximate approach to measurement has been applied.

These methodological approaches are based on the availability of information on territorial implementation activities and are based on spatial analysis using as main input the geometries of 681 intervention areas of about 361 projects, corresponding to the years 2021, 2022 and 2023, in different stages of implementation of the +Bosques project. This information comes from the ENCCRV platform (plataforma.enccrv.cl) and depends exclusively on the data uploaded by the users of the system, therefore, it may differ in terms of the activities tendered and awarded during the same period.

The intervention areas are analyzed according to the action measure defined in the ENCCRV framework, which corresponds to Afforestation (MT4) in conditions without forest cover and Restoration (MT5), Post-Fire Restoration (IF2) and Sustainable Forest Management Areas (US1) in conditions of forest cover. Excluded from this analysis of non-carbon environmental benefits were those areas of Support to the Wood Energy Program (US3) and Preventive Silviculture (IF3) since their objective is not directly linked to the provision of non-carbon benefits in the territory. The areas and number of intervention areas analyzed for the six regions of the +Bosques project are presented in Table 1.

Región	IF2		MT4		MT5		US1		Superficie total (ha)	N° de Áreas
	Superficie (ha)	N° de Áreas	Superficie (ha)	N° de Áreas	Superficie (ha)	N° de Áreas	Superficie (ha)	N° de Áreas		
Maule	245.8	17	226.8	29	290.5	32	81.6	13	844.7	91
Los Lagos	6.6	1	82.7	14	268.9	16	4.2	2	362.4	33
Ñuble	93.5	9	33.4	21	100.7	21	77.3	12	304.9	63
Biobío	50.9	14	171.6	105	139.1	45	267.3	49	628.8	213
La Araucanía	69.7	8	204.1	97	616.1	102	121.6	13	1,011.5	220
Los Ríos			96.5	20	109.6	26	73.6	15	279.6	61
Total general	466.5	49	815.0	286	1,524.8	242	625.5	104	3,431.8	681

¹⁴⁸ Co-benefit of income and production are in the process of being surveyed because the existing information focuses only on BDNP and is not comparable with the income parameters reported by the INE. A useful measurement proposal to evaluate income improvements in the short term has not yet been defined.

Table 1. Resumen de superficies y número de áreas de intervención analizadas

The following is a description of the methodologies and results proposed for the non-carbon benefits of soil, water and biodiversity.

A. Decrease in soil loss

The estimation of the non-carbon benefit or co-benefit of decreased soil loss is based on the Revised Universal Soil Loss Equation (RUSLE) (Renard et al, 1997), which was developed as a method for predicting annual soil loss in the selected study watersheds. It is a widely used scientific model from which the amount of soil lost in t ha⁻¹ yr⁻¹ is derived. Thus, RUSLE is defined by the following equation:

$$A = R * K * LS * C * P$$

Where A is the soil loss per unit area, measured in metric tons per unit area (t/ha); R is the rainfall erosivity factor; K is the soil erodibility factor; L (dimensionless) is the slope length factor; S (dimensionless) is the slope gradient factor; C (dimensionless) is the soil use and management; it is the ratio of erosion losses between a soil with a given use and management system; P (dimensionless) is the mechanical support practice factor; P (dimensionless) is the soil cover and vegetation management factor (dimensionless), it represents the ratio of erosion losses between a soil with a given use and management system; P (dimensionless) is the soil cover and vegetation management factor (dimensionless), it represents the ratio of erosion losses between a soil with a given use and management system.

Based on this method, the proposal for estimating the decrease in soil loss is made by evaluating the temporal change of factor C. This component corresponds to the factor of vegetation cover and management (dimensionless), it represents the degree of protection that a certain type of vegetation cover offers to the soil, representing the effectiveness of the vegetation in buffering the impact of raindrops and surface flow. It can be interpreted as follows:

- Low values of factor C indicate high soil protection.
- High values of factor C indicate lower soil protection.

There are several studies that have considered the good correlation obtained between the C factor and NDVI (Durignon et al., 2014; Pacheco et al., 2019). The C factor values range from 0 to 1, where values closer to 0 are associated with areas with greater vegetation cover and therefore NDVI close to 1, while values close to 1 in the C factor are associated with vegetation cover with NDVI values close to -1. Under this consideration, and from NDVI images, following formula was applied for conversion to the factor C (Van der Knijff et al., 1999, 2000):

$$C = e \left(-\alpha \left(\frac{NDVI}{\beta - NDVI} \right) \right)$$

Where α and β are dimensionless parameters that determine the shape of the curve related to NDVI and factor C. Values $\alpha=2$ and $\beta=1$ was selected for these parameters, considering that, according to Van der Knijff et al. (2000), they are the closest to European Mediterranean climatic conditions.

Method

The procedure carried out for data acquisition and analysis is as follows:

- Acquisition of Sentinel 2-NDVI for intervention areas in Google Earth Engine. Sentinel 2 harmonized collection, December to February for the following years t1= 2021, t2= 2022, t3= 2023, t4= 2024, t5= 2025.
 - Calculation of NDVI from bands 4 (RED) y 8 (NIR).
 - Cutting on intervention areas MT4, MT5, IF2 y US1 from Maule to Los Lagos
- Calculation of factor $C = e \left(-\alpha \left(\frac{NDVI}{\beta - NDVI} \right) \right)$
 - α y β dimensionless parameters that determine the shape of the curve related to NDVI and C-factor. The following values were selected $\alpha=2$ and $\beta=1$
- Calculation of change t5-t1
- Analysis of results by intervention area, action measure and region

Results and Conclusions

The time series of the average C factor values by region and action measure are presented below. For all regions there is a decrease in the C factor from 2021 to 2025, i.e., there has been an improvement in land cover and protection for the intervention areas. This pattern is not clear for the Los Lagos region, mainly due to a low number of projects analyzed and activities not executed.

In the case of Maule (Figure 1), Afforestation (MT4) shows a decrease in the C factor starting at a value of 0.36 in response to the coverage without vegetation, and a decrease in the factor in the time series towards 2025, i.e., an improvement in soil protection explained by the implementation of planting activities in the areas. The same pattern is observed for the Restoration and Post Fire Restoration activities (MT5 and IF2 respectively), which start with values 0.21 and 0.26, values that decrease until 2025 in response to a progressive implementation of forest cover restoration activities, increasing soil protection. In US1, values of the factor are stable over time, with a slight increase in response to management activities in these areas.

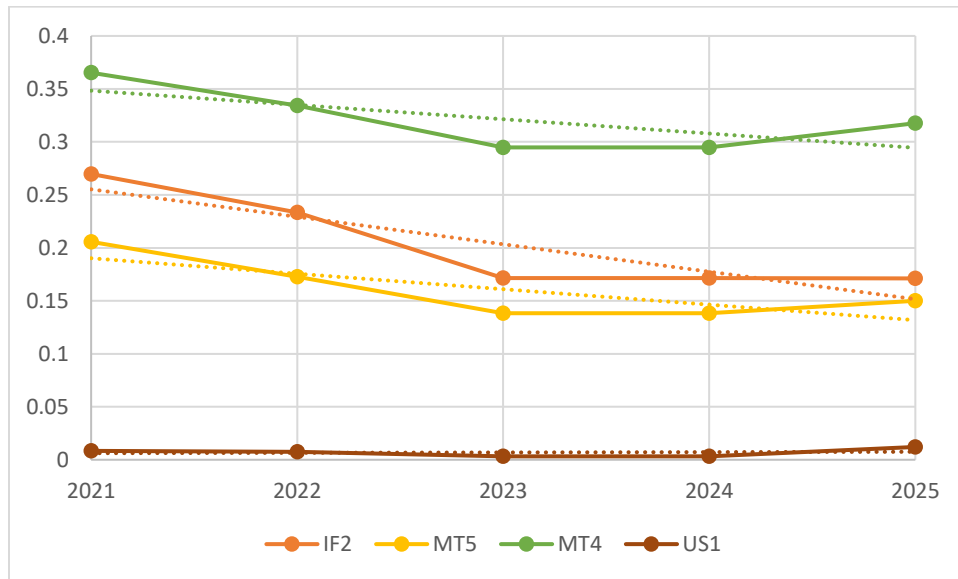


Figure 1 Time Series C Factor by MDA - Maule Region

For Ñuble (Figure 2), the temporal behavior of the C factor is similar to that of the Maule Region. However, they differ in the context of post-fire restoration intervention areas (IF2), where a drop in the C factor is observed for 2022, possibly due to the presence of natural regeneration and the activities carried out on the site, increasing soil protection for 2025.

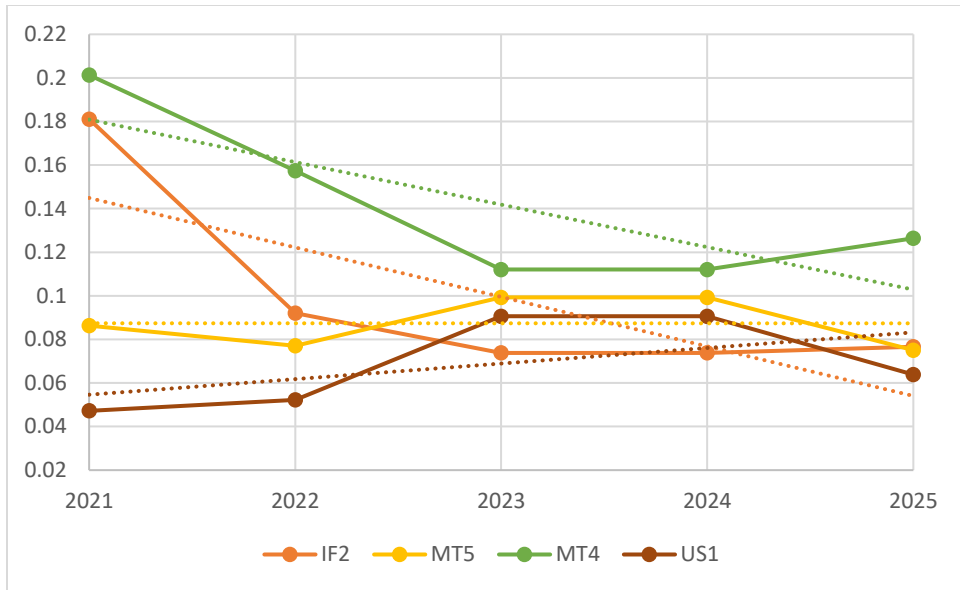


Figure 2 Time Series C Factor by MDA - Ñuble Region

In the case of Biobío (Figure 3), Forestations (MT4) present a drop in the C factor starting at a value of 0.12 and presenting a decrease in the factor over time, i.e., an improvement in soil protection explained by the implementation of planting activities in the areas. For the Post Fire Restoration areas (IF2), an increase in the factor is observed in the year 2023, this can be explained by the occurrence of fire events on the site for projects 2023 and 2024, tending to a decrease (greater protection) towards 2025 in consideration of the implementation of activities. In MT5 and US1, values of the factor are stable over time, with a slight increase in response to management activities occurring in these areas.

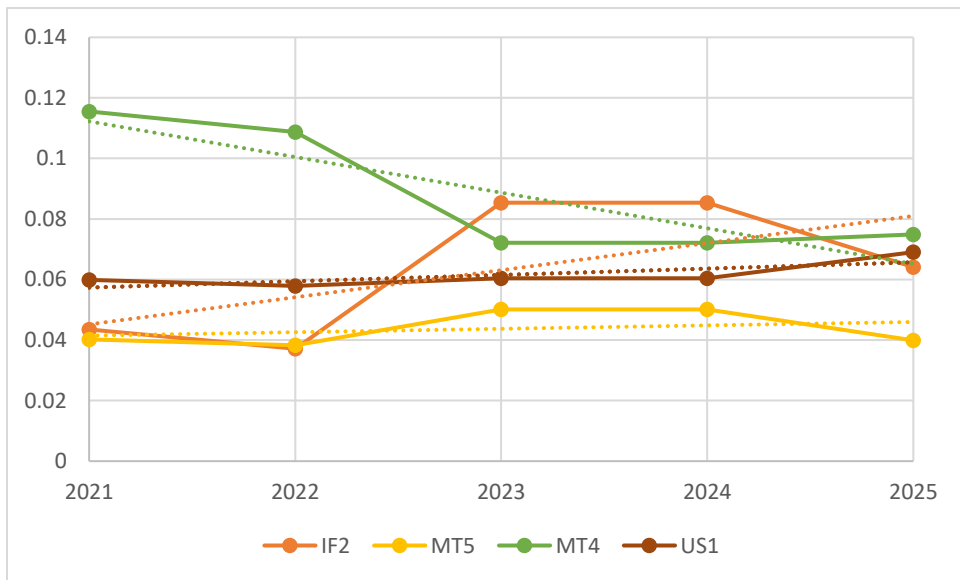


Figure 3 Time Series C Factor by MDA - Biobío Region

In La Araucanía (Figure 4), Forestations (MT4) in areas without tree cover, show a drop in the C factor starting at a value of 0.1 and a decrease in the factor towards 2025, i.e., an improvement in soil protection explained by the implementation of planting activities in the areas. The same pattern is observed for the Post Fire Restoration activities (IF2), the starting conditions are like the Afforestation areas (MT4) given the site's affection by forest

fires. Forest conditions, both Restoration (MT5) and Sustainable Forest Management (US1) areas present stable values of the C factor over time.

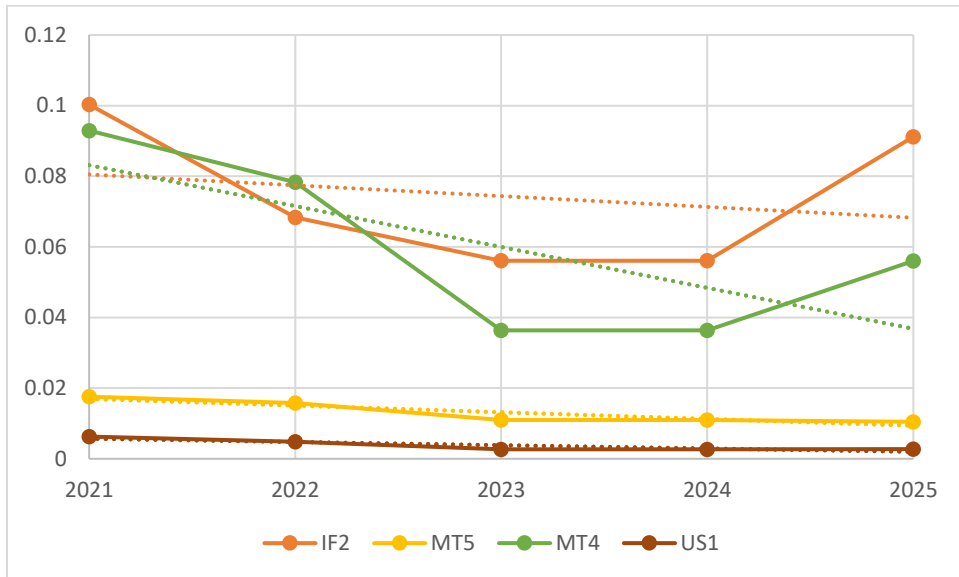


Figure 4 Time Series Factor C by MDA - Araucanía Region

In Los Ríos (Figure 5), it is worth noting the behavior of an increase in the C factor in areas of Sustainable Forest Management (US1) in the years 2023 and 2024 in response to management activities, with a decrease in coverage and generating a lack of soil protection, with a recovery in the 2025 season. This pattern is also observed in Forestation (MT4) and Restoration (MT5) areas, possibly due to soil preparation activities, site preparation for planting and afforestation.

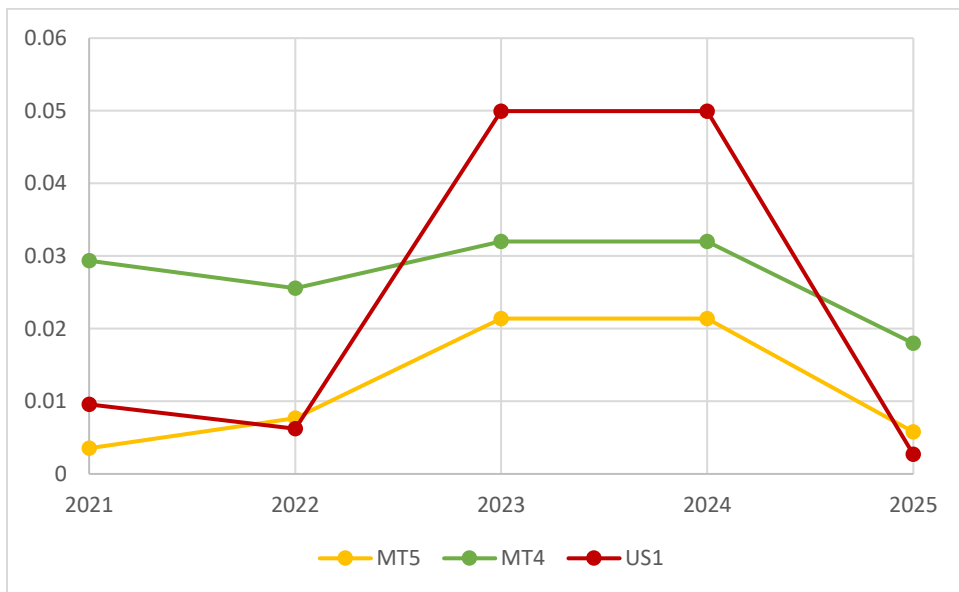


Figure 5 Time Series C Factor by MDA - Los Ríos Region

In the case of Los Lagos (Figure 6), in the Forestation areas (MT4), a lack of soil protection is observed for the years 2023 and 2024, explained by the habilitation of sites for planting, with a recovery of the cover by 2025. In post-fire restoration sites (IF2), an increase in the C factor is observed in 2022, explained by the occurrence of forest fire events, with a recovery since 2023. Meanwhile, in forest areas, both degraded forest restoration (MT5) and

Sustainable Forest Management (US1), the behavior is stable over time, given by a low degree of implementation of activities in these areas.

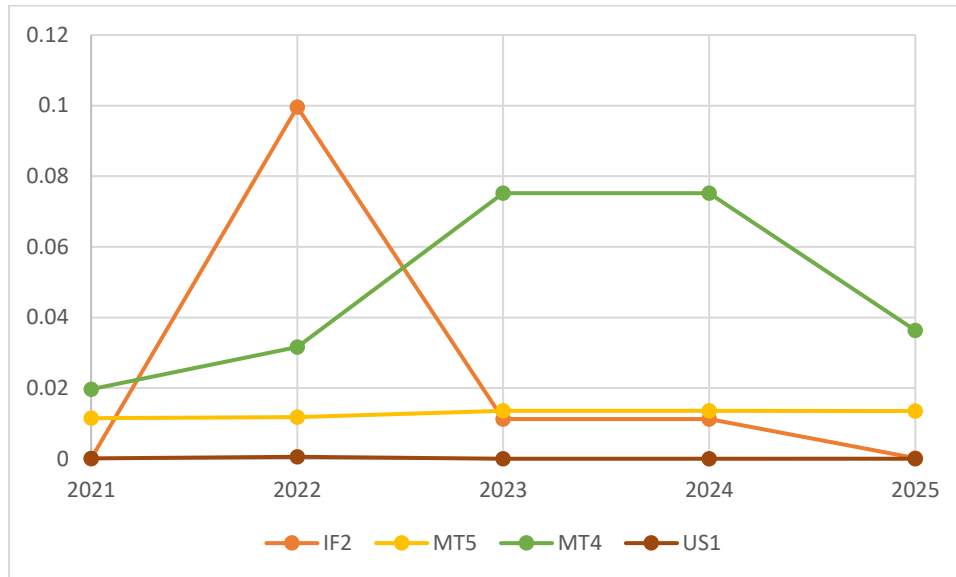


Figure 6 Time Series C Factor by MDA - Los Lagos Region

Finally, Table 2 shows the average values of the difference in the C factor between 2025 and 2021. Negative changes suggest soil protection, while positive changes refer to a trend towards soil deprotection. In general, US1 is stable for all regions. In all regions, except Los Lagos, the afforestation areas (MT4) showed improvements in soil protection, which represents a contribution of the project to the reduction of soil loss.

Región	MDA	N°	Mean Difference factor C	Standard deviation Difference factor C
Maule	IF2	15	-0.08	0.05
	MT5	28	-0.04	0.04
	MT4	28	-0.04	0.08
	US1	9	0.00	0.01
Ñuble	IF2	9	-0.10	0.16
	MT5	21	-0.01	0.05
	MT4	21	-0.07	0.07
	US1	12	0.02	0.04
Biobío	IF2	14	0.02	0.07
	MT5	45	0.00	0.03
	MT4	105	-0.04	0.06
	US1	49	0.01	0.08
La Araucanía	IF2	8	-0.01	0.05
	MT5	102	-0.01	0.02
	MT4	97	-0.04	0.08
	US1	13	0.00	0.01
Los Ríos	MT5	26	0.00	0.01
	MT4	20	-0.01	0.07
	US1	15	-0.01	0.01
Los Lagos	IF2	1	0.00	
	MT5	16	0.00	0.01
	MT4	14	0.02	0.04
	US1	2	0.00	0.00

Table 2 Cambio en Factor C (2025-2021) por MDA y Región

These results will continue to be monitored until the end of the +Bosques project and the execution of activities in the intervention areas. In addition, the number of projects and areas analyzed is expected to increase.

B. Regulation of water balance NDWI - Decrease of Hillside Runoff

The Normalized Difference Water Index (NDWI), which was proposed by Bo-Cai Gao in 1996, was used as a proxy to evaluate the regulation of the water balance and is used to monitor changes in the water content of vegetation, using near infrared (NIR) and shortwave infrared (SWIR) wavelengths, which makes it sensitive to changes in the liquid water content and in the spongy mesophyll of vegetation canopies (Gao, 1996); Ceccato et al. , 2001). It has been identified as a useful index to study vegetation in areas affected by drought.

Based on this index, we seek to represent the change in moisture content between 2021 and 2025 in the +Bosques project intervention areas.

Method

The procedure carried out for data acquisition and analysis is as follows:

- Acquisition of Sentinel 2-NDWI for intervention areas
- Harmonized Sentinel 2 collection, December to February for the years t1= 2021, t2= 2022, t3= 2023, t4= 2024, t5= 2025.
 - Calculation of NDWI based on band 8 (NIR) and 12 (SWIR)
 - Cut of images over intervention areas MT4, MT5, IF2 and US1 from Maule to Los Lagos.
 - Calculation of Change t5-t1
- Analysis of results by intervention area, action measure and region.

Results and Conclusions

In general, for all regions and action measures, there is a trend towards an increase in the moisture content of the intervention areas, which suggests a positive contribution to the water regulation of the intervention areas. In addition, on average, the areas with initial conditions of forest as sustainable management areas (US1) and restoration (MT5) have the highest values in the index. While Forestation areas (MT4) and post-fire Restoration areas (IF2), in general, present similar index behaviors.

Figure 7 shows the increase in moisture content for all intervention areas in the Maule region. In the case of afforestation areas (MT4), this increase is comparatively lower than the other activities, which may be due to a recent execution of planting activities, low growth, or low survival of new plants in these areas, generating a minor change in water regulation in the region.

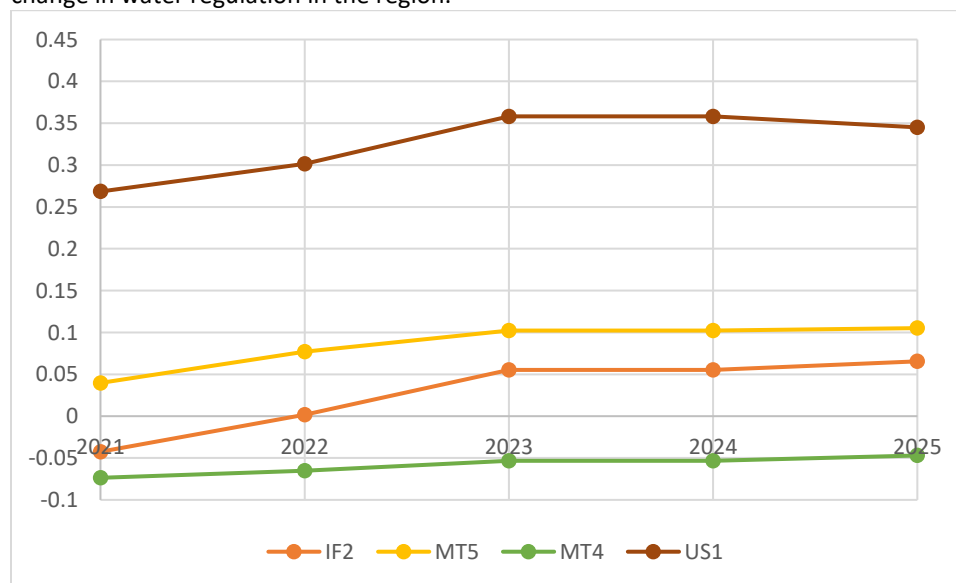


Figure 7 NDWI Time Series by MDA - Maule Region

In the case of Ñuble (Figure 8), there is evidence of a progressive increase in the moisture content for the areas of intervention of Afforestation (MT4) and post-fire Restoration (IF2), this could be due to the increase in cover given by the intervention.

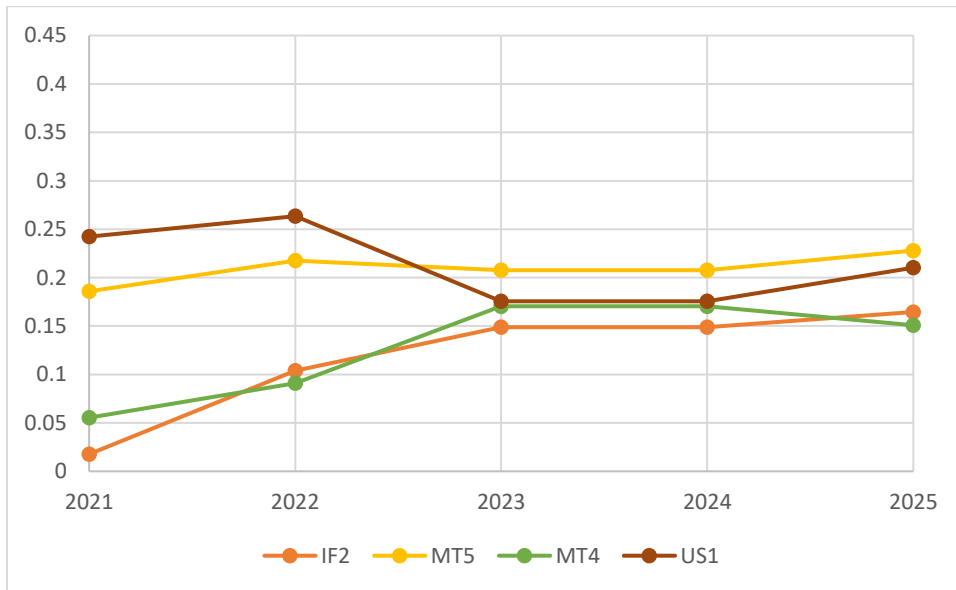


Figure 8 NDWI Time Series by MDA - Ñuble Region

For Biobío (Figure 9), the Afforestation measure has an increase from 2021 to 2025 in response to the improvement in vegetation cover and condition. While for the restoration (IF2 and MT5) and sustainable forest management (US1) measures, no major changes are observed in the intervention areas. It is recommended that the analysis can evaluate a longer time horizon to have a greater probability of evidencing impacts.

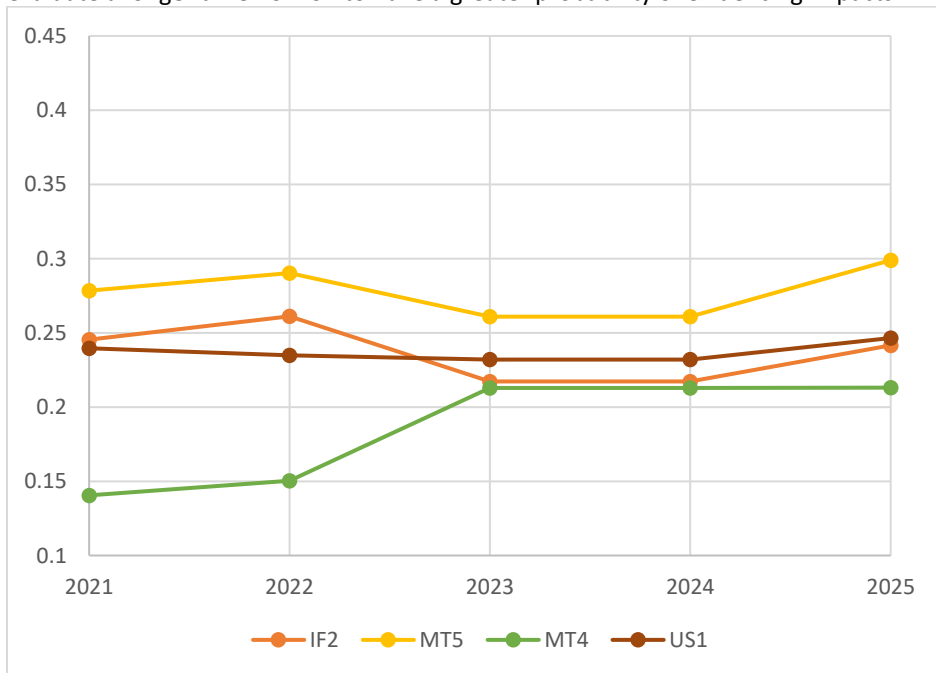


Figure 9 NDWI Time Series by MDA - Biobío Region

In Figure 10, the results in the Araucanía region show differences in index levels according to initial condition, so areas without tree cover such as post-fire restoration areas (IF2) and afforestation (MT4) show similar index

behaviors, with low index values and an increase in moisture content by 2025. In the case of forest cover, both restoration (MT5) and sustainable management areas (US1) show high average values and subtle changes over time.

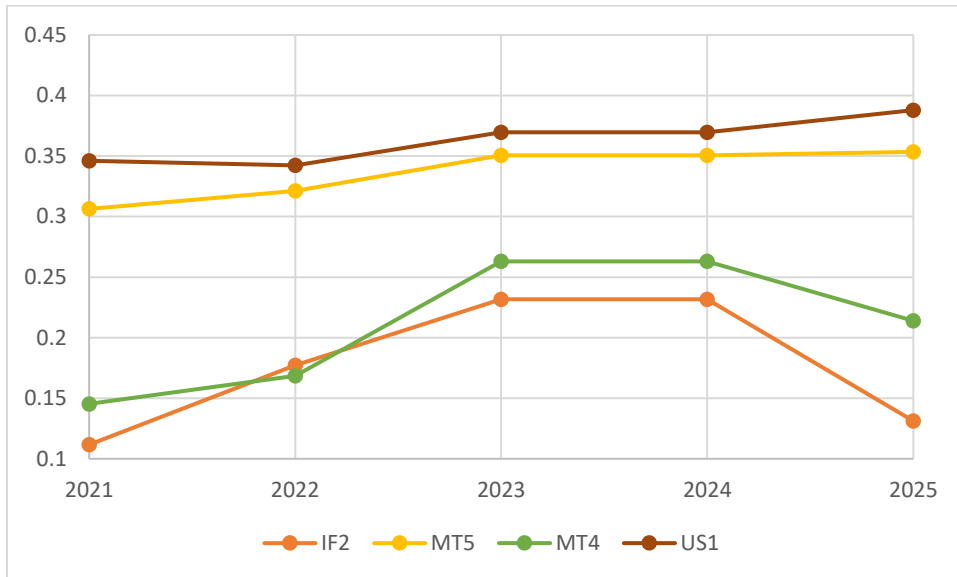


Figure 10 NDWI Time Series by MDA - La Araucanía Region

In the case of Figure 11, fluctuations are presented in the five seasons evaluated for the Los Rios action measures. At the end of 2025, a positive change in the moisture content of vegetation in areas of sustainable management (US1) is observed; for the restoration area (MT5), fluctuations are observed over time and a decrease with respect to the value of 2021.

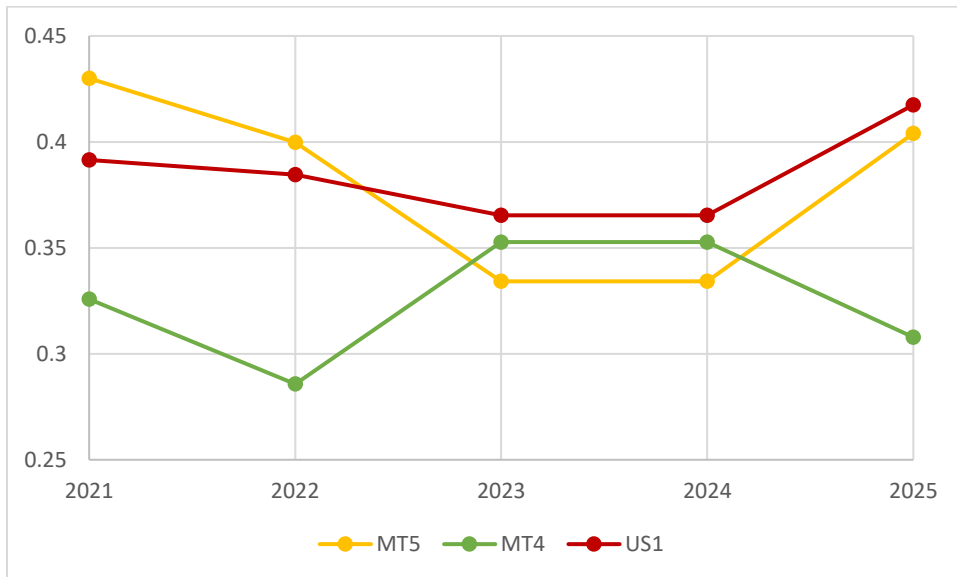


Figure 11 NDWI Time Series by MDA - Los Ríos Region

In the case of Los Lagos (Figure 12), negative trends are observed with fluctuations over time towards 2025. These results are based on a low number of intervention areas.

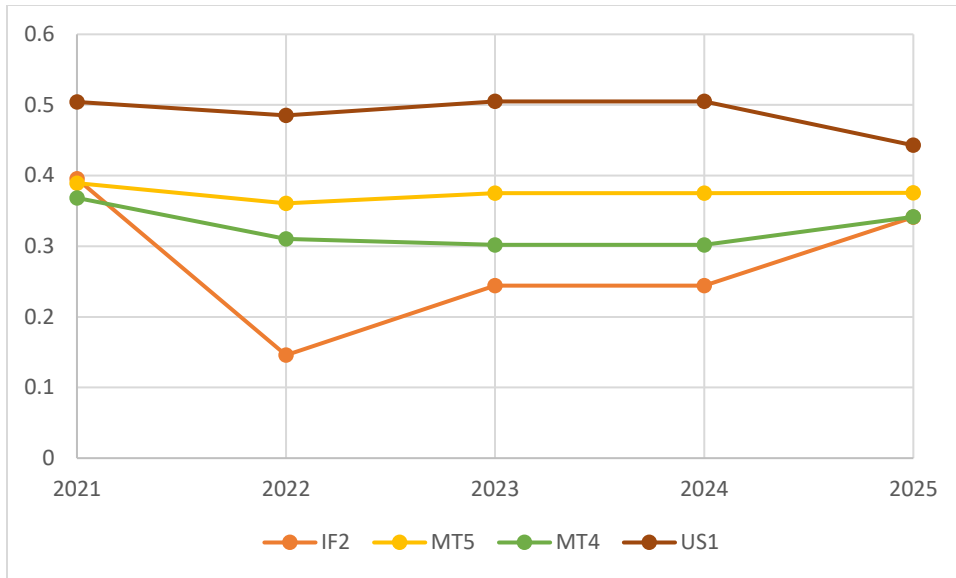


Figure 12 Serie de Tiempo NDWI por MDA – Región Los Lagos

The difference in NDWI for the 2025 and 2021 periods supports the positive changes observed above. However, the magnitudes of change are on average low for all regions and action measures. It is important to mention that for MT4 in the early years there is higher water consumption compared to other action measures. This could also be detected using a better analysis resolution, which has not been possible in this case.

These changes will continue to be monitored and updated as the number of projects evaluated increases. Based on the above, it will be evaluated whether the methodological approach allows capturing the contribution of project activities on water regulation.

Región	MDA	N°	Mean NDWI	Difference	Standard deviation	Difference NDWI
Maule	IF2	15	0.078		0.07	
	MT5	28	0.031		0.05	
	MT4	28	0.013		0.08	
	US1	9	0.114		0.08	
Ñuble	IF2	9	0.147		0.17	
	MT5	21	0.042		0.08	
	MT4	21	0.095		0.07	
	US1	12	-0.032		0.10	
Biobío	IF2	14	0.021		0.07	
	MT5	45	0.000		0.03	
	MT4	105	-0.041		0.06	
	US1	49	0.009		0.08	
La Araucanía	IF2	8	0.020		0.11	
	MT5	102	0.047		0.06	
	MT4	97	0.069		0.09	
	US1	13	0.042		0.07	
Los Ríos	MT5	26	-0.026		0.09	
	MT4	20	-0.018		0.08	
	US1	15	0.026		0.04	
Los Lagos	IF2	1	-0.054			
	MT5	16	-0.014		0.05	
	MT4	14	-0.027		0.06	

Table	3.	Change	in	US1	2	-0.061	(2025-2021)	by	MDA	and	Region
--------------	-----------	--------	----	-----	---	--------	-------------	----	-----	-----	--------

C. Structural connectivity of vegetation

The approach to evaluate the benefit of structural connectivity was based on the calculation of the core area (CA) landscape metric. This core area metric corresponds to the area within a vegetation patch that is not on its edge, being considered core area if it has no neighboring cells with a value other than vegetation. It describes the area and shape of the patch simultaneously. It is possible to consider this metric as a proxy for patch connectivity since it provides information on the amount of interior habitat available, i.e., the area of vegetation that is not influenced by edges, which is key for many species that require more stable and less disturbed conditions. If several vegetation patches have large core areas close together, this may be an indicator that the landscape has favorable structural connectivity, which can facilitate gene flow, seed dispersal, and animal mobility.

Specifically, the change in this landscape metric is evaluated considering a scenario of calculating the core area incorporating the intervention areas and a scenario without this new vegetation patch, allowing to evaluate the impact on the increase, maintenance and/or recovery of the structural connectivity of the vegetation in a landscape given by the sub-basins of the program regions.

Method

The metrics were calculated using R software and the landscapemetrics package (Garigal, K., SA Cushman, and E Ene. 2012. FRAGSTATS v4).

The input data used were:

- Sub-basins as a landscape unit from Maule to Los Lagos, obtained from DGA.
- European Space Agency (ESA) WorldCover 10 m 2021 product as a land cover map for 2021 at 10 m resolution, based on Sentinel-1 and Sentinel-2 data. The WorldCover product includes 11 land cover classes, of which the Tree Cover and Shrubland classes were used to represent vegetation from Maule to Los Lagos. The land use mask of plantation and agricultural areas from CONAF's land use change maps is applied to these. This cover input was used because of the higher spatial resolution (10 m) and the year of the product, in order to capture the impact of small surface intervention areas.
- MT4, MT5, IF2 and US1 intervention areas were used to dam the increase, maintenance or improvement of structural connectivity by incorporating these patches.

The method used consists of calculating the core area (CA) metric in the landscapes and calculating the impact on structural connectivity, i.e., the contribution of the MT4, MT5, IF2 and US1 intervention area patches in the sub-basins of the +Bosques project regions. For this purpose, a difference is made between the structural connectivity of the landscape under a scenario considering the new patch corresponding to the project intervention, minus the core area without considering this intervention area.

Results and Conclusions

In general terms, the analysis shows the greatest impacts on Structural Connectivity in post-fire restoration areas (IF2) for Maule, Ñuble and Araucanía, which may be due to the loss of vegetation cover caused by forest fires in these areas with forest presence, so that the incorporation of restoration patches would have a greater contribution in recovering the structural connectivity of forests compared to other activities.

It should be noted that for forestation areas (MT4), the incorporation of the new vegetation patch should theoretically be associated with higher values of structural connectivity by contributing to connect forests or remaining vegetation in the landscape. However, Table 3 shows that these areas have the least impact in the regions of Ñuble, Biobío, La Araucanía and Los Ríos. This could be due mainly to the small areas of intervention and to the fact that they are atomized in a highly fragmented landscape, generating a low contribution to improving structural

connectivity by not adding new core areas to the landscape. This highlights the need to prioritize forestation in areas linked to remnant forests with landscape criteria.

Finally, it is expected to continue monitoring the contribution to the landscape of the intervention areas of the +Bosques project, considering the incorporation of a greater number of polygons in the intervention regions.

Región	MDA	n°	Average Surface Area (ha)	Average Impact Core Area (ha)	Standard deviation Impact Core Area (ha)
Maule	IF2	17	14.46	8.56	11.14
	MT5	32	9.08	4.47	10.68
	MT4	29	7.82	6.07	7.99
	US1	13	6.28	0.32	0.69
Ñuble	IF2	9	10.39	5.03	3.91
	MT5	21	4.79	2.64	3.72
	MT4	21	1.59	1.08	1.30
	US1	12	6.44	3.27	5.76
Biobío	IF2	14	3.64	1.30	1.75
	MT5	45	3.09	0.84	2.26
	MT4	105	1.63	0.86	2.64
	US1	49	5.46	3.65	21.04
La Araucanía	IF2	8	8.72	6.61	10.96
	MT5	102	6.04	1.35	2.74
	MT4	97	2.10	1.20	1.57
	US1	13	9.35	1.76	3.52
Los Ríos	MT4	26	4.21	0.56	0.81
	MT5	20	4.82	1.92	5.67
	US1	15	4.90	0.33	0.46
Los Lagos	IF2	1	6.56	0.00	
	MT5	16	16.81	0.00	0.06
	MT4	14	5.90	0.00	0.08
	US1	2	2.10	0.00	0.00

Table 4 Impact on Structural Connectivity by MDA and Region

D. Cultural identity

To estimate the benefit associated with “Cultural Identity”, the rate of change metric for species richness of cultural significance was used. This metric seeks to compare the initial condition (t=0) in indigenous lands and territories with the condition after project implementation (t=1), understanding that this indicator promotes the use of species of cultural significance that is linked to the identity of indigenous peoples.

With respect to the inputs for its measurement, some differences were established with respect to the original description of the indicator due to the lack of specific information for each intervened property, these differences are indicated below.

Limitations for measurement

It is important to note that this analysis was developed considering only the intervened polygons in the properties whose owners belong to an indigenous people, assuming as an area of cultural interest only that area that was forested or intervened, and not an indigenous territory declared of cultural interest as a site of cultural significance, because there is no detailed information on this aspect at the level of each property.

Likewise, the cross-referencing of data with the cadastral information for the baseline estimation was done at the stand level, allowing for greater spatial disaggregation. On the other hand, the information used for the monitoring year (2022-2024) is grouped at the project level, summing up the intervened areas of all the associated stands, which prevents an exact comparison at the same spatial scale.

Finally, the estimate of the richness of species with cultural significance was based on the crossing between the species planted in the intervened areas and the official list of species of cultural significance (Cobeneficios Protocol, 2024), so other relevant species present were not considered.

Method

The following sources of information were used to estimate this metric:

- List of culturally significant species from the “Plan de Gestión de Recursos Vegetacionales en Tierras Indígenas” (CONAF, 2018).
- To define the baseline of the indicator, the information of the project stands was crossed with the detail of species richness of the Land Use Cadastre, which identified 1 to 6 dominant species in each polygon of the cadastre. Thus, the richness took values between 1 and 6. This was then compared with the list of species of cultural significance to obtain the frequency of these species in the base year.
- To define the information for the monitoring year, the consolidated database for the year 2021-2024 was used, where the detailed information on forested species is described, which was compared with the list of species of cultural significance to obtain the frequency of these species for the monitoring period.

The method used to measure the rate of change in the richness of culturally significant species at the farm level was calculated as follows:

$$TR_t = (Ibt / Ibt=0-1) * 100 \%$$

Where the baseline indicator (Ibt 0) was first calculated, obtained from crossing the stands considered areas of cultural interest with the information on species richness from the Land Use Cadastre, identifying 1 to 6 dominant species in each polygon of the cadastre.

$$Ibt \text{ (baseline year)} = (\sum f_i \times a_i) / \text{área total de interés cultural (implemented stands)}$$

It is then compared with the calculation of species richness of cultural significance, weighted per unit area in year t, estimated as follows,

$$Ibt \text{ (monitoring yeay)} = (\sum f_i \times a_i) / \text{área total de interés cultural (implemented stands)}$$

Where,

a_i: is the portion of the surface of the area of cultural interest (stands affected by the project) in m2 that intersects a polygon of the cadastre *i*.

f_i: is the frequency of species of cultural significance present in area *a_i*.

Results and Conclusions

As seen in Table 5, a significant increase in the richness of culturally significant species is evident in the Araucanía and Los Ríos regions, suggesting a positive impact of the +Bosques project interventions on biocultural identity in these regions.

In the case of the Los Lagos region, a significant decrease in the indicator was observed, which could be related to changes in vegetation cover or the selection of species other than those listed, which shows a decrease in richness. However, this data is not conclusive.

Región	Ib1 Indicator in year of monitoring	Ib ₀ Indicator in base year	TR _t Change rate (%)
La Araucanía	4.3	2.0	119
Los Ríos	4.6	2.4	94
Los Lagos	4.4	11.3	-61

Table 5 Results and conclusions

In conclusion, the indicator proves to be a useful tool for assessing the cultural and environmental impact of project interventions in indigenous territories. However, it is necessary to review the baseline information associated with areas of cultural interest in order

to obtain reliable, representative data. This requires further analysis which is being conducted during the 2025 by the DCCSE.

E. Gender employment gap

To estimate the non-carbon benefit associated with the "Gender Employment Gap," which varies from the original proposal associated with the priority co-benefits, the "Year-over-Year Change in Gender Participation by Region" measurement was used for the purposes of this report.

The year-over-year change in gender participation allows for the assessment of changes in the proportion of women and men who participated in project implementation between 2022 and 2023 for the +Bosques project. This indicator is relevant for monitoring progress towards gender equity within the forestry and agricultural sector.

Method

Participation by gender was calculated as the percentage of people of each sex (female or male) out of the total number of project participants registered in 2022 and 2023, considering both the national total and the breakdown by region.

The year-over-year variation by gender and region was estimated from the percentage change between 2022 and 2023, using the following formula:

Interannual variation= ((Participation año 2022 – Participation año 2023)/Participation año 2022))x 100

The data were obtained from BDNP records, disaggregated by project, where the gender of each person hired to implement the project on the properties of the direct beneficiaries was identified. The data does not include staff hires at the nurseries, but only those made through contracting companies. The data were then grouped by region and year for comparative analysis.

Results and conclusions

Nationally, female participation increased from 14.8% in 2022 to 19.4% in 2023, representing a positive change of 31.3%. While male participation went from 85.2% to 80.6%, a negative change of 5.4%.

Regional results:

- Maule Region: Female participation increased from 10% to 26%, a positive change of 154%.
- La Araucanía Region: Female participation increased from 14% to 17%, a change of 20%.
- Los Lagos Region: Female participation decreased from 30% to 22%, equivalent to a negative change of -26%.
- Los Ríos Region: Sharp decline from 7.6% to 2.9%, a negative change of -61%.
- Ñuble Region: Female participation decreased from 26% to 18%, a change of -28%.

The analysis shows a general upward trend in women's employment in projects during 2023, highlighting significant progress in Maule and La Araucanía. However, the decline observed in the Los Ríos, Ñuble, and Los Lagos regions reveals the need to implement specific inclusion measures that increase equitable participation across all regions.

2022					
Región	N° de mujeres	% Participación	N° de hombres	% Participación	Total
IX La Araucanía	361	14.6%	2113	85.4%	2474
VII Maule	34	10.2%	299	89.8%	333
X Los Lagos	26	30.6%	59	69.4%	85
XIV Los Ríos	12	7.6%	145	92.4%	157
XVI Ñuble	42	26.3%	118	73.8%	160
Total	475		2734		3209

Table 6. Results 2022

2023					
Región	N° de mujeres	% Participación	N° de hombres	% Participación	Total

IX La Araucanía	10	17.5%	47	82.5%	57
VII Maule	54	26.0%	154	74.0%	208
X Los Lagos	13	22.4%	45	77.6%	58
XIV Los Ríos	1	2.9%	33	97.1%	34
XVI Ñuble	132	18.8%	572	81.3%	704
Total	210		851		1061

Table 7. Results 2023

Región	% de Variación Interanual Mujeres 2022-2023	% de variación Interanual Hombres 2022-2023
IX La Araucanía	20.2%	-3.5%
VII Maule	154.3%	-17.5%
X Los Lagos	-26.7%	11.8%
XIV Los Ríos	-61.5%	5.1%
XVI Ñuble	-28.6%	10.2%

Table 8. Interannual Variation 2022-2023

Other Non-Carbon benefits and additional information as linked to Monitoring and Evaluation Framework

2. Provide **additional details** for the following Non-Carbon Benefits as linked to Monitoring and Evaluation Framework:

Livelihood enhancement and sustainability

- 2.1. Is your CF program testing ways to sustain and enhance livelihoods (e.g. one of your program objective/s is explicitly targeted at livelihoods; your approach to non-carbon benefits explicitly incorporates livelihoods)? Please provide detailed information to justify.

Yes, the specific objective N° 3 of the ENCCRV is "to manage mechanisms for the assessment and valorization of the environmental services provided by native vegetation resources, including payment systems for performance that respect the distribution of benefits and environmental and social safeguards." In addition, the benefits that are expected to be obtained with the implementation of the action measures of the ENCCRV and established in the SESA are organized in fundamental axes (a group of benefits interrelated among each other and can represent either a social or an environmental area), in which social and cultural benefits axes are considered, but also environmental benefits as well as Education and capacity building.

Under an ecosystem services approach, and in accordance with the Safeguards Report, an analysis was carried out regarding how the pilot projects implemented with international financing contribute to obtaining ecosystem services. For this analysis, the catalog of Ecosystem Services was incorporated as a basis, according to the guidelines issued by the Ministry of the Environment (MMA) of Chile, which developed a classification of these services¹⁴⁹ in 2014, a classification that is aligned with the Ecosystem Assessment of the Millennium (2005), known as MEA by its acronym in English, and which defines ecosystem services as "the benefits that humans obtain directly or indirectly from ecosystems".

The following table shows the result of this analysis for the ecosystem services of the Provision and Cultural section that are related to livelihoods and that were generated by the reported activities.

¹⁴⁹ https://mma.gob.cl/wp-content/uploads/2014/10/Propuesta-Marco-Conceptual-Definicion-y-Clasificacion-de-Servicios-Ecosistemicos_V1.0_Alta.pdf

Classification of Ecosystem Services (Haines-Young and Potschin, 2012)			Socio-environmental benefits of "Activities financed by international agencies (ENCCRV pilot projects)"
Section	Division	Group	
PROVISION	Nutrition	Biomass	<ul style="list-style-type: none"> ✓ Post-forest fire restoration in the Andean foothills of the La Araucanía Region ✓ Specialized Regional Technical Units ✓ Sustainable Land Management Project
		Water	<ul style="list-style-type: none"> ✓ Agroforestry Hydrological Recovery in the Purén Alto River basin, Araucanía Region, Chile ✓ Sustainable Land Management Project
	Materials	Biomass	<ul style="list-style-type: none"> ✓ Post-forest fire restoration in the Andean foothills of the La Araucanía Region ✓ Specialized Regional Technical Units ✓ Sustainable Land Management Project
		Fiber	<ul style="list-style-type: none"> ✓ Post-forest fire restoration in the Andean foothills of the La Araucanía Region ✓ Specialized Regional Technical Units ✓ Sustainable Land Management Project
		Water	AGROFORESTRY HYDROLOGICAL RECOVERY IN THE PURÉN ALTO RIVER BASIN, ARAUCANÍA REGION, CHILE SUSTAINABLE LAND MANAGEMENT PROJECT
	Energy	Biomass energy sources, mechanical energy	<ul style="list-style-type: none"> ✓ Specialized Regional Technical Units
	CULTURAL	Physical and intellectual interactions with ecosystems and landscapes / seascapes (environmental settings)	Physical and experiential interactions
Intellectual and representational interactions			<ul style="list-style-type: none"> ✓ Actions to Strengthen the adaptability of the Quinquen Indigenous Community in response to its greater socio-environmental vulnerability because of Climate Change effects. ✓ Sustainable Land Management Project
Spiritual, symbolic, and other interactions with ecosystems and landscapes / seascapes (environmental settings)		Spiritual or emblematic	<ul style="list-style-type: none"> ✓ Actions to Strengthen the adaptability of the Quinquen Indigenous Community in response to its greater socio-environmental vulnerability because of Climate Change effects. ✓ Sustainable Land Management Project
		Other cultural products	<ul style="list-style-type: none"> ✓ Actions to Strengthen the adaptability of the Quinquen Indigenous Community in response to its greater socio-environmental vulnerability because of Climate Change effects.
			<ul style="list-style-type: none"> ✓ Sustainable Land Management Project

Table 9. Classification of Ecosystem Services that are related to livelihoods

Although it is possible to establish a direct relationship between the ecosystem services that contribute to the enhancement of people's livelihoods and the ER programs and activities reported, for the reporting period there is not enough evidence that allows to demonstrate these improvements achieved, however, it can be noted that through the ENCCRV it was possible benefit directly around 1,913 people, for those who are expected their livelihoods have been improvement.

In addition, within the framework of measure MT6 of the ENCCRV and through GCF financing, a technical assistance program for beneficiaries was launched in 2023, aimed at strengthening people's sustainable livelihoods. These activities consist mainly of capacity building actions on aspects such as the collection, treatment and production of non-timber forest products. For the period of this report, ten workshops have been carried out with the participation of 218 beneficiaries, of which 146 were women and 83 were indigenous people.

Biodiversity

2.2. Is your CF program testing ways to conserve biodiversity (e.g. one of your program objective/s is explicitly targeted at biodiversity conservation; your approach to non-carbon benefits explicitly incorporates biodiversity conservation)? Please provide detailed information to justify.

Yes, the specific objective N° 1 of the ENCCRV is "to contribute to the fulfilment of the commitments assumed by Chile, in the field of vegetation resources, before the UNFCCC, UNCCD, CDB and other national and international cooperations", the reference in the objective of compliance with the Convention on Biological Diversity is relevant in this case because among the benefits that are expected to be generated with the implementation of the action measures of the ENCCRV, and provided for in the SESA, is the Environmental Benefits Axis.

Thus, using the guidelines issued by the Ministry of the Environment of Chile already applied in the previous point, an analysis of the ecosystem services that contributed to conservation was carried out in the case of the pilot projects, pilot projects implemented and reported.

The following table shows the result of this analysis for the ecosystem services of the area or section Regulation and maintenance that is directly related to the conservation of biodiversity.

Classification of Ecosystem Services (Haines-Young and Potschin, 2012)			Socio-environmental benefits of "activities financed by international agencies (ENCCRV pilot projects)"
Section	Division	Group	
REGULATION AND MAINTENANCE	Flow Mediation	Liquid flows	✓ Agroforestry Hydrological Recovery in the Purén Alto River basin, Araucanía Region, Chile
	Maintenance of physical, chemical, biological conditions	Maintenance of life cycle, habitat, and protection of genetic material.	✓ Post forest fire restoration in the Andean foothills of the La Araucanía Region. ✓ Specialized Regional Technical Units ✓ Agroforestry Hydrological Recovery in the Purén Alto River basin, Araucanía Region, Chile. ✓ Sustainable Land Management
		Control of pests and diseases	✓ Sustainable Land Management
		Soil composition and formation	✓ Post forest fire restoration in the Andean foothills of the La Araucanía Region.
		Water conditions	✓ Post forest fire restoration in the Andean foothills of the La Araucanía Region. ✓ Agroforestry Hydrological Recovery in the Purén Alto River basin, Araucanía Region, Chile.
		Climate regulation and atmospheric composition	✓ Post-forest fire restoration in the Andean foothills of the La Araucanía Region.

Table 10. Classification of Ecosystem Services that are related to livelihoods

Protected/conserved areas

2.3. What amount (in ha) of protected or conserved areas are included in your CF program area? Has this amount increased or decreased in the last year? If so, by how much?

During this 2022-2023 reporting period and into 2024, the State's National System of Protected Wilderness Areas added three new national parks: Desierto Florido, Glaciares de Santiago, and Salar de Huasco; and a natural monument in Tres Cruces. None of these are located within the Emissions Reduction Program (ERP).

Therefore, the protected or conserved hectare area compared to the previous period for the Emissions Reduction Program (ERP) accounting area remains at more than 2.2 million hectares of private conservation initiatives and areas under the state's national system of protected wild areas (SNASPE).

They are distributed among the administrative regions of the Emissions Reduction Program (ERP) according to the following table, which will also identify those that will be in more than one region.

Región	Total (ha)
Ñuble	24,128
Ñuble - Biobío	78,334
Araucanía	228,133
Araucanía - Los Ríos	53,343
Biobío	92,554
Biobío - Araucanía	37,151
Los Lagos	1,393,378
Los Ríos	194,548
Los Ríos - Los Lagos	115,381
Maule	50,967
Maule - Ñuble	3,756
Total ER Area	2,271,673
Total Chile	17,539,077
%	13%

Table 11. Area of protected areas in the accounting area

Re/afforestation and restoration

2.4. Total forest area re/afforested or restored (in ha) through the program

From 2021 to 2023 and for 2024, 11,043 hectares of different activities were carried out under the ENCCRV (National Forestry and Forest Management Program). A total of 1,805 hectares were affected by forest management under action measure MT4, while 3,416 hectares were affected as areas undergoing restoration of degraded forests or those affected by forest fires.

4,977 hectares were affected by forest management measures US 1 and US3, and 524 hectares were carried out under preventive forestry activities IF3.

The region with the largest area affected is Los Lagos, with 3,895.6 hectares, followed by La Araucanía. The following table shows the breakdown of activities by region. It should be noted that the area affected is directly related to the budget allocated to each region.

Region (ha)	IF2	IF3	MT4	MT5	US1	US3	Total
De La Araucanía	77	1	636	739	264	129	1,845
De Los Lagos	22	60	224	1,214	1797	579	3,896
De Los Rios		86	160	132	642	223	1,243
De Ñuble	99	13	82	137	42	204	576
Del Biobío	124	344	388	187	596	131	1,770
Del Maule	203	343	314	483	283	87	1,713
Total	525	846	1.804	2,891	3,624	1,354	11,043

Table 12 Implemented activities to 2024

Finance and Private Sector partnerships

2.5. Update on CF program budget (as originally presented in ERP), with updated detail on secured (i.e. fully committed) finance, in US\$

2.5.1. Detail the amount of finance received (including ER payments) in support of development and delivery of your CF program. Figures should only include secured finance (i.e. fully committed): ex ante (unconfirmed) finance or in-kind contributions should not be included:

Amount (US\$)	Source (e.g. FCPF, FIP, or name of gov't department)	Date committed (Month/Year)	Public or private finance?	ERP, grant, loan, equity or other?
\$20,555,132*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2018	Public	Grant
\$22,894,001*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2019	Public	Grant
\$24,007,179*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2020	Public	Grant
\$39,784,760*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2021	Public	Grant
\$17,817,395	Forest and Xerophytic Ecosystem Management, Programa de Reactivación	12/2021	Public	Grant
\$27,665,324*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2022	Public	Grant
\$14,114,804	Forest and Xerophytic Ecosystem Management, Programa de Reactivación & Siembra por Chile	12/2022	Public	Grant
\$36,981,805*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2023	Public	Grant
\$10,374,622	Forest and Xerophytic Ecosystem Management Programa Siembra por Chile	12/2023	Public	Grant
\$46,368,420*	Forest and Xerophytic Ecosystem Management and Ecosystem Assessment and Monitoring Management regular budget.	12/2024	Public	Grant
9,957,184	Forest and Xerophytic Ecosystem Management Programa Siembra por Chile	12/2024	Public	Grant
\$5,130,120	FCPF	12/2024	Public	ERP

*This financing corresponds to the total budget assigned for the annual operation of GCEBX & GEF.

Funding for the “Reactivación” and “Siembra por Chile” programs is already considered from 2021 to 2024 as specific budget, It should not be added to the annual budget

2.5.2. Not including ER payments from the FCPF Carbon Fund, what is the value of REDD+ ER payments that your CF projects have received, and that your country has received overall? If no ER payments were received, please indicate by entering '0' in the table below.

	Total REDD+ ER payments received to date (\$US)
Carbon Fund project/s (i.e. ER payments from sources other than the FCPF Carbon Fund)	\$ 63,607,552 from the GCF by RBP Project
All other national REDD+ projects	

2.5.3. How many formal partnerships have been established between your CF program and private sector entities? If no formal partnerships were established, please indicate by entering '0' in the table below. There are no formal partnerships established with private sector entities. Until now, the partnerships established are with AGCID e INFOR, both public sectors entities.

Formal partnerships are defined as:

- The partnership is based on a written MoU (or equivalent), and/or
- The partnership involves tangible financial exchange/s, and/or
- The partnership involves tangible non-financial exchange/s (e.g. in-kind contributions)

	Established in recent reporting period	Total to date
Number of private sector partnerships involving financial exchange	0	0
Number of private sector partnerships involving non-financial exchange	0	0

3. Other Non-Carbon benefits and additional information

Any other activities that generate or enhance non-carbon benefits in addition to those listed as earlier priority or those that are required for the Monitoring and Evaluation Framework

Policy development

- 3.1. Is your CF program engaged in contributing to the development, reform and/or implementation of policies to help institutions/people/systems/sectors? Please provide information on the approach taken and any other relevant indicators or outcomes.

Chile's Nationally Determined Contribution (NDC) is directly linked to the implementation of Chile's National Climate Change Framework (NCCF). The NDC, presented in 2020¹⁵⁰ and currently being updated, constituted an important example of intersectoral coordination, achieving commitments to more ambitious goals in line with the outcome of COP26 through the Glasgow Pact, which calls on parties to submit strengthened and more ambitious NDCs.

For this reason, Chile is presenting a strengthening of its NDC, and among the measures to strengthen it is the publication of the Climate Change Framework Law (LMCC) in June 2022. The objective of this law is to establish a legal framework for Chile to address the challenges of climate change, achieve greenhouse gas (GHG) emissions neutrality by 2050, and adapt to its effects.

This law supports the NDC by establishing climate change mitigation and adaptation targets, providing a legal framework for fulfilling international commitments, and strengthening climate governance. In the current NDC document, in Integration Components 4, 5, and 6, the actions of CONAF and the ENCCRV are directly integrated as ways to meet the contributions.

For the update process currently under public consultation¹⁵¹, in Integration Component No. 6, commitment No. 1 adds an increase in ambition to the LULUCF sector goals, explicitly including I5). To ensure compliance with and annual monitoring of these commitments, the National Strategy for Vegetation Resources and Climate Change and other appropriate sectoral instruments will be used.

Capacity building

- 3.2. Is your CF program involved in training, education or provision of capacity building opportunities to increase the capacity of institutions/people/systems? Please provide information on the approach taken and any other relevant indicators or results.

The ERP considers development of the measure of action (MT.6.) ENCCRV's "Environmental Education and Dissemination Program". This Program includes activities such as: Activity planning at the regional level; Team

¹⁵⁰ https://mma.gob.cl/wp-content/uploads/2020/04/NDC_Chile_2020_español-1.pdf

¹⁵¹ <https://cambioclimatico.mma.gob.cl/contribucion-determinada-ndc/proceso-de-actualizacion-ndc-2025/>

contracting; Development of inputs and graphic; audiovisual material; Training workshops and sessions to achieve benefits such as training, community empowerment on technical and environmental elements, reinforcement of local governance, improvement of community association and access to state promotion instruments.

Within the context of the ENCCRV's payment-by-results program, this program had an estimated budget of USD 320,815, and its implementation ended in 2024 with a total of 4,934 people trained, 55% of whom were women and 19.1% were Indigenous people, all through 152 implemented actions. The number of people trained during 2021, 2022, 2023, and 2024 is detailed below.

Region	2021	2022	2023	2024	People trained
Maule			294	102	396
Ñuble	11	81	422	759	1,273
Biobío	0	37	0	44	81
La Araucanía	0	297	133	70	500
Los Ríos	86	122	754	428	1,390
Los Lagos	0	83	61	55	199
Central team	0	273	702	120	1,095
TOTAL	97	893	2,366	1,578	4,934
(%)	2	18	48	32	100,0

Table 13 Number of people trained by region and year

Region	Total Trained people	Women who have been trained	Men who have been trained	Not indicated	Trained people who recognize themselves as belonging to Indigenous Peoples
Maule	396	232	164		6
Ñuble	1,273	877	396		15
Biobío	81	63	18		17
La Araucanía	500	265	235		300
Los Ríos	1,390	679	711		430
Los Lagos	199	108	91		45
Central team	1,095	471	615	9	130
TOTAL	4,934	2,695	2,230	9	943
(%)	100	55	45	0,2	19,1

Table 14 Number of trained people by region and indigenous peoples

Safeguards Plans and Environmental and Social Management Framework (ESMF)

3.3. Has your CF program realized any Non-Carbon Benefits as a result of implementing the safeguards plans and ESMF? Please provide details on any relevant indicators or outcomes.

According to the information provided in Annex 1 1, based on the review and analysis of the ENCCRV's Strategic Social and Environmental Assessment (SESA), it was possible to identify which non-carbon environmental and social benefits occurred from implementation of safeguards plans and ESMF by CONAF. It should be noted that these implemented activities were financially supported by CONAF and third-party funds. In this context, it was identified those most frequently non-priority non-carbon benefits generated through the activities implemented:

Non-priority non-carbon benefit	<ul style="list-style-type: none"> ▪ Detail of the activities that generate non-priority non-carbon benefits and their value. ▪ Approach (as defined in ERPD, including relevant indicators)
Safeguarding the environmental and / or sociocultural heritage.	<p>Benefits generated from the implementation of activities out of the 4 Managements/Departments: Protected Wildlife Areas Management, GASP, by acronym in Spanish Inspection of concessions in the SNASPE; Preparation or updating of management plans with a strengthened planning method of the SNASPE; Implementation of conservation strategies in SNASPE units; Proposals for the creation, expansion, and re-categorization of protected wild areas; Preparation of education plans for conservation in protected wild areas.</p> <ul style="list-style-type: none"> i. Forest and Xerophytic Ecosystem Management, (GCEBX, by acronym in Spanish) Participatory Forestation Program; Arborization Program; Awarded management plans; Actions that promote the production of firewood and sustainable biomass; Training on caring for the environment and urban trees; Trainings on the benefits of Law 20,283. ii. Wildfire Protection Management (GEPRIFF, by acronym in Spanish) Trainings for teachers in systematic environmental education with 425 teachers trained as direct results. iii. Ecosystem Assessment and Monitoring Management (GEF, by acronym in Spanish) Inspection of complaints from third parties; Property inspections and compliance controls through SAT / LEMU; Controls to collection centers and roadways; Inspection of technical studies of native forest management approved by CONAF; Inspection of compliance with forest legislation; Inspection of extraction plans, simple tree felling, or work plans. <p>Benefits generated in the strategy results based payment implementation:</p> <ul style="list-style-type: none"> i. Participatory processes with indigenous communities for the implementation of 18 site intervention projects in indigenous lands, through social and environmental feasibility assessment, socioenvironmental diagnosis, design and planning, validation, monitoring and evaluation, and project closure ii. Generation of alliances with key stakeholders and developing partnerships with regional educational and cultural heritage institutions to promote environmental education and/or training activities iii. Conservation, protection and dissemination of the cultural heritage linked to the indigenous peoples, and their intangible cultural heritage such as language, customary law, rites and customs, as well as the tangible cultural heritage expressed in their archaeological, historical and ethnographic cultural assets
Exchange of knowledge	<ul style="list-style-type: none"> ▪ Benefits generated from the implementation by 3 Management departments: <ul style="list-style-type: none"> i. GASP (Preparation or updating of management plans with a strengthened SNASPE planning method; Implementation of conservation strategies in SNASPE units; Proposals for the creation, expansion and recategorization of protected wild areas; Preparation of education plans for conservation in protected wild areas). ii. GCEBX (Participatory Forestation Program; Tree planting program; Awarded management plans; Training on caring for the environment and urban trees; Training on the benefits of Law 20,283. iii. GEPRIFF (Evaluation of large fires in the 2018-2021 period; Training and audits of the Controlled Burning Program; Training for teachers in systematic environmental education. ▪ Benefits generated in the strategy results-based payment implementation <ul style="list-style-type: none"> i. Strengthen the capacities of stakeholders in Wild protected areas, through a course titled "Climate change: challenges in Protected Wild Areas" for park rangers and the leaders and civil society actors dedicated to conservation. The objective of the course was for participants to

Non-priority non-carbon benefit	<ul style="list-style-type: none"> ▪ Detail of the activities that generate non-priority non-carbon benefits and their value. ▪ Approach (as defined in ERPD, including relevant indicators)
	<p>recognize the key elements linked to climate change at a theoretical and practical level, and the related public policy challenges facing Chile in its different territories and communities. An online self-learning version of the course is also available to continue strengthening the institutions and actors of the territory. This same unit has also collaborated with +Bosques in the design and participatory territorial validation of several prioritized projects in Protected Areas of Chile</p> <p>ii. At the regional level, training and environmental education activities have been carried out for various target audiences: public officials, local and indigenous communities, rural and indigenous women's organizations, and small-scale forest landowners. In addition, formal education activities at various educational institutions were carried out, which addressed the following main topics: environment and climate change, management of plant material, and management of forest resources. A total of 73 activities were carried out with the participation of 2,194 people, of whom 51% were women and 23% belonged to indigenous peoples.</p>
Stop desertification, land degradation, and drought.	<ul style="list-style-type: none"> ▪ Benefits generated in the strategy results based payment implementation: <ul style="list-style-type: none"> i. Relevant advances in supporting 13 nurseries, in which human resources, infrastructure and/or productive capacities (technology, equipment, others) have been strengthened with an investment of USD 2.6 million. These improvements have facilitated the production of 2,240,000 native plants for the project. ii. There have been important advances in the construction of the new nursery in the Los Lagos Region, as well as in the expansion of the Huillilemu nursery in the Los Ríos Region. iii. Developing three regional protocols for public and private nurseries in the project intervention area, which include aspects of seed collection, nursery construction and plant production with a focus on adaptation to climate change. The protocols were disseminated and transferred to public and private actors, through three workshops in which 585 people participated, of which 37% were women and 12% indigenous people. iv. Activities have also been carried out to strengthen the participation of local communities in the collection and management of native seeds, with the participation of groups of vulnerable rural women
Increase in forest areas	<ul style="list-style-type: none"> ▪ Benefit generated from the implementation of activities out of the 3 Management departments: <ul style="list-style-type: none"> i. GASP (Inspection of concessions in the SNASPE; Preparation or updating of management plans with a strengthened planning method of the SNASPE; Implementation of conservation strategies in SNASPE units; Proposals for the creation, expansion, and re-categorization of protected wild areas; Preparation of education plans for conservation in protected wild areas. ii. GCEBX (Participatory Forestation Program; Arborization Program; Awarded management plans; Actions that promote the production of firewood and sustainable biomass; Training on caring for the environment and urban trees; Training on the benefits of Law 20,283 with. iii. GEF (Inspection of complaints from third parties; Property inspections and compliance controls through SAT / LEMU; Controls to collection centers and roadways; Inspection of technical studies of native forest management approved by CONAF; Inspection of compliance with forest legislation; Inspection of extraction plans, simple tree felling, or work plans).
Greater ecological awareness.	<ul style="list-style-type: none"> ▪ Benefit generated from the implementation of 9 activities out of the 3 Management departments: <ul style="list-style-type: none"> i. GASP (Inspection of concessions in the SNASPE; Preparation or updating of management plans with a strengthened planning method of the SNASPE; Implementation of conservation strategies in SNASPE units; Proposals for the creation, expansion, and re-categorization of protected wild areas; Preparation of education plans for conservation in protected wild areas. ii. GCEBX (Participatory Forestation Program; Arborization Program; Awarded management plans; Actions that promote the production of firewood and sustainable biomass; Training on caring for the environment and urban trees; Training on the benefits of Law 20,283 with. iii. GEPRIFF (Trainings on forest fire prevention; Trainings on preventive forestry; Trainings for teachers in systematic environmental education.

Table 15. Summary of the non-priority non-carbon benefits

The next table summarizes the non-priority non-carbon benefits generated from the implementation of activities, with international and national financing, and that were foreseen in the SESA. It should be noted that the methodological approach presented in the previous section of Priority Non-Carbon Benefits was developed through the FCPF financing support.

Non-priority non-carbon benefits were generated from the execution of national budget (CONAF) – based activities and initiatives:

Management/ Department	Activities implemented by Management that contribute to the MDAs	Fundamental axis in which the benefit is framed, as defined in the SESA.	Sociocultural and environmental benefits identified based on the list provided in the SESA.		
GASP	Inspection of concessions in the SNASPE	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> ▪ State inter-institutional articulation. ▪ Better control and supervision. 		
		Increase in the amounts and scope of the existing financing mechanisms and non-monetary compensation of benefits.	<ul style="list-style-type: none"> ▪ Formal marketing. 		
		Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> ▪ Institutional rapprochement and articulation with the different key actors, with an emphasis on consultation and work with indigenous communities and women. ▪ State inter-institutional articulation ▪ Better control and supervision. 		
	1. Preparation or updating of management plans with a strengthened planning method of the SNASPE / 2. Implementation of Conservation Strategies in SNASPE units / 3. Proposals for the creation, expansion and recategorization of protected wild areas (ASP in Spanish)	Environmental benefits		<ul style="list-style-type: none"> ▪ Increase and / or maintenance of biodiversity. ▪ Improvements in environmental services. ▪ Sustainable forestry activities. 	
				Social and cultural benefits	<ul style="list-style-type: none"> ▪ Activities that respect the planet (Ñuke Mapu, Pachamama) - respect for ancestral beliefs linked to the Earth. ▪ Sense of belonging to the territory (cultural roots). ▪ Improvement of the quality of life and social well-being. ▪ Safeguarding the ancestral practices of indigenous peoples (e.g., collection of medicinal herbs) and the valuation and effective use of women's knowledge in relation to environmental issues.
					Education and capacity building
		Environmental benefits	<ul style="list-style-type: none"> ▪ Stop desertification, land degradation and drought. 		
		GCEBX	1. Participatory Reforestation Program / 2.	Environmental benefits	<ul style="list-style-type: none"> ▪ Stop desertification, land degradation and drought.

Management/ Department	Activities implemented by Management that contribute to the MDAs	Fundamental axis in which the benefit is framed, as defined in the SESA.	Sociocultural and environmental benefits identified based on the list provided in the SESA.
	Arborization Program / 3. Awarded Management Plans	Social and cultural benefits	<ul style="list-style-type: none"> Safeguarding the ancestral practices of indigenous peoples (e.g., collection of medicinal herbs) and the valuation and effective use of women's knowledge in relation to environmental issues.
		Education and capacity building	<ul style="list-style-type: none"> Technical advice on forestry activities and forest management.
	Bonus for activities carried out within the framework of Law No. 20,283	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> Institutional rapprochement and articulation with the different key actors, with an emphasis on consultation and work with indigenous communities and women.
		Increase in the amounts and scope of the existing financing mechanisms and non-monetary compensation of benefits.	<ul style="list-style-type: none"> Access to promotion instruments.
	Promotion of initiatives that consider productive chains	Increase in the amounts and scope of the existing financing mechanisms and non-monetary compensation of benefits.	<ul style="list-style-type: none"> Rural development
	Actions that promote the production of firewood and sustainable biomass	Increase in the amounts and scope of the existing financing mechanisms and non-monetary compensation of benefits.	<ul style="list-style-type: none"> Rural development Economically sustainable activities.
		Education and capacity building	<ul style="list-style-type: none"> Information improvement
GEPRIF	1. Communities prepared for forest fires program / 2. Preparation of community protection plans in risk areas	Environmental benefits	<ul style="list-style-type: none"> Stop desertification, land degradation and drought.
	Evaluation of large fires in the period 2018-2021	Education and capacity building	<ul style="list-style-type: none"> Information improvement
	Training and audits of the Controlled Burning Program		<ul style="list-style-type: none"> Technical advice on forestry activities and forest management.
	1. Training on forest fire prevention / 2. Trainings on preventive forestry	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> Institutional rapprochement and articulation with the different key actors, with emphasis on consultation and work with indigenous communities and women.
		Environmental benefits	<ul style="list-style-type: none"> Stop desertification, land degradation and drought. Reduction of natural risks.
Trainings for teachers in matters of systematic environmental education	Education and capacity building.	<ul style="list-style-type: none"> Greater ecological awareness. 	
GEF			<ul style="list-style-type: none"> State inter-institutional articulation.

Management/ Department	Activities implemented by Management that contribute to the MDAs	Fundamental axis in which the benefit is framed, as defined in the SESA.	Sociocultural and environmental benefits identified based on the list provided in the SESA.
	1. Inspection of complaints from third parties / 2. Property inspections and compliance controls through SAT / LEMU / 3. Controls to collection centers and road operators / 4. Supervision of technical studies of native forest management approved by CONAF / 5. Supervision of compliance with forest legislation / 6. Inspection of extraction plans, simple cutting or work plans.	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> Better control and supervision.
		Environmental benefits	<ul style="list-style-type: none"> Increased resilience of ecosystems. Increase and / or maintenance of biodiversity. Improvements in environmental services Sustainable forestry activities.
			<ul style="list-style-type: none"> Formal marketing.
		Increase in the amounts and scope of existing financing mechanisms and non-monetary compensation of benefits	

Table 16. Summary of other non-priority non-carbon benefits generated from the implementation of activities, with international and national financing

Implemented activities that contribute to the ENCCRV MDAs	Fundamental axis in which the benefit is framed, as defined in the SESA	Sociocultural and environmental benefits identified based on the list provided in the SESA	
Post-forest fire restoration in the Andean foothills of the La Araucanía Region	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> Delivery of inputs. 	
Specialized Regional Technical Units (UTRE)	Increase in the amounts and scope of existing financing mechanisms and non-monetary compensation of benefits	<ul style="list-style-type: none"> Rural development. 	
	Education and capacity building	<ul style="list-style-type: none"> Better knowledge of the territorial reality. Technical advice on forestry activities and forest management. Promotion and encouragement of research. Information improvement. 	
		Environmental benefits	<ul style="list-style-type: none"> Activities that respect the planet (Ñuke Mapu, Pachamama) - respect for ancestral beliefs linked to the Earth. Reduction of natural risks. Sustainable forestry activities.
			Social and cultural benefits
	Governance and operational management capabilities for the design and	<ul style="list-style-type: none"> State inter-institutional articulation. Better control and supervision. Inter-state institutional articulation. 	

Implemented activities that contribute to the ENCCRV MDAs	Fundamental axis in which the benefit is framed, as defined in the SESA	Sociocultural and environmental benefits identified based on the list provided in the SESA
	implementation of the ENCCRV.	
Hydrological Agroforestry Recovery in the Purén Alto River Basin, Araucanía Region Chile	Education and capacity building	<ul style="list-style-type: none"> ▪ Technical advice on forestry activities and forest management.
	Social and cultural benefits	<ul style="list-style-type: none"> ▪ Improvement of the quality of life and social well-being.
	Environmental benefits	<ul style="list-style-type: none"> ▪ Increased resilience of ecosystems
		<ul style="list-style-type: none"> ▪ Increase in forest areas.
<ul style="list-style-type: none"> ▪ Increase and / or maintenance of biodiversity. ▪ Improvements in environmental services. 		
Actions to strengthen the adaptability of the Indigenous Community of Quinquen in response to its greater socio-environmental vulnerability due to the effects of Climate Change	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> ▪ Institutional rapprochement and articulation with the different key actors, with an emphasis on consultation and work with indigenous communities and women.
	Environmental benefits	<ul style="list-style-type: none"> ▪ Increased resilience of ecosystems
		<ul style="list-style-type: none"> ▪ Increase in forest areas.
		<ul style="list-style-type: none"> ▪ Increase and / or maintenance of biodiversity. ▪ Activities that respect the planet (Ñuke Mapu, Pachamama) - respect for ancestral beliefs linked to the Earth.
		<ul style="list-style-type: none"> ▪ Water as a common good. ▪ Improvements in environmental services.
	Social and cultural benefits	<ul style="list-style-type: none"> ▪ Improvement of the quality of life and social well-being. ▪ Safeguarding the ancestral practices of indigenous peoples (e.g., collection of medicinal herbs) and the valuation and effective use of women's knowledge in relation to environmental issues.
Education and capacity building	<ul style="list-style-type: none"> ▪ Greater ecological awareness. 	
Sustainable Land Management	Governance and operational management capabilities for the design and implementation of the ENCCRV.	<ul style="list-style-type: none"> ▪ State inter-institutional articulation.
	Education and capacity building	<ul style="list-style-type: none"> ▪ Greater ecological awareness.
	Environmental benefits	<ul style="list-style-type: none"> ▪ Increase in forest areas.
		<ul style="list-style-type: none"> ▪ Increased resilience of ecosystems.
		<ul style="list-style-type: none"> ▪ Increase and / or maintenance of biodiversity. ▪ Improvements in environmental services ▪ Sustainable forestry activities.
Increase in the amounts and scope of existing financing mechanisms and non-	<ul style="list-style-type: none"> ▪ Formal marketing. 	

Implemented activities that contribute to the ENCCRV MDAs	Fundamental axis in which the benefit is framed, as defined in the SESA	Sociocultural and environmental benefits identified based on the list provided in the SESA
	monetary compensation of benefits	

Table 17. Non-priority non-carbon benefits generated from the execution of activities financed by international agencies (pilot