

Informative Note

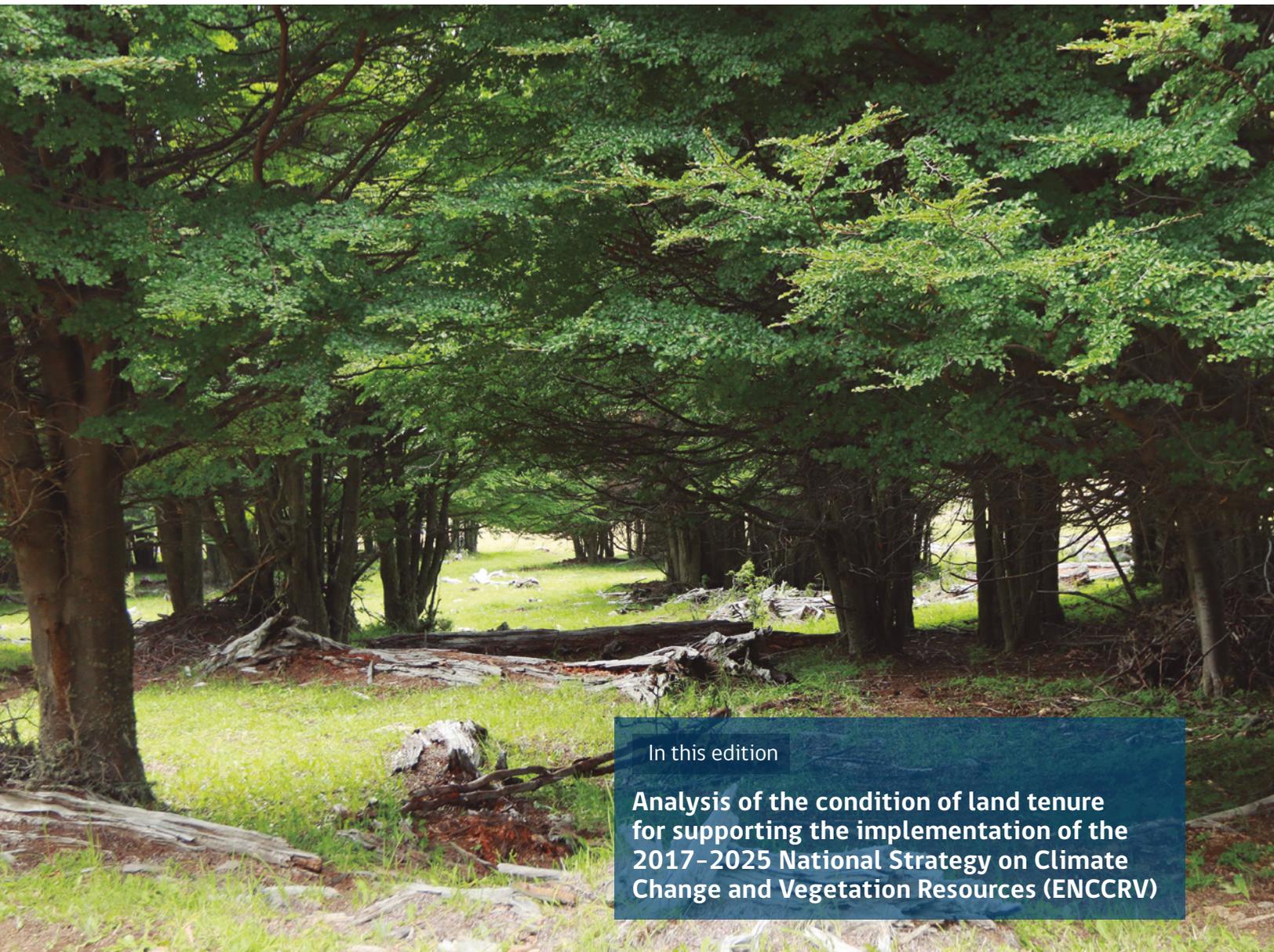
ENCCRV

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NATIONAL STRATEGY ON
CLIMATE CHANGE AND
VEGETATION RESOURCES

Santiago, July, 2017



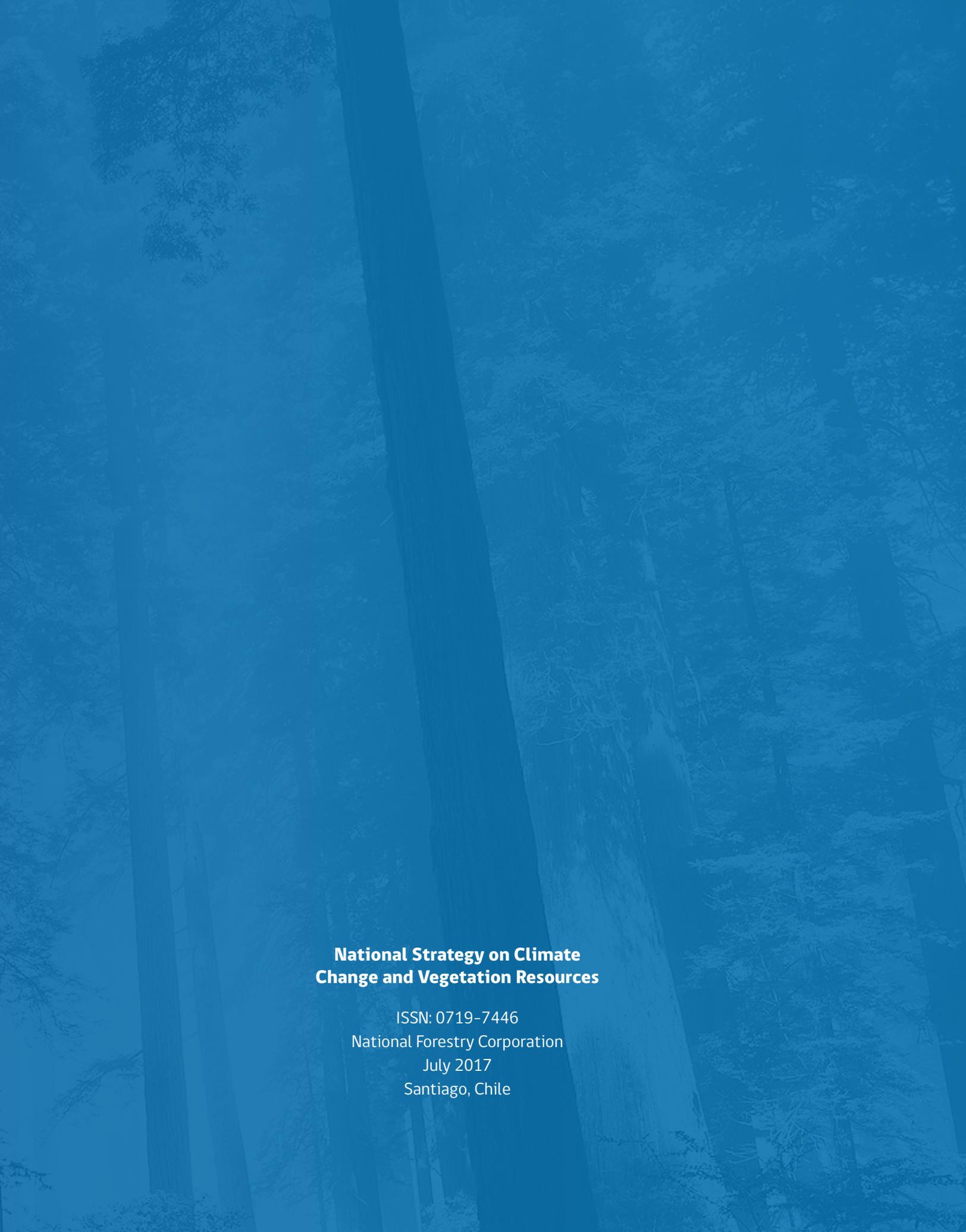
In this edition

**Analysis of the condition of land tenure
for supporting the implementation of the
2017-2025 National Strategy on Climate
Change and Vegetation Resources (ENCCRV)**



ENCCR

ESTRATEGIA NACIONAL DE CAMBIO CLIMÁTICO Y RECURSOS VEGETACIONALES



**National Strategy on Climate
Change and Vegetation Resources**

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Analysis of the condition of land tenure for supporting the implementation of the 2017–2025 National Strategy on Climate Change and Vegetation Resources (ENCCR)

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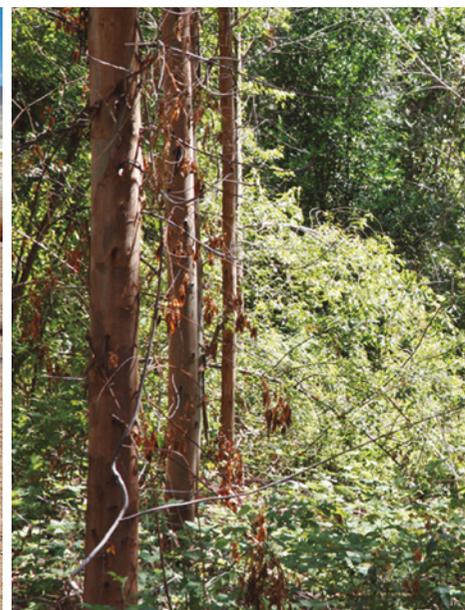
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1. General Background

On November 14th, 2016, Chile's Council of Ministers for Sustainability (CMS)¹ approved the National Strategy on Climate Change and Vegetation Resources (ENCCRV)², which was formulated and validated through a technical and participatory process executed through workshops across Chile's fifteen regions, headed by the Ministry of Agriculture's National Forestry Corporation (CONAF), Focal Point before the United Nation's Convention to Combat Desertification (UNCCD), and an approach for reducing emissions from deforestation, forest degradation and carbon stock increase, also known as REDD+, headed by the United Nation's Framework Convention on Climate Change (UNFCCC).

The ENCCRV integrates guidelines from both Conventions. In these, CONAF has the role of being a National Focal Point by considering clear scopes from the Convention on Biological Diversity (CBD), instance which -in Chile- is coordinated by

the Ministry of the Environment (MMA). CONAF participates in several committees that seek to make progress in the implementation of 2011-2020 Strategic Plan for Biological Diversity and Aichi Goals³. We would like to highlight the significance given to the ENCCRV in the 2017-2030 National Biodiversity Strategy (ENB, for its acronyms in Spanish), which should be approved by the CMS during the second semester of 2017. Moreover, the implementation of the ENCCRV contributes to purposes associated to the "Three Rio Conventions".

In this context, the main objective of the ENCCRV is: "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 these for increasing ecosystem resilience and contributing towards mitigating climate change, thus promoting the reduction and capture of greenhouse gas emissions in Chile".



¹ Decision-making advisory body to the President of the Republic for public policies of environmental nature, comprised by the Ministry of the Environment, Ministry of Agriculture, Ministry of Finance, Ministry of Health, Ministry of Economy, Development and Tourism, Ministry of Energy, Ministry of Public Works, Ministry of Housing and Urbanism, Ministry of Transport and Telecommunications, Ministry of Mining and Ministry of Social Development.

² National Strategy on Climate Change and Vegetation Resources Document (2017- 2015)
Available at: <http://www.enccrv-chile.cl/index.php/descargas/publicaciones/87-enccrv-2017-2025-v2/file>

³ More information at: <https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-ES.pdf>



In order to comply with the goals established in the ENCCR, there are three work stages. The first stage, also known as the **Preparation Stage**, seeks to conceptually design all of the elements and interrelations that will be necessary for the second stage, also known as the **Implementation Stage**, where the action measures of the ENCCR start operating on-site, thus testing the design of the first phase. The third stage, **Results-based Payments**, seeks to reward public and private stakeholders whose lands verify improvements in terms of vegetation resource management and the maintenance or increase of the environmental services they provide to society, including carbon capture, water regime regulation, soil protection and biodiversity conservation, among others.

CONAF has established various international technical and financial cooperation partnerships for the development of these three phases, thus accessing concrete support for advancing in them. In the **Results-based payments stage** linked to the REDD+ approach, CONAF has advanced in the FCPF, approving the Emissions Reduction

Program Document (ERPD)⁴ in December, 2016⁵. In this document, several criteria defined in a Methodological Framework⁶ had to be fulfilled, including matters related to land tenure, such as its quantification and characterization according to national circumstances.

In this framework, and with the target of properly fulfilling all of the criteria established for approving the ERP, CONAF started inter-disciplinary works in land tenure matters, which is summarized herein. Information on land tenure is considered relevant for the application of several public and private programs that are being developed in Chile. This information is fundamental for boosting the results-based payments stage established in the ERP with the support of the Carbon Fund, with the aim of gaining empirical experience in this field and replicating it in the future with other related financial instances. This would have to be done by leveraging additional resources that allow bridging the budget gaps that have been quantified for fully implementing the action measures of the ENCCR.



⁴ Chile's ERP is available at: https://www.forestcarbonpartnership.org/sites/fcp/files/2016/Nov/ER-PD%20Chile-%20Final-%2024%20Octubre%202016_0.pdf

⁵ For more information on Chile's project before the FCPF, visit the following link: <https://www.forestcarbonpartnership.org/chile>

⁶ Methodological Framework of the Carbon Fund.

Available at: [https://www.forestcarbonpartnership.org/sites/fcp/files/2014/July/Marco%20methodol%C3%B3gico%20del%20Fondo%20del%20Carbono%20del%20Fondo%20Cooperativo%20para%20el%20Carbono%20de%20los%20Bosques%20version%20final%2012%202013%20\(updated%20July30%202014\).pdf](https://www.forestcarbonpartnership.org/sites/fcp/files/2014/July/Marco%20methodol%C3%B3gico%20del%20Fondo%20del%20Carbono%20del%20Fondo%20Cooperativo%20para%20el%20Carbono%20de%20los%20Bosques%20version%20final%2012%202013%20(updated%20July30%202014).pdf)

2. Consideration of land tenure within the ENCCRV

In Chile, the land tenure situation and/or the property size are basic conditions for accessing promotion instruments in the forestry, farming and livestock development, and environment sector. Land tenure determines the access to benefits or incentives that may be received, and there are differentiated tenders according to the size of the property. In some cases, it is not possible to access some promotion tools if the title of ownership is not regularized.

Within this framework, the ENCCRRV considered establishing a cross-cutting action measure for this matter, called MT.3 “Adjustments for the inclusion of landowners with poor legal certainty of land tenure”⁷. The latter considers that there is a percentage of rural landowners who have an irregular situation with regard to their title of ownership, but have the intention and potential to participate in various promotion instruments that are aligned with the proposals to be implemented in the ENCCRV.

Specifically, MT.3 considers two aspects:

Adjustments in current standards and regulations

This implies an analysis of the different conditions of irregularity, along with the design of the legislative or

regulatory amendments that allow for the inclusion of irregular landowners in national programs related to the objectives of the ENCCRV. The idea of conducting a technical-regulatory feasibility analysis and an amendment proposal process before the corresponding instances is considered.

Program focused on Clearance of Title Deeds

Individuals with no title of ownership of the property that they are currently using, who have the intention of joining one of the management, afforestation and revegetation and/or restoration programs of the ENCCRV, could receive free legal support in order to clear their situation. Landowner support would be subject to specific technical requirements and criteria based on pre-existing programs on this matter.

Therefore, in 2017–2025 we expect to reach a goal of 800 regularized landowners. Figure 1 depicts the annual goals associated to this measure.

Multi-disciplinary work has been planned starting 2017 for the design of the normative and regulatory amendments, focusing specifically on the possible inclusion of climate change, desertification, and land degradation and drought issues in a new Forestry

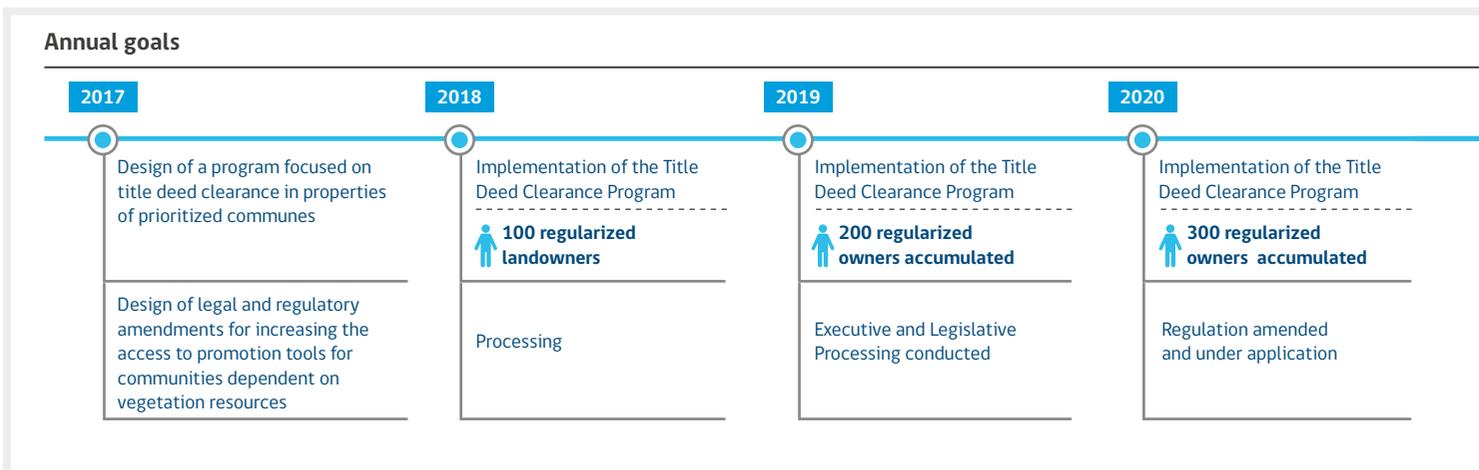


Figure 1. MT.3 action measure targets.

⁷

ENCCRV action measures. Available at: <http://www.enccrv-chile.cl/index.php/que-hacemos/actividades>

Development Law (MT.1) and the amendment and strengthening of Law No. 20,283 and its regulations (MT2).

Some of the amendments highlighted could be focused on land with forests and/or xerophytic formations with irregular land tenure, thus establishing some type of flexibility mechanism for the proper management of those lands through promotion tools; this would be done for climate change mitigation and adaptation and for combating desertification, land degradation and drought within the scope of vegetation resources.

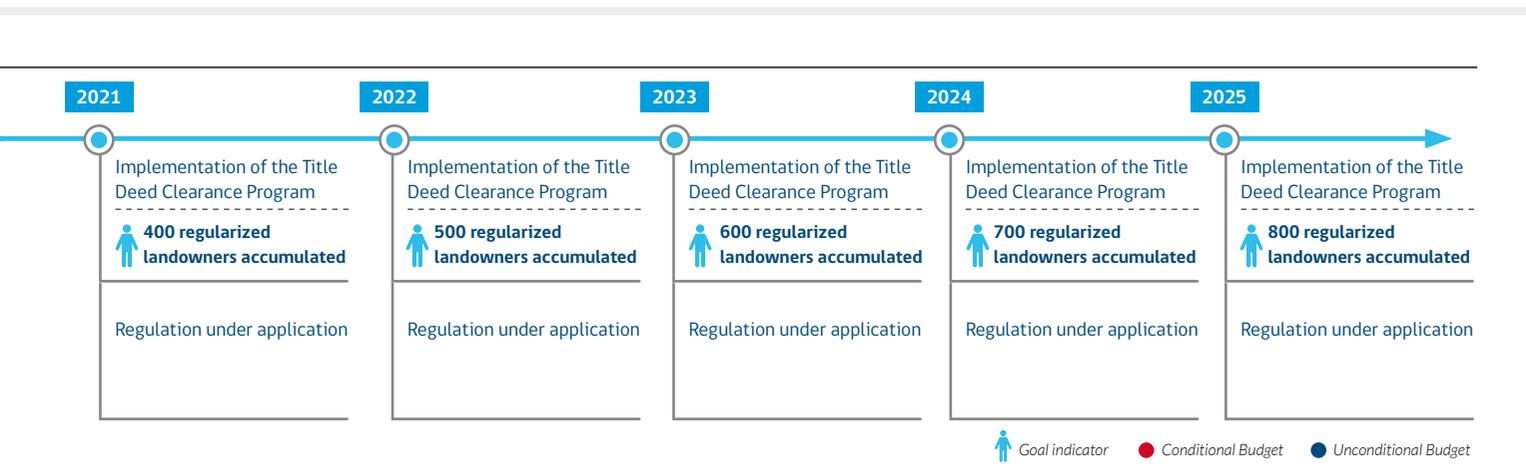
The aim of the Title Clearance Program is to make progress, in a coordinated manner, with the Institute for Agriculture and Livestock Development (INDAP), entity that develops the Land Tenure Consolidation Program⁸, where stakeholders apply to receive support in the land tenure regularization process in an individual or collective manner.

In order to make progress, it is important to have a clear diagnosis on Chile's condition of land tenure, thus facilitating the territorial planning required for implementing the action measures of the ENCCRV, along with making progress on environmental service rights linked to vegetation resources, and in the design and start-up of the Benefit-Sharing System (SDB). The latter will allow access to payments associated to the reduction and capture of forest carbon emissions, as stipulated in the Carbon Fund.

Within this framework, it is critical to analyze the following elements:

- I. **Types of land rights**, resources and categories of right-holders present in the areas where the ENCCRV action measures are implemented, including indigenous peoples and other relevant communities.
- II. **Legal status of these rights**, and any other significant gap or ambiguities present in the enforceable legal framework, including those rights with sources from customary regulations⁹.
- III. **Feasible areas for implementing the ENCCRV action measures** that are subject to possible significant disputes or conflicts regarding opposing or questioned claims or rights, and the way in which these conflicts or disputes have been -or intend to be- addressed; the possible impacts of the implementation of the ENCCRV action measures in land tenure regimes and of those resources present in implementation sites.

With the aim of advancing in this matter, a land tenure diagnosis was conducted, including a qualitative analysis of the legal aspects of the property, the type of landowners and types of land possession, along with a quantitative analysis for the spatial determination of the different property tenure conditions in the territory in order to gather clear information on the current land tenure status of lands in Chile.



⁸ More information at: <https://www.indap.gob.cl/servicios-indap/plataforma-de-servicios/asesor%C3%ADas/lk/programa-de-consolidaci%C3%B3n-de-la-tenencia-de-tierras-programa-esta-es-mi-tierra>

⁹ Regulations, practices and customs of indigenous and local communities that are inherent to their lifestyle and are its foundation. Customary laws are rooted in the culture and values of a community or society, they govern acceptable behavior standards, and are strictly fulfilled by community members (WIPO, 2010).



3. Qualitative Analysis

In Chile, property rights are regulated mainly by the Civil Code of the Constitution of the Republic. This ensures all individuals the right to “property of all types, both in terms of tangible and intangible assets”, which accounts for a basic guarantee with broad content, thus ensuring its legality as an absolute and individual right to all the inhabitants of the Republic.

Within this framework, Chile has a registry system with a record of all of the properties that exist within the country, along with their background. This makes it possible to have a national-level registry with quality, secure and public information with regard to properties, including an index of encumbrances and prohibitions, interdictions and prohibitions to dispose of a certain real estate.

Nevertheless, when implementing the Chilean registration system, this was not established as a mandatory measure, since the legislator left the registration of properties at the will of individuals.

As a result, there are properties that have not yet entered the registration system. In some cases, the system can present errors, due to the fact that the Real Estate Registrar (CBR) does not have the legal faculty to examine or verify the titles prior to their registration, reason why registration errors, parallel records and record overlaps may be seen.

Notwithstanding the foregoing, Chilean Registration System bases have enough certainty and legal security with regard to records of properties, encumbrances and prohibitions, thus constituting themselves as a base input for conducting a qualitative analysis on this regard.

In the analysis of land tenure assessment and the current Chilean regulation we can find several categories of ownership of land rights, such as Landowner, Possessor, and other tenure holders such as, Lessee, Trustee, Usufructuary, and an individual subject to tenure.

3.1 Types of Landowners

Particularly, we can distinguish the following landowner categories:

- **Owner of Public Property or National Assets**

National assets are owned by the entire nation. Those National Assets whose use belongs to all of the nation's inhabitants are known as National Assets of Public Use or Public Assets; whereas, those whose use does not generally belong to the nation's inhabitants, are known as State Assets or Fiscal Assets (Article No. 589 of the Civil Code).

In this sense, properties managed by CONAF and the Ministry of National Assets (MBN) are of interest for developing activities that reduce and/or capture emissions, given their feasibility level with regard to showing land tenure ownership and their consequent certainty for carbon right transfers, due to the fact that they generally land of National or Fiscal Assets (See Figure 2; Letter issued by the Minister of National Assets). There are some exceptions, such as the case of Lauca National Park, which is –to a great extent– private property due to the fact that there is an indigenous community living there that holds property rights that were officially acknowledged prior to the creation of the Park.

- **Private Property Landowner**

This category corresponds to all other landowners and will be the rule of thumb as an individual subject to tenure. Depending on the number of people who claim the right to ownership over a particular real estate, we can distinguish:

- **Individual Property:** Unique owner of title of property.
- **Collective Property:** Two or more owners of title of property.

On the other hand, Law No. 20,283 on Native Forest Recovery and Forest Promotion¹¹ defines forest landowners according to property size in the following manner:

- **Small Forest Landowner (PPF, for its acronyms in Spanish)**

Landowner who owns a title of property over one or more rural properties, whose aggregate area does not exceed 200 hectares. In the Regions of Arica and Parinacota, Tarapaca, Antofagasta, Atacama and Coquimbo, the maximum area is of 500 hectares. In properties located in: the Commune of Lonquimay in the Araucania Region; the Province of Palena in the Los Lagos Region; or in the Regions of Aysen and Magallanes, the maximum area is of 800 hectares; their assets do not exceed an equivalent of 3,500 Development Units (U.F)¹²; and their income comes mainly from farming or forestry; individuals working directly on land, on their property or in third-party properties.

- **Other Small Forest Landowners**

- Agricultural¹³ communities regulated by Decree with Force of Law (DFL) No. 5, 1968, from the Ministry of Agriculture.
- Indigenous communities governed by Indigenous Law No. 19,253.
- Communities over common assets resulting from the Land Reform.
- Rain-fed agriculture corporations constituted in accordance with Article No.1 of Decree Law (D.L) No. 2,247, 1978.
- Corporations referred to in Law No. 19,118, Article 6, which benefits purchasers of estates derived from the land reform and modifies various legal bodies, provided that, at least 60% of the capital stock from those corporations is owned by the original partners or by individuals with nature of small forest landowners, according to the certification from the Agricultural and Livestock Service (SAG).



¹¹ Law No. 20,283 on Native Forest Recovery and Forest Promotion Available at: <http://bcn.cl/1uvy9>

¹² The Development Unit (U.F) is an index-linked unit of account used in Chile, in accordance with inflation. It was created in 1967, with its main and original use being mortgage loans, since it was a way of re- valuating them in accordance with the variations of inflation.

¹³ Agricultural communities are a land tenure modality which recognizes its origin in the times of colony and consists in a group of landowners of a common rural land who get organized to occupy, use or farm their land.

**Ministry of
National
Assets**
Minister Cabinet

ORD. GABM. N° 152,

ANT: Su carta de fecha 8 de marzo de 2017.

MAT: Chile's National Strategy on Climate Change and Vegetation Resources

SANTIAGO, March 21st, 2017.

From: MINISTER OF NATIONAL ASSETS

**To: MR. AARON CAVIERES CANCINO
EXECUTIVE DIRECTOR OF THE
NATIONAL FORESTRY CORPORATION**

As a response to your letter dated March 8th, 2017, containing information on the approval and implementation of "*Chile's National Strategy on Climate Change and Vegetation Resources (ENCCRV)*", which was publicly presented on November 3rd, 2016 and approved by the Council of Ministers for Sustainability on November 14th on the same year, which accounts for an instrument that integrates and guides the measures to be adopted as a country for mitigation and adaptation to climate change; and with its main objective being the reduction of the social, environmental and economic vulnerability generated by climate change, desertification, land degradation and drought on vegetation resources and human communities that depend on these in order to increase ecosystem resilience and contribute towards mitigating climate change by promoting the reduction and capture of greenhouse gas emissions in Chile, we can state the following:

1. The scope of action or powers of this Ministry correspond to recognizing and managing the fiscal net worth of all Chileans, regularizing small real estates owned by private individuals, updating the graphic cadaster of fiscal properties and coordinating with other State entities with territory-related issues; thus strongly valuing Chile's natural and historical heritage.
2. Within the scope our competences and considering that there are several international funds supporting the implementation of the National Strategy on Climate Change and Vegetation resources, such as the FCPF, particularly the Carbon Fund, which supports the results-based payments phase through the formulation of an Emission Reductions Program, CONAF -based on its legal powers over fiscal assets- has been able to participate in an Emission Reductions Program.

Figura 2. Letter sent to CONAF by Mrs. Nivia Palma, Minister of National Assets on March 21st, 2017, confirming CONAF's faculty to transfer carbon rights associated to state-owned land.



Ministry of National Assets

Minister Cabinet

Upon analyzing the National Strategy on Climate Change and Vegetation Resources, this Ministry agrees on CONAF being able to make progress on this third phase, which will allow it to sign the Emissions Reduction Purchase Agreement (ERPA), as well as the capacity of transferring carbon right ownership to the Carbon Fund.

Finally, in accordance with the Chilean legal system-, it is hereby stated that in case results-based payments are made in private or fiscal property land with regard to property owned by private individuals, we have to check if it is feasible for CONAF to enter into agreements, with the purpose of having those private individuals transfer their rights to CONAF, and that they may, in turn, transfer them to the respective representative of the Carbon Fund. That said, with regard to fiscal land ascribed to Decree Law No. 1,939 which includes the standards on the procurement, management and allocation of state-owned assets, we must address their regulations, and this Ministry understands that the geographic area covered by the Emissions Reductions Program is focused on 5 regions, thus covering public land equivalent to 1,321,000 ha, out of which 98% is intended for CONAF, i.e. it is placed within the National System of State-protected Wilderness Areas (SNASPE).

Sincerely,

REPUBLICA DE CHILE
MINISTERIO DE BIENES NACIONALES
MINISTRA
NIVIA PALMA-MANRIQUEZ
Ministra de Bienes Nacionales

LPA/ svf
220207

PARTIES:

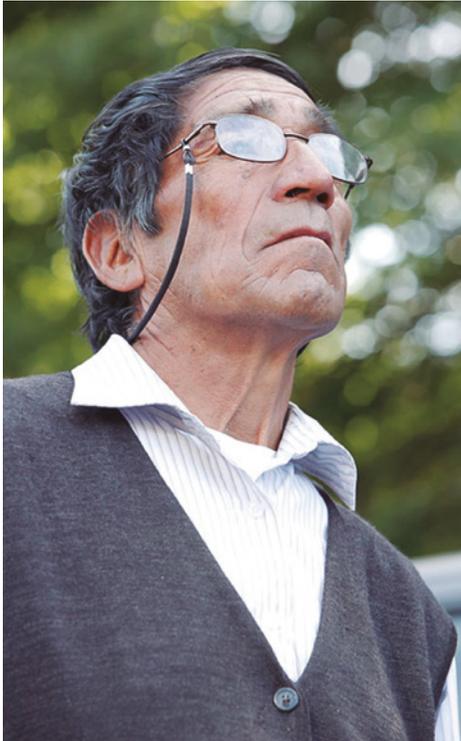
- Mr. Executive Director of CONAF
- Ministry of National Assets Cabinet



• **Other Forest Landowners**

Natural or legal person and communities that do not fulfill the requirements set forth in the definition of small forest landowners described in Law No. 20,283.

This landowner category is relevant since, as previously mentioned, current forest promotion instruments have differentiated tenders according to property-size categorization, thus distinguishing bonuses and other technical support benefits.



3.2 Special Categories

• **Indigenous Landowner**

Holder of the right of ownership of the lands listed under Law No.19,253, Art. 12. This category has restrictions at the time of disposing of and levying land, with the exception of persons from same ethnic group. Likewise, with the authorization of the National Corporation for Indigenous Development (CONADI) from the Ministry of Social Development, land can be levied or exchanged with third-parties; nevertheless, there are no restrictions regarding the use of the natural resources present in their properties.

(a) who come from the same bloodline; b) who recognize traditional leadership; c) who possess or have possessed common indigenous lands; and d) those that come from a same ancient village. They can be holders of ownership rights, something currently implemented, generally by CONADI's purchase through the Land Fund established within the same Law.

• **Indigenous Communities**

Regulated by Law No. 19,253 and understood as any group of people belonging to a same ethnic group and in one or more of the following situations:

• **Indigenous Lands**

In Title II of Law No. 19,253 on the recognition, protection and development of indigenous lands, particularly in Article 12, indigenous lands are defined as:

- Those that indigenous persons or communities currently use in property or possession coming from the following titles: a) Trustee Titles, in

accordance with the Law of June 10th, 1823; b) Land Titles in accordance with the laws of December 4th, 1866; August 4th, 1874; and January 20, 1883; c) Free assignments of ownership conducted in accordance with Law No. 4,169, 1927; Law No. 4,802, 1930; Supreme Decree No. 4,111, 1931; Law No. 14,511, 1961, and Law No. 17,729, 1972 and their subsequent amendments; d) Other ways that the State has used for the assignment, regularization, transfer or delivery of lands to indigenous peoples, such as Law No. 16,436, 1966; Decree Law No. 1,939, 1977, and Decree Law No. 2,695, 1979; and e) Laws No. 15,020, 1962 and No. 16,640, 1967 for indigenous beneficiaries located in Regions VIII, IX and X who enroll in the Indigenous Land Registry and form homogeneous indigenous associations, which will be qualified by CONADI.

- Those that have been historically occupied and possessed by mapuche, aymara, rapa nui or pascuense, atacamena, quechua, collas, kawesqar and yamana individuals or communities, provided their rights are registered in the Indigenous Land Registry created by this law, at the request of the respective communities or indigenous owners of the property.
- Those that, provided they come from the titles and modalities above, the Courts of Justice declare property of individuals or indigenous communities.
- Those that indigenous peoples or their communities receive gratuitously from the State. The property of indigenous lands referred to in this article will consider owners those natural indigenous persons or the indigenous community defined by this Law. Indigenous lands will be exempt from the payment of property taxes.

3.3 Customary law

The Chilean civil system assumes a doctrine of hierarchy with regard to law, according to which customs enter into force only in case the legislator relies upon it. Civil Code, Art.2 states: "Customs do not account for rights, except in cases the law relies upon it". In this regard, Chilean legislation does not accept customs in case of absence or opposition to law, but only allows relying on this source in specific cases of express standard. Nevertheless, the international field recognizes the ancestral use of indigenous peoples, which reflects on the different instruments derived from international entities, among which is the International Labor Organization (ILO) Convention No. 169, enacted in Chile on 2008, which recognizes indigenous peoples' customs and ancestral use; however, it is limited in terms of national legislation¹⁴ application.

Indeed, in Chile, the application of customary rights over property, in accordance with Convention No. 169, has followed the case law of the Constitutional Court (TC)¹⁵, interpretation that differs from that of international nature, due to the fact that the jurisdictional entity states that the Convention has self-executable and programmatic standards. The TC estimated that there are self-executable clauses, which would be those with "the necessary content and accuracy that enable them to be applied, without any other formality, as a source of internal right" (STC 309/200); this means they are self-sufficient; therefore, when the Convention comes into force, they will be immediately incorporated to the national legislation. On the other hand, programmatic standards are "those that, upon coming into force, need regulations or decrees in order to be implemented; therefore becoming enforceable as sources of internal right" (STC 309, 2000). In view of the above, the State has understood that in order for customary law to apply to land and territory, we need legal amendments that make the content of international rights enforceable.



¹⁴ Despite the promulgation of the Convention as a Law of the Republic, the Constitutional Court in a ruling on August 4th, 2000, established that the only self-executable standards -that may be applied on internal rights without the need of another internal formality- are articles: 6, No.1, letter a); and 7, No. 1, final sentence.

¹⁵ Case-law contained in Rulings ID No. 309/2000, ID No. 1050/2008 and ID No. 2388/2013.



4. Quantitative Analysis

This quantitative analysis establishes a diagnosis of the current stand of land tenure in Chile, based on gathering of background coming from several sources of information, due to the fact that there is no unified cadaster system of the property. The official information sources come from different State services; such as the International Revenue Service (SII), the Natural Resources Information Center (CIREN) from the Ministry of Agriculture (MINAGRI), the Real Estate Registrar (CBR), the Ministry of National Assets (MBN), the National Corporation for Indigenous Development (CONADI), the Ministry of the Environment (MMA) and the Ministry of Agriculture (MINAGRI).

Chile, due to the fact that it does not have a unified cadaster system of properties, presents some shortcomings; nevertheless, there are several services focused on updating this information. The main entity involved in this effort is the SII, which has built a database of territorial information of properties, together with the CIREN.

This database essentially includes one property (polygon) with defined limits, associated to a landowner whose registration may be out of date, since properties are transferable assets with changeable ownership. The only institution which has legally-recognized information of properties is the CBR. These institutions, along with notary publics, provide a public service by constitutional mandate, acting as corporations of private-right; they are located in several communes across Chile.

It is worth noting that besides from the initiatives conducted by the SII and CIREN, there are other State Services that have created spatial databases associated to properties with special characteristics, such as the MBN, CONADI and the MMA, including CONAF's Territorial Information System (SIT)¹⁶, which has information on properties.

¹⁶ Available at <http://sit.conaf.cl/>



4.1 Methodology for the quantitative analysis of land tenure status

Spatial databases from different services were gathered for the development and diagnosis of the current state of land tenure and the condition of properties in Chile. The latter were refined based on information that was relevant for the

implementation of the activities and measures found within the ENCCRV (Figure 3). Additionally, information gaps were identified in each one of the databases (Annex 1).

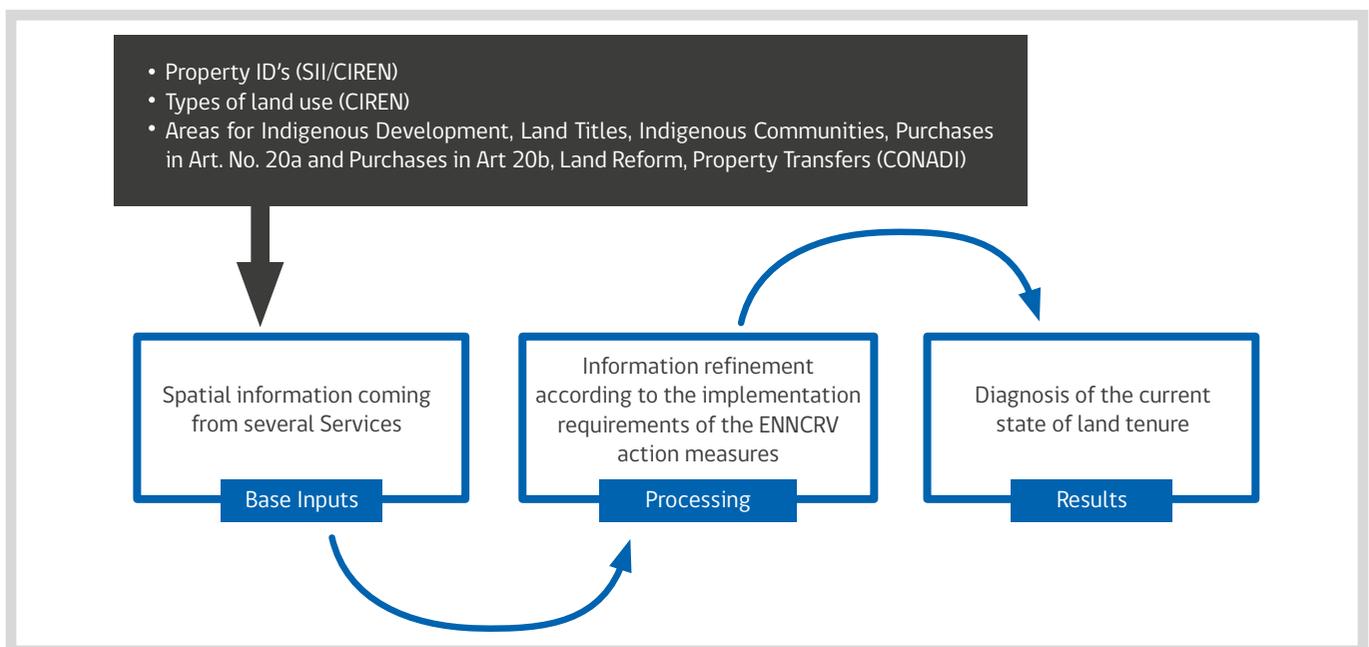


Figure 3. Methodological diagram of the quantitative analysis of land tenure status.



Among the refined databases we have Property ID's, which account for the databases established in MINAGRI's Spatial Data Infrastructure Project (IDE-MINAGRI)¹⁷. These databases include the property's spatial limits and its ID number. This layer of information includes the area of roads, bodies of water, infrastructure and urban areas, along with rural properties, fiscal lands and islands.

CIREN's information on Property ID's was refined with the categories for implementing the ENCCRV action measures, including their characteristics (See Table 1).

CIREN's databases were compared with those properties registered in the SII, due to the fact that there is a gap between the geospatial data from CIREN and the registry from the SII. Therefore, a representativeness index was built. Whatever is informed by the SII through their website under section "Estadísticas y Estudios del SII"¹⁸ is considered actual data.

For the purpose of this study, the concept of "Small Forest Landowner" (PPF) was defined. In a first

instance, this PPF was defined as a landowner who owns a piece of land (land) rated as Forestry Land-Use Vocation (APF); nevertheless, the definition of small landowner is linked to the minimum basic risk area defined in Organic Law No. 18,190, 1990 from INDAP, where conversion factors are determined.

Therefore, each one of the regional databases were taken and applied to each one of the properties, depending on their location in the region, a conversion factor, which was multiplied by the property area, thus determining that properties had less than 12 hectares of basic risk and determining their nature as PPF.

This analysis includes other land tenure background in Chile, such as the spatial location of indigenous and agricultural communities, Areas for Indigenous Development (ADI); properties transferred through Land Titles¹⁹; purchases in Art. 20a and 20b²⁰ from Law No. 19,253; and indigenous properties corresponding to Property Transfers from the Ministry of National Assets and from the Land Reform.

A small forest landowner is a person who fulfills the requirements for being an INDAP user, defined in Law No. 18,910, Article 13, who works and is owner of one or more rural properties whose overall area does not exceed 12 hectares of basic risk.

¹⁷ The IDE-MINAGRI Project arises from the need of having a unified system that allows to access all of the Ministry's geospatial information, in order to contribute towards streamlining decision-making at all levels and in all services and institutions linked to MINAGRI. Available at: <http://ide.minagri.gob.cl/geoweb/>

¹⁸ Agricultural Real Estate Statistics. Available at: http://www.sii.cl/evaluaciones/estadisticas/estadisticas_brrr.htm#2

¹⁹ Land titles were provided -by virtue of the Law of December 4th, 1866- by the Indigenous Settlement Commission in the provinces of Biobío, Arauco, Malleco, Cautín, Valdivia and Osorno; thus initiating titling in 1884 and ending the process in 1929.

²⁰ The purpose of the Indigenous Land and Water Fund Regulation -referred to in Law No. 19,253, Article 20- is to: a) grant subsidies for land acquisition; b) fund mechanisms for the resolution of land issues.



5. Results

This analysis created a characterization of the land tenure situation at a social level, which was divided into property registration by “Property ID” and by indigenous territory identification.

On the other hand, the APF-land statistics were presented, characterized according to the size of the property in small, medium and large landowners, depending on the area associated to the Property ID and its land condition as “APF”.

5.1 Property IDs

Table 1 shows the number of properties in each one of Chile’s regions according to CIREN and SII data. We can observe that records from CIREN display no information with regard to the regions of Arica and Parinacota, Antofagasta and Magallanes; and that there is a disparity in the number of properties in the spatial database from CIREN and the number of properties registered by the SII until 2016.

Table 1. Number of properties according to CIREN and SII; difference between both records and the area associated to the Property ID’s from CIREN.

Region	No. of CIREN Properties	No. of SII Properties	CIREN area (ha)
Arica and Parinacota	-	9.613	
Tarapaca	9.194	10.746	4.196.962
Antofagasta	-	6.103	
Atacama	6.727	8.669	7.436.121
Coquimbo	29.535	33.561	4.029.064
Valparaiso	37.186	54.303	1.565.786
Metropolitan	33.575	47.338	1.456.657
O’Higgins	55.112	70.504	1.606.345
Maule	45.208	140.938	1.806.610
Biobio	115.444	196.020	3.608.982
Araucania	142.883	160.604	3.100.823
Los Rios	19.328	37.045	1.347.243
Los Lagos	42.841	94.842	3.292.959
Aysen	13.083	10.366	7.537.275
Magallanes	-	2.932	-
Total	550.116	883.584	40.984.827

Source: SII/CIREN, 2016.

The regions of Maule, Biobio and Araucania have the largest number of properties registered in the SII, with 140,938, 196,020 and 160,604, respectively. On the other hand, it is possible to observe that in the north and southern regions of Chile, the number of properties is considerably lower, clearly depicted by the Region of Antofagasta and Magallanes, with 6,103 and 2,932 registered properties, respectively.

It is worth noting that the number of properties registered in the SII has gradually increased between 2006 and 2016. Initially, in 2006, there were 689,950 agricultural properties registered in the SII, and

the last records of 2016 indicate that the number increased to 883,584, accounting for an average biannual increase of 1.56%.

The information was refined in possible categories for the implementation of the ENCCRV action measures, defining as "Feasible" the area associated to Rural Property, Fiscal Land, Islands and Islets, and as "Non-Feasible"²¹ the area assigned to Roads, Reservoirs, rivers, estuaries, lakes, lagoons and dams, schools, railway stations, police stations, fire department, beach, courts, churches, cities, towns, villages and rural towns, as depicted in Table 2.

Table 2. Categories according to land use and feasibility for implementing the ENCCRV action measures.

Category	Feasibility ²²
Property ID (number)	Feasible
Road ID or road name	Not feasible
Reservoirs, rivers, estuaries, lakes, lagoons and dams	Not feasible
Fiscal	Feasible
Islands and islets	Feasible
Schools, railway stations, police stations, fire department, beaches, courts, churches	Not feasible
Cities, towns, villages, rural towns	Not feasible

Figure 4 shows a wide area of Chile divided into regularized rural properties, associated to a landowner, fiscal land or island. Particularly, mainland and insular territory have an area of 75,577,640 ha. It is observed that 73% (55,249,783 ha) of the national area is associated to a landowner

within the records of the SII, according to the rural property categories, which qualify as areas suitable for implementing the direct action measures of the ENCCRV. This national potential widely exceeds -in terms of area- this initiative's targets to 2025, reaching 264,800 hectares (see Table 3).

Table 3. Direct action measures of the ENCCRV and their targets expressed in hectares.

Action Measures	Target (hectares)
MT.4 Program for afforestation and revegetation in prioritized communes/areas	140.000
MT.5. Strengthening of ecological restoration program in prioritized communes /areas.	20.000
IF.2. Program for the restoration of ecosystems affected by forest fires	10.000
IF.3. Program for Preventive Silviculture with emphasis on the rural-urban interface	8.000
US.1. Program for institutional forest management with emphasis on public and private lands	70.000
US.3. Strengthening of wood energy program and the country's energy matrix	16.000
MG.1. Buffer strips for livestock activity	800
Total	264.800

²¹ The connotation of "Non-Feasible" means that due to the type of land-use it would not be possible to implement the action measures proposed within the ENCCRV.

²² Land-use category to be considered for the implementation of the ENCCRV action measures.

5.2 Area associated to Indigenous Peoples and Agricultural Communities

Table 4 shows information concerning indigenous community territories, established through several national bodies, such as the Areas for Indigenous Development (ADIs), Land Titles (TM), Indigenous Communities, Purchases of Law No. 19,253, 1993, Art. 20a and Art 20b, Land Reform, Property Transfers; all collected in the databases of CONADI, including information of the area linked to Agricultural Communities²³ that exist in the Region of Coquimbo.

The analysis does not consider the Valparaiso, Metropolitan, O'Higgins, Maule and Aysen regions, since they do not have information on areas associated to indigenous peoples or Agricultural Communities.

Figure 5 shows the spatial distribution of land tenure categories associated to indigenous peoples and agricultural communities. There are regions with no record of the presence of indigenous peoples.

Table 4. Area of indigenous communities, areas for indigenous development and agricultural communities.

Region	ADI (ha)	Indigenous Communities (ha)	Agricultural Communities (ha)	TM (ha)	Transfers (ha)	Purchases, 20a (ha)	Purchases, 20b (ha)	Land Reform (ha)
Arica and Parinacota	1.034.122	596.733	-	-	-	-	-	-
Tarapaca	1.546.606	588.344	-	-	-	-	-	-
Antofagasta	3.626.097	2.193.465	-	-	-	-	-	-
Atacama	-	9.829	-	-	-	-	-	-
Coquimbo	-	-	985.342	-	-	-	-	-
Biobio	275.073	-	-	116.588	2.557	3.133	7.333	16.982
Araucania	388.255	-	-	454.341	47.711	8.310	35.331	17.503
Los Rios	-	-	-	72.678	845	844	2.122	-
Los Lagos	-	-	-	-	-	641	5.764	-
Magallanes	1.562.622	-	-	-	-	-	-	-
Total	8.432.775	3.388.371	985.342	643.607	51.113	12.928	50.550	34.485

5.3 Characterization of property use and size

Given the relevance of estimating the size of the property for implementing public policies, such as the case of the action measures of the ENCCRV, this variable was analyzed for the regions from Valparaiso to Los Lagos; these regions had more base information, thus determining the existence of land in the APF category, according to their Capacity of Use (Land in categories VI, VII, and VIII) defined by the CIREN and the size of the property, according to the definition of INDAP and the basic risk areas.

Class VI Land

Class VI land corresponds to land unsuitable for crops, and its use is limited to pasture and forest. Lands have continuous limitations which cannot be corrected, such as: steep slopes subject to severe erosion, effects of ancient erosion, excessive stoniness, shallow root zone, excessive moisture or floods, severe weather, low moisture retention, high content of salts or sodium.

Class VII Land

Land with extremely severe limitations that make them unsuitable for crops. Their fundamental use is for grazing and forestry. Land restrictions are more severe than in Class VI due to one or more of the following limitations that cannot be corrected: very steep slopes, erosion, thin soil, stones, humidity, salts or sodium, non-favorable weather, etc.

Class VIII Land

Land with no agricultural, livestock or forest value. Its use is limited only to wildlife, recreation or protection of hydrographic basins.



²³ As previously mentioned, they are those regulated by DFL No. 5, 1968, Ministry of Agriculture.

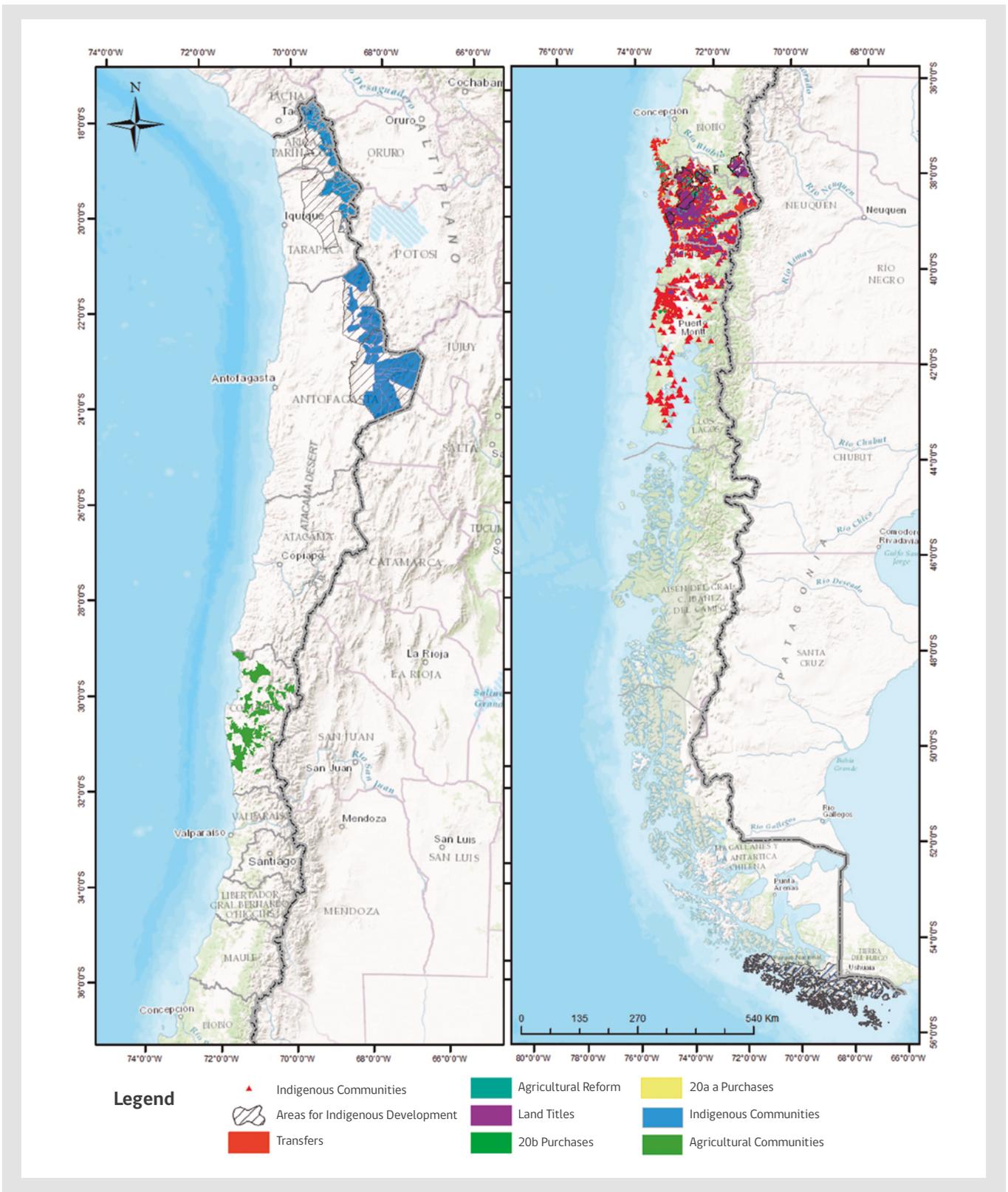
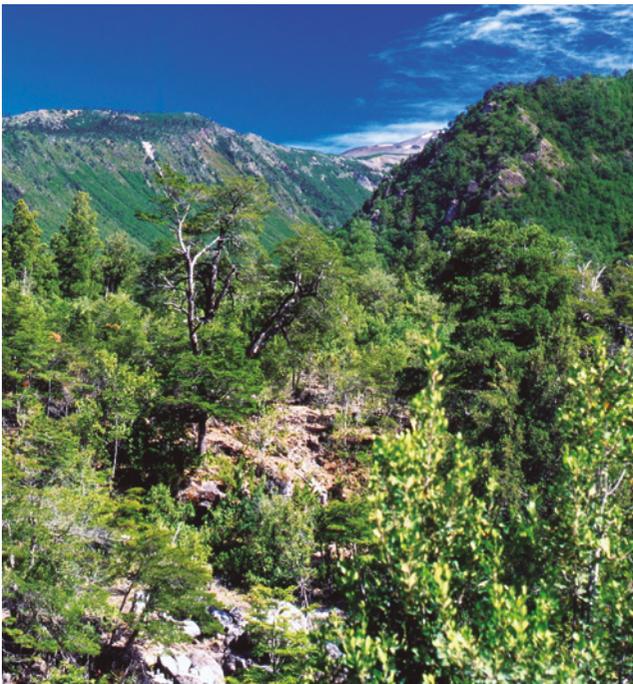


Figure 5. Territorial Distribution of Indigenous Peoples and Agricultural Communities.



The analysis excluded non-feasible areas for implementing the Program for Afforestation and Revegetation in prioritized communes/areas of the ENCCRV -action measure MT4- which were those that currently have some type of vegetation cover or those within the “bodies of water”, “roads”, “urban areas” and “infrastructure” categories.

Figures 6 and 7 show the area and the number of properties with PPF characteristics, along with those that do not qualify as PPF (Non-PPF) for the area between the regions of Valparaiso and Los Lagos.

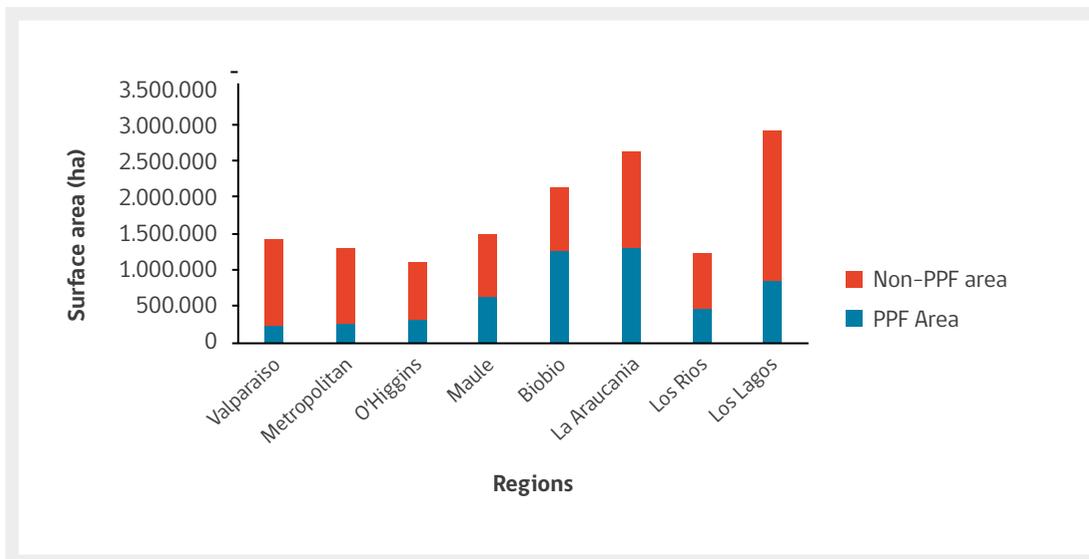


Figure 6. Estimated area classified as PPF for regions located between Valparaiso and Los Lagos.

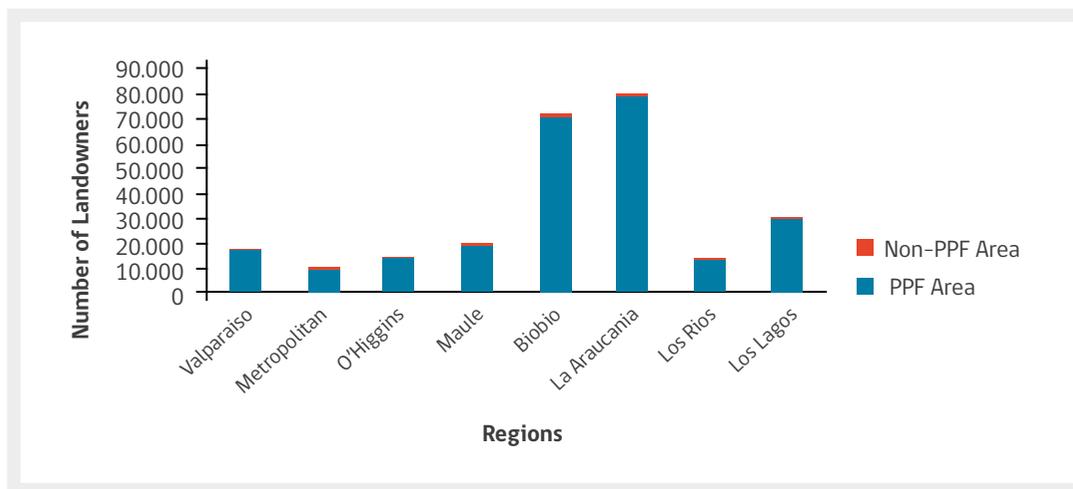


Figure 7. Number of landowners classified as PPF for regions between Valparaiso and Los Lagos.

As predictable, PPF areas are considerably lower than Non-PPF areas, accounting for a total of 35%, which is distributed among a large quantity of people who total thousands of landowners in the area of analysis. Figure 8 shows the geographical distribution of the PPF area, between the regions of Valparaiso and Los Lagos.

Figure 9 shows APF Land based on the capacity of Use of Land VI, VII and VIII. This information, provided by the CIREN, excluded areas with vegetation cover (native forest and plantations), due to the fact that, when conducting the analysis -in the context of MT4 of the ENCCRV- they needed to quantify the area where the actions of afforestation and revegetation would qualify.

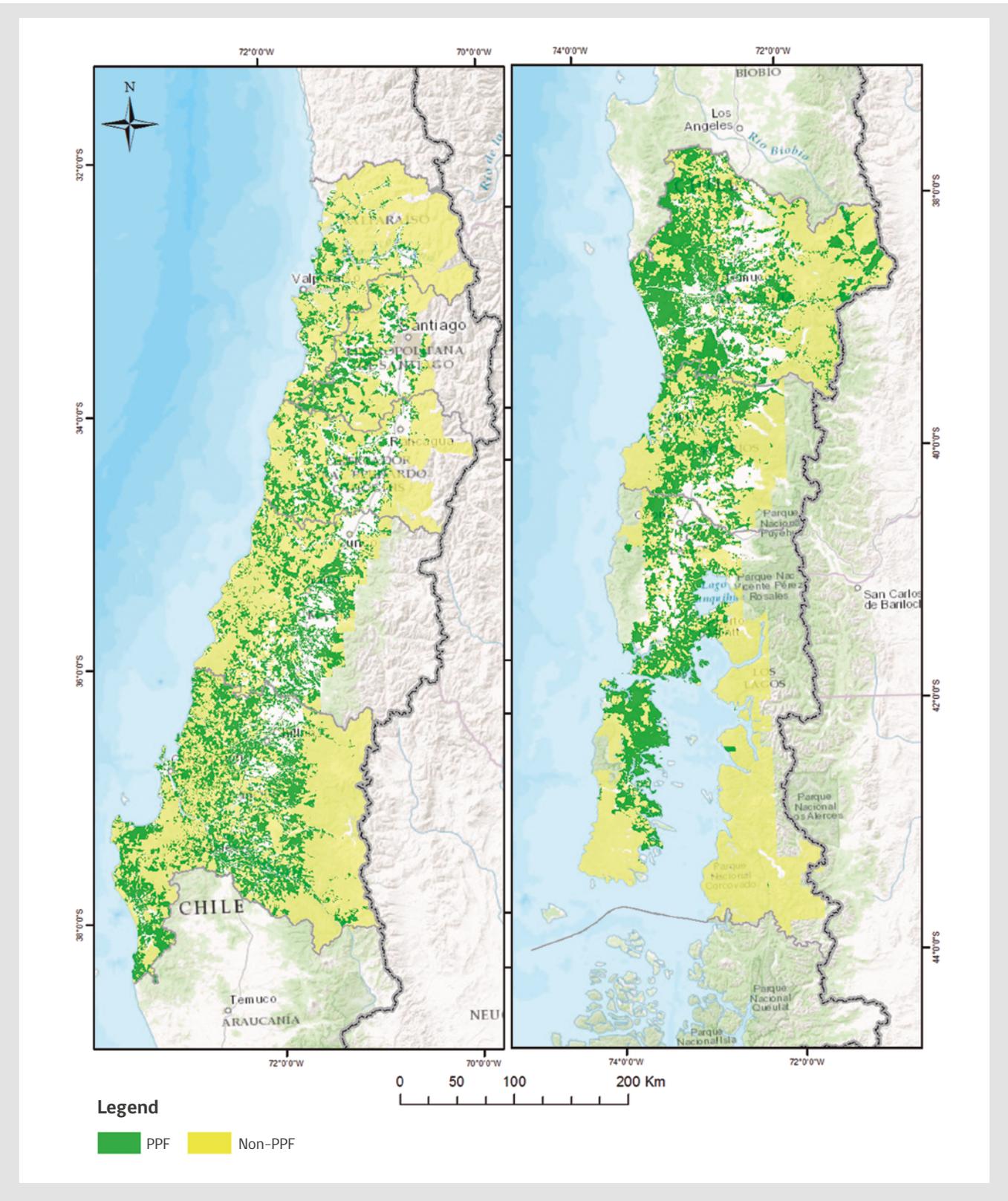


Figure 8. Area associated to PPF.

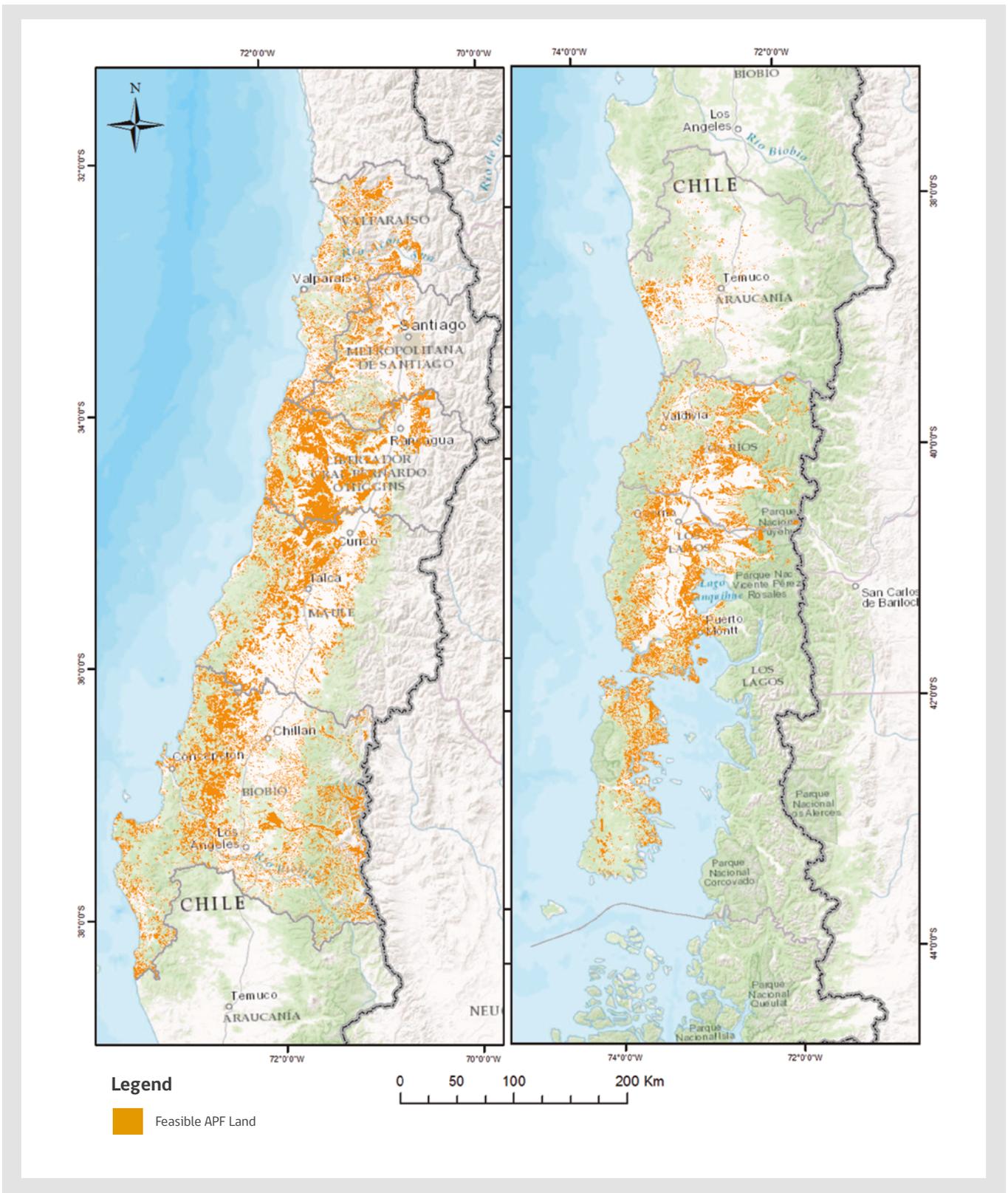


Figure 9. Area associated to PPF and Non-PPF linked to APF land.

Table 5 and 6 show statistics, both regarding area and frequency, corresponding to PPFs and Non-PPFs who -in their properties- have a portion of land qualified as APF.

In the case of the area in APF lands, a great amount of it is linked to PPF, accounting for 3,241,140 ha;

while, in the case of landowners who do not qualify as PPF, this figure is significantly reduced, reaching 201,456 ha.

With regard to the estimation of the number of landowners associated to APF land, 199,336 correspond to PPF and 5,632 to Non-PF (See Table 6).

Table 5. Percentage of area in land qualified as APF by type of landowner.

Region	PPF Area	% of PPF Area	Non-PPF Area	% of Non PPF Area
Valparaiso	233.446	82%	49.870	18%
Metropolitan	182.186	87%	26.294	13%
O'Higgins	463.870	93%	34.136	7%
Maule	438.424	91%	41.346	9%
Biobio	863.419	99%	9.975	1%
La Araucania	97.174	100%	-	0%
Los Rios	310.578	95%	17.856	5%
Los Lagos	652.043	97%	21.979	3%
Total	3.241.140		201.456	

Table 6. Estimation of the number of landowners in APF land.

Region	Number of PPF	% PPF	Number of Non-PPF	% of Non-PPF
Valparaiso	12.490	96%	540	4%
Metropolitan	6.105	96%	232	4%
O'Higgins	13.510	96%	565	4%
Maule	17.764	95%	975	5%
Biobio	63.368	97%	1.677	3%
La Araucania	44.566	100%	224	1%
Los Rios	12.280	94%	766	6%
Los Lagos	29.253	98%	653	2%
Total	199.336		5.632	

5.4 Irregular Property

The land tenure study provides more information in regions between El Maule and Los Lagos, due to the fact that these regions are within the Area of Accounting of the Carbon Fund, thus requiring a greater level of detail in the ERPD.

For this reason, we consulted a report created by the MBN, named "Evaluación del Programa Saneamiento y Normalización de la Tenencia Irregular de la Pequeña Propiedad Raíz"

(Assessment of the Program for the Clearance and Normalization of Irregular Tenure of Small Real Estate), published in August, 2009, which concludes that the only reliable source for estimating the number of irregular properties, is the 1997 and 2007 Agricultural and Livestock Census performed by the National Statistics Institute (INE), along with MBN information, which is available in their website. From these data, we obtained the number of cases of clearances conducted by the Small

Real Estate Regularization Unit; data showing that rural irregular properties fluctuated between 19% and 13% between 1997 and 2007 (Table 7). Unfortunately, this information has not been updated since 2007 to date.

Additionally, and in order to exemplify historical title clearance dynamics in the five regions mentioned above, we reviewed the annual accounts of the MBN in order to collect the statistics of the number of clearance cases, thus obtaining the data within Table 8.

Table 7. Number of rural properties per land tenure situation.

Tenure situation	1997		2007	
	No. of properties	Percentage of the total (%)	No. of properties	Percentage of the total (%)
Registered titles ²⁴	385.104	72,1	402.947	77,8
Irregular titles ²⁵	105.469	19,7	69.249	13,4
Other form of tenure ²⁶	43.508	8,1	45.405	8,8
Total	534.081	100	517.601	100

Source: INE, 2007.

Table 8. Number of clearance of title deeds conducted between 2007-2012.

Region	Number of clearances per year						Total
	2007	2008	2009	2010	2011	2012	
Maule	1.215	1.617	1.251	705	922	984	6.694
Biobio	4.148	3.245	3.031	1.569	2.545	2.268	16.806
La Araucania	610	1.046	3.022	1.772	1.755	3.782	11.987
Los Rios		247	365	401	651	919	2.583
Los Lagos	2.091	2.205	2.396	1.267	1.320	1.781	11.060

Source: annual management accounts; Ministry of National Assets (2007-2012).

The region with higher title clearance figures for 2007-2012 is the Biobio Region, with 16,606 regularized ownership titles; meanwhile, the region

with the lowest number of title deed clearances is the Los Rios Region.



²⁴ Registered titles are those which may be considered as formal property rights, those expressly recognized by the State and those which be protected through legal means.

²⁵ Irregular titles are those which lack official acknowledgement and protection. In some cases, informal property rights are illegal, that is to say, they account for a breach of law. An extreme case is the case of invaders who occupy a place in breach of an eviction notice. In many countries, illegal tenure cases are caused by deficiencies in the legislative system. For example, the legislation sometimes defines the minimum size of a farm while, in practice, these are sometimes a lot smaller due to informal subdivisions made among heirs. Property rights may also be illegal due to their use; for example, the illegal conversion of agricultural lands into urban activities.

²⁶ Other forms of tenure that cannot be classified within any of the categories above, e.g. property can be «extralegal»; in other words, not against the law but not recognized by it. In some countries, customary property of indigenous rural communities is part of this category. Many times a distinction is made between statutory rights or "formally recognized rights" on the one hand, and customary or "traditional" rights on the other. This distinction is becoming increasingly confusing in some countries, particularly in Africa, where customary rights are formally recognized by law.

5.5 Lands associated to SNASPE and other National Assets

Due to the certainty of the land associated with SNASPE and other National Assets in terms of the ownership and transfer of carbon rights (see Figure

2) required by the Carbon Fund, we have defined the area for the five (5) regions included in the ERP, for both categories; details in Table 9 and Figure 10.

Table 9. Distribution of land tenure categories in the area of accounting.

Type of land tenure	Superficie (ha)					
	Maule	Biobío	La Araucanía	Los Ríos	Los Lagos	Total
Public Owner						
SNASPE	18.899	136.621	256.152	99.945	789.161	1.300.778
Other national asset land	5.400	989	12	4.363	10.430	21.194
Total	24.299	137.610	256.164	104.308	799.591	1.321.972

For the area between the Regions from Maule to Los Lagos, there are 1,321,972 ha belonging to SNASPE and to other lands of national assets; while the

Los Lagos Region has the largest area in these 2 categories, with 789,161 ha in SNASPE and 10,430 ha in other national assets.

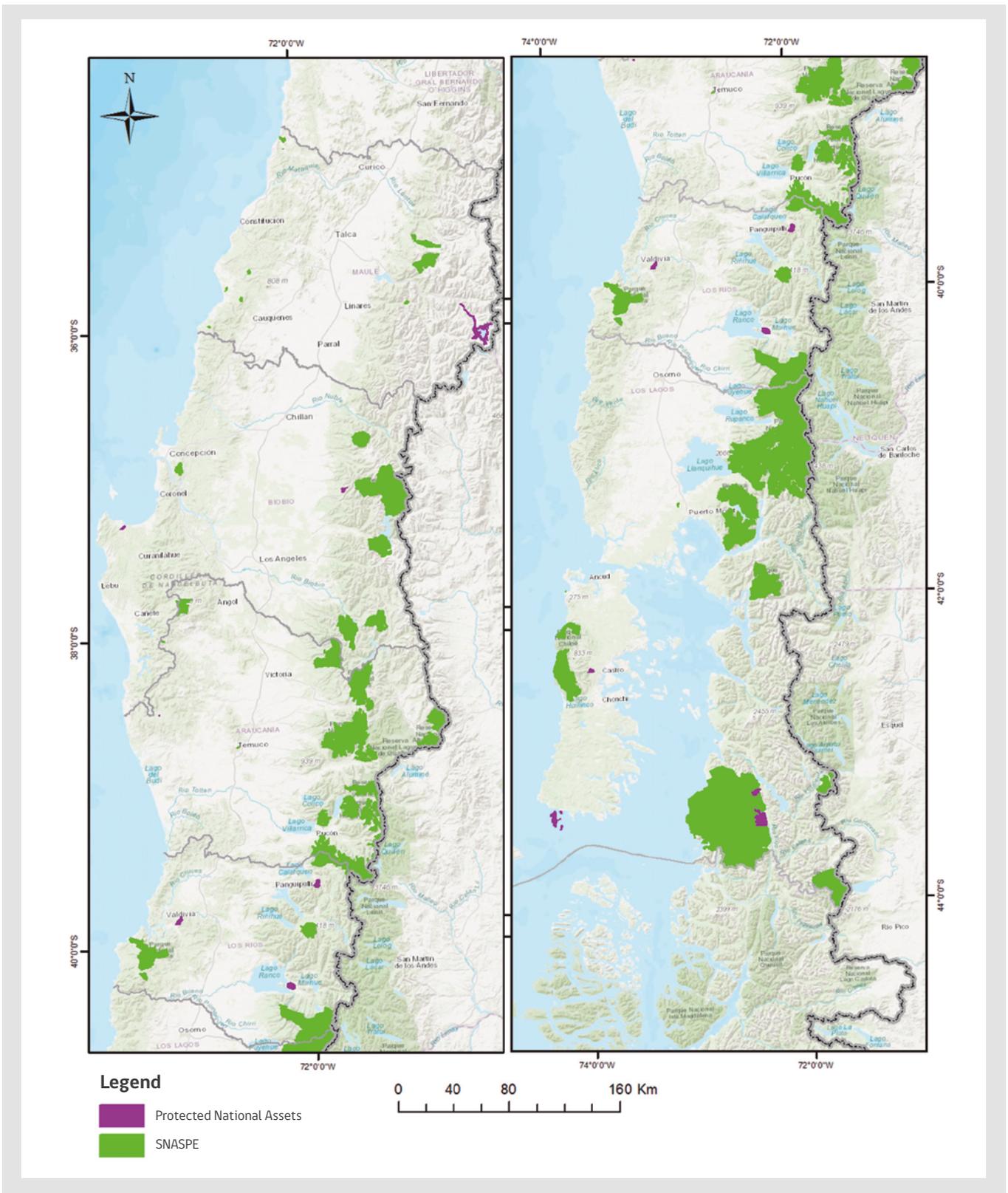


Figure 10. Surfaces associated to SNASPE and BNP in the accounting area of the ERPD.

6. Conclusions

The importance of this study lies in the need of having more background on property in Chile, due to the fact that, despite the existence of institutions like the SII, MBN and CIREN -who work on bridging information gaps-, there is still a deficit in information coverage and unification.

Land tenure conditions are fundamental for implementing the ENCCRV and its various action measures, since they facilitate or condition the access to certain instruments of promotion and/or incentives for conducting the proper and sustainable management of vegetation resources. This is also key in terms of the possibility of transferring carbon rights, with which- in the future- may establish results-based payments schemes.

There are several information gaps which must be strengthened in order to improve Chile's cadaster system of properties. We need to have more clarity on the size of the property, since the method applied in these efforts provides only an approximation of the actual scenario of small landowners. This is due to the fact that certain criteria established in law are excluded, such as the monetary income associated to each property.

On the other hand, the need of updating Chile's information with regard to irregular tenure of property is evidenced through broad background data which surely do not faithfully account for the actual conditions of the territory.

With regard to the property linked to Indigenous Peoples, we conclude that there is high certainty in terms of the area and geographic location; however, it is not possible to define if it is in the hands of an individual owner or if owned by a community, given the current logging system.

Finally, we conclude that even though the country does not have a unified registration system²⁷ for properties, there is certainty with regard to the possibility of implementing the action measures of the ENCCRV. According to CIREN data, 73% of the national area accounts for surface suitable for implementation with a clear- fiscal or private-owner.

Additionally, it is worth noting that a great amount of Chile's area is associated to property IDs; therefore, it can be linked to a regular possessor, thus facilitating access to current agrosilvopastoral and environmental promotion instruments and to actions that promote recovery and reduce the deterioration pressure of vegetation resources. This can help create instances that break paradigms by promoting sustainable practices over these resources, such as the REDD+ approach and the PES Schemes that are expected to come into force when implementing the ENCCRV action measures.



²⁷ It is a landowner-based system whose demonstration is given by the search system, which is based on persons and on the properties owned by them. It is not a spatial search system on property (SII-CIREN Cadaster System).

7. Acronyms and Abbreviations

ADI	Area for indigenous development.
APF	Forestry Land-use Vocation.
CBN	Chile's Native Vegetation Resource Cadaster.
CIREN	Natural Resources Information Center.
CONADI	National Corporation for Indigenous Development.
ENB	National Biodiversity Strategy.
ENCCRV	National Strategy on Climate Change and Vegetation Resources.
FCPF	Forest Carbon Partnership Facility.
GHG	Greenhouse Gases.
INDAP	Institute for Agriculture and Livestock Development.
INE	National Statistics Institute.
MBN	Ministry of National Assets.
MINAGRI	Ministry of Agriculture.
MMA	Ministry of the Environment.
PES	Payment for Environmental Services.
PPF	Small forest landowner.
REDD+	Reducing emissions from Deforestation, forest Degradation and non-increase of forest carbon stocks.
ER	Emission reductions (ER).
SII	Chilean Internal Revenue Service.
SNASPE	National System of State-protected Wilderness Areas.
TM	Land titles.
UNCCD	United Nation's Convention to Combat Desertification.
UNFCCC	United Nations Framework Convention on Climate Change.

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9. Annex

Annex 1. Consulted databases, information to be gathered and their gaps.

Property Variables			
Information Layer	Source	Subject to	Gaps
Property IDs	CIREN	CONAF's Download of IDE MINAGRI files	Three regions missing (XV, II and XII). The associated databases do not have the name of the landowner
Communities	CONADI	Those freely available in the SIT CONADI website have been used	SIT CONADI 2015. Refers to only one community coordinate and not an area
Communities Agricultural	MBN	Only information provided by CONAF IV Region was used	Missing information of three regions (III, V and RM)

Environmental Variables			
Information Layer	Source	Subject to	Gaps
Cadaster of Chile's Native Vegetation Resources (CBN)	CONAF		Regions from IV to IV have the original version from 1997, performed with Landsat MSS and TM images. The 2013 update of the CBN from the Metropolitan and Valparaiso Region was used, with the new threshold of cover for Native Forests.
Land Use Capacity	CIREN	CONAF's Download of IDE MINAGRI files	There is information available from the III to XI region, in the area covered by the orthophoto mosaic.



National Forestry Corporation

Climate Change and Environmental Services Unit (UCCSA)
Forest Development and Promotion Management Department (GEDEFF)
National Forestry Corporation (CONAF)
Chilean Ministry of Agriculture

www.enccrv-chile.cl
www.conaf.cl

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