

# ***Readiness Preparation Proposal (R-PP)***

***Country: Chile***

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February 25, 2013**

**Forest Carbon Partnership Facility (FCPF)**

**The United Nations Collaborative Programme on Reducing Emissions  
from Deforestation and Forest Degradation  
in Developing Countries (UN-REDD)**

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**Note: This version is for the use of the following:**

- 1) FCPF REDD+ Country Participants submitting revised or new R-PPs to the FCPF FMT for PC 12 meeting in Colombia, June 27 – 29, 2012 or afterwards.
- 2) UN-REDD countries submitting national programs, as agreed.

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## Summary of the R-PP

Dates of R-PP preparation (beginning to submission):	March 2012 to January 2013
Expected duration of R-PP implementation (month/year to month/year):	March 2013
Total budget estimate:	US\$13,680,000
Anticipated sources of funding:	<p>From FCPF: US\$3,600,000</p> <p>From UN-REDD: US\$0</p> <p>National government contribution: US\$4,919,000</p> <p>Other source: (private sector): US\$2,391,000</p> <p>Other source: (to be identified) US\$2,770,000 (It is planned to link this initiative with the recently registered Forestry NAMA, which is receiving technical and financial support from the Government of Switzerland.)</p>
Expected government signer of R-PP grant request (name, title, affiliation):	Ministry of the Treasury
Expected key results from the R-PP implementation process:	<p>Outcome 1: Platform for ongoing information-sharing and consultation adjusted and implemented</p> <p>Outcome 2: Development of methodologies for the establishment of reference levels and reference levels adjusted, validated, and implemented</p> <p>Outcome 3: Development of methodologies for the establishment of a monitoring, reporting, and verification (MRV) system and MRV system adjusted, validated, and implemented (at subnational level)</p> <p>Outcome 4: Pilot tests for validation of REDD+ projects internationally validated, incorporating safeguards</p>

## Executive Summary

Chile, like most countries in the region, is classified as highly vulnerable to the effects of climate change, particularly those associated with rising sea levels, prolonged periods of drought, and melting glaciers. These effects, in combination with other factors, have undoubtedly hindered its development, especially where—as is the case in most of the country—development is dependent on sectors such as agriculture, livestock, and forestry, which rely heavily on the availability of land and water.

Chile is not a significant emitter of greenhouse gases at the global level, thanks largely to robust forestry development programs implemented decades ago, which have made the agriculture and forestry sector as a whole “carbon neutral,” meaning that the country’s forests capture more carbon than is emitted.

In view of the situation described above, the Chilean Government has decided to take advantage of the support available from several international initiatives that are providing technical and financial assistance to countries such as Chile for the formulation and implementation of country strategies. This support will be used to step up the implementation of additional forestry programs, which will complement those already in existence but will be aimed specifically at mitigating greenhouse gases that contribute to climate change.

In this framework, the National Forest Corporation [*Corporación Nacional Forestal CONAF*] has recently created the Platform for the Generation and Trading of Forest Carbon Credits in Chile [*Plataforma de Generación y Comercio de Bonos de Carbono del Sector Forestal en Chile PBCCh*], which is designed to provide the underpinning at the national level for various initiatives emerging in the international sphere (for example, Reducing Emissions from Deforestation and Forest Degradation (REDD), plus conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks (REDD+); nationally appropriate mitigation actions (NAMAs); Afforestation and Reforestation Clean Development Mechanism (A/R CDM) projects; and others that may emerge in the future).

The PBCCh seeks to afford access to all owners of forest land and/or potential forest land, first by establishing a national strategy to harmonize the forestry development tools currently being used in the country with international standards and procedures in order to ensure effective greenhouse gas reductions.

Work is also under way in the national and subnational spheres to establish reference levels for greenhouse gases in forests, develop a continuous forest monitoring system that meets international standards, and put in place a common guideline for ongoing information-sharing and consultation on actions to be taken, involving all stakeholders.

With those aims, Chile has developed a basic strategy, which has been validated and endorsed by various international cooperation agencies and local stakeholders, both in the government and in the private and academic sectors.

Additionally, focusing on the REDD+ component of the strategy, CONAF has established an internal structure to carry out a nationwide process of information-sharing and consultation, which began in the second half of 2012. This process has already yielded a great deal of input and many suggestions and contributions from stakeholders previously identified for this purpose, including owners of forest land and potential forest land, nongovernmental organizations (NGOs), businesses (in different fields), government agencies, academics, and others, making it possible to develop a road map for implementing the initiative in as participatory a manner as possible, taking advantage of the expertise and interest that exists in various areas. This has been done by circulating the present document and, more importantly, by conducting a variety of workshops, which have allowed a more fluid and natural interaction.

Full implementation of the PBCCh will require joint effort by various stakeholders in the country. In addition, it is essential that progress reported to the Forest Carbon Partnership Facility (FCPF) be incorporated into the country strategy, as this will undoubtedly lend credibility to the system as a whole, leading to greater financial and technical support and accelerating the implementation of the various social, environmental, and economic activities envisaged in this proposal.

The REDD+ concept represents a challenge for Chile. In view of the growth in its net forest resources over the last 10 years, including both planted forests and the native forest, the country has decided to focus on promoting the recovery of its natural forest ecosystems—or, in other words, it is striving to prevent forest degradation (the second "D" in REDD+) and/or increase forest carbon stocks (the "+" in REDD+). This makes Chile's proposal a pioneering one at the global level, since the focus of other countries' proposals has been primarily on deforestation. The main challenge the country faces is technical: establishing a valid definition of the concept of degradation and developing a feasible method for monitoring it.

The Government of Chile will provide significant funding in the amount of US\$4,919,000 for this proposal, the budget for the entire strategy being estimated at US\$13,680,000. It is also important to note that the country recently registered a Forestry NAMA with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), for which the Swiss Government has contributed approximately US\$3 million. That, together with funding currently being negotiated with the private sector at the national level, is expected to ensure the financial feasibility of the initiative.

In summary, Chile has embarked upon a broad participatory technical process for implementing the REDD+ concept in applicable areas of the country. This initiative is expected to be a useful addition to the forest-related work already under way and is also fully in line with the National Climate Change Strategy.



## **Acronyms and Abbreviations**

ADI	Indigenous Development Area
AFOLU	agriculture, forestry, and other land use
AIFBN	Association of Forest Engineers for the Native Forest
BAU	business as usual
CBD	Convention on Biological Diversity
CERs	certified emission reductions
CIFAG	Association of Forest Engineers
CIREN	Natural Resource Information Center
CMPC	Compañía Manufacturera de Papeles y Cartones
CNACC	National Advisory Committee on Climate Change
CNC	National Peasant Confederation
CODEFF	National Committee for the Defense of Flora and Fauna
Common Approach	Common Approach: The Common Approach provides an overarching framework for the World Bank and development agencies to be Delivery Partners to provide R-PP Formulation and/or Preparation grants to FCPF REDD Country Participants.
CONADI	National Indigenous Development Corporation
CONAF	National Forest Corporation
CONAMA	National Environmental Commission
COP	Conference of the Parties
CORMA	Chilean Timber Corporation
DAS	Social Action Department of the Temuco Diocese
EIS	environmental impact study
ESMF	Environmental and Social Management Framework
ETS	emissions trading system
EU	European Union
FCPF	Forest Carbon Partnership Facility
FIA	Foundation for Agricultural Innovation
FIP	Forest Investment Program
GEF	Global Environment Facility
GGC	greenhouse gas concentrations
GGE	greenhouse gas emissions
GHG	greenhouse gases
GIS	geographic information system
GWP	global warming potential
ha	hectare

IBRD	International Bank for Reconstruction and Development
IDE-MINAGRI	Ministry of Agriculture Spatial Data Infrastructure
IFM	improved forest management
IGM	Military Geographic Institute
ILO	International Labour Organization
INDAP	National Agricultural Development Institute
INFOR	Forestry Institute
INIA	Agricultural Research Institute
IPCC	Intergovernmental Panel on Climate Change
LULUCF	land use, land use change, and forestry
MAIA	Andean Intercultural Environmental Model
MAPS	Mitigation Action Plans and Scenarios
MINAGRI	Ministry of Agriculture
MMA	Ministry of the Environment
MOFIM	Mapuche Intercultural Forestry Model
MRV	Measurement, Reporting, and Verification
MRV	Monitoring, Reporting, and Verification
MUCECH	United Farmers and Indigenous Peoples Movement
NAMA	nationally appropriate mitigation actions
NAPCC	National Action Plan on Climate Change
NGO	nongovernmental organization
NWFPS	non-wood forest products
ODEPA	Office for Agricultural Research and Policy
OECD	Organisation for Economic Co-operation and Development
OP	Operational Policy
PBCCh	Platform for the Generation and Trading of Forest Carbon Credits in Chile
PES	payments for environmental services
PMG	Management Improvement Program
PMSACC	Forest Management Plan for Environmental Carbon Capture Services
PROFOR	Program on Forests
PYMEMAD A.G.	Trade Association of Small and Medium-sized Timber Producers
RBS	required by science
REDD	Reducing Emissions from Deforestation and Forest Degradation
RL/REL	reference level/reference emission level
R-PP	Readiness Preparation Proposal
SAF	Aerial Photogrammetric Service (Chilean Air Force)

SCX	Santiago Climate Exchange
SDC	Swiss Agency for Development and Cooperation
SEA	Environmental Assessment Service
SEC	Superintendency of Electricity and Fuels
SEIA	Environmental Impact Assessment System
SESA	Strategic Environmental and Social Assessment: SESA can be defined as “a range of analytical and participatory approaches that aim to integrate environmental and social considerations into policies, plans and programs and evaluate the inter linkages with economic, political, and institutional considerations.” SESA typically makes use of a variety of tools, rather than following a single, fixed, prescriptive approach.
SII	Internal Taxation Service
SIT	Territorial Information System
SNASPE	National System of Protected Wildlife Areas
ToR	terms of reference
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
VCMS	Voluntary Carbon Market Standard
VCS	Verified Carbon Standard
VCSA	Verified Carbon Standard Association
VERs	voluntary emissions reductions
WWF	World Wide Fund for Nature/World Wildlife Fund

## Component 1: Organize and Consult

### 1a. National Readiness Management Arrangements

#### 1.a.1. Chile's Institutional Framework for Addressing Climate Change

##### The Ministry of the Environment and the New Institutional Framework

Chile ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1994 and also became a Party to the Kyoto Protocol, reflecting its conviction that a global response is required in order to address the phenomenon of climate change and its significant environmental consequences, particularly for vulnerable countries such as Chile.

Taking into consideration the need to coordinate internal efforts and Chile's foreign policy in this area, in 1996 the Government of Chile established, by means of Supreme Decree 466, the principal institutional framework for climate change, creating the **National Advisory Committee on Global Change** [*Comité Nacional para el Cambio Global*],<sup>1</sup> a permanent body that continues to function. The National Environmental Commission [*Comisión Nacional del Medio Ambiente* CONAMA]—which was later superseded by the Ministry of the Environment [*Ministerio del Medio Ambiente*—was appointed to chair the Committee. CONAMA was a coordinating body created by law in 1994 to develop environmental management in Chile and to help enforce the constitutional right of all of its citizens to live in a pollution-free environment.

The **Ministry of Foreign Affairs** [*Ministerio de Relaciones Exteriores*] serves as **vice-chair** of the Committee. Its membership includes representatives of both the public and academic sectors, and the possibility of including other institutions or private bodies is envisaged.

This committee was created in order to advise and coordinate the various institutions involved in matters relating to climate change and global change, in particular the Ministry of Foreign Affairs and the National Environmental Commission. It also seeks to play a crucial role in the discussion of national positions to be presented in international negotiations and thus has played an active part in producing national instruments. The main functions of the National Advisory Committee on Global Change, established at its creation, are:

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<sup>1</sup> Decree 466, Ministry of Foreign Affairs, May 29, 1996, establishing the National Advisory Committee on Global Change. Available at: <http://www.mma.gob.cl/transparencia/mma/vinculos.html>.

- (a) To advise the Ministry of Foreign Affairs on matters relating to the national position vis-à-vis the Framework Convention on Climate Change, the Inter-American Institute for Global Change Research, the conventions on depletion of the ozone layer, and any other matter related to global or climate change on which the Ministry of Foreign Affairs requests its advice;
- (b) To advise the National Environmental Commission on all matters relating to global change in Chile and on national implementation of any plans and programs established;
- (c) To advise institutions devoted to global change research and any other institution requiring and/or requesting its advice; and
- (d) To serve as a mechanism for coordination among all the entities involved in matters related to global or climate change.

The membership of the Committee includes representatives of both the public and academic sectors, and the possibility of including other institutions or private bodies is envisaged. Specifically, the Committee is composed of representatives of the entities shown in Figure 1a.1.



**Figure 1a.1.** Structure of the National Advisory Committee on Global Change

As the issues addressed require broad interdisciplinary participation, in 1998 other institutions were invited to join the Committee so as to include representatives of producers, businesses, and the government agencies concerned with economic development. The institutions invited were:

- Ministry of Economy, Development, and Reconstruction [*Ministerio de Economía, Fomento y Reconstrucción*]

- Ministry of Transportation and Telecommunications [*Ministerio de Transportes y Telecomunicaciones*]
- National Petroleum Company [*Empresa Nacional de Petróleos*]
- Production and Trade Confederation [*Confederación de la Producción y el Comercio*]
- *Fundación Chile*
- Chilean Copper Commission [*Comisión Chilena del Cobre*]
- Chilean Copper Corporation [*Corporación Chilena del Cobre*]
- Climate Action Network – Latin America (CAN-LA) [*Red de Acción Climática para América Latina*]
- *Pontificia Universidad Católica de Chile*

The Committee played a key role in 2006 in the formulation of the National Climate Change Strategy,<sup>2</sup> which comprised the following elements:

- Adaptation to climate change
- Mitigation of greenhouse gas emissions
- Climate change capacity-building and capacity development

In order to operationalize the strategy, the National Action Plan on Climate Change 2008–2012 (PACC)<sup>3</sup> was adopted in 2008. The plan lays out a set of policy guidelines for the public agencies responsible for matters relating to climate change and its adverse effects. It is also intended to be a tool to guide the production and academic sectors and nongovernmental organizations, as it identifies issues that, in the State's view, must be tackled by the whole of society in order to address their effects.

The Committee took responsibility for preparing Chile's first national communication on implementation of the Convention in 2000. The report contained the findings of a national inventory of greenhouse gas emissions, analyzed the country's vulnerability, and identified mitigation options and adaptation measures.

The Committee also conducted studies and compiled information required to produce the second national communication on climate change in 2011, an exercise that served to enhance the capacity of government institutions and other stakeholders in Chile to analyze various issues related to climate change. At the same time, it strengthened the country's existing capacity to contribute to international negotiations on climate change and to the analysis of opportunities and obligations that new initiatives and commitments may entail at the national and international levels.

In recognition of the issue's importance and of the need to strengthen interinstitutional efforts, particularly in the context of international negotiations on climate change, the Interministerial Committee on Climate Change [*Comité Interministerial de Cambio Climático*]<sup>4</sup> was established by

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<sup>2</sup> *Estrategia Nacional de Cambio Climático*. Available at: [http://www.bcn.cl/carpeta\\_temas\\_profundidad/temas\\_profundidad.2007-04-11.5841476988/Estrategia%20nacional%20\\_2006.pdf](http://www.bcn.cl/carpeta_temas_profundidad/temas_profundidad.2007-04-11.5841476988/Estrategia%20nacional%20_2006.pdf)

<sup>3</sup> Plan de Acción Nacional de Cambio Climático. Available at: <http://www.mma.gob.cl/1304/w3-article-49744.html>

<sup>4</sup> <http://www.gobiernodechile.cl/media/2010/05/MEDIOAMBIENTE.pdf>

presidential directive in 2009. The members of this Committee include representatives of the environment, foreign affairs, agriculture, transportation and telecommunications, energy, economy, treasury, mining, and public works ministries. Its objective is to facilitate joint and coordinated work in establishing Chile's position in international climate change negotiations. The Committee has a technical group that meets more frequently to address technical issues and advise the ministerial representatives.

The year 2010 marked the culmination of a process of transforming Chile's institutional framework for environmental governance which had begun in 2006. As part of that process the country moved from a multisectoral model, in which environmental matters were coordinated by the **National Environmental Commission (CONAMA)**, to a more centralized and authoritative model under the **Ministry of the Environment**.<sup>5</sup>

The Ministry of the Environment is the national institution currently responsible for working with the Chilean President on the design and implementation of environmental policies, plans, and programs. It is also responsible for protection and conservation of the country's biological diversity and its water and renewable natural resources, as well as for promoting sustainable development and comprehensive environmental policy and regulatory frameworks.

One of the Ministry's major areas of responsibility is overseeing the country's response to climate change. The legislation creating it establishes, for the first time under Chilean law, a specific government mandate on the issue, stating expressly that the Ministry shall be responsible for proposing policies and formulating plans and programs on climate change (Article 70(h) of Law 20,417 of 2010). The Ministry will face some significant challenges in carrying out this mandate.

Within this policy and institutional framework, the Office on Climate Change was established in 2010, under the office of the Undersecretary of the Ministry of the Environment, to facilitate work on the issue from an organizational and administrative standpoint. The Office has an annual budget and a permanent staff to carry out its work.

## **Environmental Policy**

**The Political Constitution of Chile** guarantees its citizens a fundamental right to live in an environment free of pollution and makes the State responsible for safeguarding and preserving the country's natural and environmental heritage.

National policies aimed at sustainable development are part of the country's overall development strategy; however, it faces **significant environmental challenges**, such as meeting primary air quality standards in several cities.

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<sup>5</sup> Law 20,417. Act Establishing the Ministry of the Environment, the Environmental Assessment Service, and the Superintendency of the Environment. January 7, 2010.

Soil degradation is a particularly important issue. Many areas have been affected by erosion, and an estimated 64% of the national land area available for farming, ranching, and forestry currently shows some degree of erosion, which has led to loss of soil fertility and worsening desertification.

With regard to water resources, freshwater extraction increased by 160% between 1990 and 2002. The Government estimates that by 2017 water demand from households, mining, and industry will have nearly doubled and agricultural use will have risen by 20% with respect to 1992 levels.

Irrigated farming accounts for the largest share of water consumption, but significant progress has been made in increasing efficiency in the use of water for this purpose and irrigation improvement programs are a central feature of the country's agricultural policies.

### **National Action Plan on Climate Change**

In 2008, CONAMA introduced the **National Action Plan on Climate Change 2008–2012** as a short-term response to the components and objectives of the National Climate Change Strategy.

The action plan lays out a set of policy guidelines for the public agencies responsible for matters relating to climate change and its adverse effects. It is also intended to be a tool to guide the production and academic sectors and nongovernmental organizations, as it identifies issues that, in the State's view, must be tackled by the whole of society in order to address their effects.

The plan's duration was limited to five years with a view to generating within a short time the information needed to develop longer-term national and sectoral plans for adaptation and mitigation.

The action plan proposes the following strategic perspectives for addressing the challenges posed by climate change in our society:

- Climate change as a key issue in Chile's public policies and national regulations
- Adaptation as crucial to Chile's future development and to an early response to climate change
- Mitigation as a way to enhance the quality of growth, reduce overall greenhouse gas emissions, and decrease the cost of adaptation
- Innovation in Chile's financial and business sectors as a means of increasing opportunities for investment in mitigation and adaptation projects
- Assessment of future climate change commitments and their likely effects on international trade and macroeconomic balance as a long-term strategic approach
- Development of a climate change knowledge base to support decision-making through integrated climate research and systematic climate observation and through citizen education, training, and awareness-raising

A second phase of the **National Action Plan on Climate Change for 2012 to 2014** is now under way. During this phase the focus will be on the following:

#### **Greenhouse gas (GHG) inventory and measurement:**

- Design, implementation, and coordination of the national inventory system



- Updating of the national inventory of greenhouse gases to 2010
- Carbon management program

**Mitigation and low-carbon strategy:**

- Mitigation Action Plans and Scenarios—Chile (MAPS—Chile) project
- Identification, design, and implementation of nationally appropriate mitigation actions (NAMAs)<sup>6</sup>
- Development of a national registry system for mitigation actions

**Vulnerability and adaptation:**

- National adaptation plans for the forestry/agriculture/livestock, fishing and aquaculture, and biodiversity sectors
- Vulnerability analysis of the water resources, health, and infrastructure sectors

**Capacity-building and development:**

- Online course using the Climate Change Guide for school teachers
- Carbon footprint calculator for the public
- Yearly carbon footprint calculation by the Ministry of the Environment

**Negotiation and participation in international bodies:**

- Technical coordination of participation by Chilean delegations in UNFCCC negotiations
- Participation in Organisation for Economic Co-operation and Development (OECD) expert groups on climate change
- Meetings of the Intergovernmental Panel on Climate Change (IPCC), the Ibero-American Network of Climate Change Offices (*Red Iberoamericana de Oficinas de Cambio Climático* RIOCC), the joint European Union–Latin America environmental program (EUROCLIMA), and the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Climate Change Convention (CGE)

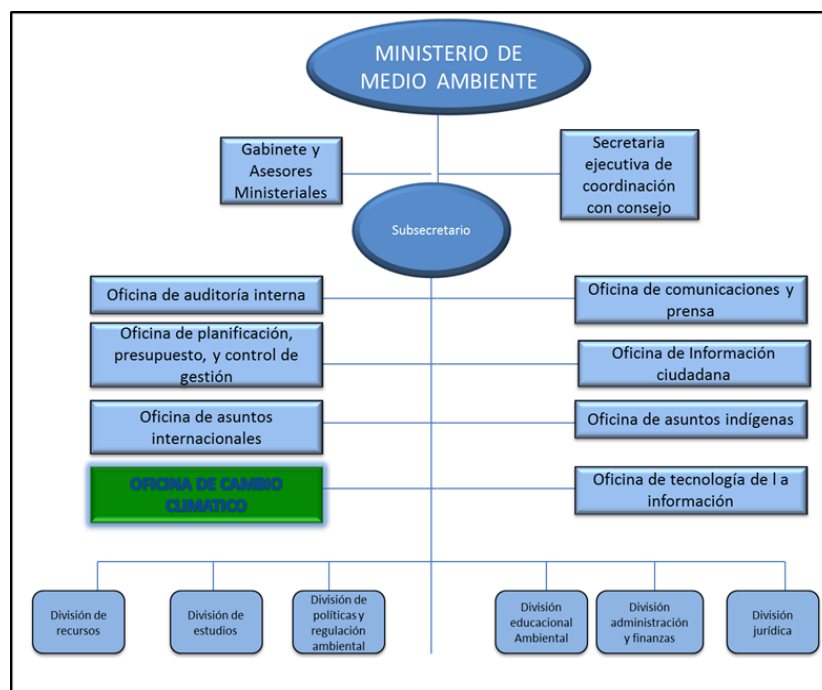
As noted above, Chile submitted its first national communication on climate change to the Secretariat of the Convention in 2000. It submitted its second national communication in 2011.<sup>7</sup> The second report describes the sweeping changes made by the Government to address national commitments in relation to climate change, including institutional and budgetary restructuring. The Government has undertaken

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<sup>6</sup> On November 20, 2012, Chile registered a Forestry NAMA with the UNFCCC Secretariat, for which the Government of Switzerland is contributing financial and technical support. This NAMA is fully in line with the National Forestry and Climate Change Strategy, which provides the technical, legal, administrative, and financial basis for REDD+ and any initiative relating to the role of forests in combating climate change. The NAMA was developed through a joint effort by CONAF, the Office on Climate Change of the Ministry of the Environment, and the Directorate for the Environment and Maritime Affairs (DIMA) of the Ministry of Foreign Affairs. See UNFCCC NAMA registry at: [http://unfccc.int/cooperation\\_support/nama/items/6982.php](http://unfccc.int/cooperation_support/nama/items/6982.php)

<sup>7</sup> Second National Communication of Chile to the United Nations Framework Convention on Climate Change. Available at: [http://unfccc.int/essential\\_background/library/items/3599.php?rec=j&preref=7592#beg](http://unfccc.int/essential_background/library/items/3599.php?rec=j&preref=7592#beg)

a more in-depth analysis of the country's vulnerability to climate change and its opportunities for adaptation and has updated information on the implications of actions to mitigate greenhouse gas emissions, which has enabled it to identify what needs to be done in order to achieve economic development with low carbon emissions. As a sectoral policy, it has voluntarily pledged to bring about a 20% reduction in its projected emissions by 2020.



**Figure 1a.2.** Structure of the Ministry of the Environment

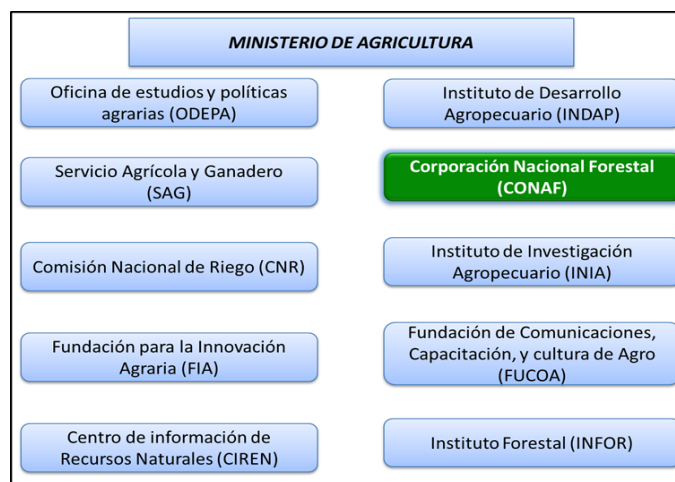
### 1.a.2. Institutional Structure of the Agriculture and Forestry Sector

The Ministry of Agriculture (*Ministerio de Agricultura* MINAGRI) is the government institution tasked with promoting, guiding, and coordinating agriculture, livestock, and forestry activities in Chile. Decree-Law 294 of 1960 establishes that **the Ministry's action shall be directed fundamentally towards increasing production in Chile; conserving, protecting, and expanding its renewable natural resources; and improving the nutritional status of the population.**

To promote sectoral development efficiently, MINAGRI carries out functions in the areas of sector governance, research and technology transfer, and service delivery. The principal MINAGRI institutions dealing with climate change mitigation are:

- **Office for Agricultural Research and Policy [*Oficina de Estudios y Políticas Agrarias* ODEPA]:** This centralized public service was created in 1992. Its institutional mission is to strengthen the work of the Ministry of Agriculture and the public and private agencies involved in the agriculture and forestry sector by providing special expertise and information.

- **National Agricultural Development Institute [*Instituto de Desarrollo Agropecuario INDAP*]:** The Institute aims to foster the productive and commercial development of small-scale, family-based farming operations, seeking to facilitate their market participation and enhance their competitiveness in a sustainable manner.
- **National Forest Corporation [*Corporación Nacional Forestal CONAF*]:** CONAF is an entity affiliated with the Ministry of Agriculture whose mission is to contribute to the country's development through sustainable management of forest ecosystems and mitigation of climate change for the benefit of current and future generations. It carries out that mission through promotion and monitoring of compliance with forest and environmental law, protection of vegetation resources, and the management of protected wildlife areas, with a special focus on the issue of climate change. CONAF functions as the Chilean Forest Service.
- **Foundation for Agricultural Innovation [*Fundación para la Innovación Agraria FIA*]:** This is the sectoral agency that seeks to increase the competitiveness of Chile's agricultural sector by promoting and creating an enabling environment for innovation.
- **Agricultural Research Institute [*Instituto de Investigaciones Agropecuarias INIA*]:** INIA is the country's leading research institution in the area of agriculture. Its mission is to develop, adapt, and transfer technologies that will contribute to the quality and safety of Chile's food supply and enable it, competitively and sustainably, to meet its principal development challenges.
- **Forestry Institute [*Instituto Forestal INFOR*]:** This is a government technical agency tasked with generating and transferring scientific and technological knowledge and expertise through research on sustainable use of forest resources and ecosystems; development of forestry products and services; and production of economic, social, and environmental information of use to the forestry sector.
- **Natural Resource Information Center [*Centro de Información de Recursos Naturales CIREN*]:** This institution provides information on renewable natural resources through its georeferenced database on soils, water resources, climate, and fruit production and forestry in Chile, in addition to a cadastre of rural property.



**Figure 1a.3.** Structure of the Ministry of Agriculture

### Relevant Sectoral Legislation

Decree-Law 701 was enacted in 1974 with the twofold objective of preserving existing forests and planting new forests on land devoid of vegetation. This law has subsequently been amended several times but remains in force. It is discussed in detail in Section 2.c.3.

Law 20,283, The Native Forest and Forestry Development Act, was enacted in 2008. Also called the Native Forest Act, its main aims are the protection, recovery, and enhancement of native forests, with a view to ensuring forest sustainability, in keeping with the country's environmental policy. This law is also discussed in Section 2.c.3.

### Council on Climate Change and Agriculture

In May 2008, the Ministry of Agriculture created the Council on Climate Change and Agriculture [*Consejo de Cambio Climático y Agricultura*], which is chaired by the Minister and includes representatives from the production sector, the public sector, and academia.

The Council's main objective is to create a common understanding among stakeholders in different sectors of how climate change will impact activities in the agriculture and forestry sector and to define the major lines of action for addressing it.

The Council supports the Ministry in identifying the main issues and priorities to be covered in a climate change adaptation program for the agriculture and forestry sector and in defining potential mitigation measures to be implemented in each sector.

The Council is advised by the Interministerial Technical Committee, which coordinates meetings and presentations and formulates proposals for the Council to consider.

One of the Council's priority activities for the period 2008–2012 was analysis of climate change mitigation and adaptation actions, which were subsequently included in the National Action Plan on Climate Change.

The Council's main achievements include its contribution to the design of the National Action Plan on Climate Change and tracking of its implementation; coordination of carbon footprint studies for the main products of the sector; preparation of the sector's position for the fifteenth session of the Conference of the Parties (COP) to the Climate Change Convention, held in Copenhagen in late 2009, and subsequent COP sessions; formulation of a communication strategy for climate change mitigation and carbon footprint studies; and definition of strategic lines of action for the preparation of sectoral mitigation and adaptation plans envisaged under the national action plan, among a variety of other activities.

Coordination among the various public institutions involved has made it possible to fulfill the commitment established under the National Action Plan on Climate Change.

In keeping with the priorities of the agriculture and forestry sector, numerous activities have been carried out since 2008, including a series of studies on the potential for carbon capture, carbon footprint estimates for selected export products, and potential mitigation actions under Decree-Law 701 (1974) and the Native Forest and Forestry Development Act (Law 20,283 of 2008).

### **1.a.3. Institutional Framework for the Implementation of REDD+**

The lead body for implementation of REDD+, and for the National Forestry and Climate Change Strategy which underpins it, will be the Forest and Climate Change Board [*Mesa de Bosques y Cambio Climático*], which will, among other functions, coordinate sectoral activities and decision-making with regard to reduction of emissions from deforestation and degradation.

The Forest and Climate Change Board (see Figure 1a.4) will be led by CONAF, which will organize and oversee all activities required for the full implementation of Chile's REDD+ Strategy, including planning of meetings, production of meeting reports, and dissemination of any decisions taken.

Given the specificity of the matters to be dealt with in relation to forestry and associated communities, CONAF will also communicate any Board decisions to the National Advisory Committee on Climate Change. Once the Board is up and running, consideration will be given to whether representatives of other ministries and, possibly, the private sector should be invited to participate in its activities, either on an ongoing basis or for specific meetings, as deemed appropriate.

#### **Composition of the Forest and Climate Change Board**

The Forest and Climate Change Board will be chaired by the Director of CONAF and will include the following members:

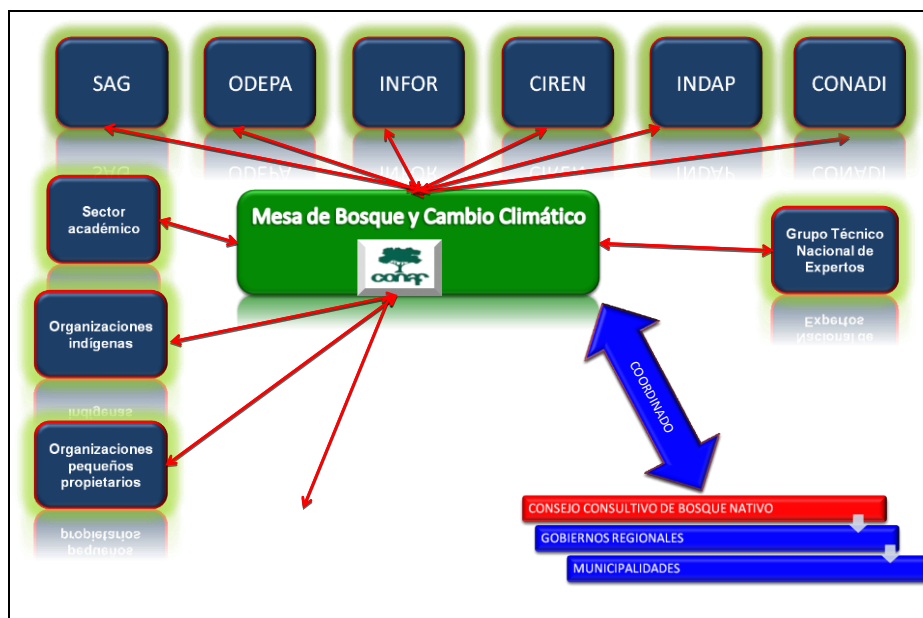
- 1 member from the National Technical Expert Group [*Grupo Técnico Nacional de Expertos GTNE*] (described below).
- 1 member from the Office for Agricultural Research and Policy (ODEPA)
- 1 member from the Natural Resource Information Center (CIREN)
- 1 member from the National Agricultural Development Institute (INDAP)
- 1 member from the Forestry Institute (INFOR)

- 1 member from the Agriculture and Livestock Service [*Servicio Agrícola y Ganadero SAG*]
- 1 member from the National Indigenous Development Corporation [*Corporación Nacional de Desarrollo Indígena CONADI*]
- 1 representative of indigenous organizations
- 1 representative of the academic sector
- 1 representative of organizations of small landowners
- 1 representative of organizations of large landowners

The Board will be established through an agreement to be signed by all members. The agreement is currently being reviewed by CONAF's legal counsel.

The CONAF Group on Forests and Climate Change will serve as secretariat of the Board.

The Board is expected to function in a decentralized manner, with strong links to regional governments, regional offices of the Ministry of Agriculture, and municipalities in direct contact with forest-dependent communities. Its work is expected to be governmental and nongovernmental in scope.



**Figure 1a.4.** Structure of the Forest and Climate Change Board

There are various institutions with which close coordination will be required on specific issues. It was originally thought that they should be incorporated as permanent members of the Board; however, with a view to streamlining decision-making within this body, and considering the specialized nature of some of the work to be undertaken with these institutions, it was decided that specific agreements or work plans would be established with them for the implementation of the proposed activities. An example of this is the work to be carried out by the Ministry of National Resources [*Ministerio de Bienes Nacionales*] for the regularization of land titles.

### **Permanent Advisory Council on the Native Forest Act**

Any decisions taken by the Forest and Climate Change Board with regard to the native forest must be in accordance with the instructions issued by the Permanent Advisory Council on the Native Forest Act [*Consejo Consultivo Permanente de la Ley de Bosque Nativo*], a body created by the Native Forest and Forest Development Act (Law 20,283), which has its own terms of reference.

The main aims of Law 20,283 are the protection, recovery, and enhancement of Chile's native forests, with a view to ensuring forest sustainability, in keeping with the country's environmental policy.

Under Law 20,283, the Council members are responsible for protecting the interests, addressing the concerns, and ensuring the participation of small, medium-sized, and large non-indigenous producers and of NGOs.

### **National Technical Expert Group [*Grupo Técnico Nacional de Expertos GTNE*]**

This group of experts comprises professionals, consultants, project developers, NGOs, and others working on climate change issues in Chile, including:

- PricewaterhouseCoopers International Limited (environmental auditing, consulting, and project development)
- Office on Climate Change, Ministry of the Environment
- Office for Agricultural Research and Policy (ODEPA), Ministry of Agriculture
- Poch-Ambiental (environmental consulting and project development)
- Verified Carbon Standard (VCS) Program (international voluntary standard, recognized expertise in REDD+ and agriculture, forestry, and other land use (AFOLU) activities)
- LessCarbon (environmental project development, carbon credit trading)
- The Nature Conservancy (TNC) (NGO, environmental project development)
- Fundación Chile (environmental project development)
- Patagonia Sur (environmental project development)
- Santiago Climate Exchange [*Bolsa de Clima de Santiago*] (environmental project development, carbon credit trading)

This group will appoint one representative to the Forest and Climate Change Board. The manner by which that representative will be selected and the period for which he/she will serve will be agreed by means of an internal process.

The GTNE was formed through an agreement among its member institutions. It is chaired by the Executive Director of CONAF, and the CONAF Group on Forests and Climate Change [*Grupo de Bosques y Cambio Climático*] serves as its secretariat. The GTNE will remain in existence for an indefinite period.

Members may invite representatives of other institutions to join the group, on either a temporary or a permanent basis.

It should be made clear that the GTNE is a technical group whose function is to advise CONAF on the basis of its experience and know-how on the development of mechanisms, strategies, and projects

having to do with the contribution that Chilean forests can make with respect to climate change. It is not a technical group focusing on purely forest-related matters, such as planting techniques, reference levels, monitoring, etc., areas in which if CONAF's capacities are insufficient, assistance from appropriate consulting firms will be sought.

Each GTNE meeting discusses specific topics that are decided in advance and announced at the time the meeting is convened. The GTNE secretariat distributes relevant background materials in advance to all members.

The decision-making process is as follows:

- (i) Meet and discuss facts and relevant arguments;
- (ii) Explore possible actions/decisions;
- (iii) Agree on relevant criteria for decision-making; and
- (iv) Decide and draw up an appropriate plan of action.

Decisions are adopted by an absolute majority of members, and the presence of a quorum is recorded in the meeting minutes. In case of a tied vote (in person or online), the Chair breaks the tie and makes a decision.

The technical nature of GTNE is multidisciplinary, since its members come from different disciplines, ranging from pure engineering to law, finance, and the social sciences. This was one of the arguments in favor of the establishment of this permanent body, the general aim of which is, as indicated above, to endorse proposals, guidelines, and possible changes and recommend them to CONAF.

### **Institutional Group on Forests and Climate Change (CONAF)**

In order to support the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh) (established by means of Resolution 226 of 2012) and REDD+, on August 28, 2012 by means of Memorandum 4152, CONAF called for the appointment of professionals from all regions of the country to form part of the Group on Forests and Climate Change [*Grupo de Bosques y Cambio Climático* GBCC], created by Resolution 35 of January 17, 2012). The resolution is reproduced in Annex 1b.1.

The GBCC is composed of regional representatives and is the national-level body of CONAF responsible for supporting the REDD+ proposal (and, in general, the National Forestry and Climate Change Strategy). Specifically, it is responsible for ensuring the sustainability of the processes of information-sharing prior to and consultation and participation during the development of the REDD+ Strategy, among other activities (see Section 1.b.3.).

The GBCC serves as secretariat of the National Technical Expert Group (GTNE) and will also serve as secretariat of the Forest and Climate Change Board. The CONAF regional members of the Group, with support from the regional directors and the Regional Forestry Department, will carry out the following specific functions in relation to REDD+:

- Coordination of project activities at the regional and local levels



- Internal information-sharing to ensure institutional mainstreaming and capacity-building and external information-sharing to identified groups of stakeholders
- Support for strengthening of proposals
- Assistance in the identification of stakeholders at the regional and local levels
- Development and implementation of operational activities
- Implementation of the consultation and participation plan
- Management of the implementation of activities for the achievement of objectives and outcomes
- Contribution to the prevention, management, and resolution of conflicts arising in relation to REDD+ at the local, regional, and national levels<sup>8</sup>

To ensure the implementation and sustainability of the National Forest and Climate Change Strategy and the REDD+ Strategy, a broad and representative process of participation by and consultation with both indigenous and non-indigenous forest-dependent communities is being undertaken. This interaction is seen as an essential element in the prevention, management, and resolution of conflicts.

The institutional framework for the development of the REDD+ Strategy comprises the existing structure for addressing issues of various types so as to provide safeguards and help to prevent, manage, and resolve conflicts at the local, regional, and national levels, in particular the following institutional mechanisms for fostering participation and consensus-building:

- Forest and Climate Change Board
- National Technical Expert Group
- Group on Forests and Climate Change

These three participatory bodies focus specifically on matters relating to forests and climate change. There are more general entities working on forest-related issues which, directly or indirectly, also serve as participatory mechanisms and which possess prior experience with processes of dialogue and consensus-building in relation to existing forest and environmental legislation in Chile.

Stakeholder participation is seen as the foundation for the mechanism for conflict prevention, management, and resolution under the national REDD+ strategy. As a matter of priority, provision will be made throughout the institutional structure for participation by key stakeholder groups identified in the course of the process. Key stakeholders include indigenous and non-indigenous communities deriving benefit from Chile's forests and NGOs and other organizations and associations concerned with forest-related matters. They will be part of the mechanism at the local, regional, and national levels.

Social and environmental safeguards in relation to REDD+ will be incorporated in the development of the national REDD+ Strategy and provision will be made for the participation of direct beneficiaries in

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<sup>8</sup> It is worth noting that Chile has a transparency law, under which citizens are entitled to access information from and voice their concerns to government agencies.

establishing those safeguards. This is essential for the prevention, management, and resolution of conflicts.

Other elements taken into account in the mechanism for conflict prevention, management, and resolution, as part of the strategy for consultation and participation, are governance, cultural relevance, and gender. Transparency, capacity-building, dissemination, information-sharing, and dialogue are also considered essential elements.

The structure established and to be established for REDD+ encompasses a range of priority issues at the national, regional, and local levels. Similarly, the mechanism for conflict prevention, management, and resolution takes account of the various factors at those three levels that might lead to conflict. Should a conflict occur, the idea is to use a conflict transformation approach to address its root causes. Communication, dialogue, and consensus-building will be key components of this approach.

Another component of the mechanism for the prevention, management, and resolution of conflict, and also part of the process of consultation and participation, is the record of stakeholder input and response to stakeholder requests and concerns. This will be part of the early dialogue on and subsequent development of the REDD+ Strategy. Information-sharing takes place at the local, regional, and national levels. Issues that could lead to a potential conflict at the local and regional level will be dealt with by CONAF through the Group on Forests and Climate Change, with sharing of information between the regional and national levels taking place through CONAF institutional channels. Other issues that are regional or national in scope, implications, or impact will be addressed by the Forest and Climate Change Board and the National Technical Expert Group.

In addition to the active role to be played by the GBCC in resolving conflicts, complaints, and grievances, CONAF's formal channels for responding to requests and petitions coming from organizations and beneficiaries will be used, all in accordance with the Administrative Procedures Act (Law 19,880) and the Access to Public Information Act (Law 20,285) mentioned in Section 1.c.2.5. of this document.

Pursuant to these laws, all ministries and public services (including CONAF) must implement an integrated public information and citizen services system. In practice, it will be the regional GBCC members who are also members of the Forest and Climate Change Board that will be responsible for responding by means of a written document or by telephone or e-mail to individuals submitting requests.

As for response times, the provisions of Law 19,880 will be followed, namely: a response will be provided within 48 hours for requests that can be granted immediately, within 10 working days for complaint or grievances requiring the attention of a senior official, and within 20 working days if background information must be compiled. The foregoing periods are firm deadlines representing the maximum allowable response time.

It should be noted that this mechanism will only apply to complaints and grievances that arise in connection with the development and implementation of the Forest and Climate Change Strategy in

the context of REDD+. Other conflicts having to do with the regular functions of the various organizations and with potential beneficiaries will be resolved through the normal internal procedures of those organizations. None of the entities involved in the Strategy will intervene in such disputes and procedures.

### **Functions of the Forest and Climate Change Board**

Each member of the Board will have the right to speak and vote. The Board will meet at least twice a year to establish the technical, strategic, and policy guidelines on the basis of which REDD+ activities will be implemented in the country.

The Board will be supported by various advisory groups whose function will be to provide guidance on technical, social, environmental, economic, and regional matters for Board decision-making.

The Board will commission the work needed to identify alternatives and mechanisms for addressing issues such as:

- Harmonization with other environmental and forestry sector policies
- Interinstitutional and intersectoral coordination and conflict resolution mechanisms
- Information-sharing and communication strategies for REDD+
- Indirect impact of REDD+ on international negotiations
- Promotion of REDD+ activities at the national level and their linkage with international funders
- Adoption of financial mechanisms that will facilitate the implementation of REDD+ activities at different levels

The Board's member organizations will be advised before any of these activities are carried out or any approaches proposed by studies are implemented.

As noted above, the Board will also play a role in prevention, management, and resolution of any conflicts, complaints, and grievances that may arise in the course of REDD+ preparation and implementation.

### **Activities Leading to the Establishment of the Board**

Meetings and workshops needed for the establishment of the Forest and Climate Change Board will be held, and an intensive capacity-building process will be undertaken with key stakeholders in the sectors involved. A platform for ongoing consultation and information-sharing will be implemented.

CONAF will conduct workshops and meetings with key stakeholders throughout the country in order to disseminate information about this new institution, its objectives, and stakeholder participation in its activities.

The aim of the capacity-building activities will be to prepare potential members of the Board to address the issue of climate change and the challenges that the country faces with regard to readiness and REDD+ activities.

## **Indigenous Participation on the Board**

As indigenous participation on the Board will be vitally important, special meetings will be held with the various indigenous communities and institutions, especially forest-dependent communities, and with the National Indigenous Development Corporation [*Corporación Nacional de Desarrollo Indígena* CONADI] to promote and provide information about the initiative in indigenous communities and to build the necessary capacity in those communities for ongoing participation.

Separate workshops will be held for stakeholders from indigenous communities, in recognition of their importance and their cultural and linguistic differences.

The indigenous community will be represented on the Forest and Climate Change Board through the National Indigenous Development Corporation, which will appoint one member of the National Council of CONADI to be the indigenous representative on the Board.

CONADI is the national institution responsible for promoting, coordinating, and implementing government action to support the comprehensive development of indigenous peoples and communities, especially economic, social, and cultural development, and foster their participation in the life of the country through intersectoral coordination, financing for investment initiatives, and provision of services. In addition, it has funding and infrastructure throughout the country, and is the only institution qualified to represent indigenous peoples on the Board.

It will thus be ensured that indigenous communities, represented by CONADI, can participate in an ongoing and informed manner.

## **Interaction within the Board**

Each Board meeting will discuss specific topics determined in advance and announced at the time the meeting is convened. These topics may relate to contingencies that have arisen or to the need for strategic analysis of an issue or they may be matters raised by one or more members at a previous meeting which the Board as a whole has agreed to discuss. The Board secretariat will distribute relevant background materials in advance to all members.

The decision-making process will be as follows:

- (i) Meet and discuss facts and relevant arguments;
- (ii) Explore possible actions/decisions;
- (iii) Agree on relevant criteria for decision-making; and
- (iv) Decide and draw up an appropriate plan of action.

Decisions will be adopted by an absolute majority of members, and the presence of a quorum will be recorded in the meeting minutes. In case of a tied vote (in person or online), the Chair will break the tie and make a decision.

<b>Table 1a: Summary of National Readiness Management Arrangements Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Establishment of Forest and Climate Change Board	Meetings	15	20	20	20	<b>75</b>
	Capacity-building workshops	15	15	15	15	<b>60</b>
Survey of key stakeholder capacities	Workshops with public sector	15	20	20	20	<b>75</b>
	Workshops with private sector and NGOs	15	20	20	20	<b>75</b>
	Workshops with indigenous and non-indigenous communities	15	20	20	20	<b>75</b>
Consultancy for the establishment of a platform for ongoing consultation and information-sharing	Conceptual design of platform (meetings and workshops with key stakeholders)	40	50	50	50	<b>190</b>
	Implementation of platform in trial phase	0	50	50	50	<b>150</b>
	Final adjustments based on feedback from trial phase and national implementation	0	0	60	60	<b>120</b>
<b>Total</b>		<b>115</b>	<b>195</b>	<b>255</b>	<b>255</b>	<b>820</b>
National Government		40	68	89	89	<b>287</b>
<b>FCPF</b>		<b>48</b>	<b>82</b>	<b>107</b>	<b>107</b>	<b>344</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		12	20	26	26	<b>82</b>
Others, to be identified		15	25	33	33	<b>107</b>

## **1b. Information Sharing and Early Dialogue with Key Stakeholder Groups**

### **1.b.1. REDD+ Readiness Preparation Process**

The REDD+ readiness preparation process is geared towards creating a **national strategy** for setting up REDD+, involving various stakeholders and strengthening their capacity for forest management at the local, regional, and national levels. To achieve these goals, it is necessary to have the capacity to reach intersectoral and intercultural participatory agreements on land management, taking a multifaceted and long-term approach.

Participation by and consultation of forest-dependent communities are recognized as fundamental rights in the context of the readiness preparation process, and consequently there is a need at this stage to create the mechanisms to ensure that those rights are respected.

### **1.b.2. Identification of key stakeholders**

Around 60% of forest plantations are held by major corporations, with the rest being in the hands of small and medium-sized landholders. The native forest is primarily under private ownership, with a significant portion being held by small and medium-sized owners. The Government administers 3.9 million hectares of native forest belonging to the National System of Protected Wildlife Areas [*Sistema Nacional de Áreas Silvestres Protegidas* SNASPE], which include national parks, national reserves, and natural monuments.

Of the forest in private hands, around 2% belongs to indigenous communities, amounting to approximately 317,000 hectares in 1997.

The majority of the owners, including the indigenous peoples, have been clearly identified and their geographic location is known. All legally recognized lands are also included in the taxpayer identification registry of the Internal Taxation Service [*Servicio de Impuestos Internos* SII].

Also available is information on owners of land that is under a management plan administered by the National Forest Corporation (CONAF) by means of the Forestry Management System [*Sistema de Administración Forestal* SAF] software. The SAF software is continuously being enhanced through linking of the information with other variables considered relevant for decision-making purposes and also through the addition of graphic and spatial images.

However, there is a portion of forested land in which there are problems relating to ownership. This land is largely found in areas where unsustainable forestry practices are observed.

## Land Ownership

The right to own property is guaranteed by Article 19, Section 24 of the Political Constitution of the Republic of Chile of 1980, among other pieces of legislation. Article 19 provides that this right may be limited or restricted only by the law and only when this is done with the aim of conserving the country's environmental heritage. This guarantee and the limits on it apply to all types of property. The right of ownership grants the owner the right to use and enjoy the property owned, provided that such actions do not infringe the law or the rights of other persons, in accordance with Article 580 of the Civil Code.

Although the legal framework governing land ownership in Chile is clearly defined by the Constitution as a right to private ownership of a material asset, the same instrument provides that the legislature may establish specific rights and powers, when warranted. This is the case, for example, with indigenous lands and agricultural communities. Matters relating to indigenous lands are governed by the Indigenous Peoples Act (Law 19,253), specifically its Articles 12 and 13, while matters relating to land ownership in agricultural communities are governed by Law 19,233.

Title II of the Indigenous Peoples Act (Law 19,253) makes specific reference to the "Recognition, Protection, and Development of Indigenous Lands." Paragraph 1 deals specifically with "Protection of Indigenous Lands." Subparagraph 1 of Article 12 defines "indigenous lands" as those lands currently occupied by indigenous persons or indigenous communities on the basis either of ownership or of possession by virtue of the following forms of title: titles granted by a commissioner representing the Spanish Crown [*título de comisario*]; land grants [*título de merced*]; gratuitous transfers of title [*cesiones gratuitas de dominio*]; other forms of title that the Government has used to transfer, regularize, grant, or assign land to indigenous persons; and titles to lands located in Regions VIII, IX, and X which indigenous beneficiaries of Laws 15,020 of 1962 and 16,640 of 1967 have recorded in the Indigenous Land Registry [*Registro de Tierras Indígenas*] and which constitute homogeneous indigenous groupings as defined by CONADI. Subparagraph 2 of Article 12 provides that indigenous lands also include those lands which historically have been occupied and are now held by indigenous persons or communities belonging to one of the nine national ethnic groups, provided that their rights to them are recorded in the Indigenous Land Registry, while subparagraph 3 provides that indigenous lands comprise any of the lands described in the preceding paragraphs which at some future time may be declared by the courts to belong to indigenous persons or communities. The fourth paragraph provides that lands which indigenous people or communities receive at no cost from the Government shall also be deemed indigenous lands.

Article 13 makes explicit reference to the protection of the land titles listed in Article 12, stipulating that as a matter of national interest those lands shall enjoy protection under Law 19,253 and may not be transferred, confiscated, encumbered, or acquired by forfeiture, except in dealings between indigenous communities or persons of the same ethnic group. It also makes reference to the lands owned by indigenous communities, indicating that such lands may not be leased or lent under a loan for use agreement, nor transferred for use, enjoyment, or administration.

Land tenure among agricultural communities is governed by Law 19,233 of 1993 under a system of communal ownership, in which community members, who are known as *comuneros*, co-own parcels of land. This system is found in the Coquimbo Region, where it may represent an adaptive social response to the extreme aridness, desertification, and poverty that characterizes the region. The sense of community among *comuneros* gives rise to a feeling of ownership that goes beyond the shared ownership of land for reasons that include kinship and engagement in the same type of productive activity.

- ✓ The types of land within an agricultural community are: irrigated parcels for individual use (each parcel is known in Spanish as a *hijuela*, *posesión*, *huerto*, or *goce singular*), which are subject to rights of inheritance, transfer, and creation; land allocated by community authorities for individual use (a parcel of land intended for dryland farming is known as a *lluvia*, while a parcel intended as the site of the residence of a community member is called a *piso*); and collective lands.
- ✓ The highest authority in an agricultural community is the General Assembly or Council of the Community, whose functions include designating a Board of Directors; approving farming plans for collective lands and regulating their use; and putting in place measures for the protection of soil, water, and forests.
- ✓ The Board of Directors may consist of a minimum of 5 members and a maximum of 11 who are elected for 3-year terms and whose duties are to manage the assets and liabilities of the community and ensure compliance with the resolutions of the General Assembly, contract for needed work, enter into contracts, resolve disputes between community members, and others. The Chairman of the Board serves as the community's legal representative.

Communal land-holding is a system in which the land is indivisible and is collectively owned by community members. These lands are generally low in productivity, and in many cases agricultural output remains at subsistence levels.

Although the agricultural community system requires ongoing consensus-building and agreement by community members on activities having to do with their shared property, such consensus-building generally concerns only production and economic matters. Each individual strives to derive maximum benefit (mainly economic benefit) from his/her parcel of land. A discussion in the context of climate change and the REDD+ Strategy will require a territorial-level analysis and will therefore raise broader issues relating to the productive and environmental fate of communal lands. The discussion, management, and planning of future activities, or simply the introduction of a new vision among community members that extends beyond the horizon of their individual parcels, will be of benefit as it will draw attention to issues relating to the environment, the common welfare, territorial development, and, of course, the role of forests with respect to climate change.

In some cases there are situations of communal ownership of land arising from generational succession, while in other cases land is held by individuals. This applies to both indigenous and non-indigenous communities.



## Ownership of Indigenous Lands

On the basis of data from the Seventh National Agricultural and Forestry Census, published by the Office for Agricultural Research and Policy (ODEPA) and the National Statistics Institute [*Instituto Nacional de Estadística*] (2007), ODEPA and the National Indigenous Development Corporation (CONADI), working through the Origins Program [*Programa Orígenes*], have combined their institutional efforts with the aim of augmenting knowledge on the productive and social features of the country's indigenous population (i.e., members of the Aymara, Alacalufe, Atacameño, Colla, Diaguita, Mapuche, Quechua, Rapa Nui, and Yamana native ethnic groups) engaged in agriculture and forestry activities. To that end, the two institutions carried out a study, the findings of which were published in *Indigenous Agriculture of Chile, Social and Production-Related Information on Agriculture by Ethnic Group – 2011* [*Agricultura Indígena Chilena, Información Social y Productiva de la Agricultura según Etnia – 2011*].

This study, which represents a major contribution, looked at agricultural holdings (holdings devoted to land-related activities, including forestry) among indigenous peoples, as well as sex differences in ownership. The main findings and methodological aspects of the study are summarized below:

- Among the respondents in the 2007 census, 46,355 individual producers self-identified as belonging to one of the nine listed ethnic groups. Adding to that number the number of individual farmers who did not self-identify as belonging to one of the nine groups, but who are registered as indigenous persons among the beneficiaries of CONADI and the Origins Program, yields a total of 53,064 individual producers among the indigenous peoples of Chile. Together these producers hold an area totaling 1,155,770.9 ha. This is the total land area analyzed in the study. All of the statistical information used for the social and economic characterizations in study comes exclusively from the 2007 census.
- The term of “agricultural holding” refers to an area of land of 0.5 ha or more. In some cases an agricultural holding may comprise more than one land parcel, provided that they are located within the same commune [*comuna*, the smallest administrative subdivision in Chile]. Alternatively, the term may refer to a holding without land for agricultural or forestry production, but which is used for stockbreeding or processing of agricultural products. Such holdings may be located in either rural or urban areas. Urban holdings include nurseries and animal breeding facilities (rabbits, chickens, etc.), apiaries, and similar.
- Number of agricultural holdings: equal to the total number of agricultural and forestry properties surveyed which are managed by the same producer.
- Holding size: total land area of the holding, in hectares.
- Utilized agricultural area: total area actually used for agricultural production, in hectares.

The study first characterizes the country's indigenous agricultural sector on an aggregate basis; in other words, it looks at all 53,064 agricultural holdings of the nine ethnic groups together. This approach makes it possible to identify the total population of indigenous agricultural or forestry producers in the

country, which in turn makes it possible to determine their relative weight within the country's total agricultural sector, as well as to identify the size of the holdings and the number of them by size range (see Figure 1b.1. below).

Of the total of 53,064 indigenous agricultural holdings (which make of 17.6% of the national total), 35,360 were in the hands of men and 16,783 in the hands of women (18.8% and 20%, respectively, of the national total). See Figure 1b.1.

**Figure 1b.1. Agricultural Holdings by Size Range of Holding and Sex of Holder**

<b>Size range (ha)</b>	<b>Men</b>	<b>Women</b>	<b>Not applicable*</b>	<b>Total</b>
No land	70	54	1	125
0.1–4.9	13,637	7,813	260	21,710
5–9.9	8,744	3,912	196	12,852
10–19.9	7,030	2,866	209	10,105
20–49.9	4,053	1,478	153	5,684
50–99.9	1,004	373	48	1,425
100–499.9	672	225	44	941
500–999.9	70	40	5	115
1,000 and over	80	22	5	107
<b>Grand total</b>	<b>35,360</b>	<b>16,783</b>	<b>921</b>	<b>53,064</b>

\* Indigenous inheritances, societies, and communities.

Source: Compiled by ODEPA on the basis of information from the databases of the Seventh National Agricultural and Forestry Census (2007), CONADI (2009), and the Origins Program Phase 2 (2009).

Figure 1b.2. shows the total area of the 53,064 holdings, amounting to 1,155,770.9 ha (2.2% of the national total), and the proportion of this area in the hands of women and men (297,569.4 ha and 797,537.5 ha, respectively).

**Figure 1b.2. Area of Agricultural Holdings by Size Range of Holding and Sex of Holder**

Size range (ha)	Men	Women	Not applicable*	Total
No land	0.0	0.0	0.0	0.0
0.1–4.9	33,198.9	17,613.2	648.5	51,460.6
5–9.9	62,052.0	27,495.2	1,403.3	90,950.5
10–19.9	97,122.4	39,259.2	2,932.1	139,313.7
20–49.9	120,731.2	43,743.2	4,722.0	169,196.4
50–99.9	67,137.9	24,855.6	3,269.4	95,262.9
100–499.9	130,042.8	44,388.1	11,094.4	185,525.2
500–999.9	46,761.4	27,760.0	3,145.2	77,666.6
1,000 and over	240,491.0	72,454.9	33,449.1	346,395.0
Grand total	797,537.5	297,569.4	60,663.9	1,155,770.9

\* Indigenous inheritances, societies, and communities.

Source: Compiled by ODEPA on the basis of information from the databases of the Seventh National Agricultural and Forestry Census (2007), CONADI (2009), and the Origins Program Phase 2 (2009).

Figure 1b.3. shows the total area occupied by indigenous agricultural holdings, the proportion of that area that is utilized agricultural area, and the distribution of the landholders by sex. Of the total of 1,155,770.9 ha, 778,755.8 ha is utilized agricultural area (539,524.2 ha held by men and 195,316.4 ha held by women). Of that figure, forest plantations account for a total of 57,706 ha (2.1% of total national land use), scrublands for 67,456.4 ha (1.7%), and native forest for 232,266.6 ha (1.8%).

### 1b.3. Agricultural Area of Indigenous Holdings by Size Range and Sex of Holder

Size range (ha)	Men	Women	Not applicable*	Total
No land	0.0	0.0	0.0	0.0
0.1–4.9	29,072.0	15,190.8	573.1	44,836.0
5–9.9	52,728.6	22,810.1	1,158.4	76,697.2
10–19.9	78,404.1	30,379.9	2,267.0	111,051.0
20–49.9	84,011.5	29,103.4	3,123.3	116,238.3
50–99.9	36,243.3	12,493.8	1,547.9	50,285.1
100–499.9	54,633.2	14,879.3	5,858.9	75,371.3
500–999.9	25,448.0	15,950.8	2,287.1	43,685.9
1,000 and over	178,983.5	54,508.3	27,099.4	260,591.1
Total	539,524.2	195,316.4	43,915.2	778,755.8

\* Indigenous inheritances, societies and communities.

Compiled by ODEPA on the basis of information from the databases of the Seventh National Agricultural and Forestry Census (2007), CONADI (2009), and Origins Program Phase 2 (2009).

In accordance with the national policy on land ownership, Article 15 of Law 19,253 created the Public Registry of Indigenous Lands [*Registro Público de Tierras Indígenas*], which is maintained by CONADI. The main purpose of this permanent registry is to ensure that there is a record of all lands classified as indigenous.

Classification of land as indigenous land creates legal effects with respect to society as a whole and to CONADI and the indigenous landowners. It also creates legal obligations for other entities, such as real estate registrars' and notaries' offices, the courts, and the Internal Taxation Service.

The Public Registry of Indigenous Lands is nationwide in scope but is subdivided into four regional registries corresponding to the four zones identified in the Registry's operating regulations:

Northern Registry: covering Regions I, II, III, and IV (Andean indigenous lands) and headquartered in Iquique.

Island Registry: covering the province of Easter Island (Rapa Nui indigenous lands) and headquartered on Easter Island.

South-Central Registry: covering Regions VIII, IX, and X (Mapuche indigenous lands) and headquartered in Temuco.

Southern Registry: covering Regions XI and XII (Kaweskar and Yamana or Yaghan indigenous lands) and headquartered in Punta Arenas.

Holders of lands classified as indigenous are entitled to certain benefits and protection measures provided by law, such as exemption from payment of territorial taxes, protection of the land through prohibition of confiscation or acquisition by forfeiture; and application of customary law and the Special Statute on Family and Inheritance Law (Article 13 of the Indigenous Peoples Act).

The purpose of the registry is to maintain a permanent up-to-date cadastre that can be readily accessed, both by indigenous beneficiaries and by other natural persons and government departments. It will thus be possible to obtain accurate information on the size of the indigenous territory for purposes of program and project implementation. It will also be possible to target subsidies and public investment resources to the indigenous population throughout the country.

It is also a function of the registry to respond to inquiries from courts, registrars, notaries, municipalities, and various public services and private bodies concerning the legal status of land.

The land tenure situation in the indigenous communities located in the northern part of the country (mainly the regions of Arica and Parinacota, Tarapaca, and Antofagasta) is worthy of special note. The Government has established protected wildlife areas administered by CONAF in these regions owing to their fragile ecosystems, the presence of unique flora and fauna, and the existence of private indigenous lands with valid titles. Consequently, any action, investment, or activity occurring in these areas must comply not only with the Indigenous Peoples Act (Law 19,253) and the information, participation, and consultation provisions of International Labour Organization (ILO) Convention 169, but must also with all regulations governing the National System of Protected Wildlife Areas (SNASPE) and the decrees creating them.

If, in the course of implementing the REDD+ Strategy, it becomes necessary to address challenges, complaints, or grievances having to do with overlap between indigenous lands and lands designated as protected wildlife areas, in addition to the Integrated Public Information and Citizen Services System established pursuant to the Administrative Procedures Act (Law 19,880) and the Access to Public Information Act (Law 20,285) and the active participation of regional members of the GBCC and the Forest and Climate Change Board, use will be made of the Protected Wildlife Area Advisory Councils [*Consejos Consultivos*],<sup>9</sup> which were created with a view to facilitating the organized and responsible participation of the community in the management of these areas.

The objectives of the Advisory Councils are:

- ✓ To disseminate information about the objectives of and achievements and difficulties in the work of the SNASPE in order to generate or enhance knowledge and promote understanding of those matters in the community.

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<sup>9</sup> <http://www.conaf.cl/parques/seccion-consejos-consultivos-de-areas-silvestres-protegidas.html>

- ✓ To seek opinions and obtain support to strengthen the work of the SNASPE.
- ✓ To promote partnerships for the implementation of projects within SNASPE units and in their areas of influence, in keeping with their objectives.
- ✓ Collaborate in the areas of responsibility of SNASPE units in the implementation of projects promoted by community organizations, municipalities, and regional governments having to do with matters related to the objectives, experience, and capacities of CONAF.
- ✓ Coordinate and harmonize the work of SNASPE units with other planning instruments.

The Advisory Councils can thus also serve as mechanisms for ongoing participation and feedback so that the interests, views, and priorities of local indigenous communities can be taken into account and consensus can be built on issues as needed.

### **Government and CONAF Actions for the Regularization of Land Titles, 2010 – 2012**

Available information indicates that there is a large quantity of land available for afforestation and/or recovery and management of native forests, but that such activities cannot be undertaken because land titles are not regularized or do not exist.

#### **The options for addressing this problem include:**

1. Title clearance through the Ministry of Natural Resources.
2. Title regularization through the Civil Registry and Identification Service [*Servicio de Registro Civil e Identificación* SCREI]

#### **CONAF has taken the following steps to regularize land titles:**

1. Cadastre of land parcels to be regularized. Based on information from the 2007 Agricultural Census, coupled with field-checking by CONAF professionals, a list has been prepared of parcels to be regularized in the regions of Coquimbo and Los Lagos.
2. Coordination with INDAP. The National Agricultural Development Institute invited CONAF to join forces in clearing titles to agricultural and forest land. This partnership—with the advantage of government funding, the advice of land use attorneys and professionals contracted by INDAP, and input from CONAF staff based in its regional offices—was able to put together a portfolio of land titles to be cleared. Progress in this matter has been uneven because each region presents its own realities and complexities.
3. Direct collaboration with the Ministry of National Resources. Tacit agreement has been reached at both the national and regional level on incorporating CONAF's initiatives into the Ministry's regular programs for the clearance of land titles. As mentioned above, progress has been greater in some areas than others because of the different realities and complexities encountered in each region.
4. Direct collaboration with the Civil Registry and Identification Service. CONAF has been cooperating with SCREI on several regional initiatives in which the Service's field staff have

initiated procedures to regularize land ownership in areas over which it has jurisdiction, such as cases of actual possession (Maule Region).

5. Collaboration with municipal governments. There have been cases in which municipal governments have worked directly with the Ministry of National Resources to clear titles at the request of CONAF.

The groups accounting for the ownership of the country's forested areas are:

**i. Large Corporations**

Regardless of how forestry enterprises are classified, three large commercial groups clearly dominate the forestry sector in Chile: ARAUCO, CMPC, and MASISA.

These three corporations dominate the forestry industry over the whole length of the production chain. They are vertically integrated from tree-planting right up to international sales activities; they have a share in the ownership of national distribution channels, such as ports that are important to the timber trade; and they operate marketing offices in the main international markets.

The holdings of the ARAUCO consortium amount to 1,610,000 ha, of which slightly more than 1 million ha consist of forest plantations. The remainder is accounted for by native forest (326,000 ha), industrial areas, protected areas, and other categories.

The Paper and Cardboard Manufacturing Company [*Compañía Manufacturera de Papeles y Cartones* CMPC] has holdings of close to 700,000 ha, of which 498,000 ha are plantations of pine and eucalyptus. Of the remainder, a significant portion is accounted for by native forest and the rest by industrial and protected areas.

There are also other corporations of a lesser size, such as the MASISA group and the Forestal Anchile company. The holdings of these two companies amount to around 150,000 ha, of which 50% comprises plantations of *Pinus radiata* and Eucalyptus spp., with most of the rest consisting of native forest.

The principal cooperative forum for Chile's forestry industry is the Chilean Timber Corporation [*Corporación Chilena de la Madera* CORMA]. Its activities include initiatives relating to the marketing of Chilean timber products throughout the world, participation in sectoral aspects of free trade agreements, work in the phytosanitary area, and control and management of pests. In the environmental sphere, CORMA promotes forest management certification and clean production agreements. Although CORMA seeks to bring together all the companies in the forestry sector, including both small and large enterprises, there exists a feeling that it represents only the interests of the large companies. This may be because the only active participants on its Board of Directors are

representatives of the large conglomerates ARAUCO, CMPC, and MASISA, which hold the majority of the positions of authority, both at the overall level and in the various departments.<sup>10</sup>

The small-scale and medium-sized enterprises have therefore created their own organization: the Trade Association of Small and Medium-sized Timber Producers [*Asociación Gremial Pequeños y Medianos Industriales de la Madera* PYMEMAD A.G.], whose goal is to raise public awareness about the concerns of small and medium-sized forestry enterprises, which do not feel themselves to be represented by CORMA.

## **ii. Small Landholders**

Although there are no detailed studies, it is estimated that approximately 1,000,000 ha of native forest is found in parcels smaller than 200 ha belonging to peasant and Mapuche families. In Chile these families are considered to be small landholders; they are concentrated primarily in the south-central regions of the country.

Under Decree-Law 701 of 1974,<sup>11</sup> a small forest landholder is defined as a person who meets the requirements for classification as a small agricultural producer, as defined in Article 13 of Law 18,910; works and is the owner of one or more rural land parcels, the combined area of which does not exceed the equivalent of 12 ha of land under basic irrigation as defined for the geographical zone in question under the above-mentioned law. Land parcels are considered not to exceed the equivalent of 12 ha if they have an area of less than 200 ha—or less than 500 ha if situated in Regions I to IV, XI, or XII, in the commune of Lonquimay in Region IX, or in the province of Palena in Region X. The category of small forest landholders is deemed to include the agricultural communities regulated by Decree-Law 5 of 1968 of the Ministry of Agriculture; the indigenous communities falling under Law 19,253; the cooperatives resulting from the agrarian reform process; the dryland farming societies formed in accordance with Article 1 of Decree-Law 2,247 of 1978; and the companies referred to under Article 6 of Law 19,118, provided that at least 60% of the capital stock of such companies is controlled by the original partners or by persons who can be classified as small forest landholders, as certified by the Agriculture and Livestock Service [*Servicio Agrícola y Ganadero*].

Subsequently, under Law 19,561 of 1998,<sup>12</sup> a small landholder was defined as a person who owns one or more land parcels, the area of which does not exceed 12 ha of land under basic irrigation; has assets equivalent to or less than 3500 indexed units of account [*Unidades de Fomento* UF]; and has income resulting primarily from farming activities carried out on his/her parcel of land.

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<sup>10</sup> Universidad de Concepción, Facultad de Ciencias Económicas y Empresariales, Departamento de Economía. 2009. Análisis de la cadena de producción y comercialización del sector forestal chileno: estructura, agentes y prácticas. Concepción, Chile: Universidad de Concepción. 249 p.

<sup>11</sup> Decree-Law 701. Forestry Development Act. Published in the Official Gazette of the Republic of Chile on October 28, 1974.

<sup>12</sup> Law 19,561. Act Amending the Forestry Development Act (Decree-Law 701 of 1974). Published in the Official Gazette of the Republic of Chile on May 16, 1998.



The small landholder category is considered to include farmers who, as expressed by José Luis Cava, own a plot of land which they work themselves by their own manual labor as their only or principal occupation and who retain all or part of what they produce to meet, directly or through trade, the needs of their families. The production of such farmers comprises many varieties of activities: agriculture, stockbreeding, agroforestry, fruit- and nut-gathering, handcrafts. These activities are often interdependent, giving rise to a constant flow of information and energy, and consequently the production of these small farmers may be analyzed as a structure that possesses the features of a system.

### **iii. Medium-sized Landholders**

Another portion of Chile's forests is in the hands of medium-sized landowners. Under Law 20,488 of 2011,<sup>13</sup> a medium-sized forest landholder is defined as a natural person or legal entity or a community not meeting the requirements set down in the definition of small forest landholder and having annual income not exceeding 100,000 UF in the preceding calendar year from sales, services, and other business activities of the property owned.

In Chile, the strategy of forming associations in the forestry sector is starting to take hold. Examples of this trend are the Trade Association of Small and Medium-sized Timber Producers (PYMEMAD A.G.) in Regions VII and VIII, with 200 members from the timber industry; the Ñuble Native Forest Union [*Asociación Gremial Bosque Nativo Ñuble*], with 52 members and 8,600 ha of forested land; and the newest association: APROBOSQUE A.G., which brings together 17 owners of Chilean native forest who together hold 45,000 ha. All of these associations embrace concepts of sustainable management, value added, and job creation. Their establishment is a good start for raising the profile of the forestry sector, as their members work together as a team and are able to accomplish more through their concerted effort.<sup>14</sup>

APROBOSQUE A.G. was founded on March 16, 2010. Its members own approximately 45,000 ha of forest land. This organization brings together owners of forest land and public-private bodies within a partnership that helps to strengthen the sector by raising its profile among legislative authorities and society in general. In accordance with its basic guiding principles, APROBOSQUE A.G. seeks to safeguard the productive potential of Chile's native forest and the use of it as a renewable source of resources, services, employment, and biodiversity. To protect that potential, the association considers it essential to adhere to principles that do not disregard natural processes and that respect nature, ensuring the sustainability and proper functioning of the forest.<sup>15</sup>

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<sup>13</sup> Law 20,488. Act Extending the Validity of Decree-Law 701 of 1974 and Enhancing Afforestation Incentives. Published in the Official Gazette of the Republic of Chile on January 3, 2011.

<sup>14</sup> Grosse, H. 2010. La Unión Hace la Fuerza. Estrategia On-line [online periodical]. October 17, 2010. Available at: [http://www.estrategia.cl/detalle\\_columnista.php?cod=4038](http://www.estrategia.cl/detalle_columnista.php?cod=4038)

<sup>15</sup> INFOR. 2010. Lanzan oficialmente la Asociación Chilena de Propietarios de Bosque Nativo. Informativo [newsletter]. September 2010. [http://www.infor.cl/newLetter/pdfs/boletin\\_septiembre.pdf](http://www.infor.cl/newLetter/pdfs/boletin_septiembre.pdf)

#### iv. Indigenous peoples

The country has recently seen progress in the recognition and defense of the rights of the indigenous communities. To appreciate this, a detailed analysis of their present situation is needed.

Indigenous communities in Chile enjoy formal recognition and legal protection under Law 19,253, Article 1 of which states that **the State recognizes that the indigenous peoples of Chile are the descendants of human settlements that have existed on the territory of the country since pre-Columbian times, that they retain specific ethnic and cultural practices, and that the land is central to their existence and culture. It also recognizes as Chile's principal ethnic groups the Mapuche; Aymara; Rapa Nui or Easter Islanders; Atacameño, Quechua, Colla, and Diaguita<sup>16</sup> communities in the north of the country; and the Kawaskar or Alacalufe and Yamana or Yaghan communities in the channel region in southern Chile.**

The largest ethnic group is the Mapuche people, who make up 87% of the total indigenous population.

As a part of the legal framework that regulates, protects, and formally recognizes the indigenous peoples and their rights within the formal institutional structure of the Government, the Indigenous Peoples Act (Law 19,253) established the **National Indigenous Development Corporation (CONADI)** to fulfill the mission of **promoting, coordinating, and carrying out activities of the State aimed at fostering the overall development of indigenous persons and communities, especially in the economic, social, and cultural spheres, and promoting their participation in the life of the country through intersectoral coordination, financing for investment initiatives, and provision of services.**<sup>17</sup> As part of its mission, CONADI plays a role in resolving conflicts, carrying out consultative processes, and safeguarding legal and customary rights. It also provides advice on and participates in projects having to do with or affecting the indigenous population in any of its spheres of action.

With respect to the organization and institutional framework of the indigenous peoples of Chile, the State, by way of Law 19,253 and also of ILO Convention 169, recognizes the existence of indigenous persons,<sup>18</sup> indigenous communities,<sup>19</sup> indigenous associations,<sup>20</sup> and traditional indigenous authorities.<sup>21</sup> Hence, these are the indigenous individuals and groups that should be taken into consideration in consultation and participation processes with respect to the implementation of any administrative, legal, or economic measure or of any type of initiative which the Government intends to advance and which might directly or indirectly affect indigenous peoples or their lands.

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<sup>16</sup> Law 20,117, published in the Official Gazette on September 8, 2006, recognizes the Diaguita as one of the ethnic groups of Chile and includes within the scope of Law 19,253.

<sup>17</sup> [www.conadi.cl](http://www.conadi.cl)

<sup>18</sup> Article 2, Law 19,253.

<sup>19</sup> Article 9, Law 19,253.

<sup>20</sup> Articles 36 and 37, Law 19,253.

<sup>21</sup> ILO Convention 169, in various articles, stipulates that indigenous peoples' own institutions must be respected, preserved, and protected, which is understood to include the recognition of traditional authorities.

Another important indigenous body is the National Council of CONADI. Article 41 of the Indigenous Peoples Act (Law 19,253) establishes that ***the highest authority within the Corporation National Council shall be a National Council comprising the following members:***

- (a) The National Director of the Corporation, appointed by the President of the Republic, who will chair the Council;*
- (b) The Undersecretaries or their representatives, specifically appointed for that purpose, of each of the following ministries: Secretariat General of Government, Ministry of Planning and Cooperation, Ministry of Agriculture, Ministry of Education, and Ministry of Natural Resources;*
- (c) Three council members designated by the President of the Republic; and*
- (d) Eight indigenous representatives: four from the Mapuche community, one from the Aymara, one from the Atacameño, one from the Rapa Nui, and one indigenous representative residing in an urban area of the country. These representatives shall be nominated by the indigenous communities and associations and appointed by the President of the Republic, in conformity with the relevant legal provisions.***

*The council members referred to in paragraphs (a), (b), and (c) above remain in their positions for as long as they enjoy the trust of the authority that appointed them, while **those mentioned in paragraph (d) serve terms of four years from the date of publication of the decree of appointment and may be reelected.***

**Article 42** provides that **the duties and powers of the National Council shall be to:**

- (a) Establish the policy of the organization and monitor its implementation*
- (b) Propose the annual draft budget of the organization. If the draft budget is not submitted in a timely manner, the Ministry of Planning and Cooperation shall submit it to the Ministry of the Treasury*
- (c) Approve various programs with a view to fulfilling the objectives of the Corporation, evaluate them, and ensure that they are carried out*
- (d) Study and propose legal, regulatory, and administrative reforms relating to the indigenous peoples or affecting them directly or indirectly*
- (e) Suggest to the various government ministries and departments the plans and programs that it considers appropriate to undertake for the benefit of the indigenous peoples*
- (f) Propose to the Ministry of Planning and Cooperation the establishment of development areas*
- (g) Decide on all other matters for which Law 19,253 entrusts responsibility to the National Council*

Therefore, in keeping with paragraph (d) of Article 41 and paragraph (e) of Article 42, in order to ensure proper representation and participation **in the Forest and Climate Change Board, the National Council of CONADI will select one representative from among the Council members elected by the indigenous communities and associations to represent the indigenous peoples on the Board.**

According to the Seventh National Agricultural and Forestry Census of 2007, a total of 46,355 individual producers and 280 communities self-identified as belonging to one of the nine registered ethnic groups.

These representatives of Chile's indigenous agriculture sector are spread over a total area of 2,867,648 ha, of which 1,921,254 ha are part of community properties, while 946,394 ha are individual holdings.

The Aymara, Atacameño, and Mapuche ethnic groups are the most extensively distributed groups in geographic terms. Members of the first two groups are found throughout the Altiplano in the Norte Grande region, while members of the third group are distributed between the Biobío River basin in the north and the Greater Island of Chiloé in the south.

Over time, these peoples have adapted their agricultural and stockbreeding activities to the geographical features of their respective regions. In the Mapuche area, owing to the mild climate of the south-central region, the principal activity is the cultivation of grains and root crops, as well as cattle and sheep farming. It is interesting to note that the farmers in this ethnic group are the only ones whose crops include lupins.

Natural grasslands, scrublands, and native forest account for around 80% of the area used by indigenous peoples for agriculture. This figure tends to overvalue their contribution to the total production of the sector. The majority of the natural grasslands held by indigenous peoples are characterized by desert soil with very low productivity for agriculture and forestry. Moreover, the use of the native forest for agriculture or forestry is subject to strict conservation rules or completely prohibited, as in the case of the Araucaria forest.

On September 15, 2008, the **International Labour Organization** registered Chile's ratification of **Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries**, and the Convention entered into force in Chile one year later, thereby explicitly bringing about a shift from recognition of indigenous ethnic groups and communities to recognition of the category "indigenous peoples" and enshrining their rights, namely:

- i. Collective rights
- ii. Right to be consulted and to participate in decisions that the Government takes on their development
- iii. Customary rights relating to the administration of justice
- iv. Right to ownership and possession of the land on which they live
- v. Right to access, use, and manage the natural resources found on their lands
- vi. Right not to be moved from the land and territories that they occupy
- vii. Right to enjoy social security and health services, among other recognitions and rights relating to their culture, world view, and relationship with nature.

In addition, Law 20,249, which created the **Marine Coastal Areas of the Indigenous Peoples**, establishes in its Article 3 that the objective of these areas shall be to safeguard the customary use of such areas in order to maintain the traditions and the use of natural resources by the communities living in the coastal region. It also establishes the scope of the delimitation, administration, and access to and use of the areas and a clear procedure for their designation by the Government.

With a view to reducing conflicts and rectifying problems relating to indigenous affairs, the Government, acting through the Ministry of Social Development and CONADI, together with the native peoples represented on the CONADI National Council,<sup>22</sup> has undertaken a national consultation process aimed at determining the procedure for seeking the views of indigenous peoples on matters that concern them. The outcome of the consultation process—a new regulatory instrument on indigenous consultation and participation in accordance with Articles 6 and 7 of ILO Convention 169—is currently under discussion among indigenous peoples throughout Chile.

As part of the process of consultation on the new regulatory instrument, on October 11, 2012, representatives of the country's indigenous peoples organized two important macro-regional meetings (one in the northern region and one in the southern region) to discuss and analyze the proposal, the aim of which is to establish regulations for implementing Articles 6 and 7 of ILO Convention 169. Following these meetings, between November 30 and December 2, 2012, a major meeting of native peoples was held in Santiago in order to share the proposals that had been put forward and agree on a final proposal incorporating the views of the various groups of indigenous peoples. Those documents will be discussed with the Government in order to generate, as a joint effort, the new regulatory instrument on indigenous consultation, which will supersede Supreme Decree 124 of the Ministry of Social Development.

In parallel, at the regional and local levels, in order to address conflicts in the commune of Ercilla, on May 21, 2012, the Government, in an announcement made directly by the president of Chile, Sebastián Piñera, presented to the Mapuche communities a proposal for the creation of an Indigenous Development Area [*Área de Desarrollo Indígena ADI*] for Ercilla and the south of Collipulli, covering an area of 39,600 ha. Following a process of free, prior, and informed discussion within the indigenous communities of Ercilla, which was in keeping with the provisions of ILO Convention 169, the proposal was accepted, and Chief Juan Carlos Curinao was elected chair of the board of directors of the ADI.

On October 8, 2012, President Piñera presided at the ceremony announcing the Supreme Decree Establishing the Indigenous Development Area in Ercilla, Araucanía Region. This initiative will seek to open up new opportunities for the Mapuche people living in the region. It enjoys the support of 37 of the 42 indigenous communities in the commune, and will benefit 1,082 families representing persons who will participate in committees on land use, water, development of production, culture, and education. The initiative is consistent with the National Policy on Indigenous Affairs in that it seeks to promote comprehensive social, productive, and cultural development, and also to serve as a means of resolving conflicts in the region. Meetings will be convened periodically between government authorities and the Mapuche communities to resolve any issues arising with regard to purchase of land, support for production, improvements in road infrastructure, intercultural education and health services, and other matters.

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<sup>22</sup> List of indigenous representatives on the CONADI National Council available at: <http://www.conadi.gob.cl/index.php/consejo-nacional>

This indigenous development area was created in accordance with the Indigenous Peoples Act (Law 19,253), with the process being spearheaded by the government of the province of Malleco and CONADI. This is the first time that such an undertaking has been carried out in the region. The committee mentioned above will periodically bring together government authorities from various sectors and community members to resolve problems that have been identified as priorities by the indigenous peoples themselves.

Another mechanism aimed at contributing to the development of indigenous peoples, specifically the Mapuche, is the Indigenous Peoples' Land Acquisition Subsidy [*Subsidio de Adquisición de Tierras para Indígenas*], which provides economic resources for the acquisition of land by indigenous persons or communities, or by parts of communities, when the area of the land on which they currently live is insufficient and they are in a vulnerable social situation. This mechanism is governed by the provisions of Article 20, subparagraph (a) of Law 19,253. To date indigenous persons have acquired more than 140,000 ha through the mechanism, which is part the Government's current "land with development support" policy. With a view to seeing that the resources are used effectively, CONADI will continue to provide technical support to the beneficiaries at the various stages involved in the acquisition of parcels of land so as to ensure the necessary sustainability and will also provide ongoing productive support in order to bring about real improvements in the quality of life of members of the Mapuche community.

On December 12, 2012, CONADI announced the launching of the new program "Indigenous Chile" [*Chile Indígena*] benefiting more than 1,100 indigenous communities, the implementation of which will require 4 billion Chilean pesos by 2013 and a total investment of 20 billion pesos over four years, distributed over two periods, one commencing in 2013 in the regions of Araucanía and Los Ríos and the second continuing in 2014 in the region of Los Lagos.

The Indigenous Chile program aims to improve the quality of life of indigenous families and to strengthen their cultural identity. It comprises four components: economic development, cultural reinforcement, organizational strengthening, and harmonious coexistence with non-indigenous society. The program is community- and territory-based and employs a participatory and culturally appropriate approach, under which management units have been created to draw up an overall development plan for the territory. The component of harmonious coexistence with non-indigenous peoples seeks to enhance public knowledge about indigenous peoples and to encourage greater participation by indigenous peoples in line with the provisions of ILO Convention 169.

In keeping with the ILO convention, provision has been made for the participation of representatives of the native peoples in all phases of drawing up the program and for consultation with them before it is implemented.

In summary, the Government of Chile has—through its ratification of ILO Convention 169, its efforts to consult and promote opportunities for participation by indigenous peoples, and its efforts to adapt and enhance the actions of government institutions through new programs and relevant public instruments and through collaborative action with regional governments to address the demands of indigenous communities—demonstrated a clear intention to move forward, within a framework of law, in

recognizing and addressing issues that must be resolved in order to bring about the comprehensive development of indigenous communities. Significant progress has also been made in the area of participation through the consultation with indigenous peoples regarding the procedure for seeking their views.

At the same time, both the Government and the representatives of the indigenous peoples on the National Council have been working with the United Nations agencies in the country on activities relating to their respective areas of responsibility, including dissemination of ILO Convention 169 throughout the country, children's welfare, public defense in criminal matters and capacity-building in that area, territorial development, capacity-building in regional and municipal governments, and development and validation of culturally- and gender-sensitive participatory instruments by communities affected by land disputes. The aim of all of these activities has been to manage and prevent intercultural conflicts.

Pursuant to ILO Convention 169, CONAF has strengthened its activities in relation to indigenous affairs, for example by consulting the indigenous peoples on the draft of a new Forestry Act. In addition, taking into consideration the extensive area and the large number of indigenous organizations and bodies that would be affected by the REDD+ proposal, CONAF has stressed the importance of indigenous peoples' participation both in its formulation and in the subsequent development of the REDD+ Strategy. This has been reflected in their representation on the **Forest and Climate Change Board** (two representatives will be from indigenous organizations). Accordingly, during the stage of information-sharing, communication, and feedback on the R-PP, which will lead finally to the REDD+ proposal, the indigenous organizations will nominate potential Board members. One of the indigenous members of the Board will then be elected while CONAF is consulting with the indigenous peoples on the REDD+ proposal.

The operational aspects of participation by indigenous communities in the stages of information-sharing and drafting of the REDD+ proposal and development of the REDD+ Strategy are described in detail in Section 1c. **CONAF, as the body responsible for developing the REDD+ Strategy and also for chairing the Forest and Climate Change Board** (see section 1a) will ensure the involvement of indigenous peoples through various participatory bodies. In its actions to enhance the participation of both indigenous and non-indigenous communities at the regional and local levels, CONAF will be acting through the **Group on Forests and Climate Change (GBCC)**, which is described in detail in Section 1.b.3.

#### **Cooperation among indigenous communities**

- **MUCECH:** United Farmers and Indigenous Peoples Movement [*Movimiento Unitario Campesino and Etnias de Chile*] is a strategic union of national farmers' organizations active in the social, political, economic and cultural spheres. The organizations making up MUCECH are:
  - National Peasant Confederation [*Confederación Nacional Campesina CNC*]
  - "NUEHEN" National Confederation of Farmers and Indigenous Unions [*Confederación Nacional Sindical Campesina y Indígena "NEHEUEN"*]

- “El Triunfo Campesino” National Confederation [*Confederación Nacional El Triunfo Campesino*]
- Sergeant Candelaria Pérez National Federation of Agricultural Unions [*Federación Nacional de Sindicatos Agrícolas Sargento Candelaria Pérez*]
- National Federation of Agricultural Communities of the North [*Federación Nacional de Comunidades Agrícolas del Norte*]
- Leftrarú A.G. National Association of Agricultural and Indigenous Communities [*Asociación Nacional de Comunidades Agrícolas y Indígenas “LEFTRARU A.G.”*]
- National Quechua Indigenous Council [*Consejo Nacional Indígena Quechua*]

**v. Nongovernmental Organizations, Trade Associations, and Unions**

- **Association of Forest Engineers [Colegio de Ingenieros Forestales CIFAG]:** This association was created on May 3, 1982. Its primary objective is to promote the rationalization, development, prestige, and protection of the profession of forest engineering and at the same time to serve as a vehicle for communicating the views and activities of its members to the public and a variety of social organizations at the national and international levels.
- **World Wide Fund for Nature/World Wildlife Fund (WWF):** The Fund has been working for several decades, together with nongovernmental organizations, public services, local communities, the private sector, universities, and international organizations, with the aim of contributing to the protection of the unique ecosystems in southern Chile, which has been identified as a WWF Priority Place. WWF Chile works to ensure that the unique terrestrial and aquatic biodiversity found in the region is properly represented in a system of efficiently managed protected areas, that natural resources are being used sustainably throughout the area, that all stakeholders are committed to conservation, that rural communities participate in and benefit from conservation, and that productive practices are improved and their impacts are minimized in the forest, aquatic, and marine environments.
- **Social Action Department of the Temuco Diocese [Departamento de Acción Social del Obispado de Temuco DAS]:** Since 2004, DAS has been carrying out an extension program to support farming family economies in mountainous parts of the communes of Angol, Carahue, and Lonquimay, located in the Araucanía Region. This program promotes sustainable practices leading to improvements in local economies, while at the same time ensuring sustainable use of forest, soil, and water resources.
- **Association of Forest Engineers for the Native Forest [Agrupación de Ingenieros Forestales por el Bosque Nativo AIFBN]:** This is a non-profit nongovernmental organization (NGO) created in 1993. It brings together more than 300 members, most of whom are forest engineers, but also biologists, agronomists, economists, attorneys, and other professionals or persons concerned with conservation and the sustainable management of Chile’s native forest. It is one of the most influential organizations nationwide in those areas. The goal of the AIFBN is to bring together professionals with a



common goal to work within a formal association, promoting sustainable forest development with a focus on the native forest and equitable distribution of the benefits of this resource to all of society, in partnership with other groups, institutions, and/or persons sharing the same values. It is currently pursuing lines of action in the areas of forest monitoring, political lobbying through its participation in the Advisory Council on the Native Forest Act, and community forestry with forest-dwelling and indigenous communities. It has also participated in the drafting and discussion of the Native Forest Act.

- **National Committee for the Defense of Flora and Fauna [Comité Nacional Pro Defensa de la Flora y Fauna CODEFF]:** This organization was founded in 1968 with the aim of attracting and encouraging citizen and private collaboration in conservation efforts, based on the assumption that the Government alone could not address all environmental demands and issues. It is the leading Chilean organization concerned with the protection of nature and the environment. CODEFF carried out a major forest monitoring exercise that resulted in several critical reports in the 1990s. It has also pursued public awareness-raising efforts such as the “Real Forests for Chile” campaign [*Bosques de verdad para Chile*].
- **Terram Foundation:** This is a civil society organization created in 1997. Its purpose is to generate proposals for sustainable development in the country that will meet the needs of present generations without compromising the right of future generations to enjoy greater levels of well-being. Terram works to foster reflection, critical capacity, and proposals that will stimulate new thinking in the political, social, and economic spheres in Chile. The Foundation works in various areas, including economics and globalization, the environment, social issues, natural resources, and salmon-farming. In the 1990s, Terram published various documents relating to the use and management of the native forest and played a part in the development of the Native Forest Act.
- **FORECOS Foundation:** The Native Forest Center Foundation [*Fundación Centro de los Bosques Nativos FORECOS*] is a private non-profit organization established in 2005 with the aim of developing and promoting research on native forest and aquatic ecosystems, in particular the manner in which they contribute to the well-being of society. It is a center of scientific excellence devoted to the study of environmental ecosystems and services and is one of a handful of research centers in Chile that incorporate economic considerations into its research. The main focuses of its research include economic valuation of environmental services, the ecology of land and freshwater ecosystems, effects of climate change on water levels, conservation and rehabilitation of the native forest, and interactions between terrestrial and aquatic ecosystems, among other topics. Another major area of activity has been communication of scientific information to the public.
- **Citizen Observatory:** The Citizen Observatory [*Observatorio Ciudadano*] is a nongovernmental organization for the defense, promotion, and documentation of human

rights. It was created in September 2004 in the city of Temuco as an observatory of the rights of indigenous peoples by a group of citizens from various parts of the country and various professions and ethnic backgrounds. The objectives of its work are to promote human rights, with emphasis on the rights of indigenous peoples and communities. This includes documenting, investigating, reporting on, and tracking human rights violations that affect indigenous peoples and communities, with an emphasis on collective rights and on supporting local peoples and communities and protecting their human rights.

- **National Timber Certification System [Sistema Nacional de Certificación de Leña SNCL]:**  
SNCL is a body created in 2005 for the purpose of improving the conditions under which timber is sold and used in Chile. It certifies timber merchants who voluntarily agree to comply with its standard of quality and origin. In order to receive the SNCL seal of approval, timber merchants must abide by four principles: (1) compliance with the legislation in force, (2) origin of the timber (must come from forests with management plans approved by CONAF), (3) quality of the timber (must have a moisture content of less than 25%), and (4) consumer service. In order to monitor compliance with the SNCL standard, a governance structure was designed at the national and regional (or local) levels, the national level being the National Timber Certification Council [*Consejo Nacional de Certificación de Leña CONACEL*], which comprises several institutions, both public and private. Its primary functions are promoting SNCL certification at the national level and monitoring compliance with SNCL requirements (policies, procedures, proper use of the seal). The public organizations that have endorsed SNCL certification include CONAF, CONAMA (now MMA), SII, and the National Consumer Service [*Servicio Nacional del Consumidor SERNAC*]. The private organizations involved include DAS, AIFBN, AG Ñuble, *Universidad Austral de Chile* (UACH), and the Regional Center for Technical and Business Assistance [*Centro Regional de Asistencia Técnica y Empresarial CRATE*]. In addition, the membership of CONACEL includes a representative of the local councils established in the various regions of the country. These local councils, in turn, bring together a variety of local stakeholders with an interest in the sustainable use of timber, the primary function of the councils being to promote SNCL certification in their regions or cities. Each local council comprises more than 10 public and private entities at the local level, and these councils thus form one of the largest networks currently in existence in Chile having to do with a natural resource. To date, SNCL has certified more than 150 timber merchants and the number was expected to rise to 200 in 2012 for the country as a whole. To that end, in 2012 it signed an agreement with CONAF to implement a program for the formalization and certification of timber producers and merchants with the aim of creating one of the largest registries in the country.
- **FSC Chile:** This association of persons, organizations, and companies that make up the national office of the Forest Stewardship Council (FSC) in Chile has been recognized as a national initiative since 2005 and as a national office since 2010 ([www.fsc-chile.org](http://www.fsc-chile.org)). FSC began operating in Chile in late 1998, when representatives of various academic

institutions, NGOs and companies embraced the challenge of establishing a working group to develop national FSC standards, creating the Chilean Initiative for Independent Forest Certification [*Iniciativa Chilena de Certificación Forestal Independiente AG*].

FSC Chile is a participatory, representative, transparent, respectful, and democratic organization, open to participation by all stakeholders representing social, environmental, and economic interests. FSC Chile is a trade association comprising more than 70 environmental and social organizations, certified companies, and individuals, all committed to the promotion and responsible management of forests and forest plantations in accordance with the principles and criteria of the Forest Stewardship Council.

FSC Chile aims to establish a reference framework of national certification standards, evaluate their application, monitor compliance with certification procedures, promote the FSC certification system in Chile, and serve as a point of contact and source of information.

- **National Syndicate of Professional Workers of the National Forest Corporation [*Sindicato Nacional de Profesionales de la Corporación Nacional Forestal SINAPROF*]**: The National Syndicate of Professionals was established in 1994, creating a new trade union organization alongside the existing National Federation of Unions of CONAF Workers [*Federación Nacional de Sindicatos de CONAF FENASIC*] and bringing together some 500 members who are mostly forest engineers, lawyers, and other professionals working in the various areas of responsibility and carrying out the various functions of CONAF in the country as a whole.

This organization is headed by a board consisting of five directors. At the regional level it is represented by delegates elected by the members of each of its local offices.

As a trade union, it seeks to develop and employ its full potential for management and negotiation, with the goal of enhancing the welfare of the professionals who work for CONAF, promoting and defending the interests of its members.

- **National Federation of Unions of CONAF Workers [*Federación Nacional de Sindicatos de Trabajadores de CONAF FENASIC*]**: The National Federation of Unions is an organization created in September 1990 which comprises 14 regional unions (grassroots) formed within CONAF, which together have about 1,200 members. Its board of directors has seven members. The Federation's main purpose is to gather the ideas and proposals of all the regional unions and present them before various national entities, thereby seeking to improve the quality of life and working conditions of all workers that it represents.
- **Trade Association of Small and Medium-sized Timber Producers [*Asociación Gremial de Pequeños y Medianos Industriales de la Madera PYMEMAD*]**: PYMEMAD A.G. is a trade association founded in April 2008 that brings together some 46 members comprising companies and individuals. It seeks to promote the rationalization, development, and

protection of the activities of the timber and related industries. To that end it has established the following objectives: (1) to be a trade association that is representative of the sector, (2) to consolidate its development and its long-term vision, (3) to be a specialized trade association that operates in an environment of quality and continuous improvement, (4) to focus on the forestry and timber sector, and (5) to work to strengthen the sector and its long-term growth, with an emphasis on social, ecological, energy, and economic aspects.

At present PYMEMAD A.G. has representation in the regions of Maule and Biobío, the current regional presidents being Mr. Fernando Rosselot Téllez (Maule) and Mr. Osvaldo Leiva Lobos (Biobío).

- **Network of Native Forest Smallholders [Red de Pequeños Propietarios del Bosque Nativo]:** A nonprofit organization that brings together small-scale owners of native forest land mainly from the Araucanía region, although it has been extending its representation to the regions of Maule, Biobío, Los Ríos, and Los Lagos. The network consists mainly of (i) peasant farmers' organizations (local or national), (ii) indigenous communities and associations, (iii) individual forest owners.

The objectives of the organization are: (a) to facilitate partnership among small forest landholders in order to jointly seek ways of meeting needs relating to conservation and sustainable management of the forest and (b) to promote the participation of small landholders in decision-making on public and private forest-related policies and programs in order to help resolve the current tensions surrounding conservation and management.

This organization of small landholders emerged as a response to the idea that the native forest in southern Chile constitutes an economic, cultural, and biological heritage of immense value, both for the country and for the world, which today is at risk of being destroyed by forest plantations, degradation, and conversion to agricultural use. Small forest landholders—of which there are around 90,000 families in the Araucanía region and a similar number in the regions of Maule, Biobío, Los Ríos, and Los Lagos—are severely disadvantaged, socially and economically, and have little access to public programs or resources for the conservation and management of their forests. Moreover, they believe that there is little societal awareness of the importance of the forest and that this lack of awareness, coupled with industry practices, poses a grave threat to the sustainability of the country's native vegetation. They also consider that the existing legal framework is not compatible with a national policy aimed at promoting protection and conservation of forests and that the institutional framework must demonstrate greater efficiency with regard to sustainable management.

To address this situation, the organization considers it essential to strengthen the management capacity of forest landholders while also advocating for the application of policies and strategies based on principles of sustainable and integrated management of

the native forest, integration into regional development, and promotion of social awareness of the value of the forest and the need to manage it properly.

**vi. Protected Areas**

**The objective of the National System of Protected Wildlife Areas (SNASPE)** is to contribute to the conservation of the natural heritage of Chile and to the cultural heritage associated with natural environments, also taking into account their linkage with the economic, social, and environmental context. The system was created and is managed by CONAF and at present comprises 100 protected areas, including 36 national parks, 49 national reserves, and 15 natural monuments, which together cover an area of approximately 14.5 million hectares, almost 20% of the country's total land area.

Currently there are privately owned protected areas encompassing more than 1.4 million hectares scattered throughout Chile. These lands are usually associated with foundations for conservation and development of related activities such as environmental tourism and education.

It should be noted that CONAF is currently involving the surrounding communities in the administration and formulation of strategies for the use, management, and protection of protected wildlife areas, working through advisory councils, which are bodies that provide opportunities for citizen participation in the management of protected wildlife areas. The councils were created with the idea of facilitating organized and responsible participation by the community. One of their objectives is to integrate and harmonize the management of SNASPE areas with other land use planning instruments.

**1.b.3. Actions Aimed at Ensuring the Sustainability of Information-sharing and Dialogue with Key Stakeholders/Pre-consultation Activities**

As part of the REDD+ readiness proposal, a communication strategy and capacity-building program have been developed. They are described in detail in Component 1c, "Consultation and Participation Process." Both of these initiatives will contribute to information-sharing, participation, exchange of information, communication, and dialogue among stakeholders in the social, institutional, academic, technical, governmental, nongovernmental, and other spheres.

With regard to the organization and implementation of consultations as part of the REDD+ readiness process, progress has been made identifying all of the stakeholder groups to be consulted. There has also been progress in the design of a proposal for information-sharing and participation, including the methodology, activities, and communications media and tools that will be used to achieve the intended outputs and outcomes; however, all aspects of the design will continue to be developed and strengthened as the pre-consultation process proceeds.

The matters examined in the context of participatory processes will also be adjusted and tailored to needs identified in the pre-consultation phase, which will reflect each stakeholder group's level of knowledge and understanding of the linkage between forests and climate change, which is a concept that is new and unknown in much of the sector, particularly in local communities.

The activities to be undertaken in connection with the communication strategy and the capacity-building program include, first, outreach and information-sharing meetings with each of the key stakeholders identified. The aims of such meetings will be to strengthen participation and dialogue and to transfer capacities and empower stakeholders with respect to REDD+ as a national strategy, providing knowledge about its foundations, objectives, and scope in order to obtain feedback and thus lay the groundwork for a clear, continuous, and interactive process of participation and consultation in the later stages.

The national structure as defined in the REDD+ proposal for supporting information-sharing, consultation, and participation is summarized below.

Lead agency: CONAF

National participatory structure at national level: Forest and Climate Change Board (see Section 1.a.3.)

Institutional structure: Group on Forests and Climate Change (see below)

National, regional, and local participation structure: regional and local stakeholder groups established through the Group on Forests and Climate Change:

National stakeholder map (enhanced)

Regional and local stakeholder map (stakeholders identified and currently participating)

On January 17, 2011, CONAF, by Resolution 35 of its Executive Directorate, created the **Group on Forests and Climate Change (GBCC)**. This action was taken in order to enable CONAF to address a number of national and international commitments relating to the role of forests in mitigating and adapting to climate change. The overall aim of the GBCC is to advise the CONAF Executive Directorate on climate change issues and in particular:

- To generate institutional proposals on the policy and technical role of CONAF in addressing climate change
- To generate proposals for implementing the National Action Plan on Climate Change
- To represent CONAF in technical and policy-related activities at national and international level
- To implement actions and agreements established by the Executive Directorate in the areas of climate change mitigation and adaptation

The Group on Forests and Climate Change comprises a coordinator, a technical secretary, and support professionals with expertise on various topics, including indigenous affairs specialists, development tools specialists, and forest ecosystem monitoring specialists.

One of the proposals put forward to date by the GBCC was for the creation of the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh), which was formalized by means of Resolution 226 of 2012. The aim of this initiative is to address all national and international requirements relating to the mitigation of greenhouse gases. The GBCC has also worked on the Forest Carbon and Wood Energy project in cooperation with the Universidad Austral de Chile.

CONAF has been developing the present REDD+ proposal since 2010 in the framework of the National Action Plan on Climate Change. As a first step, it established the Group on Forests and Climate Change in order to address the needs identified in connection with the initiatives envisaged and the need to comply with international standards, as well as the need to share information with and consult relevant stakeholders in the forestry and related sectors as part of the REDD+ consultation and participation process (see Section 1c) aimed at strengthening the proposal through the contribution of stakeholders and ensuring their ongoing participation in the development and implementation of the national REDD+ Strategy.

On August 28, 2012, the Executive Director of CONAF, by means of Memorandum 4152/2012, called for the appointment of one professional from each of the regions of Chile to form part of the Group on Forests and Climate Change. The function of these professionals, who should possess the expertise described above, is to support the preparation and subsequent development and implementation of REDD+. Among the specific functions of the GBCC in relation to REDD+, the CONAF regional members, with the support of the regional directors and Regional Forestry Department, will carry out the following activities:

- Coordination of project activities at the regional and local levels
- Internal information-sharing to ensure institutional mainstreaming and capacity-building and external information-sharing to identified groups of stakeholders
- Support for strengthening of proposals
- Assistance in the identification of stakeholders at the regional and local levels
- Development and implementation of operational activities
- Implementation of the consultation and participation plan
- Management of the implementation of activities for the achievement of objectives and outcomes

Another function of the Group on Forests and Climate Change is to share information about the REDD+ proposal and transfer capacities to indigenous and non-indigenous communities and to encourage participation in this phase with a view to ensuring the sustainability of REDD+ in the strategy development stage. Through pre-consultation and information-sharing, capacity-building, and communication activities, the stakeholder map will be expanded at the national, regional, and local levels (to include public institutions of the sector, NGOs, trade and social groups and associations, indigenous and non-indigenous communities, and relevant civil society groups, among others). The forums for participation will be meetings, workshops, or seminars, as appropriate, in accordance with the planning and organization carried out by the Group on Forests and Climate Change.

The national, regional, and local structure currently being established will be the mechanism for carrying out the process of information-sharing, dialogue, consultation, and participation; strengthening capacities and communication; channeling requests and responses; compiling the input received in the form of comments, suggestions, and other contributions; and facilitating the prevention, management, and resolution of conflicts relating to REDD+ or to CONAF's areas of responsibility.

CONAF is the lead government agency for the initiative. It is responsible for overseeing the drafting of the proposal and the development of the strategy and for ensuring sustainability in the establishment phase. As this work is to be a collective effort, capacity-building and communication strategies have been included in the plan for consultation and participation. To implement these strategies, CONAF, through its Executive Directorate, is mandated to establish the necessary links with high-level institutions and national representative bodies in order to create the Forest and Climate Change Board. Operationally, at the national, regional, and local levels CONAF has established the Group on Forests and Climate Change, which is responsible at the regional and local levels for implementing the strategy for strengthening the capacities of all actors identified as key stakeholders owing to their relationship with the forest, with a particular focus on small and medium-sized landholders and indigenous communities that benefit directly from the forest.

Any activities undertaken with the various stakeholder groups will be carried out with a cross-cutting approach and with due regard for cultural and gender appropriateness, which are considered pillars of the REDD+ proposal.

## **GENDER PERSPECTIVE**

The concept of “gender” has to do with the roles, responsibilities, and opportunities associated with maleness and femaleness, as well as with the social and cultural relationships between men and women and boys and girls. These roles, opportunities, and relationships are social constructs and are learned through the process of socialization. They are specific to each culture and change over time for various reasons, including as a result of political actions.

In keeping with the Government’s commitment to closing the gap in opportunities for men and women and achieving gender equity, the Management Improvement Program [*Programa de Mejoramiento de la Gestión* PMG] for Gender has been integrated into the work of the various government institutions. This initiative was launched as a ministerial commitment of the Ministry of the Treasury in 2001 and must be adopted by all ministries.

In Chile’s culture, activities relating to growing forests and harvesting forest products are the concern of men. In general, men and women have different interests with regard to production-related matters and have differing visions of the forest. Men’s vision has more to do with the forest as a source of wood products, whereas women are more interested in activities relating to herbal medicine, crafts, and the care and recovery of the native forest.

Within the framework of the Gender Equity System component of the Management Improvement Program (PMG–Gender), since 2002 CONAF has been carrying out actions aimed at:

- Identifying disparities in men’s and women’s access to CONAF’s programs and services in order to develop and implement measures designed to ensure greater equality of opportunities
- Mainstreaming gender into the provision of CONAF’s programs and services, from the design stage through delivery to end-users and evaluation



In keeping with the objective of PMG–Gender, CONAF has adopted the following strategic objectives for the period 2012–2014:

To advance towards greater equity between male and female users, beneficiaries, and clients by responding to their differing needs through CONAF’s programs and services. For 2012 it adopted the following specific objectives:

1. To provide information disaggregated by sex and region as input for the process of targeting regional actions aimed at achieving gender equity
2. To improve the services offered to the public in the protected wildlife areas in line with the differing needs of male and female visitors
3. To improve the occupational skills and the employability of women taking part in the Training, Capacity-building, and Employment Program [*Programa de Formación, Capacitación y Empleo PROFOCAP*]
4. To disseminate, by means of the various communication tools at the Corporation’s disposal, information about the participation of women in CONAF’s programs and services.

In that context and in light of the social and economic impacts of its incentive programs in forest-dependent communities, CONAF has incorporated a gender approach into the following initiatives:

- Incentive systems for the development and management of plantations and tree-planting
- Incentive system for management of the native forest
- System for administering the country’s protected wildlife areas

Other CONAF initiatives also contribute to gender equity and make it clear that the institution’s commitments in this area extend beyond its own programs and services. These initiatives include:

- Incorporation of gender considerations into the Origins Program
- Training, Capacity-building, and Employment Program [PROFOCAP]

### **Mainstreaming Gender in the REDD+ Strategy**

With respect to the incorporation of gender considerations into the readiness proposal and the development of the national REDD+ Strategy, a gender mainstreaming approach is an inherent part of all actions involving CONAF either directly or indirectly. Thus, although gender mainstreaming is not the core objective of the initiative, which is focused on purely technical matters related to CONAF’s normal activities in the context of the National Forestry and Climate Change Strategy, everything that CONAF does implicitly includes a gender perspective, in accordance with PMG–Gender. This is explained in more detail above in relation to the Corporation’s general and specific objectives.

Hence, through the REDD+ Strategy CONAF will work to achieve greater equity between male and female users, beneficiaries, and clients by responding to their differing needs through its programs and services. Specifically, it will:

- Enhance participation through a gender approach in the information-sharing, consultation, and participation process

- Provide information disaggregated by sex and region as input for the targeting of regional actions aimed at mainstreaming gender in REDD+
- Identify the impact of the REDD+ initiative from a gender perspective

**The actions proposed for achieving the gender-related objectives are:**

- Strengthening awareness in the Group on Forests and Climate Change with regard to gender considerations in order to target its activities, with assistance from a CONAF official specializing in gender issues and capacity-building
- Preparing a strategy and plan of action for the incorporation, tracking, monitoring, and evaluation of the gender aspects of the REDD+ Strategy
- Enhancing the stakeholder map to include the participation of groups of rural and indigenous women who are beneficiaries of forest resources
- Strengthening the REDD+ Strategy by incorporating the views and input of female beneficiaries
- Identifying the impact of the REDD+ initiative from a gender perspective

PMG–Gender within the Ministry of Agriculture and within CONAF itself has a permanent team of professionals who coordinate various activities and take part directly in projects. These include, for example, a project to be undertaken with the Swiss Agency for Development and Cooperation (SDC) in order to provide support as needed in this area. The team will also describe the outcomes of the initiative in gender reports to be produced periodically by CONAF.

As there is a permanent team of people working on gender within CONAF, there is also a fixed budget for its work. This is particularly important, since the Management Improvement Program is an initiative overseen by the Ministry of the Treasury on which all government agencies are required to report.

Gender mainstreaming at the level of direct beneficiaries will be implemented at national level by the CONAF's Forestry Bureau, while in the regions it will be carried out through the Group on Forests and Climate Change.

It should be stressed that the entire Forestry and Climate Change Strategy, including REDD+ and the Forestry NAMA supported by the Government of Switzerland, among other related initiatives, is required, like any program of a public institution in Chile, to meet the PMG–Gender requirements. It must thus put in place all relevant safeguards to ensure that all activities, including those currently under way and those planned for the future, incorporate this important component.

**1.b.3.1. Timetable of activities for strengthening relationships with actors identified as key stakeholders for the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh), with emphasis on REDD+**

This section describes the actions taken to date with regard to relationships with key stakeholders. Work in this area has been carried out to the extent that is currently feasible as part of the strategies

for participation and consultation and for capacity-building and communication for information-sharing and dialogue.

In accord with CONAF's objective of developing the REDD+ Strategy for Chile within the framework of the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh)—a structure established by CONAF to support REDD+—and also with the objective of making rapid progress in this area, it was considered necessary and desirable to enlist the participation and draw on the experience of various public and private entities that have been involved in initiatives of this type. The intention was to take the first steps in building an optimized model, suited to the national reality, incorporating technical, environmental, social, and market considerations. In this context CONAF has undertaken actions to share information about the initiative and to put in place a national structure to ensure the sustainability of the REDD+ Strategy and to forge closer ties with stakeholders identified as members of the Forest and Climate Change Board. The activities undertaken with various key stakeholders in this area include:

1. On March 19, 2012, the first public–private workshop was held with the members of the National Technical Expert Group; see the description in Table 1b.1. below and in **Annex 1b.2.**

2. CONAF, continuing with the work undertaken to establish the Platform for the Generation and Trading of Forest Carbon Credits in Chile and to obtain input for REDD+, and consistent with the agreements emerging from the workshop of March 19, 2012 to maintain close collaboration and technical exchange for the implementation of the model, has made progress through a series of actions in this sphere, namely:

- April 20012. Work under way on an agreement with the Verified Carbon Standard (VCS) Association to validate the PBCCh. In November 2012 CONAF signed a cooperation agreement with VCS. This is the first time that VCS has entered into an agreement of this type with a national government agency.<sup>23</sup>
- April–May 2012. Discussions with developers, private companies, and the Chilean Economic Development Agency [*Corporación de Fomento de la Producción de Chile* CORFO], among other agencies, to progress on the funding and development of carbon capture project typologies for the Chilean forestry sector.
- May 2012. Work under way with the World Bank on the REDD+ Strategy, which will be an integral part of the planned model (development of the R-PP).
- April–May 2012. Work under way on developing a NAMA initiative which will be complementary to the PBCCh, especially in terms of financing methods for small landholders.

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<sup>23</sup> See: <http://v-c-s.org/news-events/news/chile-plans-platform-trade-forest-carbon-credits-links-vcs>

<http://www.tecnologiambiental.es/index.php/actualidad/2983-conaf-y-vcs-anuncian-un-convenio-jnr-con-un-gobierno-nacional-por-primera-vez-en-el-mundo.html>

[http://www.conaf.cl/destacado-chile\\_avanza\\_para\\_contar\\_con\\_bonos\\_de\\_carbono\\_para\\_transar\\_a\\_nivel\\_mundial-1808.html](http://www.conaf.cl/destacado-chile_avanza_para_contar_con_bonos_de_carbono_para_transar_a_nivel_mundial-1808.html)

- May 16 and 17, 2012. Seminar on “Environmental Compensation Alternatives: Forests and their Role in Mitigating the Effects of Climate Change,” organized by CONAF, the Directorate for the Environment and Maritime Affairs [*Dirección de Medio Ambiente y Asuntos Marítimos DIMA*], the Ministry of the Environment, the Embassy of New Zealand, Patagonia Sur and LessCarbon. (Means of verification: activity record and report on the event)
- May 2012. Work under way on the definition of technical methodologies and inputs for the establishment of reference levels and of a monitoring, reporting, and verification (MRV) system for the country and for project typologies.
- May 2012. Administrative procedures initiated for inviting proposals for the creation of a conceptual and methodological guide covering the development of forest carbon capture project typologies in accordance with VCS requirements and the relevant forest and environmental regulations in Chile.
- June 5, 2012. Second public–private workshop with the members of the National Technical Expert Group. More in-depth work done on the role of forests with regard to climate change. Presentations given on the role of forests in the mitigation of climate change and opportunities and challenges for implementing a model for forest carbon credit trading in Chile. Proposal presented for formalization of a public–private working group. See description in Table 1b.1. and report on the workshop in **Annex 1b.4.**
- June 8, 2012. Information meeting held with the principal ministries involved in work on the issue of climate change in Chile (Ministries of the Environment, Energy, Mines, Transportation and Telecommunications, Public Works, Foreign Affairs, and Agriculture) to explain the main features of the PBCCh and the REDD+ initiative. See description in Table 1b.1. below and also the invitation from the Executive Board of CONAF in **Annex 1b.3.**

**Table 1b.1. Main Information-sharing Activities at the Ministerial Level and with the National Technical Expert Group**

Activity	Date	Stakeholder Groups	Objectives	Outcomes	Means of Verification
First Workshop on Planting and Managing the Forests of the Future: "Opportunities and Challenges in Implementing a Model for Generation and Trading of Forest Carbon Credits in Chile"	March 19	<b>National Technical Expert Group, 21 representatives</b> participated from: <ul style="list-style-type: none"> <li>•PricewaterhouseCoopers International Limited</li> <li>•Climate Change Office of the Ministry of the Environment</li> <li>•Office for Agricultural Research and Policy (ODEPA) of the Ministry of Agriculture</li> <li>•POCH-Ambiental consultants</li> <li>•Verified Carbon Standard (VCS)</li> <li>•LessCarbon</li> <li>•Fundación Chile</li> <li>•Fundación SNP Patagonia Sur</li> <li>•Santiago Climate Exchange</li> <li>• CONAF Executive Directorate, Forestry Bureau, Legal Affairs</li> </ul>	Analyze the scope of a platform for carbon trading  Gather experience of attendees representing various sectors of the market  Establish cooperation agreements for achievement of the agreed objectives	Participants in agreement with the initiative and willing to participate in it  Participants suggested expanding the stakeholder map to include the National Technical Expert Group; other possible stakeholders discussed  Participants agreed on a series of necessary key actions to be undertaken in the short term	Activity report  Agreements for action  List of participants
Second Public-Private Workshop on "Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh)"	June 5	<b>National Technical Expert Group, 13 representatives</b> participated from: <ul style="list-style-type: none"> <li>•Climate Change Office of the Ministry of the Environment</li> <li>•Poch-Ambiental consultants</li> <li>•Verified Carbon Standard (VCS)</li> <li>•LessCarbon</li> <li>•Fundación Chile</li> <li>•Fundación SNP Patagonia Sur</li> <li>• Santiago Climate Exchange</li> <li>•CONAF Forestry Bureau</li> </ul>	Analyze details of previous progress  Receive feedback from interested parties to achieve an appropriate outcome in line with the expectations of both the public and the private sector involved in the areas in question  Define the best form and structure of the work to continue advancing in the creation of the PBCCh	Participants discussed details and background regarding the opportunities and challenges in implementing a model for trading of forest carbon credits in Chile  Proposal to formalize a public-private working group discussed and comments were noted; agreement reached on necessary functional steps for creating the Technical Committee	Activity report  Agreements for action  List of participants
Interministry information meeting on "Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh)"	June 8	Ministries directly involved in work on climate change; <b>16 representatives</b> participated from: <ul style="list-style-type: none"> <li>•Ministry of the Environment</li> <li>•Ministry of Energy</li> <li>•Ministry of Mines</li> <li>•Ministry of Transportation and Telecommunications</li> <li>•Ministry of Public Works</li> <li>•Ministry of Foreign Affairs</li> <li>•Ministry of the Economy</li> <li>•Ministry of Agriculture</li> <li>•CONAF</li> <li>•ODEPA</li> </ul>	Provided detailed information on the PBCCh initiative  Create a communication entity and see views with respect to the PBCCh initiative	Ministries directly involved in implementing the National Action Plan on Climate Change informed about the PBCCh initiative developed by CONAF as a contribution to the country's actions relative to mitigation of climate change	Record of participants invited  List of participants

#### **1b.3.1.a. Review of progress based on outcomes of activities undertaken to strengthen coordination and establish ties with key stakeholders for the PBCCh and REDD+**

During the period October–December 2012, the objective was to move forward in the establishment of the national structure with actors identified as key stakeholders through the signing of the agreements and contracts needed to underpin the development of the REDD+ Strategy. The activities undertaken were directly related to other activities of CONAF, such as the Forestry NAMA and the related Platform for the Generation and Trading of Forest Carbon Credits in Chile. In order to achieve this objective, the Executive Directorate of CONAF, through the Forestry Bureau, produced the following outcomes and outputs which are contributing directly to the advancement and strengthening of activities related to the PBCCh and REDD+. The greatest progress has been made in linkage and coordination through the formalization of agreements and contracts for the performance of studies, including:

- Contract established between CONAF and Universidad Mayor in the framework of the agreement between CONAF and Foundation for Agricultural Innovation [*Fundación para la Innovación Agraria* FIA], for a joint study on allometric functions for estimating carbon levels for four native species of Mediterranean forest. Signing of the contract ratified by Resolution 284 of September 12, 2012. See Annex 1b.19.
- Presentation made on October 5, 2012 to the leading universities on the frame of reference for technical and methodological input on the development of forest carbon capture project typologies. The outcome of the meeting was that the universities represented were informed of CONAF's initiatives, including the PBCCh, the Forestry NAMA for which Switzerland is providing support, and the REDD+ Strategy for Chile. Participants demonstrated interest in being included in the stakeholder map and participating in the development of forest typologies and also willingness to contribute their skills and expertise relating to zonal forest resources. November 2012 saw a commitment to cooperate in creating the frame of reference for the development of forest typologies. See Annex 1b.20.

All of the country's main universities, both regional and national, participated, including Universidad de Concepción–Los Ángeles campus, Universidad de Concepción–Concepción campus, Universidad de Chile, Universidad Austral, Universidad Católica, Universidad Mayor, and Universidad de la Serena.

In December 2012 contracts were signed with Universidad Mayor and Universidad de Concepción for the development of three typologies starting in 2013. One will focus on the rehabilitation of Mediterranean forests and two on forest plantations, with one of the latter focusing on land owned by indigenous communities.

- The Forestry NAMA, for which the Government of Switzerland is providing support, for the implementation of the National Forests and Climate Change Strategy was registered with the UNFCCC Secretariat on November 20, 2012. This NAMA aims to advance the implementation of the Platform for the Generation and Trading of Forest Carbon Credits. It includes the development of pilot sites in different types of forest and land suitable for afforestation (including REDD+ and afforestation and reforestation (A/R) activities). These pilot projects will

include improvements in land titling processes and in the identification and implementation of more appropriate forest management techniques and the development of subnational reference levels and MRV systems, among other activities related to forest carbon projects. See Annex 1b.21.

- Cooperation agreement established between CONAF and the Foundation for Agricultural Innovation on December 12, 2012. These two entities, both of which come under the Ministry of Agriculture, will join forces to determine allometric formulas for estimating carbon volume and content for the principal native forest species present in the sclerophyllous and mesophyllous forests in six regions of the country (between Coquimbo and Biobío). See Annex 1b.22.
- Cooperation agreement established between CONAF and Verified Carbon Standard (VCS) Association on November 7, 2012. This collaboration will enable Chile to align its criteria for forest carbon projects with VCS rules and procedures. The agreement provides clear guidelines for the Government and project developers for structuring and implementing their forest conservation and rehabilitation efforts in line with international standards. It supports the work being carried out by CONAF to establish a Forest Management Plan for Environmental Carbon Capture Services [*Plan de Manejo Forestal para el Servicio Ambiental de Captura de Carbono PMSACC*]. To ensure that this plan meets the basic requirements of VCS at the global level, the Corporation will institutionalize a set of requirements for forest carbon projects. This will ensure that developers design their projects and programs in the best possible manner. See Annex 1b.23.
- Conceptual and Methodological Guide drafted jointly by CONAF, Poch-Ambiental consultants, and PricewaterhouseCoopers. This guide has been written with a view to developing forest carbon capture project typologies aligned with VCS requirements and with Chile's forest and environmental regulations; this deliverable was completed in November 2012 and was undergoing final revisions in January 2013. See Annex 1b.24.
- Third National Public–Private Workshop of Experts on Climate Change held on December 13, 2012. The objectives were to analyze progress, obtain feedback, and present a proposal for the structure and formalization of the National Technical Expert Group (GTNE), which will be a member of the Forest and Climate Change Board. The principal outcome was a decision to formalize the GTNE through a cooperation agreement to be signed by the parties concerned. A proposal will be circulated shortly for study, analysis, and feedback prior to the signing of the agreement. See Annex 1b.25.

Below is a list of the organizations taking part in the workshop.

Participaron del Taller las siguientes personas en representación de las entidades indicadas:

N°	Nombre del participante	Entidad a la que representa
1	Luis Costa V.	POCH Ambiental
2	Carolina Ummemeta	POCH Ambiental
3	Carolina Balboa	Fundación Chile
4	Pamela Mollado	Verified Carbon Standard - VCS
5	Paula Tassara	Verified Carbon Standard - VCS
6	Fernando Farias	Oficina de Cambio Climático del Ministerio del Medio Ambiente
7	Javier Fuentes	SNP Patagonia Sur
8	Carlos Berner	Bolsa de Clima de Santiago (ISCO)
9	Mike Zellmer	The Nature Conservancy (TNC)
10	Maryann Ramirez C.	The Nature Conservancy (TNC)
11	Daniel Barrera	Oficina de Políticas Agrarias (ODEPA)
12	José Antonio Prado	Coordinador de Cambio Climático, Ministerio de Agricultura.
13	Angelo Santori B.	Coordinador de Bosques y Cambio Climático, CONAF
14	Guillermo Aguilera	Encargado de Asuntos Indígenas, CONAF
15	Patricio Emanuel A.	Consultor CONAF
16	Juan Andrés Torrealba M.	Consultor CONAF
17	Fabian Milla A.	Consultor CONAF

- Contract signed by CONAF and Universidad Austral de Chile for a joint study on allometric functions to be used to estimate carbon levels in Roble and Araucaria species, November 2012.
- Subsequently, and also with Universidad Austral, work began on a study to generate an allometric function for lenga beech (*Nothofagus pumilio*), with field work starting in January 2013.
- Governance for the implementation of the Platform for the Generation and Trading of Forest Carbon Credits in Chile put in place by means of Resolution 226 of June 4, 2012, which aims to ensure coordination and forge ties in order to strengthen the Forest and Climate Change Board, the National Technical Expert Group, and the Group on Forests and Climate Change and all activities having to do with REDD+.

### 1.b.3.2. Timetable of activities for information-sharing with actors identified as key stakeholders for REDD+, including both completed and planned activities

**Table 1b.2. Timetable of activities for information-sharing with actors identified as key stakeholders for REDD+**

Stakeholder Group	Entities and Individuals Involved	Objective	Activity	Outcome	Indicator	Means of Verification
CONAF Institutional Group	Group on Forests and Climate Change (GBCC) of CONAF	Establish the REDD+ institutional structure in CONAF	Creation of the Group on Forests and Climate Change of CONAF	Institutional structure for REDD+ established, consisting of one official from each of the regions (15), one representative of the Protected Wildlife Areas (1) and 15 regional directors plus the heads of the Forest Executive Directorates (15) National-level leadership: Executive Director of CONAF (1); head of Forestry Bureau (1) and head of the Forestry Bureau Technical Secretariat (1)	An institutional structure for REDD+ consisting of a national leadership level, a regional leadership level, and regional officials (49)	Memorandum 4152/2012 Request for appointment of the regional members, Annex 1b.1.  Series of regional internal memoranda, approving the appointment of the regional representatives to the Group on Forests and Climate Change (institutional record available for consultation)  Table listing the members of the Group on Forests and Climate Change, Annex 1b.5.
		Enhance capacities and knowledge regarding national actions having to do with climate change, PBCCh and REDD+	Institutional Workshop on "Forest and Climate Change: Platform for the Generation and Trading of	GBCC members aware of Group's fundamental principles, objectives and functions  Basic background	An activity in the form of a workshop, with 61 participants	Activity report (see Annex 1b.6.) containing: Background for the workshop Workshop program Summary of presentations



			Forest Carbon Credits in Chile (PBCCh) and REDD+ Initiative”  9/11/12	defined in the program acquired  Agreements reached on needs for performance of functions  Agreements reached on outputs and actions as contributions to the R-PP and stakeholder map  Stakeholder mapping of small landholders and indigenous communities completed  Consultations completed and input and suggestions obtained		Record of participant input Analysis of objectives and outcomes achieved Summary of participant input Photographic record  Record of attendance at the Institutional Workshop, Annex 1b.6.
Large forest corporations	ARAUCO	Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+  Participate by providing input as part of the REDD+ structure during the proposal preparation and Strategy development phase  Assist with enhancement of stakeholder map	Technical meetings or workshops  In process of being organized	Entities informed  Entities actively participating and contributing input throughout the process	X activities completed  X corporations and X individuals participating	Record of activities and participation  Record of participant input
	CMPC					
	MASISA					
Small landholders	Representatives to be identified through the enhancement of the stakeholder map at regional and local levels	Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+	Technical meetings or workshops  In process of being organized	Entities informed  Entities actively participating and contributing input throughout the process	X activities completed  X associations  X communities	Record of activities (written, photographic or other)  Record of participation  Record of participant input

		Participate by providing input as part of the REDD+ structure during the proposal preparation and Strategy development phase  Assist with enhancement of stakeholder map	Regional activities  Communal and local activities in line with the stakeholder map established		X owners participating	
Medium-sized landholders	Pymemad A.G. Ñuble Native Forest Union Aprobosque A.G.	Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+`  Participate by Provide by providing input as part of the REDD+ structure during the proposal preparation and Strategy development phase  Assist with enhancement of stakeholder map	Technical meetings or workshops  In process of being organized	Entities informed  Entities actively participating and contributing input throughout the process	X activities completed  X associations participating	Record of activities (written, photographic or other)  Record of participation  Record of participant input
Indigenous peoples	Representatives to be identified through the enhancement of the stakeholder map at regional and local level	Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+  Participate by providing input as part of the REDD+ structure during the proposal preparation and Strategy development phase  Assist with enhancement of	Technical meetings or regional and local workshops  In process of being organized	Groupings of communities informed  Groupings actively participating and contributing input throughout the REDD+ process (information-sharing and consultation)	X activities completed  X groupings, associations, participating	Record of activities (written, photographic or other)  Record of participation  Record of participant input
Groupings of indigenous communities	Other groupings representing indigenous communities to be defined through the enhancement of the stakeholder map at regional and local level					

		stakeholder map				
	United Farmers and Indigenous Peoples Movement (MUCECH)	<p>Enhance capacities and knowledge within MUCECH concerning national actions having to do with climate change, PBCCh and REDD+</p> <p>Achieve active participation of MUCECH as part of the REDD+ structure during the proposal preparation and Strategy development phase</p> <p>Secure MUCECH's assistance with enhancement of the stakeholder map and its participation</p>	<p>Technical meetings or workshops</p> <p>In process of being organized</p> <p>Communal and local activities in line with stakeholder map drawn up through MUCECH</p>	<p>MUCECH informed at central and grassroots levels through internal information-sharing</p> <p>MUCECH actively participating and contributing input throughout the process</p>	<p>X activities completed through MUCECH</p> <p>X associations</p> <p>X communities</p> <p>X owners participating</p>	<p>Record of activities (written, photographic or other)</p> <p>Record of participation</p> <p>Record of participant input</p>
<p>Regional and local indigenous groupings and communities</p> <p>Araucanía Region</p> <p>Lonquimay Commune</p>	<p>Community of Quin-Quén</p> <p>Mapuche community</p>	<p>Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+</p> <p>Present the project for monitoring of forest carbon and wood energy – carbon capture with a focus on <i>Araucaria araucana</i> (araucaria)</p> <p>Strengthen dialogue and invite attendees to participate in the preparing the proposal</p>	<p>Technical meeting (1) to provide information about national and CONAF actions within the framework of the National Action Plan on Climate</p> <p>PBCCh with a focus on REDD+, and strengthening of dialogue and participation</p> <p>Location: Malalcahuello, Lonquimay Commune</p> <p>8/14/12</p>	<p>Communities (2) and municipality of Lonquimay, participating through their traditional leaders, <i>comuneros</i>, mayors and council members</p> <p>Information provided to communities, public actors and commune members</p> <p>Input of the leaders representing the registered communities, with a focus on strengthening dialogue, participation and information</p> <p>REDD+ proposal strengthened</p>	<p>An activity in the form of a technical meeting attended by 15 officers of CONAF</p> <p>1 Lonko (traditional leader)</p> <p>2 community leaders</p> <p>10 commune members</p>	<p>Activity report, see Annex 1b.8, containing:</p> <p>Background for the workshop</p> <p>Workshop program</p> <p>Record of participant input</p> <p>Analysis of objectives and outcomes achieved</p> <p>Summary of participant input</p> <p>Record of attendance</p> <p>Photographic record</p>

				through outreach to and input from communities  Agreement to meet with communities in order to share information about the work and strengthen dialogue and participation		
Non-governmental organizations, trade associations and unions	Association of Forest Engineers (CIFAG)	<p>Share information and enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh, and REDD+</p> <p>Invite attendees to be part of the national, regional, and local REDD+ structure</p> <p>Invite attendees to participate in the review and to contribute to the document and to the enhancement of the stakeholder map</p>	<p>Technical meeting (1) to provide information about national and CONAF actions within the framework of the National Action Plan on Climate Change and PBCCh with a focus on REDD+</p> <p>Santiago 8/13/12</p>	<p>CIFAG provided with background regarding the actions being carried out by CONAF for mitigation of climate change, such as the PBCCh, MAPs, and REDD+ initiatives</p> <p>CIFAG willing to participate in the review of the proposal, development of the Strategy, enhancement of the stakeholder map, and information-sharing at the grassroots level</p> <p>Agreements reached:</p> <p>The R-P document will be shared for review and comment</p> <p>A form will be sent out for recording and transmitting input, comments and suggestions</p> <p>Reports on progress and activities having to do with PBCCh and REDD+ provided regularly</p>	An activity in the form of a technical meeting attended by 15 CONAF officials	<p>Report of the Workshop, see Annex 1b.9. :</p> <p>Background provided</p> <p>Workshop program</p> <p>Photographic record of attendees</p>
	World Wildlife Fund/World Wide	Share	Technical	The NGOs of the National Timber	A total of 4 NGOs with a	Record of activity

	Fund for Nature (WWF)	information and enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh, and REDD+	meetings (3) to provide information about national and CONAF actions within the framework of the National Action Plan on Climate Change and PBCCh with a focus on REDD+	Certification System (SNCL), the Social Action Department of the Temuco Diocese (DAS), the Association of Forest Engineers for the Native Forest (AIFBN), Valdivia, and the World Wildlife Fund (WWF) willing to participate in the review of the proposal, development of the Strategy, enhancement of the stakeholder map, and information-sharing at the grassroots level	significant membership at national, regional, and local levels take part in information-sharing activities about REDD+ at regional level and agreements reached on participation as detailed in the report on outcomes of the activity	Annex 1b.10.a Report on SNCL – DAS – AIFBN workshop 9/3/2012 – Valdivia Annex 1b.10.b Record of attendance
	Social Action Department of the Temuco Diocese (DAS)					
	Association of Forest Engineers for the Native Forest (AIFBN)					
	National Timber Certification System (SNCL), Valdivia	Invite attendees to be part of the national, regional, and local REDD+ structure  Invite attendees to participate in the review and to contribute to the document and to the enhancement of the stakeholder map	Valdivia, Los Ríos Region  9/3/12 9/4/12  Talca, Maule region. 9/7/12	Agreements reached:  The R-PP document will be shared for review and comment  A form will be sent out for recording and transmitting input, comments and suggestions  The report of the meeting will be shared  Reports on progress and activities having to do with PBCCh and REDD+ provided regularly  General comments as outcomes: tailor presentations to audiences and expected outcomes; take into consideration recommendations for strengthening capacities and	Participants: Total 22  Participants from:  SNCL (2 in Valdivia) (7 in Talca)  DAS-Temuco (1 in Valdivia)  AIFBN (7 in Valdivia)  WWF (2 in Valdivia)  CONAF (3 participants)	Annex 1b.11.a. Record of WWF - AIFBN workshop 9/4/2012, Valdivia Annex 1b.11b. Record of attendance  Annex 1b.12.a Report on SNCL workshop 9/7/2012, Talca Annex 1b.12.b. Record of attendance  Record of participant input  Record of attendance  Photographic record

				participation, in particular in workshops for information-sharing with indigenous and non-indigenous community members (record of meetings)		
	The Nature Conservancy (TNC)	<p>Share information about national and institutional actions in the framework of the National Climate Change Strategy, PBCCh, and REDD+</p> <p>Strengthen capacities</p> <p>Invite attendees to participate</p>	Meeting to share information about national and CONAF actions under the National Action Plan on Climate Change and the PBCCh, with emphasis on REDD+ 8/30/2012	<p>Agreements reached: TNC will participate by providing input on the proposal and subsequent development of the REDD+ Strategy</p> <p>TNC will carry out internal distribution of information about the PBCCh initiative and the REDD+ Strategy to broaden its participation and contribution to the development of the REDD+ proposal</p> <p>Participation in TNC and CONAF activities in the context of forest carbon capture</p>	<p>An NGO with international and national expertise in initiatives having to do with carbon capture agrees to participate in the national REDD+ strategy</p> <p>8 participants (4 TNC (3 attending and 1 online), 4 CONAF)</p>	<p>Record of the activity, see Annex 1b.13</p> <p>Contains the record of recommendations and suggestions, as well as responses</p>
	<p>National Committee for the Defense of Flora and Fauna (CODEFF)</p> <p>Terram Foundation</p> <p>Native Forest Center Foundation (FORECOS)</p> <p>Citizen Observatory</p> <p>FSC Chile – National Office of the Forest Stewardship Council</p> <p>National Syndicate of Professionals Workers of the National Forest Corporation</p>	<p>Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+</p> <p>Participate by providing input as part of the REDD+ structure during the proposal preparation and Strategy development phase</p> <p>Assist with</p>	<p>Technical meetings or workshops</p> <p>In process of being organized</p>	<p>Entities informed</p> <p>Entities actively participating and contributing input throughout the process</p>	<p>X activities completed</p> <p>X corporations and X individuals participating</p>	<p>Record of activities (written, photographic or other)</p> <p>Record of participation</p> <p>Record of participant input</p>

	(SINAPROF) National Federation of Unions of CONAF Workers (FENASIC) Trade Association of Small and Medium-sized Timber Producers (PYMEMAD)	enhancement of stakeholder map				
Protected Areas	Representatives to be identified through enhancement of stakeholder map at regional and local levels	Enhance capacities and knowledge concerning national actions having to do with climate change, PBCCh and REDD+  Participate by providing input as part of the REDD+ structure during the proposal preparation and Strategy development phase  Assist with enhancement of stakeholder map	Technical meetings or workshops  In process of being organized	Entities informed  Entities actively participating and contributing input throughout the process	X activities completed  X corporations and X individuals participating	Record of activities (written, photographic or other)  Record of participation  Record of participant input

### 1.b.3.2.a Review of progress based on outcomes of activities undertaken to strengthen information-sharing and early dialogue with key stakeholder groups

The work carried out in the period October–December 2012 was focused on strengthening the Group on Forests and Climate Change; enhancing the national, regional, and local stakeholder map; and planning and implementing the process of regional and local information-sharing with institutional stakeholders, indigenous communities, non-indigenous communities, associations, groupings, NGOs, private companies, and other stakeholder groups. All of these activities were undertaken with a view to ensuring participation and consultation and enhancing the development of the REDD+ Strategy and the sustainability of the initiative.

**The current work of stakeholder mapping** and the processes of coordination and establishment of ties with stakeholders and of **compiling input and concerns expressed** is being carried out with a view to mainstreaming consultation and participation and ensuring that in the development of the Strategy and parallel initiatives due attention is paid to **gender** impacts and participation by men and women, **cultural appropriateness and indigenous participation**, and a **territorial integrity** approach and to ensuring **compliance with international standards** of the United Nations in relation to international

law (relating to indigenous peoples and women, for example) and with the requirements of international donors.

Consultation and participation will strengthen national mechanisms for ensuring the sustainability of the initiative and projects. This will take place through the identification of stakeholder groups, information-sharing and early dialogue with key stakeholder groups, and the consultation and participation process itself. All of this will contribute directly to the prevention and management of conflicts by encouraging respect and consideration for those directly affected and for their views and concerns.

Much effort is being put into the current process of information-sharing with and participation by stakeholders because its outcomes will be reflected in the following actions to be carried out in the future.

Identification of environmental and social considerations and priorities associated with the drivers of degradation:

- Assessment of land use, land use change drivers, forest law, policy, and work under the various components
- Social and environmental impacts during the preparation and implementation of REDD+
- Determination of the magnitude of the main environmental and social risks associated with REDD+ Strategy options
- Validation of the legal, institutional, and regulatory recommendations and of recommendations relating to capacity- building to address weaknesses or problems existing in the management of the environmental and social priorities under the various components
- Validation of mitigation and adaptation tools developed to address possible environmental and social impacts of REDD+ Strategy options
- Assessment of social and environmental impact in the development of the Forestry NAMA and the development of forest typologies

The activities carried out by the CONAF Forestry Bureau and the GBCC in relation to outcomes and outputs are as follows:

- **Actions that have contributed to strengthening of regional capacities, sharing of information with forest-dependent people and enhancing the capacities of the GBCC:**
  - At the request of the Regional Ministry of Agriculture of the region of the Aysén, the CONAF Forestry Bureau took part , in the framework of PBCCh and REDD+, in a public-private meeting on October 5, 2012, to address one of the points of the agreement reached in March 2012 between civil society and the Government as a step towards ending social conflict. This encounter helped to dispel doubts concerning the generation and trading of forest carbon credits in Chile and offered an opportunity for citizen capacity-building. See Annex 1b.26.
  - In a meeting organized by CONAF and held on October 6, 2012, for the agricultural institutions of the region of the Aysén (Forestry Institute [*Instituto Forestal* INFOR], National Agricultural Development Institute [*Instituto Nacional de Desarrollo Agropecuario* INDAP], and CONAF), the Forestry Bureau, in the framework of the PBCCh and REDD+, shared information on climate change and the international



agreements entered into by Chile which have drawn attention to the role of forests in mitigating climate change and highlighted an opportunity for the region. At the same event, information was provided on the REDD+ proposal, the Forestry NAMA, and the National Forestry and Climate Change Strategy. See Annex 1b.27.

- On December 5, 2012, information on the topics mentioned above was provided to the CONAF team in the region of Valparaíso. The outcome of this action, as with the meeting mentioned above, was that input was gathered, the capabilities of the team were enhanced, and the work of the GBCC representative was supported. See Annex 1b.28.
- **National, regional, and local stakeholder mapping exercise completed** by the GBCC, with participation from others. It covers the key stakeholder groups in relation to climate change and forests, including direct beneficiaries, indigenous and non-indigenous communities, associations and groupings, NGOs, private companies, public institutions, and universities, all of these being relevant to the PBCCh and REDD+. See Annex 1b.29.
- **Second capacity-building workshop for the CONAF Group on Forests and Climate Change completed** on November 20, 2012. The **objective of this workshop was to provide the second orientation on REDD+, with emphasis on the implementation of the consultation and participation component**. A total of **28 professionals** who are the GBCC members from each of the regions participated, as did the CONAF communication team, the Forestry Bureau advisory team, and **a representative of the Mapuche indigenous group**, who assisted in building capacity with respect to culturally appropriate approaches in the consultation and participation process. See Annex 1b.30.

The workshop gave GBCC members **greater knowledge** of national activities relating to forests and climate change in a context of international agreements and also a better grasp of the REDD+ initiative at the global level and of the national process for development of the REDD+ strategy, Chile's Forestry NAMA, and the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh), which has already been established.

The workshop also afforded an opportunity for participants to **voice concerns and provide input** regarding implementation of the process of information-sharing at the regional and local levels.

Capacities were enhanced **by providing methodological tools** for conducting meetings, recording input, and addressing complaints and grievances.

Institutional experience and lessons learned with regard to the holding of meetings with indigenous communities were shared and **concepts of cultural relevance were communicated**, with special emphasis on the Mapuche people. This information was provided by Mr. Joaquín Meliñir, a Mapuche from the indigenous community of Quin-Quén in the commune of Curacautín, Araucanía Region.

- **Timetable of meetings to be held by the GBCC to implement the process of early dialogue** as a part of the consultation and participation component. This information-sharing process will target stakeholder groups identified at the regional and local levels over the periods November to December 2012, and January to March 2013. For more information on the make-up of the stakeholder groups by region, see Annex 1b.30. The following table provides a summary of the timetable.

This timetable of meetings is planned so as to allow implementation of the process of early dialogue and has the following features:

- It provides for information-sharing in all regions of the country, including provinces and communes.
- It will be implemented by the GBCC at the regional level with support from the Forestry Bureau.
- It takes into account the key regional and local groups identified in the stakeholder mapping exercise, namely: regional governments, regional agriculture institutions, government institutions, private companies, neighborhood associations, indigenous communities, non-indigenous communities, non-indigenous agricultural groupings, advisory councils for protected areas, indigenous development areas, regional branches of national associations of rural indigenous women, and agricultural organizations and societies.
- The objective of the meetings to be held is to share information about the activities of CONAF aimed at fulfilling national commitments with respect to climate change, as well as information about the PBCCh and, especially, REDD+. They are intended to support and strengthen stakeholder groups through outreach to and participation of those already identified and others that might be identified in the future, transfer capacities, and provide an opportunity for participants to provide input and voice concerns and possible grievances. The meetings also aim to prepare stakeholder groups to participate in the various stages of developing the REDD+ Strategy.
- The anticipated outcome of these meetings is that the process of early dialogue will assist in strengthening the capacity of key stakeholder groups to participate in the PBCCh and enhance the development of the REDD+ Strategy.
- Early sharing of information is also expected to help prevent, minimize, and manage possible conflicts.

The GBCC has held information-sharing meetings in all regions in accordance with the timetable presented to stakeholder groups. The following table shows the information-sharing activities planned for each region for the period between the last week in November and the month of December 2012, as well as the meetings planned between January and March 2013. The far-right column shows the **number of information-sharing meetings held in 2012, as compared to the number planned for the period indicated.**

**Figure 1b.4. Timetable for Regional Information-sharing in Preparation for the Consultation and Participation Process (see Annex 1b.29)**

Regiones	Reuniones de difusión planificadas sobre la estrategia de bosques, cambio climático, PBCCh y REDD+... por grupo de interés identificado.					DIFUSIÓN - Planificación		Difusión realizada
	Organizaciones rurales indígenas	Organizaciones rurales no indígenas	Sector privado	Sector institucional: públicos - universidades	ONGs	Total regional	Número de reuniones nov. dic. 2012	
Arica y Parinacota	11	0	1	1	0	13	3	2
Tarapacá	10	2	0	10	0	22	22	2
Antofagasta	7	3	5	10	0	25	8	17
Atacama	4	3	1	2	0	10	2	8
Coquimbo	0	14	0	2	0	16	3	3
Metropolitano	0	2	2	6	5	15	15	9
Valparaíso	0	18	3	10	1	32	12	20
O'Higgins	0	0	2	1	0	3	3	0
Maule	0	0	5	2	0	7	3	4
Bio Bio	17	11	0	0	0	28	17	11
La Araucanía*	20	13	0	1	2	36	14	23
Los Ríos	4	7	1	5	1	18	13	5
Los Lagos	2	4	1	1	0	8	8	0
Aysén	0	1	0	2	0	3	3	0
Magallanes	1	4	7	13	1	26	5	21
Total Nacional	76	82	28	66	10	262	131	132

\*una comunidad planificada reuniones

- **Indigenous participation. The GBCC's strategic planning at the regional level in this stage of early dialogue has helped to increase participation by indigenous communities and enhance the community stakeholder map. It has also provided an opportunity for hearing concerns, resolving doubts, and obtaining feedback for the process of developing the REDD+ Strategy.**

As an example, in the **Araucanía Region**, where there is a high percentage of forest-dependent indigenous Mapuche population, the GBCC carried out an **intensive information-sharing campaign among indigenous communities** in the provinces of Cautín and Malleco, holding meetings with 14 indigenous organizations (3 and 11 respectively in the two communities) over a period of one month (see Annex 1b.31). **Similar exercises were carried out with indigenous communities in the Los Lagos Region (see Annex 1b.32) and in the Tarapacá Region, where training was provided to the technical advisor of the Jiwasa Oraje Indigenous Development Area (ADI) and to the technical team of the Local Development Program [Programa de Desarrollo Local PRODESAL], a joint undertaking of INDAP and the local government to serve indigenous communities (see Annex 1b.33).**

The meetings received support from an intercultural facilitator, the son of the Lonko (ancestral leader of the community of Quin-Quén), who helped to ensure that the content of the meetings was culturally appropriate and provided an explanation about REDD+ in Mapudungun, the native language of the Mapuche people.

The outcomes resulting from the meetings held with the indigenous communities and the input received from them are summarized in the following table showing the timetable of meetings. Below is a transcription of the responses given by each of the community leaders and authorities interviewed face-to-face and a summary of the proposals, suggestions, and observations recorded.

- It's good that CONAF is providing information on this type of project when it is in the design stage and not when it is already concluded.
- It's very important that the opinions of local authorities be taken into account.

- It's good that attention is being given to the issue of climate change, and that people are seeing its link to pollution, drought, and water shortages in certain areas and realizing that water is life to farming communities.
- One of the causes of this change is the felling of the native forest and its replacement with exotic species or its use as agricultural land.
- The proposals must be concrete and aimed at improving the legal instruments at their core, since neither the former nor the current provisions of Decree-Law 701 are acceptable.
- The CONAF's decision to present its country strategy at a preliminary stage is welcome, and so is the fact that information about projects will be available to the public.
- Since it is proposed that Decree-Law 701 will remain in effect for more than 10 years, an assessment should be done of the environmental costs and benefits that it might produce.
- This work should be carried out together with other research centers conducting studies of carbon in native species.
- Special attention should be given to Lonquimay, which is seen as an extreme case since the Araucaria forest can't be managed or cut, which means that the Government should find some supplemental benefit to be provided to the forest owners to offset the cost of not being able to make use of the forest and instead maintaining it for the benefit for the whole country.
- Studies, theses, and other documents on this subject already existing in Chile should be used, rather than attempting to "reinvent the wheel," which would be a waste of valuable time. At the same time it is important to make use of the knowledge that traditional authorities have about the native forest and the environment.
- If the project is approved, it would be very important for the small-scale owners of native forest or forest plantations, since it would serve as a new source of income for them.
- It wouldn't be good if only the medium-sized or large landholders were the ones to benefit from it.
- More support is requested from CONAF on these issues.
- Other stakeholders should participate in the information-sharing process that the GBCC is currently carrying out.

Following the meetings, an agreement was reached concerning how contact between the organizations and CONAF will be maintained in the future for continued information-sharing, resolution of questions and uncertainties, and participation during the process of developing the REDD+ strategy.

**Figure 1b.5. Timetable for Information-sharing in the Region of Araucanía, November to December 2012**

Information on the organizations					Dates of information-sharing activities					
Region	Province	Commune	Name of the organization, community, entity or body	Type of organization, community (indigenous, non-indigenous, agricultural), entity or body	2013	26 - 30 Nov. 2012	03 - 07 Dec. 2012	10 - 14 Dec. 2012	17 - 21 Dec. 2012	24 - 28 Dec. 2012
Araucanía	Regional	Regional	Regional department of agricultural services	Institutional	January					
Araucanía	Malleco	Lonquimay	Junta de Vecinos Piedra Blanca	Neighborhood association	January					
Araucanía	Malleco	Lonquimay	Quin-Quén community	Indigenous community				x		
Araucanía	Malleco	Lonquimay	Comité Ranquil	Agricultural/forestry committee	January					
Araucanía	Malleco	Lonquimay	Junta de Vecinos Llanquén	Neighborhood association	January					
Araucanía	Malleco	Lonquimay	AG Pehuenco	Trade association	January					
Araucanía	Malleco	Lonquimay	Mesa Territorial, Junta de vigilancia Troyo	Oversight body	January					
Araucanía	Malleco	Lonquimay	Mesa Territorial de Troyo	Territorial organization	January					
Araucanía	Malleco	Lumaco	Unión de Comunidades Autonomías de Lumaco	Indigenous association			x			
Araucanía	Malleco	Puren	Asoc. Indígena de Puren	Indigenous association				x		
Araucanía	Malleco	Los Sauces	Unión de Com Indígena de los Sauces	Indigenous association				x		
Araucanía	Malleco	Victoria	Asoc de Com. Indígena Lonko Mariluan	Indigenous association				x		
Araucanía	Cautin	Temuco	Unión Nacional de Agricultura Familiar UNAF	Agricultural association of Mapuche people and small landholders						x
Araucanía	Cautin	Nueva Imperial	Asoc. Nehuentuleaiñ	Indigenous association administering Mapuche Medical Center, Lahuentugun, Nueva Imperial					x	
Araucanía	Malleco	Lonquimay	Marimenuko	Indigenous community				x		
Araucanía	Malleco	Lonquimay	Huellen Mapu	Indigenous community				x		
La Araucanía	Cautin	Villarrica	Felipe Punulef	Indigenous community						x

The outcomes were that the stakeholder map was enhanced, stakeholder groups were informed, institutional bodies of the agriculture sector expressed interest in contributing to the initiative, and associations expressed interested in being informed about and being considered in the development of the initiative. The main outcome was a record of views on the initiative's impact and of concerns and comments from institutions, groupings and associations, and direct beneficiaries at both the regional and local levels.

Information-sharing was carried out among the following stakeholder groups in accordance with the planning for each region (for more information see the records of activities in the annexes):

- Institutional:
  - Information-sharing at CONAF regional level (regional director, provincial heads, departmental heads, Protected Wildlife Area Bureau, Forestry Bureau, and Administration)
  - Institutions of the agricultural sector at regional level (INFOR, INDAP, SAG, INIA, and CONAF)
  - Regional Ministry of Agriculture
  - Agricultura Board, comprising the regional institutions of the agriculture sector and the Regional Ministry of Agriculture
- Associations
  - Association of Agricultural Communities [*Asociación de Comunidades Agrícolas*]
  - MUCECH
  - Regional Forestry Board [*Mesa Forestal Regional*]
- Extensionists – Forestry consultants

**Figure 1b.6. List of Reports Received to Date on Information-sharing Activities Carried Out by the GBCC at Regional and Local Levels**

REGISTRO DE LAS ACCIONES DE DIFUSION REGIONAL, PERIODO NOVIEMBRE DICIEMBRE DE 2012.			
Región	GRUPO BOSQUE CAMBIO CLIMATICO	ESTADO DEL INFORME REGIONAL DE DIFUSION	
		ELABORADO	EN ELABORACION
XV	Guillermo Cisternas	21.12.12	
I	Sergio Barraza	04.01.13	
II	Nancy Cortés		X
III	Felix Avaria		X
IV	Rafael Medina	21.12.12.	
V	Juan Carlos Ramos S		X
VI	Hugo Barrueto		X
VII	Norma Retamal	22.12.12.	
VIII	Alejandro Canales		X
IX	Marcelo Pérez Contreras	27.12.12.	
XIV	Ernesto Weil		X
X	Jaime Garrido	21.12.12.	
XI	Marco Narváez		X
XII	Pamela Duhalde		X
RM	Carlos Ravanal	27.12.12.	

### **1.b.3.3 Communication activities carried out to date as part of the capacity-building and communication strategies**

Capacity-building has been undertaken for the officials appointed to the Group on Forests and Climate Change, an institutional structure operating at the national and regional levels, the functions of which will include development of the information-sharing and participation strategy. The capacities of stakeholder groups have also been enhanced, and consultation and feedback processes have been

carried out. Capacity-building is an essential element in the internal and external communication strategy for the proposal and for the subsequent development of the REDD+ Strategy.

The communication activities undertaken in the context of capacity-building are described below.

- a. Steps taken to enhance the communication and capacity-building strategy under Component 1c. of the REDD+ proposal: see Table 1b.3.

**Table 1b.3. Communication and Capacity-building Strategy**

Activity	Expected outcome	Means of Verification
Appointment of a professional journalist from the CONAF Communications Secretariat as a member of the Group on Forests and Climate Change	Communication and capacity-building strategy strengthened through communication and information-sharing activities Proposals prepared and informational materials design Input on technical information documents for public dissemination obtained	Memorandum 4579/2012 of the CONAF Executive Director. See Annex 1b.14.

- b. Internal communication within institutions and communication with stakeholder groups and the public about forests: see Table 1b.4 below.

**Table 1b.4. Internal Communication within Institutions and Communication with Stakeholder Groups and the Public about Forests**

Medium	Action	Content	Validation
Institutional webpage	Intrainstitutional communication for enhancement of internal capacities in order to establish the institutional structure that support the national REDD+ structure	Background information on climate change, international and national agreements; relevant institutional activities; PBCCh with emphasis on REDD+; national REDD+ proposal	Web-based communications  Invitation to participate  See Annex 1b.15
	Information-sharing about activities concerning national REDD+ and presentation of the REDD+ proposal for institutional input  Invitation to participate in the discussion and provide	REDD+ proposal	Invitation to participate in the discussion  See Annex 1b.15  Record of inputs

	comments and suggestions relating to the REDD+ proposal		
Journal <i>Chile Forestal</i>  Print and online distribution	Communication of forest-related information to the public in the context of capacity-building  Publication of technical documents relating to climate change, the National Action Plan on Climate Change, and CONAF activities in this area	Launching of the project MAPS Chile (Mitigation Action Plans and Scenarios) project, implementation of the PBCCh, international commitments by Chile relating to climate change, forest carbon pilot projects.	Issue No. 361 of <i>Chile Forestal</i>  See Annex 1b.16
	Communication of forest-related background information to CONAF officials and to the public in the context of capacity-building.  Publication of technical document on institutional activities relating to climate change	Role of Chilean forests in mitigation of climate change  Carbon credits project relating to native species  Example of New Zealand's Emissions Trading Scheme  Support for institutional activities	Issue No. 361 of <i>Chile Forestal</i> See Annex 1b.17.
Online technical document	Communicatino of forest-related background information to CONAF officials and to the public	Role of Chilean forests in mitigation of climate change	Technical document No. 210 See Annex 1b.18.

**c. Communication activities to support the information-sharing process as a part of the consultation and participation component of the REDD+ strategy**

Communication as a part of the consultation and participation component is a tool for supporting capacity-building. During the period October–December, work was carried out on the following communication activities, thereby strengthening the process of knowledge transfer to stakeholder groups and the process of information-sharing:

- Knowledge transfer to the public through the institutional webpage, which contains updated information on activities and outcomes relating to the PBCCh and REDD+
- Knowledge transfer to officials of CONAF and other institutions through the institutional webpage and its links, which contain updated information on activities and outcomes relating to the PBCCh and REDD+
- Drafting of communication materials currently under way as a contribution to knowledge transfer and as support for information-sharing



- Print materials directed at stakeholder groups, with emphasis on enhancing the capacities of indigenous and non-indigenous communities and the public in general. The type of materials and the subjects to be covered have been selected on the basis of the feedback received and the needs identified in the information-sharing process and capacity-building workshops. These materials are and will be produced with due attention to cultural and gender appropriateness.

Production of brochures relating to climate change and the role of the forest mitigating it.

Production of brochures relating to institutional activities: PBCCh, Forestry NAMA, and REDD+.

- Audiovisual communication as a support tool for capacity-building workshops. Audiovisual materials are being and will continue to be used in information-sharing activities by the GBCC among stakeholder groups and indigenous and non-indigenous communities.

The subjects covered will be climate change; the role of forests as an instrument of climate change mitigation; background on the national forest sector; CONAF activities and their impact at the national level and their contribution to the fulfillment of Chile's international commitments in this area; and background and current information on the PBCCh, Forestry NAMA, and REDD+. These materials are and will be produced with due attention to cultural and gender appropriateness.

- Capacity-building through the creation of a **Degree Program in Forests and Climate Change** aimed initially at CONAF officials throughout the country and officials from other relevant institutions. This initiative has emerged as a result of the capacity-building process and in response to an assessment of gaps and needs in this area. The program is due to start in the second half of 2013.

The program is currently being developed and agreements are being negotiated with universities, the Ministry of the Environment (specifically the Climate Change Office), and other members of the National Technical Expert Group (VCS Chile, VCS International, Poch-Ambiental, Patagonia Sur, The Nature Conservancy, and Fundación Chile).

It is anticipated that the degree program will be sponsored by various bodies, while the certification process will be the responsibility of the following universities, with which there have already been preliminary discussions and agreements: Universidad Austral de Chile, Universidad de Concepción, and Universidad Mayor. The feasibility of a tripartite certification mechanism is currently under study.

The topics potentially to be covered in the degree program have also come out of the process of institutional capacity-building and from the identification of gaps and needs, as well as participant feedback. The modules currently under consideration are:

1. Basic concepts relating to forests and climate change
2. Mechanisms in the climate change framework
3. Project cycle in the voluntary carbon market
4. Reference levels and monitoring, reporting and verification system

In summary, the entire capacity-building and information-sharing component has been aimed first and foremost on communicating key methodological messages and considerations to each of the regional teams in the CONAF Group on Forests and Climate Change. To that end, for each region a series of workshops has been held with stakeholders from all sectors, including universities, landholders (indigenous and non-indigenous), NGOs, private companies, and others. In all the events held (and in those to be held in the future) the basic information needed to understand the strategy is provided, employing a systematic approach and utilizing a common matrix (see workshop reports in the annexes) that identifies the person conducting the consultation and documents the way in which the team responds and the manner in which the information is integrated into the planning of activities if this integration has not already occurred.

<b>Table 1b: Summary of Information Sharing and Early Dialogue with Key Stakeholder Groups</b>						
<b>Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Sharing of background information and early dialogue with key stakeholders (collection and compilation of REDD+ program feedback)	Internal planning meetings	50	60	60	60	<b>230</b>
	Planning meetings with key stakeholders (public-private sector and civil society)	30	70	70	70	<b>240</b>
	Circulation among and subsequent revision of the R-PP proposal with all stakeholders identified and validated during the process of stakeholder-mapping	60	60	60	60	<b>240</b>
	Compilation of feedback received and plan for addressing it	35	45	45	45	<b>170</b>
	Formulation of a communication strategy	60	60	60	60	<b>240</b>
	<b>Total</b>	<b>235</b>	<b>295</b>	<b>295</b>	<b>295</b>	<b>1120</b>
National Government		82	103	103	103	<b>392</b>
FCPF		99	124	124	124	<b>470</b>
UN-REDD Programme (if applicable)		0	0	0	0	<b>0</b>
National Private Sector		24	30	30	30	<b>112</b>
Others, to be identified		31	38	38	38	<b>146</b>

## **1c. Consultation and Participation Process**

CONAF has made a substantial contribution through its regular activities to the National Climate Change Strategy (2006), which was operationalized through the National Climate Change Action Plan [*Plan de Acción Nacional de Cambio Climático PACC*] (2008). Climate change is explicitly included in the Corporation's mission statement, which calls on it to contribute to the country's development through the sustainable management of forest ecosystems and mitigation of the effects of climate change and through advocacy, ensuring compliance with forest and environmental legislation, protection of vegetation resources, and the administration of the nation's protected wildlife areas for current and future generations. This was the context for the formulation of the proposal for a national strategy for the mechanism for Reducing Emissions from Deforestation and Forest Degradation (REDD+), an initiative for which a consultation and participation plan had to be drawn up as a key element in the process of drafting the proposal and developing the Strategy. The objectives, outcomes, and methodology envisaged in the REDD+ Strategy are described below.

### **1.c.1. Objectives and Expected Outcomes**

#### **General Objective**

To ensure social participation, public–private cooperation, and the necessary institutional arrangements to create a viable and legitimate REDD+ Strategy that is consistent with national, regional, and local interests, ensuring transparency throughout the process, with efficient, appropriate, and relevant management and resolution of conflicts in order to safeguard the collective rights of forest-dependent communities.

#### **Specific Objectives:**

1. To introduce the institutional and regulatory changes needed in each sector in order to design and implement a REDD+ Strategy at the national level
2. To create tools, media, and messages to share information, communicate, and ensure ongoing dialogue with stakeholder groups about the national REDD+ Strategy
3. To develop a protocol for consultation and for ensuring free, prior, and informed consent in relation to REDD+ activities
4. To agree on regional strategies for REDD+
5. To consolidate a national REDD+ Strategy
6. To design and implement a draft strategy for assessing social, economic, and environmental impacts, providing measures for mitigating them

## Anticipated Outcomes

The anticipated outcomes are:

1. A regulatory framework for REDD+ agreed with all relevant stakeholders
2. Public institutions at all levels prepared and coordination mechanisms in place for the implementation of a REDD+ Strategy
3. Communities provided with information for decision-making and empowered to have an impact on public policies related to climate change
4. A protocol for consultation and for ensuring free, prior, and informed consent in relation to REDD+ activities.
5. Agreements on environmental management established among public and private institutions, sectors, trade associations, civil society, local/regional authorities, and forest-dependent communities
6. Agreements on local, regional, and national monitoring
7. Agreements on measures for mitigating, managing, and minimizing possible impacts
8. Mechanisms for ensuring local, regional, and national transparency, oversight, and control

### 1.c.2. Methodological Process for the Consultation and Participation Plan

In the process of developing the national REDD+ Strategy, the Consultation and Participation Plan will be carried out as a dynamic process centered around:

- A capacity-building program
- A participatory communication strategy



**Figure 1c.1. Structure of the Consultation and Participation Plan**

Through these two initiatives (see Figure 1c.1), an ongoing process of participation will be ensured in which major importance will be attached to dialogue, consensus-building, and feedback.

### **Cross-cutting Approaches**

The process of consultation and participation undertaken under the communication and capacity-building strategy will incorporate gender and cultural considerations, with due attention to the need for culturally appropriate communication with indigenous and non-indigenous stakeholder groups. In the case of the latter, there will be a special focus on subgroups of small and medium-sized forest landowners.

The incorporation of a gender perspective into the REDD+ proposal and the subsequent development of the Strategy will be facilitated through the inclusion in the Group on Forests and Climate Change of a gender specialist from CONAF. Efforts will be made to mainstream gender in all activities and methodologies, with the aim of ensuring a proposal that acknowledges gender differentials, enriching it through the addition of the visions, interests, and ideas of men and women.

In the development of the REDD+ proposal and strategy, provision will be made for the application of the CONAF Management Improvement Program for Gender in the period 2012–2014.

In summary, the REDD+ Strategy will seek to achieve greater equity between male and female users, beneficiaries, and clients by responding to their differing needs through CONAF's programs and services. Specifically it will:

- Enhance participation through a gender approach in the information-sharing, consultation, and participation process
- Provide information disaggregated by sex and region as input for the targeting of regional actions aimed at mainstreaming gender in REDD+
- Identify the impact of the REDD+ initiative from a gender perspective

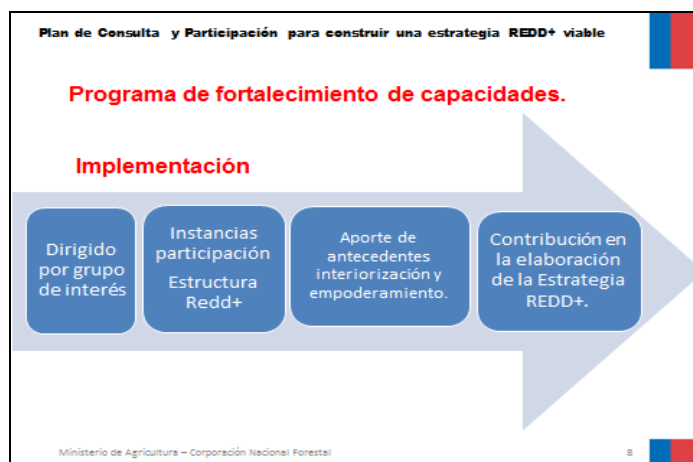
### **Proposed Actions for Achieving the Gender-related Objectives**

- Strengthening awareness in the Group on Forests and Climate Change with regard to gender considerations in order to target its activities, with assistance from a CONAF official specializing in gender issues and capacity-building
- Preparing a strategy and plan of action for the incorporation, tracking, monitoring, and evaluation of the gender aspects of the REDD+ Strategy
- Enhancing the stakeholder map to include the participation of groups of rural and indigenous women who are beneficiaries of forest resources
- Strengthening the REDD+ Strategy by incorporating the views and input of female beneficiaries
- Identifying the impact of the REDD+ initiative from a gender perspective

With regard to cultural relevance, section 1.c.2.5 provides a detailed description of the approach to be taken in implementing the capacity-building and participation program aimed specifically at indigenous communities for the development of REDD+ and all activities having to do with indigenous communities in accordance with the Indigenous Consultation Plan, which is a plan that has already been validated in other CONAF initiatives involving participation by indigenous communities.

### **1.c.2.1. Capacity-building program**

As is shown below, the capacity-building program will be directed at all stakeholder groups and will be carried out through participatory bodies in which stakeholders will be provided with the background needed to foster their assimilation of capacities and their empowerment and contribution to the development of the REDD+ proposal and subsequent development of the national REDD+ Strategy. See Figure 1c.2.



**Figure 1c.2. Structure of the Capacity-building Program**

The capacity-building program is designed to fulfill the objectives described below:

#### **General objective:**

To inform people about national commitments in the area of climate change and the activities and proposals of the National Forest Corporation relating to forests as means of mitigating climate change.

#### **Specific objectives**

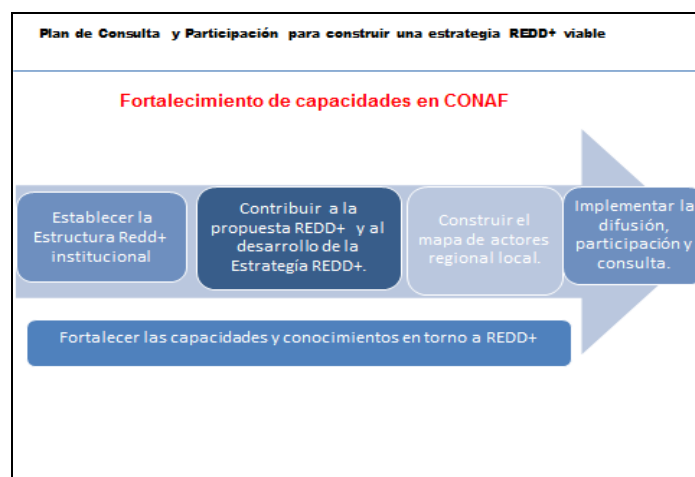
- To provide information about CONAF's activities and proposals, in the framework of its institutional functions, as contribution to the fulfillment of Chile's commitments relating to climate change
- To share in-depth information in the context of the international REDD+ mechanism and national actions, specifically the proposed REDD+ strategy for Chile.
- To establish the REDD+ structure and provide information on the communication and participation strategy
- To receive input as part of the feedback process for strengthening the REDD+ proposal and development of the REDD+ Strategy

In order to achieve some of the objectives of the capacity-building program, through various activities certain areas have been identified as priorities for capacity-building in order to ensure that all stakeholders have a basic level of knowledge and are empowered to participate in and contribute to the process of developing the proposal and the REDD+ Strategy. These areas are:

- Climate change and international negotiations and commitments by Chile in this area
- Role of forests in mitigating the effects of climate change; national and international commitments in this area; need for a survey of information, opportunities, and challenges
- Platform for the Generation and Trading of Forest Carbon Credits in Chile
- International context of the REDD+ mechanism and related national actions
- Chile's REDD+ Strategy; project with the World Bank (R-PP)
- Development of the strategy for information-sharing about and participation in initiatives related to forests and climate change.

### 1.c.2.2. Implementation of the capacity-building program in the National Forest Corporation (CONAF) in order to achieve the expected outcomes of the consultation and participation process

The first step in establishing the capacity-building program was to mainstream REDD+ at the institutional level and empowering CONAF in order to put in place the structure that became the **Institutional Group on Forests and Climate Change** to support the development and sustainability of the national strategy. The second step was to build and strengthen the capacity of national, regional, and local stakeholder groups to participate in the preparation of the proposal and in the development and sustainability of the REDD+ Strategy. The institutional structure established will play a fundamental role in the process of information-sharing, participation, and consultation, which entails an additional process of ongoing capacity-building, creating focal points within both institutions and stakeholder groups. Figure 1c.3 illustrates this process with reference to the proposed objectives.

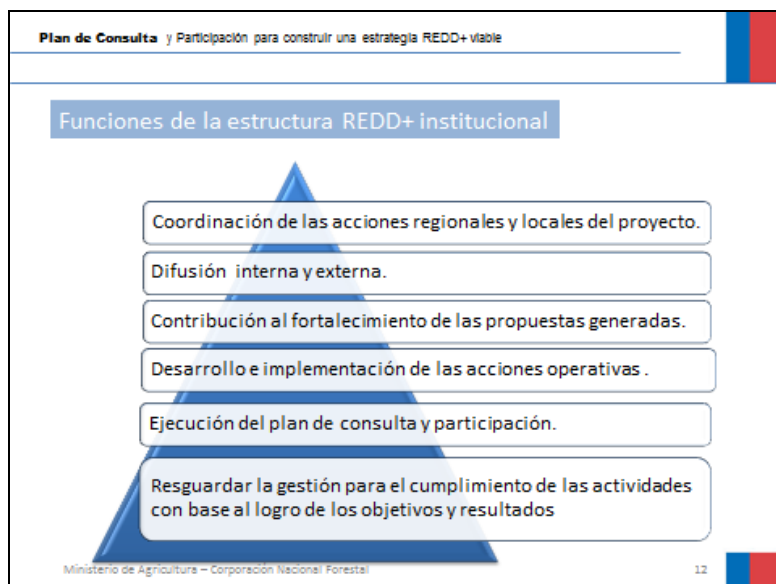


**Figure 1c.3. Capacity-building Structure in CONAF**

**Establishment of the Group on Forests and Climate Change.** In order to support the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCCh) (established by means of Resolution 226 of 2012) and REDD+, CONAF requested, in Memorandum 4152 of August 28, 2012, that professionals from all regions of the country be appointed to form part of the Group on Forests and Climate Change [*Grupo de Bosques y Cambio Climático* GBCC], created by Resolution 35 of January 17, 2012). The resolution is reproduced in Annex 1b.1.

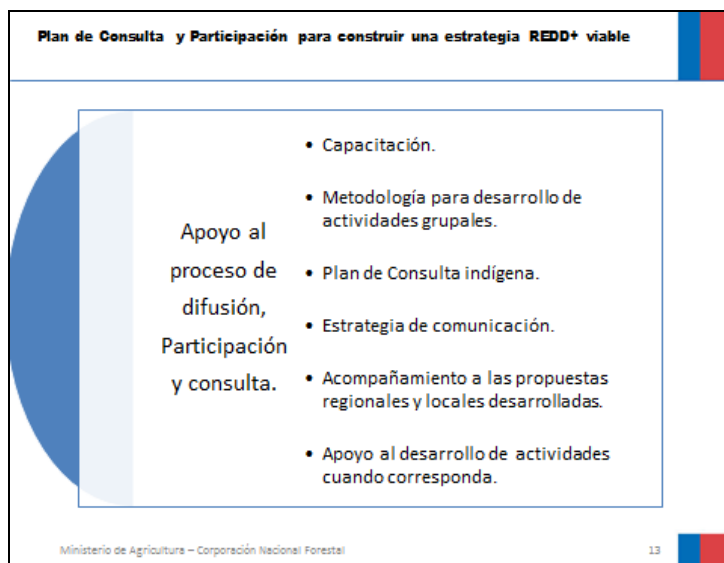


The GBCC is composed of regional representatives and is the national-level body of CONAF responsible for supporting the REDD+ proposal and specifically, among other responsibilities, the consultation and participation process. Figure 1c.4. below shows the functions that this institutional structure will be called on to carry out with a view to achieving the objectives and outcomes proposed in the capacity-building strategy:



**Figure 1c.4. Graphic Illustration of the Functions of the REDD+ Institutional Structure**

CONAF will provide support to the Group on Forests and Climate Change in the capacity-building process with a view to enabling it to carry out its functions in order to achieve the objectives and anticipated outcomes. The nature of this support is shown in Figure 1c.5. below:



**Figure 1c.5. Elements of CONAF Support for the Process of Information-sharing, Participation, and Consultation**

The process of implementing the Consultation and Participation Plan, through the methodological process depicted in Figure 1c.1, which includes a stakeholder capacity-building program and a participatory communication strategy, has been carried out in accordance with the following timetable:

1. Establishment of the Group on Forests and Climate Change (GBCC) and definition of its functions
2. Enhancement of GBCC capacities: transfer of background, underlying concepts, and methodology
  - Basic strengthening of the GBCC for implementation of the information-sharing process, as a part of the consultation and participation and participatory communication processes.
- 2.1. First national capacity-building workshop for the GBCC (9/11/12)
  - Information on basic concepts and background to strengthen the GBCC itself
  - Response to comments and concerns; enhancement of the proposal
- 2.2. Second national capacity-building workshop for the GBCC (11/20/12)
  - Deepening of knowledge and enhancement of capacities for implementation of the early dialogue process relating to REDD+
  - Training on methodological tools for implementing the information-sharing process
  - Training on methodology for conducting workshops, recording input, and recording and addressing concerns and grievances
  - Training on cultural relevance for workshops to share information with indigenous communities
  - Agreements on implementation of the regional and local early dialogue process
3. National, regional, and local stakeholder mapping exercise carried out by the GBCC (October to November 2012)

Mapping of key stakeholders, including regional institutions of the agricultural sector, associations, groupings, NGOs, indigenous and non-indigenous communities, civil society, and other relevant stakeholders identified

Stakeholder map to be included in the information-sharing process
4. Drafting of an early dialogue plan (October–November )
5. Implementation of the early dialogue plan in line with the stakeholder map and the proposed information-sharing plan (December 2012 and January to March 2013). The strategy for this item is explained in Section 1.c.2.4.
  - Holding of information-sharing workshops to enhance the capacities of stakeholder groups.

Emphasis to be placed on participation by direct beneficiaries of forest resources, including indigenous and non-indigenous communities

- Record of input, concerns, and grievances of stakeholder groups.  
Emphasis to be placed on the input, concerns, and grievances of direct beneficiaries of forest resources, including indigenous and non-indigenous communities, and also on the input and concerns of other key groups, with a view to improving the strategy
  - Preparation of the regional workshop report, comprising reports on each of the information-sharing activities
  - Enhancement of the stakeholder map
6. Third national workshop for the GBCC
- Analysis and proposal formulated on the basis of the records of the early dialogue process; enhancement of the proposal and of the stakeholder map
  - Planning of the work in line with the schedule for creating the REDD+ strategy.
7. Planning and implementation of consultation and participation through development of the REDD+ Strategy

This phase provides for participation by stakeholder groups, with emphasis on forest-dependent communities. These are key figures in the social and environmental assessment of the initiative and also play a crucial role in ensuring sustainability through monitoring and follow-up

#### **1.c.2.3. Implementation of the REDD+ capacity-building program for the Forest and Climate Change Board**

The lead body for implementation of REDD+ will be the Forest and Climate Change Board, the functions of which are described in Section 1.a.3. of this R-PP proposal. The Board's structure is shown in Figure 1a.4.

The objective with respect to the Forest and Climate Change Board during the REDD+ proposal formulation phase is to establish this structure and provide the background and support necessary for it to function in relation to REDD+. The anticipated outcomes are:

- The Forest and Climate Change Board is established as a structure in relation to REDD+; progress is made in defining the operational basis for its work
- The Forest and Climate Change Board has better knowledge about REDD+ and has contributed to the enhancement of the proposal
- The Board has also contributed to enhancement of the stakeholder map through information-sharing and the process of participation and contribution by stakeholder groups

During the REDD+ Strategy development phase, the capacity-building program for the Forest and Climate Change Board will seek to ensure that the Board participates by fulfilling the functions identified in Section 1.a.3, as well as by commissioning a consultancy for the establishment of a platform for ongoing consultation and information-sharing.

Table 1c.1 below shows, in a logframe format, the activities that are expected to be undertaken in order to achieve the objectives and outcomes for the REDD+ proposal formulation phase, with indicators and means of verification.

**Table 1c.1. Anticipated Activities for the Achievement of the Objectives and Outcomes, with Indicators and Means of Verification**

Objective	Outcome	Indicator	Means of Verification	Activities
Establish the Forest and Climate Change Board.	Forest and Climate Change Board established, with operational basis for its actions in relation to REDD+ defined	Number of members taking part in the establishment of the body  Number of agreements	Instrument establishing the Board  Record of agreements.  Operational basis for Board's actions	Distribution of proposal  Outreach meeting  Decision-making meeting  Formation of the Board
Enhance the capacities of key stakeholders through transfer of background relative to REDD+	Board members have enhanced capacities relative to REDD+	Number of members possessing background relative to REDD+ and contributing to the enhancement of the proposal	Record of participation in activities for transfer of background	Meetings for information-sharing, capacity-building, and enhancement of participation
			Recommendations and suggestions for needed changes received and incorporated	Review of input, drafting of response, incorporation of needed changes, and resubmission of the REDD+ proposal
	REDD+ structure fully represented and participating	Key stakeholders at national, regional, and local levels participating in the national structure	Regional and local stakeholder map and a national, regional, and local participation structure for REDD+	Linkage of the institutional structure of CONAF with the Forest and Climate Change Board in order to enhance the stakeholder map as it relates to REDD+

#### **Technical consultations and sectoral coordination with government institutions, private companies, and trade associations**

Interviews, workshops, meetings, focus groups, forums, and academic events will be held at national level and in all the regions. The main activities to be carried out will be as follows:

- Interviews and technical workshops within CONAF and with sectoral institutions and trade associations (in the agriculture, mining and energy, transportation, industry, and related sectors) at the national level to identify barriers and gaps in the sectoral regulatory framework and needed changes
- Focus groups and regional sectoral workshops on REDD+ in order to identify regional sectoral plans and coordinate them with the national REDD+ Strategy

- Discussions with regional experts on forests, environmental services, degradation, and possibilities for mitigation, as input for the design of regional strategies
- National seminars on REDD+ (on needs for institutional and regulatory changes needed in connection with the REDD+ Strategy)

The method for carrying out group activities, which will take the form of technical meetings or workshops, both for the Group on Forests and Climate Change (institutional group) and for stakeholder groups, will be in line with the methodology designed for working with groups, where appropriate, and/or its modification if needed (see Annex 1c). Activities with indigenous communities will be carried out in line with the Information-sharing and Communication Plan for the Indigenous Peoples, which is to be drawn up, with appropriate methodological adjustments.

Below is a model table (Table 1c.2.) for recording the activities planned for the period September–December 2012. The means of verifying activities will depend on the type of activity. For example: record of communication (communiqué); record of meetings (attendance list, meeting report); form for recording input and responses; appropriate stakeholder map.

**Table 1c.2.** Model Table for Recording Activities Planned for the Period September–December 2012

Main Activity	Proposal Distributed	Outreach Meeting	Decision-making Meeting  Establishment of the Board	Meetings for information-sharing, capacity-building, and enhancement of participation	Review of input, drafting of response, modification and resubmission of REDD+ proposal	Linkage and coordination of REDD+ structure
Member						
Permanent Advisory Council on the Native Forest Act						
National Technical Expert Group						
Academia						
Office for Agricultural Research and Policy (ODEPA)						
Natural Resource Information Center (CIREN)						
National Agricultural Development Institute (INDAP)						
Agriculture and Livestock Service (SAG)						
Forestry Institute (INFOR)						
National Indigenous Development Corporation (CONADI)						
Meetings and/or workshops with indigenous organizations						
Meetings and/or workshops with indigenous organizations						

#### 1c.2.4. Implementation of program for capacity-building and participation among stakeholder groups for the development of REDD+

The process of ensuring readiness for the development of the REDD+ Strategy encompasses the participation of various identified stakeholder groups (Component 1b.); the enhancement of their capacities relative to the role of forests and their management with respect to climate change, including the topics of interest listed in Section 1.c.2.1. and specifically in relation to the PBCCh with emphasis on REDD+; and the development of capacities for reaching participatory intersectoral and intercultural agreements on land management with a multifaceted and long-term approach. In this context and at this stage of preparing the REDD+ proposal, the aim in general is to enhance capacities and strengthen participation by carrying out the activities envisaged under the specific objectives described in the figure below. This is intended to ensure sustainability in the strategy development stage (see Figure 1c.5).



**Figure 1c.5. Graphic Representation of the Model for Enhancing the Capacity of Regional and Local Stakeholder Groups**

The specific outcomes sought in this phase are:

- Stakeholder groups provided with background relative to REDD+
- REDD+ proposal enhanced through participatory feedback
- Information-sharing and consultation methodologies validated
- REDD+ structure strengthened

### **Consultations with key communities and stakeholders**

The consultations with forest communities (small, medium-sized, and large producers/landholders) will be carried out by common agreement among the national bodies responsible for enhancing relations with the indigenous peoples.

The information-sharing and early dialogue process carried out during the REDD+ readiness phase will continue as part of the consultation process, it being understood that basic information will need to be provided to many communities in order subsequently to strengthen their capacities in specific areas, depending on the particular needs in each case.

Local workshops, regional coordination meetings, forums, and seminars will be held as part of the capacity-building strategy for achieving the desired outcomes. To that end, opportunities will be provided for both events involving only indigenous communities and organizations and mixed events with representatives of the public and private sectors.

The events attended only by indigenous peoples will be of fundamental importance in enabling them to formulate their own views with regard to REDD+ and apply them in their territories through their institutions, planning instruments, and internal arrangements. The mixed gatherings will allow an exchange of views and knowledge among the different actors coming together in the territory to reach the intersectoral agreements needed in order to jointly develop regional strategies and measures to adapt institutions at the national, regional, and local level.

Specific capacity-building activities will be planned and targeted to local communities, regional authorities and leaders, and regional and national bodies and leaders.

The activities envisaged under the capacity-building and communication strategy include meetings for planning purposes with each of the key stakeholders identified, as well as readiness activities that will contribute to and provide support for the achievement of objectives and outcomes.

The planning meeting in the current REDD+ readiness phase will seek to achieve the proposed objectives for this stage, with the following outcomes:

- Stakeholder group has received background relative to national activities and to REDD+ to be assimilated and disseminated at the grassroots level
- Stakeholder group is participating by providing feedback for the enhancement of the REDD+ proposal and contributing to the enhancement of the stakeholder map
- Other stakeholders relevant to REDD+ identified and added to stakeholder map

**Activities proposed for the REDD+ proposal formulation phase, see Table 1c.3:**

**Table 1c.3. Activities Proposed for the REDD+ Proposal Formulation Phase**

Objective	Outcome	Outputs	Indicator	Means of Verification	Activities
Establish the REDD+ counterpart structure within CONAF	REDD+ structure strengthened	A structure for REDD+ at national, regional, and local level established and functioning	Percentage of national and regional bodies participating in the REDD+ structure	Record of participation	Meetings Forums
Conduct regional and local stakeholder mapping exercise			Input and agreements		
Enhance capacities and knowledge relating to REDD+	Stakeholder groups have received background relative to REDD+	Key groups fully familiarized with REDD+	Number of persons informed  Number of stakeholder groups participating	Record of participation	Information-sharing meetings
Implement the information-sharing, participation, and consultation	Information-sharing carried out  Information-sharing and consultation methodologies validated	Webpage created and operational  Document on PBCCh and REDD+ published in the <i>Chile Forestal</i> journal  Written background on REDD+ produced	R-PP document distributed  Issue number of <i>Chile Forestal</i> journal  Number of documents drafted	R-PP document  Document published  Documents	Meetings workshops seminars  Web-based discussions  Record
Contribute to the REDD+ proposal and to the development of the REDD+ strategy	REDD+ proposal enhanced through participatory feedback	R-PP document for REDD+ validated through a participatory and relevant approach	Input classified by stakeholder groups  R-PP document for REDD+	Record of participant input sorted and compiled  R-PP document final version	Meetings for dissemination of the document  Online dissemination of the document  Receipt of input  Review of input  Response to input Adjustment of the document  Dissemination of, final version of the document

**1c.2.5. Implementation of the capacity-building and participation program specifically with indigenous communities for the establishment of REDD+**

With regard to consultation of indigenous peoples concerning the national REDD+ strategy, it is recognized that the initiative will have effects on indigenous territories, persons, and communities. In



such situations the World Bank's Operational Policy on Indigenous Peoples (OP 4.10) establishes the requirement to "engage in a process of free, prior, and informed consultation" with the affected indigenous communities. It is also important to note that ILO Convention 169 entered into force in Chile on September 15, 2009, and thereby became domestic law. Article 6, paragraph 1, subparagraph (a) and paragraph 2 of that Convention enshrine the obligation to consult the indigenous peoples concerned whenever consideration is given to legislative or administrative measures that may affect them directly. Article 7, paragraph 1, second sentence, of the same Convention enshrines the right of the indigenous peoples concerned to participate in the formulation, implementation, and evaluation of plans and programs for national and regional development that may affect them directly.

Consultation of and participation by indigenous peoples in activities carried out in indigenous territories are considered a part of the institutional duties of CONAF. Accordingly, prior to the implementation of the initiative in territories in which there are forest-dependent indigenous communities, the Corporation will provide the members of those communities with background on the initiative through their representative organizations (communities, associations, traditional authorities) and will seek their views as required under Decree 124 of September 4, 2009 of the Ministry of Planning, which regulates the implementation of Article 34 of the Indigenous Peoples Act (Law 19,253) on the consultation and participation of indigenous peoples. It should also be noted that a discussion is currently under way regarding how to improve the methodology set out in Decree 124, and the REDD+ consultation will have to adhere to any new guidelines that are approved.

In the light of the foregoing, the design of the consultation will incorporate the following elements:

### **Objective of the consultation**

The indigenous consultation that is proposed here will seek, on the one hand, to provide detailed information about the initiative and, on the other, through a formal, participatory process, to enable the indigenous peoples potentially affected by the initiative to express their views concerning the nature and the objectives of the initiative, including its design, organizational structure for implementation, and the operational proposal for activities on the ground.

### **Parties to be consulted**

Given the importance of this initiative for the indigenous population in the areas targeted, and in order to comply with the requirements of ILO Convention 169 in such cases, it has been decided to carry out the consultation through representative bodies identified under Law 19,253, namely: (i) indigenous communities, (ii) indigenous associations, and (iii) traditional authorities, which together will constitute the parties to be consulted for this process.

### **Target population for the consultations**

Given that the effects of the initiative are local in character, the target population for the consultation will be limited to the indigenous communities, indigenous associations, and traditional authorities in the pilot area. However, appropriate safeguards will be put in place to avoid the splitting of contiguous

indigenous territories by including within the pilot area any groups that might have been excluded during the planning stages prior to the consultation.

### **Matters to be addressed during the consultation**

In keeping with the spirit of ILO Convention 169, which calls for consultation on any undertaking that may affect indigenous lands and the indigenous people who live on them with a view to reaching consensus on any issues on which there may be disagreement, prior to the implementation of this initiative the views of indigenous people will be sought on the following issues:

- (a) Design of the structure for carrying out the initiative
- (b) Target areas and beneficiaries
- (c) Environmental and social assessment documents
- (d) Mitigation and compensation measures proposed to offset the social and environmental impacts of the activities of the initiative
- (e) Technical activities to be carried out
- (f) Indigenous representation through the members who will sit on the Forest and Climate Change Board
- (g) The Indigenous Peoples Plan
- (h) Other matters identified and deemed worthy of inclusion during the process of designing the consultation

The consultation and participation methodology proposed for the process to be carried out with the indigenous communities is described below. Inherent in it is a strategy for prevention, management, and resolution of conflicts and for the application of culturally relevant approaches and the participation of an intercultural facilitator. The methodology also includes a multi-step process that will facilitate progress and consensus-based decision-making in keeping with the principle of free, prior, and informed consultation of indigenous communities regarding decision-making on matters that may affect them directly or may affect goods and services or natural resources in the territories where they live.

### **Activities to be undertaken in the indigenous consultation process**

#### **A. Development of the consultation plan and form for recording the views expressed**

The consultation plan will provide the formal design for the consultation process, with the establishment of the objectives, scope, and stages of the consultation; the road map and timetable of activities; and the method for weighting the opinions of those consulted, among other relevant aspects. The record of views will be a form and instrument that will guide the consultation with the target population. It will include clear and precise information on matters discussed and will include mechanisms for soliciting opinions.

B. Approval of the consultation process by the Secretary General of the Presidency [*Ministro, Secretario General de la Presidencia* SEGPRES]

CONAF will formulate the consultation plan and record of views and submit them to the Indigenous Affairs Coordination Unit of the Ministry of Social Development for its review, comments, suggestions, and observations with regard to its legal and administrative aspects and its appropriateness. This will be done with a view to ensuring that the consultation complies with the legislation in force, including ILO Convention 169, Law 19,23, and Supreme Decree 24 of the Ministry of Social Development.

C. Validation of the consultation process by community leaders

Preliminary versions of the consultation plan and record of reviews will be shared with the leaders of territories potentially affected by the initiative so as to obtain their opinions on aspects that may need to be revised, improved, or incorporated into the consultation process.

D. Revision of the consultation plan, incorporating suggestions and comments from the validation stage

Revision of the consultation process proposed in the plan and the content of the record of views on the basis of the observations, suggestions, and comments emanating from the stage of validation by leaders.

E. Formalization of the process of consultation before the Ministry of Social Development

The final versions of the consultation plan and record of views will be submitted to the Ministry of Social Development. This step will mark the formal commencement of the indigenous consultation process as set out in the two documents.

F. Formation of CONAF fields teams on the basis of the national, regional, and local institutional structure of the Group on Forests and Climate Change

This will be an internal stage within CONAF in which teams of professionals will be identified and entrusted with the responsibility of guiding the consultation process and conducting interviews with communities, associations, and traditional authorities. This process of forming the teams will also entail a period of orientation and training and will assist in establishing a good relationship between CONAF and the population being consulted.

G. Information-sharing on the consultation process

Before the start of the consultation itself, information will be disseminated on its objective, through formal channels at the local level, with the aim of ensuring that the persons and entities to be consulted (communities, associations, and traditional authorities) will be aware of the scope and objectives the process, the activities to be conducted, and the timetable.

The consultation plan and record of views will be available for public consultation on the CONAF website ([www.conaf.cl](http://www.conaf.cl)) and also on the CONADI website ([www.conadi.cl](http://www.conadi.cl)). An e-mail account will also be set up to receive and respond to questions relating to the process and/or the subject matter of the consultation.

As mentioned above, in the Biobío, Araucanía, Los Ríos and Los Lagos regions (all of which are located in the southern part of Chile), assistance in making the consultation culturally appropriate was provided by an indigenous representative, Mr. Joaquín Meliñir.

The process of information-sharing began with the GBCC's identification of the indigenous communities, associations, and organizations at the regional and local levels during the months of October and November 2012 (stakeholder mapping exercise). An early dialogue plan was drawn up during the same period and the information-sharing plan was carried out among the identified communities (December 2012 and January to March 2013). Information-sharing workshops are currently being held with a view to enhancing the capacities of the communities and their leaders, organizations, and traditional authorities. The information-sharing process includes an effort to enhance the stakeholder map and encourage participation; it seeks to record the input, concerns, and grievances of stakeholder groups with the aim of enhancing the strategy and resolving such issues so as to prevent conflicts and strengthen dialogue and participation. The final step will be to draw up the report on the information-sharing exercise.

#### H. Start of the consultation

This is the point at which the consultation process between CONAF and the indigenous communities, associations, and traditional authorities formally begins.

#### I. Meetings with indigenous communities, indigenous associations, and traditional authorities

During this stage meetings will be scheduled by agreement with leaders and authorities in the pilot area, during which personnel from the Corporation will not only present the content of the initiative but will also provide the record of views, the response form, and any other background materials and information that are deemed necessary for a proper analysis and response by those consulted.

#### J. Meetings to provide clarification on matters discussed

This will be an additional opportunity for interaction between the persons consulted and CONAF personnel which will be scheduled subsequent to the initial consultation meetings. The purpose of these meetings will be to provide supplementary information and clarification with regard to any questions or requests that participants may have.

#### K. Period of deliberation by those consulted for the submission of proposals, suggestions, and comments

This is a period of time between the first meetings, when the record of views, response form, and other informational materials are provided, and the date on which responses are received. The purpose of this period is for the communities, associations, and traditional authorities that took part in the consultation to be able to discuss, analyze, consider, and prepare suggestions, observations, and proposals on the matters discussed.

L. Receipt of responses to the consultation

CONAF will hold meetings to receive the responses prepared by the communities, associations, and traditional authorities. In addition, responses may be submitted through CONAF's offices for the provision of services to the public and/or by e-mail.

M. Process of compiling responses

This is an internal task for CONAF involving the analysis, classification, and weighting of the responses received so as to identify the issues or aspects to which they relate. The process for compiling responses will, in general terms, take the following form:

Information, opinions, suggestions, concerns, and requests directly related to the subject matter of the consultation will be analyzed and included in the final report.

Information, opinions, suggestions, concerns, and requests not directly related to the subject matter of the consultation, or that do not fit within the currently applicable legal and institutional frameworks, will not be analyzed or included in the reports. However, depending on their importance and nature, they may be submitted to the services or institutions that deal with such issues.

A quantitative three-variable analysis of the opinions will be undertaken, which will make it possible to discern whether the participants (a) are in agreement on the matters discussed, (b) are in agreement but suggest that minor comments be included, or (c) while in agreement with the initiative, suggest that part of it be replaced or modified. The final outcome of the consultation will be presented in percentages, as follows:

- xx percent in agreement,
- xx percent in agreement, but suggesting minor additions,
- xx percent, while in agreement with the initiative, suggesting that part of it be replaced or modified,
- xx percent not responding
- xx percent not responding on the subject matter of the consultation

A second analysis, qualitative in nature, will be made of opinions, concerns, and requests that are directly related to the subject matter of the consultation. Once this information has been compiled and analyzed, a decision will be made as to which portions of it should be incorporated into the initiative.

N. Preparation of the final report

The final report will be the record of the consultation process, its outcomes, and the analysis of participants' responses.

The report should contain at least the following:

- ✓ Documents drawn up for the consultation process, including the consultation plan and record of views

- ✓ Dates, means, and timeliness of information-sharing on the process, meetings, and submission of informational documentation to communities, associations, and traditional authorities
- ✓ Compilation of participants' opinions on the initiative
- ✓ Analysis of relevant responses and opinions arising from the consultation process
- ✓ Description and analysis of the quantity and type of responses given by those consulted utilizing the response guide for the record of views
- ✓ Results of the analysis
- ✓ Proposed solutions and responses to participants' concerns and requests

O. Dissemination of outcomes

The outcomes of the consultation will be placed made available to those consulted through the local organizations and leaders in each pilot area. The public will be to access the final report on the CONAF website ([www.conaf.cl](http://www.conaf.cl)) and the CONADI website ([www.conadi.cl](http://www.conadi.cl)).

The outcomes and final report may also be made available by e-mail, if requested.

**Participation and consultation of indigenous forest owners for the development of the REDD+ Strategy**

While in this stage of early dialogue in the framework of preparing the R-PP indigenous forest owners will be duly informed through meetings, workshops, and other forms of communication as described above, once the national REDD+ Strategy is agreed, the provisions of ILO Convention 169 will apply, specifically in regard to a formal process of information, participation, and consultation involving indigenous peoples.

Forest-dependent indigenous communities will be invited to participate via the regional and local institutional structure set up to support REDD+, including the CONAF Group on Forests and Climate Change. Communities will establish the regional and local structure for REDD+, contributing through capacity-building workshops in which they will have the opportunity to provide input on the proposal. They will also participate in the development of the REDD+ proposal.

To enhance dialogue with and participation of indigenous communities, an **Information-sharing and Communication Plan for Indigenous Peoples** will be designed, ensuring compliance with the Operational Policies laid down in the World Bank's Operational Manual.

This process of indigenous consultation and participation at the national level will be designed in accordance with the methodology and the regulatory framework in force at the time of implementation. Regardless of any changes that may occur in that regard, every effort will be made to ensure that the principles of ILO Convention 169 are respected, particularly those relating to good faith, respect for traditional indigenous institutions, and consultation in a form appropriate to the circumstances, with the objective of achieving agreement on or consent to the REDD+ Strategy. The specific topics identified as matters for consultation are:

### **Topics for consultation (institutional and legal)**

- Competencies and responsibilities with regard to climate change and REDD+
- Rights of ownership of carbon and other forest services
- Adoption of national and international instruments on climate change
- Fiscal, financial, and legal framework
- Free, prior, and informed consent to the REDD+ strategy
- Equitable distribution of benefits; resolution of conflicts
- Ownership and possession
- Administrative and legal measures that will need to be implemented
- System of penalties for corruption and fraud
- Sector-specific and policy-related adjustments that may prove necessary (to control degradation drivers)

### **Participation and consultation - regional and national strategies for the development of the REDD+ strategy**

Regional strategies will be agreed both in regional development policy forums convened by the national Government and through existing regional mechanisms relating to climate change.

The process of reaching agreement on regional strategies and the national strategy will also entail agreeing on a procedure for monitoring, assessment, and management of impacts, as well as mechanisms for ensuring transparency and addressing complaints and grievances from the local up to the national level.

In connection with this last point, it is intended that a mechanism for resolution of complaints and grievances will be developed for the community in general, which could be tailored to the specific needs of key stakeholders such as indigenous peoples. Chile currently has two laws that regulate the handling of requests, complaints, and suggestions from users: the Administrative Procedures Act (Law 19,880) and the Access to Public Information Act (Law 20,285), whose implementing regulations require that all ministries and government agencies have an integrated public information and citizen services system. Although this system might be used to resolve grievances and complaints through a procedure similar to that used by all public institutions, the REDD+ Strategy will provide for the establishment of a mechanism for the resolution of complaints and grievances, taking as its basis the regulatory context described above.

Given that the consultation process will be a collective undertaking, in the first phase it will entail a process of information-sharing and collective development of a roadmap for the participatory formulation of a REDD+ strategy, with specific policies, plan, programs, and projects, which will result from the preparation of this R-PP, as described in Section 1.c.2.

Before the REDD+ mechanism is implemented in Chile, it will be ensured that it is fully aligned with ILO Convention 169 and the United Nations Declaration on the Rights of Indigenous Peoples and with the domestic legislation in force, ensuring free, prior, and informed consent and the fair and equitable

distribution of benefits among indigenous communities (see Section 1.c.2.5). In that connection, it is important to note the experience gained recently in the process of consulting indigenous peoples on the amendment of the Forestry Development Act (Decree-Law 701).

As part of the collective and participatory development of the strategy, the views and interests of other stakeholders who are key to the implementation of the Strategy will be taken into account. This will be accomplished through meetings, workshops, and other mechanisms and through tools for information-sharing and communication, the ultimate aim being to achieve consensus on the country's needs in relation to the fight against climate change.

The consultation process will serve to:

- Obtain proposals and suggestions from the various stakeholders so that the REDD+ activities undertaken reflect their situations, interests, and needs, and the value that they attach to the use of forest resources and other natural resources
- Integrate the input received into the initiative and produce a report that will present all of the opinions and views expressed during the stakeholder consultations
- Ensure that the consultation specifically with the indigenous peoples is carried out in accordance with ILO Convention 169

The system for recording input will be as described in sections 1.c.2.3, 1.c.2.4, and 1.c.2.5.

The national and regional representative organizations that are members of the Forest and Climate Change Board will carry out information-sharing workshops directed towards stakeholders in the various sectors that they represent.

These workshops will cover the following topics:

- Participants' expectations and perceptions in relation to climate change and its impact on the daily life of their communities
- General information on climate change: causes, effects, mitigation, vulnerability, and adaptation
- Forests and climate change: the role of forests in regulating the global climate
- International negotiations on climate change
- Warnings regarding possible fraud or disadvantageous negotiations
- Forest carbon projects and REDD+
- REDD+ readiness process
- Other matters deemed important or raised by key stakeholders

These workshops will be held in various cities and regions of the country. In the case of the indigenous peoples, consideration is being given to organizing some specific workshops on their territories. The objective would be to inform them and enlist their participation in the REDD+ Strategy, and at the same time to obtain information about their views and interests with respect to implementation of the Strategy. Similar workshops could be held in communes with high concentrations of non-indigenous small forest landholders. The workshops for indigenous communities are being and will continue to be



held separately from those for non-indigenous communities when this is called for because of the areas involved or for reasons of cultural appropriateness.

For these workshops, use will be made of the information communications media that are considered necessary and relevant in accordance with the communication strategy (1.c.3.). Efforts will also be made to include intercultural facilitators in order to improve communication with forest owners of indigenous origin.

As an approach to the design of the process of information-sharing and early dialogue on the REDD+ strategy, use will be made first of the regular platforms employed by CONAF in the performance of its functions with respect to protected wildlife areas and in the context of administering forestry development instruments, in particular Decree-Law 701 and the Native Forest Act. Hence, several participatory bodies will serve as forums for information-sharing through meetings and workshops, at least in the case of those that are rural or territorial in nature, such as the Protected Wildlife Area Advisory Councils and the working groups that exist in the areas of technology transfer; management of forest plantations; and management, use, and conservation of the native forest. There are also bodies which depend on the forest and/or carry out forest-related activities and which for all intents and purposes can be considered sufficiently representative of the various realities existing in the country.

The outcomes of the consultation processes will be analyzed within the Forest and Climate Change Board during the R-PP implementation phase in order to incorporate them and strengthen joint work and roles and responsibilities for coordinating sectoral goals with respect to REDD+ implementation.

### **1.c.3. Participatory Communication Strategy**

The communication strategy will ensure access to information for all stakeholders at all levels and facilitate intercultural and intersectoral dialogue, thus also facilitating agreements and legitimate decisions having to do with REDD+.

The communication strategy will encompass at least four areas requiring communicational processes in order to strengthen the social participation, institutional collaboration and public awareness that will be required for REDD+:

- Public communication
- Communication with sectors and trade associations
- Communication with specific communities
- Communication aimed at potential financial donors

The communication strategy will employ a differential approach taking into account the following considerations:

- Scope of the communication: national, regional, or local
- The stakeholder group targeted
- Cultural relevance

### **Communications media to be used under the communication strategy**

A variety of communications media will be used in the implementation of both the capacity-building strategy and the communication strategy in order to achieve the proposed objectives and outcomes, applying the differential approach described above:

The media to be used include:

- Virtual media (Internet, online newsletters); use of institutional and intra-institutional websites. The link to CONAF's public website is [www.conaf.cl](http://www.conaf.cl), while its intranet site is <http://intra.conaf.cl>. The effectiveness of web-based platforms will be assessed on the basis of number of visits during a given period and number of document downloads by users.
- Written communication; use of the corporate journal *Chile Forestal*, which has national and international coverage.
- Intercultural communication tools that will allow content and materials to be matched to differing contexts (meetings, workshops, videos, posters, radio, music, booklets, and others). These tools will also include mass and alternative communications media, especially those that help to shape public opinion and raise public awareness, and others that can be adapted for use in reaching desired objectives and outcomes.
- Different types of consultations will be carried out, depending on the stakeholder groups involved, with a view to achieving the greatest possible outreach, participation, awareness, and consensus in relation to the REDD+ strategy.

The participatory communication strategy will provide opportunities for receiving and resolving requests, grievances, and direct complaints from stakeholders. It will also envisage a mechanism for receiving information about and seeking solutions to conflicts that may arise.

### **Response to requests for information**

Individuals requiring information in addition to that received through the information-sharing and consultation process may submit their requests directly to CONAF through the GBCC or a regional coordinator or through the institutional system for inquiries, complaints, and grievances. The representative or coordinator of the office receiving the request will be responsible for providing the information.

### **Resolution of conflicts**

The procedure for resolving conflicts that cannot be solved through local or regional coordinators or representatives in the framework of the GBCC will be referred to the Forest and Climate Change Bureau for examination and resolution, as the sole authority. The complaint, claim, or request will be channeled through the GBCC members in the place of residence of the complainant, since, as explained above, GBCC members will be part of the Integrated Public Information and Citizen Services System and will be responsible for bringing the issue to the attention of the Bureau for examination.

<b>Table 1c: Summary of Consultation and Participation Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Process of consultation and information-sharing about REDD+ Strategy	Internal coordination meetings (CONAF)	30	30	30	30	<b>120</b>
	Meetings with public sector agencies and MINAGRI regional ministerial bodies	30	50	50	50	<b>180</b>
	Workshops/seminars for consultation and information-sharing with communities	40	60	60	60	<b>220</b>
	Workshops/seminars for consultation and information-sharing with civil society and NGOs	30	50	50	50	<b>180</b>
	Workshops/seminars for consultation and information-sharing with private sector	20	30	30	30	<b>110</b>
	Printing and distribution of printed support materials	20	20	20	20	<b>80</b>
	Development of visual materials (support for information-sharing)	20	20	20	20	<b>80</b>
	Implementation of online media for consultation and information-sharing	10	10	10	10	<b>40</b>
	Ongoing compilation of feedback received through the platform designed in 1a.	15	15	15	15	<b>60</b>
<b>Total</b>		<b>215</b>	<b>285</b>	<b>285</b>	<b>285</b>	<b>1070</b>
National Government		75	100	100	100	<b>375</b>
<b>FCPF</b>		<b>90</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>449</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		22	29	29	29	<b>107</b>
Others, to be identified		28	37	37	37	<b>139</b>

## Component 2: Prepare the REDD+ Strategy

### 2a. Assessment of Land Use; Land Use Change Drivers; and Forest Law, Policy, and Governance

#### 2.a.1. Assessment of Land Use

The continental Chilean territory, as calculated by the Military Geographic Institute [*Instituto Geográfico Militar* IGM], has a land area of 75,625,200 ha. The country's largest categories of land use, according to CONAF (2011), are land devoid of vegetation, grassland, and scrubland, representing 32.8 and 26.4%, respectively, of the total area (Table 2a.1). Forests account for the third most important use, corresponding to 16,676,875 ha and 22.0% of the territory. As of 2011, native forests covered 13,599,610 ha, representing 81.6% the country's forest resources and 18.0% of the continental land area. Mature forests are the most prevalent type (5,912,235 ha) representing 43.5% of the native forest cover and 35.5% of total forest resources.

Table 2a.1. National Land Use Areas as of 2011, in hectares (ha) and percentage (%)

Usos de la tierra	Actualizado año 2011 (ha)	%
Áreas Urbanas e Industriales	248.003	0,3
Terrenos Agrícolas	3.414.510	4,5
Praderas y Matorrales	19.983.588	26,4
Bosques	16.676.875	22,0
Humedales	4.632.362	6,1
Áreas Desprovistas de Vegetación	24.776.377	32,8
Nieves y Glaciares	4.293.894	5,7
Cuerpos de Agua	1.266.618	1,7
Áreas No Reconocidas	341.374	0,5
<b>Total</b>	<b>75.633.601</b>	<b>100</b>

The country's most recent forest legislation is Law 20,283, which defines *forest* and *native forest* in its Article 2. According to this legal definition, a *forest* is an area of plant formations in which trees predominate; it measures at least 5,000 square meters in total and no less than 40 meters wide; and tree canopy occupies 10% of the total area under arid and semi-arid conditions and 25% in more favorable circumstances. A *native forest* is defined as a forest consisting of autochthonous species generated or regenerated naturally or planted underneath existing canopy with the same species as those existing in the original distribution area, which may include the accidental presence of randomly distributed exotic species.

Table 2a.2 shows the changes in the forest resource cover between 1997 and 2011 based on data provided by CONAF-CONAMA-IBRD (1999) and CONAF (2011). During the period in question, renewal of the existing native forest increased by 223,023 ha, whereas the area covered by mature forest decreased by 65,604 ha, with a net loss of 2.78% of mature forest for the country as a whole. According to Gutiérrez (2011), the increase in forest cover renewal (223,023 ha) corresponds to the regeneration of forests despite unsustainable forest management practices (*floreo*) and clear-cutting in mature native forests.

The rising trend in Chile's forest cover has already been mentioned in a report presented to Forest Resources Assessment (FRA, 2010), which cited an increase of approximately 188,000 ha in total forest between 2005 and 2010 (FAO, 2010). A closer look at the data in that report shows that while the native forest cover decreased by approximately 133,000 ha, there was an increase of some 321,000 ha in forest plantations (Bergh & Promis, 2011). The annual increase in forest cover during 2005-2010 is estimated at 64,000 ha, corresponding mainly to plantations of introduced species, versus an annual loss of approximately 27,000 ha in native forest, of which 9,600 ha correspond to primary forest and 16,800 ha to naturally regenerated (renewed) forest areas (FAO 2010).

Donoso (2007) points out that the use of fire for fuel, forest wildfires, unsustainable methods of harvesting timber, indiscriminate cutting, and the introduction of animals into the forest, especially in areas in the process of regeneration, have led to the degradation of standing trees, which in turn has thwarted forest management efforts. In addition, the country has a history of displacement of native forests through such practices as substitute planting and the development of forest land for other uses in areas that are inaccessible, inappropriate for the purpose, and located far from roads and population centers. In the past, the clearing of native forests to plant exotic species was spurred by incentives under Decree-Law 701,<sup>24</sup> but this practice has ceased because of better enforcement of the legislation and also because incentives are now focused on small landholders. The displacement phenomenon has become one of the country's lessons learned within the framework of implementing measures for the development of forestry activity.

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<sup>24</sup>Decree-Law 701 of 1974, also known as the Forestry Development Act, was promulgated for the purpose of regulating forestry activity on land preferentially suited for forestry and on degraded lands; incentivizing afforestation, especially by small forest landholders; and promoting the measures needed to prevent degradation and protect and restore the quality of land in the national territory.

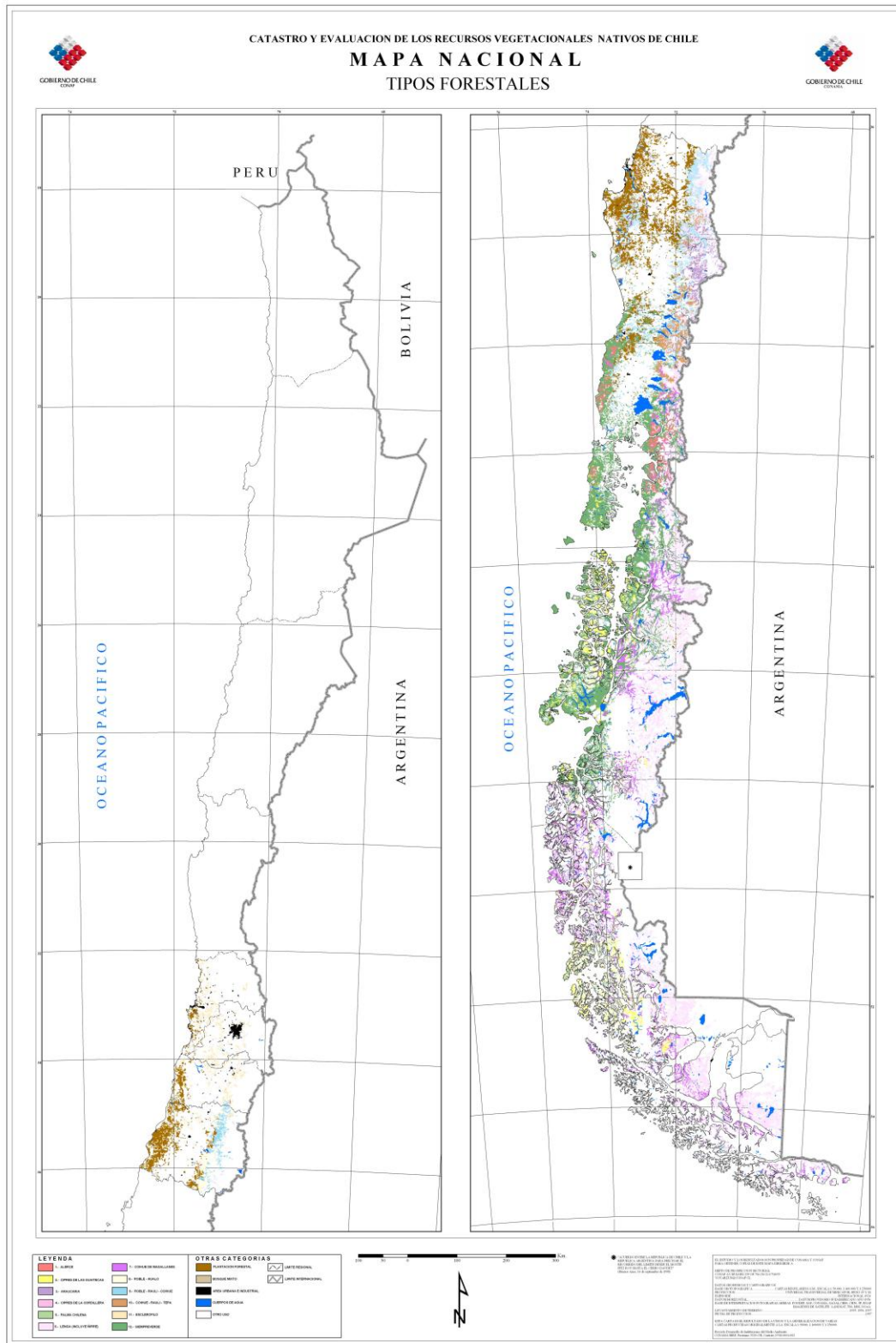
**Table 2a.2. National Area by Type of Forest Cover as of Base Year (1997) and Updated Year (2011), in hectares (ha) and as a percentage of the total (%).**

Type of forest cover	Area (ha)			Percentage (%)		
	1997	2011	Difference	1997	2011	Difference
Native forest	13,430,602	13,599,610	169,008	85.89	81.55	-4.34
Mature forest	5,977,839	5,912,235	-65,604	38.23	35.45	-2.78
Renewed forest	3,585,746	3,808,769	223,023	22.93	22.84	-0.09
Mature/renewed forest	861,925	892,822	30,897	5.51	5.35	-0.16
Stunted tree growth	3,005,092	2,985,784	-19,308	19.22	17.90	-1.31
Forest plantation	2,119,004	2,872,007 <sup>25</sup>	753,003	13.55	17.22	3.67
Mixed forest	87,625	123,756	36,131	0.56	0.74	0.18
Underuse protection *	---	81,502	81,502		0.49	0.49
<b>Total forest cover</b>	<b>15,637,231</b>	<b>16,676,875</b>	<b>1,039,644</b>	<b>100.00</b>	<b>100.00</b>	

\*In the case of forests, underuse protection was developed in connection with modernization of the regions of La Araucanía (10,485 ha), Los Ríos (57,803 ha), and Los Lagos, Province of Osorno (13,214 ha).

Practically speaking, for purposes of forest management the classification of Chile's native forests is based on the typology developed by Donoso (1981), which recognizes 12 forest types (Annex 2a). In this classification, the criteria that define the forest types and subtypes are based mainly on the structure and floristic composition of the dominant forest strata (CONAF-GTZ, 1998), which are directly related to the various soil and climate conditions encountered along the country's latitudinal extension (Donoso, 2007).

<sup>25</sup>To correct errors of commission and omission in the mapping process, especially in the case of canyons and roads included as planted areas, the country's land area devoted to forest plantations has been adjusted to 2,620,486 ha. This figure is the result of an analysis of 13 census districts in the regions of Maule, Biobío, and La Araucanía conducted by the Universidad Austral de Chile and CONAF during January–March 2011.



**Figure 2a.1. Geographic Distribution of Forest Types in Chile**

According to Donoso (2007), the Sclerophyllous, Chilean Palm, Ciprés de la Cordillera, and Roble-Hualo forest types, because of their geographic distribution, correspond to temperate Mediterranean forests, while the remaining eight forest types are classified as coastal temperate rainforests.

The forest type that covers the largest land area is the Evergreen, which accounts for 30.38% of Chile's native forest (Table 2a.3). It is followed, in order, by the Lenga, Coihue de Magallanes, and Roble-Raulí-Coihue forest types, representing 26.34%, 12.44%, and 10.80% of the total, respectively. The forest types covering smaller areas are the Ciprés de la Cordillera and the Chilean Palm. The Lenga, Coihue de Magallanes, Roble-Raulí-Coihue, Coihue-Raulí-Tepa, and Roble-Hualo types, in which the genus *Nothofagus* (southern beeches), predominates, are the ones of greatest economic and ecological importance to the country. Together, they cover 7,504,121 ha, or 55.18% of the total native forest cover.

Table 2a.3. National Area Covered by Native Forest, by Forest Type, in hectares (ha) and as a percentage of the total (%)

Forest type	Area (ha)			Percentage (%)		
	1997	2011	Difference	1997	2011	Difference
Evergreen	4,148,905	4,131,995	-16,910	30.89	30.38	-0.51
Lenga	3,391,552	3,581,635	190,083	25.25	26.34	1.08
Coihue de Magallanes	1,793,098	1,691,847	-101,251	13.35	12.44	-0.91
Roble-Raulí-Coihue	1,460,531	1,468,476	7,945	10.87	10.80	-0.08
Ciprés de las Guaitecas	970,326	930,074	-40,252	7.22	6.84	-0.39
Coihue-Raulí-Tepa	563,519	556,189	-7,330	4.20	4.09	-0.11
Sclerophyllous	345,088	473,437	128,349	2.57	3.48	0.91
Alerce	263,192	258,371	-4,821	1.96	1.90	-0.06
Araucaria	261,073	253,739	-7,334	1.94	1.87	-0.08
Roble-Hualo	188,322	205,974	17,652	1.40	1.51	0.11
Ciprés de la Cordillera	44,996	47,157	2,161	0.34	0.35	0.01
Chilean Palm	nc	716	716	---	0.01	0.01
<b>Total</b>	<b>13,430,602</b>	<b>13,599,610</b>		<b>100.00</b>	<b>100.00</b>	
nc: not mapped at the scale or resolution used here.						

A comparison of the information available for 2011 and the data from the 1997 cadastre shows that the greatest losses of area occurred in the Coihue de Magallanes, Ciprés de las Guaitecas, and Evergreen forests, while the largest increases in forest area were seen with the Lenga, Sclerophyllous, and Roble-Hualo forests.



In terms of Chile's administrative divisions (Figure 2a.2), the region with the largest forest cover is the Aysén, with 4,823,555 ha, representing 29% of the country's total forest cover and 45% of the region's total land area. Following the Aysén Region in predominance of forest use are the regions of Los Lagos and Magallanes, both with over 16%, and Biobío, with 12% (Table 2a.4.).

The regions of Maule and Aysén together account for 77% of the country's native forest cover, while the regions of Maule, Biobío, and La Araucanía have 607,594, 1,227,788, and 572,188 ha devoted to forest plantations, representing approximately 84% of this type of forest in the country (CONAF, 2011).



Nº	Región	Capital	Superficie (km²)	Población (habitantes)
XV	Arica y Parinacota	Arica	16.873,3	187.348
I	Tarapacá	Iquique	42.225,8	300.301
II	Antofagasta	Antofagasta	126.049,1	561.604
III	Atacama	Copiapó	75.176,2	276.480
IV	Coquimbo	La Serena	40.579,9	698.018
V	Valparaíso	Valparaíso	16.396,1	1.720.588
RM	Metropolitana de Santiago	Santiago	15.403,2	6.745.651
VI	Libertador General Bernardo O'Higgins	Rancagua	16.387,0	866.249
VII	Maule	Talca	30.296,1	991.542
VIII	Biobío	Concepción	37.068,7	2.009.549
IX	La Araucanía	Temuco	31.842,3	953.835
XIV	Los Ríos	Valdivia	18.429,5	376.704
X	Los Lagos	Puerto Montt	48.583,6	815.395
XI	Aysén del General Carlos Ibáñez del Campo	Coyhaique	108.494,4	102.632
XII	Magallanes y Antártica Chilena	Punta Arenas	132.297,2	157.574
		<b>TOTAL</b>	<b>756.102,4</b>	<b>16.763.470</b>

**Figure 2a.2.** Administrative Map of Chile and Basic Data on the Regions of the Country

Table 2a.4. Forest Area by Region and Forest Type as of 2011,  
in hectares (ha) and as a percentage of the total (%)

Región	Total (ha)	Bosque Nativo (ha)	%	Plantación Forestal (ha)	%	Bosque Mixto (ha)	%
Arica y Parinacota	-	-	-	-	-	-	-
Tarapacá	34.275	7.300	0,1	26.975	0,9	-	-
Antofagasta	3.411	-	-	3.411	0,1	-	-
Atacama	-	-	-	-	-	-	-
Coquimbo	34.309	31.266	0,2	2.937	0,1	106	0,1
Valparaíso	170.778	106.376	0,8	64.189	2,2	213	0,2
Metropolitana	112.024	105.549	0,8	6.270	0,2	205	0,2
O'Higgins	306.067	185.313	1,4	119.756	4,2	998	0,8
Maule	1.011.827	384.714	2,8	607.594	21,2	19.519	15,8
Biobío	2.052.982	768.553	5,7	1.227.788	42,8	56.642	45,8
La Araucanía	1.538.452	937.312	6,9	572.188	19,9	28.952	23,4
Los Ríos	1.040.156	849.771	6,2	179.545	6,3	10.840	8,8
Los Lagos	2.795.921	2.736.333	20,1	54.223	1,9	5.365	4,3
Aisén	4.823.555	4.815.532	35,4	7.109	0,2	914	0,7
Magallanes	2.671.615	2.671.592	19,6	23	0,0	-	-
<b>Total</b>	<b>16.595.372</b>	<b>13.599.610</b>	<b>100</b>	<b>2.872.007</b>	<b>100</b>	<b>123.754</b>	<b>100</b>

What stands out in this table is that the Aysén Region has 35.4% of the total national forest resource. However, there are plans to build five hydroelectric dams in this part of the country, scheduled to produce approximately 2,750 megawatts, which will entail flooding an area of about 5,910 ha in the Baker and Pascua river basins. Pursuant to Chile's environmental legislation, this hydroelectric undertaking was the subject of an environmental impact study, along with consideration of other mitigating and compensatory measures, prior to development of a management plan for construction of the civil works. Decree-Law 701, also requires the company to reforest an area equivalent to that being flooded with the same tree species currently existing in the space to be occupied by the reservoirs.<sup>26</sup>

The regions of Chile that have the largest variety of forest types are in the south: most notably, the Los Ríos Region, with ten different types, and the Lagos Region, with nine. The regions at the country's northern- and southernmost extremes have fewer forest types. The northern extreme favors types that can adapt to extended periods of drought, while the southern

<sup>26</sup> With regard to possible incentives for other sectors of the economy that might be exerting pressure for land use change, it should be pointed out that any productive investment project requires an environmental impact study, which takes the land use classification into account. For example, in the case of native forest, if a project calls for trees to be cut, the affected area must be replanted with the same forest species. This principle applies throughout the country and has been significantly strengthened in the regulatory framework developed by the Environmental courts created under Law 20,600 of June 2012, a forum in which both neighbors and institutions can file claims regarding local issues that threaten the environment.

extreme has forest types associated with climates that are cold, windy, and rainy. The Aysén and Magallanes regions have the same types, with the notable difference that the area covered by the Evergreen type is 45 times larger in the Aysén. Moreover, the Aysén has the largest area of two other forest types as well: the Ciprés de las Guaitecas and the Lenga). It is followed by the Biobío Region, which has the largest areas of the Ciprés de la Cordillera and Roble-Raulí-Coihue types (CONAF, 2011).

According to Leyton (2009), 52% of Chile's forest land is privately owned and 48%, publicly owned. Ownership is highly regulated by the many laws that govern property rights. Permanence of the forest cover is "guaranteed" by restrictions on the ownership of forests and the requirement to implement a forest management plan for any type of intervention or exploitation of forest resources, which has to be approved by CONAF. This requirement is contained in Decree-Law 701 of 1974 and is binding for any type of forest in the national territory. According to this author's analysis (Leyton, 2009), the public sector owns a major share of the native forest (55.6%) and almost none of the forest plantations (0.1%). The latter are overseen mostly by large private owners, who own almost 78% of the land devoted to this type of forest.

## **2.a.2. Forest Law, Policy, and Governance**

The most important laws governing the forestry sector in particular are Decree-Law 701 of 1974, known as the Forestry Development Act, and Law 20,283 of 2008, which bears the title Native Forest Recovery and Forestry Development Act.

Much of the success of the national forestry sector is due to the promulgation of Decree-Law 701, which provides a one-time monetary incentive paid by the Government for each land area. This incentive is calculated as a percentage of the cost of activities such as afforestation of fragile areas in the process of becoming desertified, afforestation of degraded lands, activities to recover soils, stabilization of dunes, and the establishment of windbreaks. In all cases, the emphasis is on small landholders, lands classified as preferably suited for forestry, and any type of degraded lands. In addition, the law covers the cost of certain forest management activities such as the first pruning and thinning, but only for small landholders on small established forest plantations.

Back in 1997, only 5.8% all the plantations that received government support were owned by small landholders, while 94.2% were owned by medium-sized and large landholders (AGRARIA, 2005). This situation led to the enactment of Law 19,561 in 1998, which amended Decree-Law 701 and provided incentives for forest plantations owned by small landholders, soil recovery practices, and afforestation of lands with fragile and degraded soils (Frêne and Núñez, 2010). Nevertheless, during the years 1998-2004 only 38% of the recovered land (227,491 ha) was owned by small landholders, compared with 62% by medium-sized and large landholders (AGRARIA, 2005). It is important to point out that, while this law provides incentives for the planting of both native and exotic species, from the outset it has been used mainly for the afforestation of fast-growing exotic species (INFOR, 2008).

In legal terms, Decree-Law 701 established rights and obligations for landowners, including the obligation to present a Forest Management Plan and secure its approval by CONAF before the

start of any cutting operation or any form of exploitation of native forests or plantations on land considered to be preferentially suited for forestry (Article 21). This legal instrument also imposes the obligation, when a forest is cut down or otherwise exploited, to reforest an area of equal size, subject to the terms of a previously approved management plan (Article 22).

Since 1974, Decree-Law 701 has been amended several times, thus confirming its legal force (Leyton, 2009). In terms of incentives for afforestation and forestry management, the principal amendments have focused on maintaining the incentives for the country's small forest landholders, granting them an extension through 2012. This law is currently being updated, since there are still some issues to be resolved as well as new challenges to be addressed. In fact, what is really needed is a new Forestry Development Act that will look to the future—one that make it possible to resolve pending issues related to social inequity and also address the new challenges that the country is facing in such areas as diversification of the energy grid, mitigation of the effects of climate change, forest sustainability, and, of course, care of the environment.

Law 20,283, known as the Native Forest Recovery and Forestry Development Act, has been in effect in Chile since 2008. Its purpose is to protect, recover, and enhance native forests with a view to ensuring their sustainability and to set environmental policy. It promotes the sustainable harvesting of wood and non-wood forest products, the maintenance of biodiversity, and the management of other forest-generated services through the Fund for the Conservation, Recovery, and Sustainable Management of the Native Forest [*Fondo de Conservación, Recuperación y Manejo Sustentable del Bosque Nativo*], a reserve fund to benefit forestry management through two types of public competitions: one, for medium-sized and large forest landowners, and the other, a special fund for proposals presented by small forest landowners. The promulgation of this law is seen as a prompt action by Chile in terms of implementing REDD+ activities because it entered into effect shortly after the 13th Meeting of the Conference of the Parties (COP 13), held in Bali in December 2007. At that meeting, the Parties decided to adopt the Bali Action Plan, and the meeting referred to the subject of REDD in the preamble to its Decision 2/CP.13, affirming “the urgent need to take further meaningful action to reduce emissions from deforestation and forest degradation in developing countries” (Antonissen, 2010). In addition, the Action Plan provides for the creation of a specific fund for applied research on native forests. Universities and other academic centers can submit proposals for the funding of initiatives within this framework.<sup>11</sup>

An important aspect of this law is that it provides for the engagement of multiple stakeholders through the formation of an Advisory Council, with regulations that dictate how it operates and specify its powers and responsibilities. The Permanent Advisory Council on the Native Forest Act is tasked with advising the Ministry of Agriculture on the various points covered by the law and involving key stakeholders—including government agencies, the private sector, small forest landholders (including those who belong to indigenous communities), universities, and NGOs—in the discussion of issues. The main challenge now is to ensure that this law, referred to as the Native Forest Act, meets its overall objective while at the same time integrating the other advantages that these forest ecosystems can provide, such as the reduction of atmospheric carbon, the improvement of water quality, tourism, and the use of non-wood forest products for food and medicinal purposes.

In addition to the laws that have been analyzed in detail above, Chile has other legislation that relates to forestry activity:

- Supreme Decree 4,363 of 1931, promulgated by the then Ministry of Land and Colonization;
- Law 19,300 of 1994 on general bases regarding the environment (CONAF acts as the agency responsible for environmental impact proposals or declarations that affect forests);
- Supreme Decree 490 of 1976 on the *Fitzroya cupressoides* (alerce); Supreme Decree 43 of 1990 on *Araucaria* species; and Supreme Decree 13 of 1995 on *Beilschmiedia berteriana* (belloto del sur), *Beilschmiedia miersii* (belloto de norte) *Gomortega keule* (queule), *Pitavia punctata* (pita), and *Nothofagus alessandri* (ruil)—each of which stipulates that CONAF may only issue permits to cut these species for research purposes, the clearing of land for public construction or national defense works, or the development of measures aimed exclusively at preserving the species.

The legal, regulatory, and administrative system currently in effect in the forestry sector is regarded favorably both by forest landowners and by the main parties interested in the application of legal instruments on the subject of forest land tenure and management, and this is essentially because of the pecuniary benefits and tax exemptions provided under the various development mechanisms (Leyton, 2009).

CONAF is the agency responsible for the administration and enforcement of forest legislation in Chile. This agency is entrusted with the oversight of all activities conducted in the country's forests, which it accomplishes in part through its mechanism for approving management plans proposed by the interested parties. All proposals must meet the guidelines that have been defined for each forest type in order to be approved by CONAF. At the same time, in its role as enforcer, the agency monitors compliance by conducting field inspections and checking satellite images for evidence of illegal cutting in particular, for which there are penalties in the current legislation.

Given the geographic extension of the country's forest area, even though CONAF has more than 130 branch offices located in all the regions with a permanent staff of over 2,000 employees, and even though it is one of the public institutions with the most extensive representation throughout the national territory, its enforcement strategy is focused mainly on specific priority areas in which the species raise issues for conservation because they are in danger of extinction, rare, vulnerable, or not well known; have been declared natural monuments; are being threatened by encroachment; or facing other challenges. To optimize its human and financial resources, CONAF uses geographic information systems (GISs), aerial photography, and remote sensing devices, which enable it to prioritize its operations on the ground and at the same time detect illegal cutting in areas that are difficult to reach.

As part of its enforcement activities, CONAF received 7,092 complaints filed by third parties during 2000-2010, thanks in large part to the efforts of citizens. During the same period, 4,961 cases of unauthorized cutting were detected, 77.14% of them in native forest and the rest on plantations of exotic species, for a total of 14,133 hectares exposed to illegal intervention—

still, a relatively small figure compared with the goals for sustainable forest management contained in Law 20,283 and Decree-Law 701. In addition, an average of 1,672 annual checks were performed to verify compliance with annual management plans between 2001 and 2010, representing an oversight area of approximately 44,000 ha per year.

### **2.a.3. Land Use Change Drivers**

The projects for monitoring and updating the 1997 Cadastre of Native Vegetation Resources in Chile, which CONAF has been working on since 1998, constitute the historical record that will make it possible to recognize the types of change that have occurred in the various land uses and underuses, as well as the direction of these trends. A total of 15 drivers have been identified to account for these land use changes (Table 2a.5). According to CONAF (2011), in the case of changes in native forest area, the change driver “growth of natural masses” from scrubby undergrowth is what best accounts for this variation. In the central regions of Chile, changes in the native forest are due to clearing for agricultural use and/or wildfires or burning, whereas in the south-central regions they are due to harvesting and/or clearing for forest plantations—an explanation that is consistent with the suggestions by Donoso (2007) for these same areas. Bergh and Promis (2011) cite Donoso and Lara (1995), who indicate that in parts of the Valdivia coastal range several forest stands secondary to Evergreen and *Nothofagus obliqua* forests were classified as “scrub” and then replaced by commercial plantations, especially of *Pinus radiata*. As indicated previously, the replacement of native forest by plantations is a historical fact. The country learned a lesson from this experience and is now using strategies to promote afforestation.

To gain a more detailed understanding of the situation and pin down the forest land use change drivers more precisely by type of forest and national administrative area, one approach is to look into the ties between the different intra-institutional systems within CONAF that could affect administration of the management plans and their spatial representation. This information can then be tied to environmental, social, and economic characteristics in each of the country’s geographical areas. Once all these elements of sustainable forest management are linked together, it is possible to establish the bases for defining measures to be incorporated into a national strategy for addressing the land use change drivers that are affecting the country’s native forests.

Since problems related to deforestation tend not to be reported, efforts are being focused on recovering the original forest ecosystems, which in some cases have been degraded by unsustainable practices. The situation calls for quantification and analysis in order to promote the best possible approaches for recovering them. Within this framework, Chile’s efforts are geared toward the recovery of degraded native forest, with special emphasis on the ecosystems of greatest interest for reducing emissions and preserving biodiversity.

Given the various implications of the degradation processes currently taking place in the forests—not only for climate change and the need to adapt to it, but also for biodiversity, productivity, reserves, biomass, and social and economic conditions, among other effects—experts around the world have come up with several definitions of *forest degradation* (Rojas *et al.*, 2012). Simula (2009) has undertaken a detailed review of the definitions of forest

degradation and points out that they are not directly comparable, especially in the case of national definitions, because there are so many different aspects to consider.

For purposes of REDD+, the main challenge is to agree on the operational procedures to be used for measuring, reporting, and verifying forest degradation (Penman, 2008). If the IPCC definition is adopted (IPCC, 2003), the operational effects of implementing it will need to be examined. Rojas *et al* (2012) point out that the IPCC definition, which focuses on changing the carbon stock, can serve as a reference for arriving at a methodological proposal, but it does not account for many of the variables that are affected by forest degradation processes, including biodiversity, soil quality, fauna, and others. Therefore, one of the challenges will be to identify the most important variables besides carbon stock that are affected by the degradation of temperate forests in order to have clarity in the approach to be adopted for their recovery (Rojas *et al*, 2012).

Table 2a.5. Land Use Change Drivers (Source: CONAF, 2011)

Código	Descripción
1	Crecimiento de Masas Naturales
2	Habilitación para Uso Agrícola
3	Habilitación para Plantación Forestal
4	Cambio desde Cultivo Agrícola a Plantación Forestal
5	Cosecha de Plantación Forestal
6	Crecimiento de Plantación Joven a Adulta
7	Intervenciones Silvícolas en Bosque Nativo
8	Sustitución de Bosque Nativo por Plantaciones Forestales
9	Incendios y/o Quemas Naturales o Artificiales
10	Deslizamientos de Tierra, Aludes, Lava
11	Inundaciones, Crecidas, Construcción de Embalses
12	Avance de Dunas, Desertificación
13	Crecimiento Urbano, Construcción de Áreas Industriales, Obras Civiles
14	Corrección de la Fotointerpretación o Descripción Original
15	Pérdida de Bosque Nativo por causal no identificada

For example, an ecosystem of particular interest is Chile's natural temperate rainforest, an endemic forest ecosystem recognized by UNESCO that extends from 39°S to 44°S, corresponding to regions IX (Araucanía), XIV (Los Ríos), and X (Los Lagos). This forest is one of the main sources of fuel (firewood) in the southern part of the country. Harvesting for this purpose affects approximately 4 million hectares of private and community property, and it is a major factor in degradation of the country's forests, since much of the wood, including firewood, is extracted unsustainably from natural forests and from logs obtained illegally.



According to Leyton (2009), small properties in the native forest specialize in the production of firewood and, to a lesser extent, non-wood forest products. This type of informal activity usually yields a subsistence income, but it fails to make a significant dent in poverty. Thus, for the Evergreen forest in the south of Chile, the country's most diverse forest, degradation is most intense in the coastal mountain range, and it is typically associated with small landholdings and indigenous communities. The cutting of trees for firewood, besides the other damage that it causes, is fragmenting the forests. The situation is further aggravated by the introduction of cattle-raising. A similar situation is also occurring in the northern part of the country in the Roble-Raúlí-Coihue forests and in the Aysén Region, impacting the Evergreen and Lenga forests.

It is estimated that 20.2 million solid cubic meters of firewood and forest debris are consumed in Chile (75% of it firewood proper and 25% forest debris), and 84% of the firewood is consumed in the regions of Maule and Los Lagos. There is heavy industrial consumption of firewood in the regions of Maule and Biobío, as opposed to largely residential consumption in the regions of Araucanía, Los Ríos, and Los Lagos (Gómez-Lobo *et al.*, 2006). According to the information available on energy balance, firewood is the third most widely used energy resource in Chile (CNE, 2008). Various sources estimate that firewood supplies more than 90% of indoor heating in the southern part of the country. In addition, the estimated cash flow of CLP 115 billion that it generates each year is a major driver of local and peasant economies (Burschelet *et al.*, 2003). Its informal extraction, not governed by management plans or concern for sustainability, has exerted pressure on the land and the quality of the native forest, resulting in immeasurable losses in terms of biodiversity, soil erosion, and deterioration of water resources (CNE, 2008).

Some of the estimates of these losses calculate that up to 10 million cubic meters of firewood are extracted annually, equivalent to the exploitation of almost 77,000 ha/year without the benefit of management plans (Rojas *et al.*, 2012). Still, more data of this kind are needed, with new studies and field investigations to gain a clearer picture of the phenomenon, including the correlation between technical and environmental factors, on the one hand, and economic and social conditions in the affected areas, on the other, in order to generate the activities needed to bring the situation under control within the framework of a national strategy to curtail the degradation of native Chilean forests.

One of the challenges with regard to regulating the consumption of firewood in the country is the absence of any regulations covering solid fuels.<sup>27</sup> Three different laws were proposed to correct this deficiency, but they did not have presidential support in past administrations. Paradoxically, today firewood and related devices and equipment can be certified and bear energy-efficient labels, and it can even be subject to minimum efficiency requirements.

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<sup>27</sup>Article 2 of Law 18,410 entrusts the Superintendency of Electric Energy and Fuel Superintendency with monitoring and overseeing fulfillment of the legal and regulatory provisions and technical standards governing the generation, production, storage, transportation, and distribution of liquid fuels, gas, and electricity in order to ensure that the quality of the services rendered to users is the same as that envisioned by said provisions and technical standards and that the aforementioned operations and use of energy resources do not pose a threat to persons or property.

Nevertheless, the fact remains that there is no regulation of fuels or related devices and equipment, much less a system for monitoring their emissions<sup>28</sup> (CCTP, 2011). It was only in 2012 that Law 20,586 went into effect regulating the certification of equipment used in the burning of firewood and other wood-based biomass (see: <http://www.leychile.cl/N?i=1040103&f=2012-05-16&p=>).

Currently the Government is proposing to separate the legislative agenda on the subject of firewood into several proposed laws. In the first place, it is necessary to grant powers to the Superintendency of Electricity and Fuels [*Superintendencia de Electricidad y Combustibles SEC*] to certify and label the equipment used for burning firewood, which effectively ties it to emission and air quality standards. Secondly, there is need for a law to regulate the sale of firewood, stipulating a maximum percentage of humidity. In fact, the Government has assigned high priority to a proposed law that regulates the certification of equipment used for burning firewood and other wood-based biomass (*Boletín* 7141-08). The draft law was presented on August 17, 2010, for the purpose of ensuring that firewood equipment is certified and labeled for energy performance. Civil society organizations are not content with the pace of this process and do not feel that the draft law is sufficient to bring about a gradual transition, which would be achieved by enacting the various draft laws that were proposed in recent years, or failing that, creating a new institutional framework for this purpose (CCTP, 2011).

Achieving a carbon-neutral economy is one of the greatest challenges that the country faces in fulfilling its commitments to reduce greenhouse gas emissions in order to help mitigate the effects of global change and its consequences for the national and world population. Thanks to its forests, Chile produces only 0.2% of all global CO<sub>2</sub> emissions. The country's Second National Communication to the United Nations Framework Convention on Climate Change on its national greenhouse gas inventory states that "at the sectoral level, the importance of the Land Use, Land Use Change, and Forestry sector (LULUCF) for CO<sub>2</sub> capture in Chile is notable, although net capture gradually decreased progressively reduced from 1984 to 2006" (MMA, 2011). The communication goes on to say that net CO<sub>2</sub> emissions in Chile amounted to 43.4 million tons of CO<sub>2</sub> eq in 2000 and 59.6 million tons of CO<sub>2</sub> eq in 2006. In those same years, the contribution to CO<sub>2</sub> capture by the LULUCF sector, Forest Land (FL) subsector, was 85 million tons of CO<sub>2</sub> eq and 93 million tons of CO<sub>2</sub> eq, respectively.

Although Chile's share of global emissions is small (0.2%), emissions at the national level have increased significantly, by 232% between 1990 and 2006. Steps have been taken to identify, quantify, and project the impact of national emissions in certain sectors, but there has been no integrated initiative to consolidate information from the various sectors, backed by the best science available, in an organized participatory process. This is what the MAPS-Chile project hopes to accomplish ([www.mapschile.cl](http://www.mapschile.cl)).

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<sup>28</sup> Law 20,402 (published in the Official Gazette on December 3, 2010) amended Art. 4, section H, of Decree-Law 2,224 and empowered the Ministry of Energy, through the SEC, to certify and label energy emissions and impose minimum energy performance requirements for products, machines, instruments, equipments, devices, apparatuses, and materials used in connection with any energy resource.

Chile's development path will define a trajectory for greenhouse gas emissions. There are two such trajectories of conceptual interest: one is to continue on a business-as-usual (BAU) basis without any additional restrictions; the other is to adopt the stricter recommendations required by science (RBS), which would limit emissions and lead to reduced levels. Between these two trajectories there are a number of mitigation options that would result from grouping concrete mitigation options under several different criteria and assumptions. These include measures that could be taken in the national forestry sector, especially measures inked to REDD+. The two basic trajectories—BAU and RBS—will be developed during the first phase (12 months) of the MAPS-Chile project. The second phase (10 months) will be devoted to developing alternate option paths for emissions mitigation. Finally, the third phase (2 months) will focus on sharing the results and analysis of possible public and private mitigation initiatives at high decision-making levels in the Government, the private sector, and civil society ([www.mapschile.cl](http://www.mapschile.cl)).

According to the summary above, the priority activities to be carried out in this component are:

1. Delimitation of geographic area of interest based on a detailed analysis of forest resources for REDD+. This involves identifying the forest resources and characterizing the local populations that will be an integral part of the national REDD strategy. It has been established a priori that the geographic area to be covered by this strategy corresponds to the forest cover shared by the regions of Maule and Aysén.
2. Agreement on and institutional adoption of a national definition of forest degradation taking international definitions into account but adapting it to the national reality. Defining what is understood by degradation is one of the key problems to be resolved by the interested groups in Chile. Adoption of a harmonized international definition might be the best approach for establishing the basis for future actions. The point of departure in this analysis will be an INFOR study on development of a REDD methodology and tools for use in temperate forests [*Desarrollo Metodológico y de Herramientas para la REDD en Bosques de Tipo Templado*], funded through the MIA Project (Rojas *et al.*, 2012). Starting from this common point will lend continuity to studies of the kind, which will be validated with the participation of national and international experts.
3. Analysis of economic activities at the subnational level (area of interest) and their relationship to forest degradation. Management policies, infrastructure development, changes in national and international prices for basic products, and the emergence of new markets for agricultural crops and timber are some of the direct and indirect drivers of forest degradation.
4. Identification and assessment of degradation drivers at the subnational level, taking into account their relationship to environmental and social conditions in the areas in which they are found.
5. Diagnosis of the changing dynamic and REDD+ potential vis-à-vis public policies, the institutional situation, and the legal framework.

6. Dissemination of the results in a way that enlists significant engagement on the part of stakeholders interested in the analysis of governance, recommendations for updating policies, and the identification of key indicators for possible inclusion in the follow-up system.

<b>Table 2a: Summary of Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance Activities and Budget (Follow-up Activities Needed)</b>						
Main Activity	Sub-Activity	Estimated cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Delimitation of geographic area of interest based on a detailed analysis of forest resources for REDD+	Workshops to survey information in the regions concerned	15	20	20	20	75
	Consultancy on processing the information collected	25	35	35	35	130
	Meeting with technical expert panel to validate consultancy results	15	15	15	15	60
	Socialization workshops	20	30	30	30	110
Analysis of economic activities at the sub-national level (area of interest) and their relationship to forest degradation	Specialized consultancy on sectoral analyses	30	35	35	35	135
	Meeting with technical expert panel to validate consultancy results	15	15	15	15	60
	Socialization workshops	20	30	30	30	110
Adoption of a national definition of forest degradation by the country's institutions	Specialized consultancy on harmonizing international definitions and proposing a national definition	0	20	20	20	60
	Workshops with interested groups to arrive at a definition of degradation	0	10	15	15	40
	Incorporation of the definition into legal instruments governing the country's forestry activity	0	0	10	20	30
Identification and assessment of degradation drivers at the subnational level	Specialized consultancy on identifying local drivers of degradation		50	50	50	150
	Specialized consultancy on land use opportunity costs	50	70	70	70	260
	Meeting with technical expert panel to validate consultancy results	15	15	15	15	60
	Socialization workshops	20	30	30	30	110
Diagnosis of the changing dynamic and REDD+ potential vis-à-vis public policies, the institutional situation, and	Workshops to collect information	20	20	20	20	80
	Consultancy on information system development		20	20	20	60

the legal framework.	Meeting with technical expert panel to validate consultancy results	10	15	15	15	55
Dissemination of results	Publication of technical documents	20	20	20	20	80
	Dissemination of informational material	20	20	20	20	80
	Website maintenance	15	25	25	25	90
<b>Total</b>		<b>310</b>	<b>495</b>	<b>510</b>	<b>520</b>	<b>1,835</b>
National Government		78	124	128	130	459
<b>FCPF</b>		<b>62</b>	<b>99</b>	<b>102</b>	<b>104</b>	<b>367</b>
UN-REDD Programme (if applicable)		0	0	0	0	0
National Private Sector		78	124	128	130	459
Others ,to be identified		93	149	153	156	551

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## **2b. REDD+ Strategy Options**

### **2.b.1. General Outline of National Strategy for Reducing Emissions from Forest Degradation**

REDD calls for a series of activities and strategies aimed at reducing deforestation and forest degradation, to be carried out both independently and as part of intra- and intersectoral mechanisms and action programs at the country and international level. The resources to fund these initiatives would come mainly from the developed countries listed in Annex I of the Kyoto Protocol (Armas et al., 2009). The REDD mechanisms can also be defined (Rojas, 2009) as a set of activities designed to encourage the reduction of emissions and greenhouse gas concentrations (GGCs) resulting from deforestation and degradation of native forests, which should include at the very minimum activities aimed at: (1) avoiding deforestation and forest degradation, whether done illegally or with authorization; (2) preserve existing native forests; and (3) recover degraded forest areas with a view to increasing forest cover for the planet as a whole.

Once the reduction of GHG emissions has been verified and certified, it will be possible, with the concurrence of local authorities, to issue carbon credits either in the form of certified emission reduction credits (CERs), negotiable on the official (regulated) carbon market, or as voluntary emissions reductions (VERs), which are negotiable on the voluntary carbon markets.

One of the REDD mechanisms of particular interest is payments for environmental services (PES), an approach that explicitly recognizes the costs involved in providing environmental conservation services for those who use and modify natural resources to produce consumer goods (Armas et al., 2009). From this perspective, REDD can be seen as payment for conserving forests internationally, while PES is an implementation mechanism at the local level for passing on these commitments to rural producers and communities (Wunder, 2009).

Experience with PES schemes in various parts of the world suggest that there need to be at least three basic sets of conditions in place—economic, legal and institutional, and information and technical conditions—in order for the PES mechanism to work effectively (Wunder et al. 2008a, Landell-Mills, and Porras, 2002). These three conditions need to be analyzed carefully in deciding on the viability of implementing a PES system in any area, especially in the context of REDD+.

Currently Chile has a solid legislative and institutional framework in the area of forestry. Its most important legal instruments are Decree-Law 701 of 1974, the Forestry Development Act, and Law 20,283 of 2008, the Native Forest Recovery and Forestry Development Act, as indicated earlier. Besides regulating forestry activity, both these instruments offer incentives to make forestry more economically attractive, turning it into a real alternative that enables landowners to improve their livelihood harmoniously by either planting new forests or managing existing ones. In the second half of 2012, Chile was engaged in updating its forestry legislation with a view to improving and expanding the incentives under the current version of



Decree-Law 701, which were scheduled to end at the close of 2012. It would be an important step if the new proposal were to tie payment for forest ecosystem services to carbon capture.

However, the strategies to be adopted within the REDD+ framework do not need to address legal or institutional issues; they will focus on resolving operational and information-related issues so that the country can move forward in implementing the Native Forest Act, including the incorporation of a payment system for forest-based environmental services.

Development of a REDD+ Strategy in Chile should make it possible to establish concrete instruments for implementing carbon bonds during the first phase and then introducing them on an internal emissions reduction market. Cross-cutting this entire process, part of CONAF's mandate is to ensure that small and medium-sized forest landowners, especially in peasant and indigenous communities, have access to the benefits derived from technical measures that support sustainable forest management in obtaining wood and non-wood products, maintaining biodiversity, and other environmental services generated by the forests, with special emphasis on decisions that will help to reduce poverty and gender inequity.

The technical actions contained in the legislation that governs activities in the country's forests (Decree-Law 701 and Law 20,283) also provide for the payment of incentives to small landowners in particular, as well as large and medium-sized landholders, through annual competitions in the case of activities in native forests (Law 20,283).

The Government, through CONAF, ensures that small and medium-sized forest landowners and peasant and indigenous communities have access to these benefits through extension and information-sharing activities carried out by its various programs, especially those that come under its Bureau of Forest Management. One of five bureaus under the Executive Directorate, Forest Management has links to both the Native Forest Department and the Forest Plantation Department. One of its initiatives is the National Forest Technology Transfer Program [*Programa Nacional de Transferencia Técnica Forestal*], which works through the Forestry Extension System, to be described below. There are also cross-cutting initiatives under the responsibility of other departments, such as the Gender Equity System (discussed at length in Component 1b), which seeks to incorporate the gender approach into the process of providing the institution's strategic outputs, from their basic design and up to delivery of products to end users and their evaluation. In this way, the system seeks to contribute to equal opportunity for men and women as part of its effort to use plant resources sustainably and conserve forest ecosystems, as well as to strengthen and promote equitable access to development services, programs, and tools (<http://www.conaf.cl/conaf/seccion-objetivo-equidad-de-genero.html>).

Another related area of activity is Indigenous Affairs. The principles that govern this area are reflected in CONAF's work with indigenous communities, peoples, and territories, which seeks to develop an increasingly relevant, culture-based, and participatory approach to forestry development and natural resources management while at the same time meeting the strategic objectives of the CONAF institutional agenda. The main instruments that guide this work are the Andean Intercultural Environmental Model [*Modelo Ambiental Intercultural Andino MAIA*], for indigenous communities in northern Chile, and the Mapuche Intercultural Forestry Model [*Modelo Forestal Intercultural Mapuche MOFIM*], for indigenous communities in southern Chile (<http://www.conaf.cl/conaf/seccion-marco-institucional.html>). Since these elements are

cross-cutting programs or initiatives within CONAF, they will also be incorporated into the national REDD+ Strategy. This is especially the case of the forestry extension program, the Corporation's human component that is in regular direct contact with forest owners, their local organizations, and the administrative structure that brings them together, thus facilitating their access to benefits under the forestry legislation and to the initiatives for sustainable use of the country's forestry resources.

### **2.b.2. Strategy Options for Addressing Degradation Drivers**

In order for REDD+ to succeed, it will have to be able to make an effective impact on land use decisions that involve degradation issues.

At the local level, the main driver of degradation is the need of small landholders to secure a regular livelihood from the forest land that they own. It is this need that drives them to try to extract as many high-value logs as possible, as well as firewood for personal use and to sell on the informal market. In addition, the forest is used as a refuge and a source of feed for cattle, which also affects the rate at which it can regenerate. These forces change the structure of native forests in terms of their size, participation of species, and preservation of biological diversity, among other aspects which have been identified but not yet quantified in terms of their effect on forest carbon stocks and the consequent level of their deterioration.

Based on the national definition of degradation to be agreed upon, the precise impact of the land use change drivers identified, and the types of forest and landowners affected, the options for dealing with degradation drivers will focus on improving forest resource management and on the multisectoral issues that account for the largest proportion of natural forest cover being affected by changes.

Thus, with the data already available and the information to be generated, it should be possible to quantify the proportion of firewood being cut and sold illegally in Chile, understand the impact of this process on the affected forests, and decide on the most effective measures for reducing these activities through instruments that are currently available and others that may have to be implemented in order to achieve this objective. It will also be necessary to assess current cutting practices by forest landowners and compare them against technically appropriate practices that take forest growth rates into account, while at the same time raising awareness and giving training sessions that emphasize the importance of keeping cattle away from forests where the focus is on regenerating them.

More specifically, with the harvesting of high-value timber, which is a major degradation driver, it will be necessary to quantify the degree of extraction vis-à-vis the type of forest and owner, establish technically appropriate levels of timber extraction (with the possibility of cutting trees) by growth rates of the type of forest in question, assess current cutting practices being followed by forest owners, and, based on Law 20,283, support forest landowners in preparing management plans to make better use of native forest resources.

In the case of firewood extraction (for own consumption or sale on the informal market) as a degradation driver, it will first be necessary to quantify the proportion of firewood being illegally cut and marketed in Chile. Based on this information, the impact of firewood

extraction can be assessed in terms of forest ecology and the socio-environmental value of the affected forests. The next step is to consider the use of existing technical and legal instruments to limit the extraction of firewood. Alternatively, consideration could be given to supporting the formalized harvesting of high-quality firewood from Chile's native forests, using qualified forest extension workers in the field to train forest landowners in proper forestry techniques for firewood harvesting and in the technical aspects of its production and marketing.

Another degradation driver is use of the forest as a refuge and grazing reserve for cattle. Here, it will be important to start by quantifying the use pressure on native forests by type of forest and landowner. Demonstration parcels could be set up to show the theoretical effect of cattle on regeneration, modification of the native forest structure, and maintenance and improvement of biodiversity. Forestry extension workers could be enlisted to raise awareness and provide training on the importance of keeping cattle out of forests where the goal is to regenerate them and maintain biodiversity.

For a more detailed analysis, it is important to bring together the different institutional systems involved in the administration and spatial representation of management plans in order to gain a more precise understanding of the relationship between the degradation drivers and the particular type of forest and area of the country, thus making it possible to link the information to the main environmental, social, and economic characteristics of the geographic area in question. It is also important to identify and study the main factors that motivate forest landholders, especially small and medium-sized owners, to make technical decisions that result in inappropriate use and management of the forests and ultimately lead to forest degradation.

The foregoing calls for a critical historical analysis of the contribution of sustainable forest management, including the positive and negative incentives contained in both Decree-Law 701 and Law 20,283 as well as other development instruments (in the field of agriculture, for example) that could be affecting the sustainable use of forests. Such an analysis will make it possible to identify the lessons learned, facilitate implementation of corrective measures to combat negative drivers, and help reinforce positive practices within the context of REDD+.

A priori, the positive practices to be reinforced include the forestry extension system created within the National Forest Corporation as a result of the CONAF/DED/KfW/GTZ Native Forest Conservation and Sustainable Management Project [*Proyecto Conservación y Manejo Sustentable del Bosque Nativo*] carried out in 1997-2006. The extension system continues to function actively as part of various programs that work directly with small forest landowners, especially under the CONAF National Forest Technology Transfer Program. Given the importance of this effort, the Forest Engineer Association for the Native Forest (AIFBN), backed by financing from the Native Forest Research Fund created by Law 20,283, is currently drafting a design for a national forestry extension program.

Forestry extension, especially participatory forestry extension, is a tool for working with small landholders to help them manage native forests sustainably. The advisory service provided by forestry extension workers for small landowners and peasants is professional, comprehensive, and effective. Knowledge and experiences are exchanged in a spirit of working together to conserve and protect the native forest. Respect for cultural traditions is fundamental in

extension work, as well as active engagement and joint decision-making in setting goals and planning specific activities for each property. It is important to guarantee an adequate number of professionals in order for the assistance to be effective and ongoing. At its core, forestry extension makes it possible to identify needs and solutions for its users. It is an initiative in which the Government can play a more efficient role than private parties. The time invested in participatory diagnoses—not to mention the users' confidence in the institutions—plays a decisive role and helps to build CONAF's image in rural areas. Currently there are 53 CONAF forestry extension workers covering a geographic area extending from the region of Arica and Parinacota in the north to Magallanes in the south, with only one worker in the extreme northern and southern regions and larger numbers concentrated in the regions of Biobío and Los Lagos (34 in total), 11 in the region of Los Ríos, and 9 in the region of Araucanía.

In the REDD+ context, it is proposed to expand the network of CONAF extension workers to throughout the country, since these professionals play an important role in the field by building close ties with the communities as they work to restore the forest ecosystems covered by national legislation. This initiative will also help to extend the benefits of measures aimed at reducing poverty and securing gender equity for small and medium-sized forest landholders, especially in peasant and indigenous communities. Finally, it is a proven mechanism for training and disseminating technical knowhow on sustainable forest management.

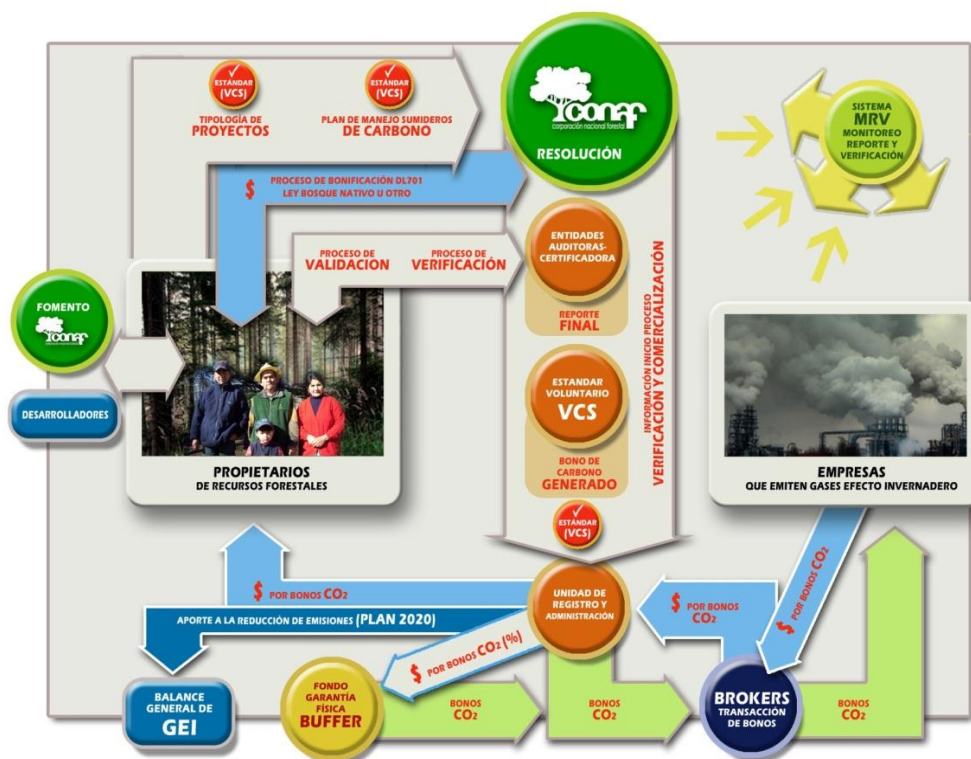
Another element to be strengthened, also related to the development instruments contained in Decree-Law 407 and Law 20,283, is the forest management plan. Within the context of the Chilean forestry institutional structure, this plan is the instrument that regulates the use and rational exploitation of renewable natural resources over a given land area with a view to obtaining the maximum benefit therefrom while at the same time ensuring the preservation, conservation, improvement, and enhancement of these resources and their ecosystem. In order to recognize forest carbon capture as an environmental service alongside other related ecosystem services, and to have a means with which to agree upon and implement the technical measures needed in order to implement the forest-related and non-forest-related measures associated with REDD, it will be necessary to establish an ad hoc instrument for the purpose, which could be known generically as the Forest Management Plan for Environmental Carbon Capture Services (PMSACC), or more specifically, PMSACC-REDD+.

Also, the REDD+ Strategy calls for the development and implementation of a national model for the generation and marketing of forest carbon credits—a technical, institutional, and commercial platform currently on the drawing-board, to be based on the highest international standards—that will make it possible to introduce an important new stakeholder into the Chilean forestry sector on the side of measures to mitigate climate change. To further this goal, Resolution 226, issued on June 4, 2012, by the Executive Director of CONAF, institutionalizes the creation, at least at the conceptual level, of a Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh). This decision was based on an analysis conducted by the Working Group on Climate Change [*Grupo de Trabajo sobre Cambio Climático* GTCC], a body created earlier by CONAF under Resolution 35-2011 to promote initiatives aimed at mitigating climate change through forest carbon capture. In addition, CONAF has appointed Regional Coordinators representing the Group on Forests and Climate

Change who will be directly in contact with local forest carbon initiatives, exchanging information and feedback with stakeholders at the local level, particularly in relation to pilot initiatives in the communities. There will be a strong initial component during which information will be gathered to establish reference levels for carbon and monitoring systems, among other technical aspects. All these processes will be monitored by professionals especially chosen for the purpose from CONAF's Communications Secretariat (SECOM), who will serve as permanent members of the Corporation's Group on Forests and Climate Change.

The PBCCh being promoted by CONAF (Figure 2b.1) is intended to give institutional status to a number of processes already taking place within the Corporation, including the definition of generic typologies for forest carbon capture projects that forest landholders located in specific forests can apply to carry out. In this way it is hoped to establish a technical, legal, and even financial platform that will reduce the time, cost, and technical challenges associated with a given initiative, taking advantage of predefined technical information, institutional instruments, and at least partial funding already included in the generic project typologies. To ensure application of the REDD+ mechanism as a generator of carbon credits and facilitate access by priority groups to the benefits that would be generated, the first step is to decide on the technical, administrative, and financial elements to be included, based on the type of forest resource, type of property, geographic area in which the property is located, and other conditions. This approach departs from the individual projects that prevail in the carbon market and moves toward thinking of projects within a national framework that will be able to overcome the barriers of time, cost and expertise traditionally associated with implementing a forest carbon project.

CONAF initiated creation of the PBCCh by contacting and bringing together public and private stakeholders involved in the process of generating and marketing carbon credits in a workshop held on March 19, 2012, at which the participants expressed their views about the initiative and provided feedback to the process based on their experience. In June and December 2012, CONAF held two more workshops with the same stakeholders to share the progress that had been made both technically and strategically (see details in Component 1). Also, on June 8, 2012, an interministerial meeting was held at which CONAF presented the PBCCh to representatives from the ministries of the Treasury, Public Works, Energy, Transportation and Telecommunications, Environment, Foreign Affairs, and Economy, Development, and Tourism for the purpose of giving institutional status to the work under way and establishing connections with these other areas of government.



**Figure 2b.1. Schematic Representation of the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh)**

In addition, on November 7, 2012, an agreement was reached on collaboration with the Voluntary Carbon Market Standard (VCMS) (see: <http://www.tecnologiambiental.es/index.php/actualidad/2983-conaf-y-vcs-anuncian-un-convenio-jnr-con-un-gobierno-nacional-por-primera-vez-en-el-mundo.html> and <http://www.pointcarbon.com/news/1.2108043>). At the same time, a document was drafted on the development of conceptual and methodological guidelines for preparing the typologies for forest carbon capture projects [*Elaboración de guía conceptual y metodológica para el desarrollo de Tipologías de Proyectos Forestales de Captura de Carbono*](see bases in Annex 2b-1). This document will be of assistance in defining the project typologies that will enable individual landowners and groups of landowners, through these project development tools, to formalize carbon capture initiatives and subsequently market the corresponding credits. REDD+ activities are included in some of these project typologies. The national model for the PBCCh includes all the possibilities for AFOLU forest carbon projects recognized by the VCMS, but those related to the context of the present R-PP only include projects for REDD+ activities.

The typologies for forest carbon capture projects are intended for generic or framework projects associated with a specific type of resource, where, regardless of who owns it, it is possible to apply common forestry and financing schemes that are consistent with the objectives of producing traditional goods and services and using carbon capture credits for

subsequent trading. The typologies will incorporate the following mechanisms recognized at the international level: reduction of emissions from deforestation and forest degradation (REDD); afforestation and reforestation (AR), or conversion of unforested lands to forested lands; and improved forest management (IFM) in existing forests. Some of the typologies that have already been proposed include: establishment of *Prosopis tamarugo* (tamarugo) and/or *Prosopis chilensis* (Chilean mesquite) plantations in the regions of Tarapacá and Antofagasta; establishment of *Atriplex nummularia* (bluegreen saltbush), *Atriplex remanda* (another saltbush species), or *Acacia saligna* (orange wattle) plantations in the regions of Atacama and Coquimbo; rehabilitation of Mediterranean forest in the Metropolitan Region and the regions of Valparaíso and O'Higgins; afforestation of lands classified as preferentially suited for forest use with *Pinus radiata* (Monterey pine) and *Eucalyptus nitens* (shining gum) or other similar species across the regions of Valparaíso and Araucanía; afforestation of lands classified as preferentially suited for forestry with native species in the geographical area encompassing the regions of Araucanía and Los Lagos; enrichment of degraded native forest in the regions of Biobío and Los Lagos; renewal management of native forest in the regions of Biobío and Los Lagos; conservation and enrichment of the Alerce forest type in the region of Los Lagos; afforestation of lands classified as preferentially suited for forestry with exotic and/or native species in the regions of Aysén and Magallanes.

CONAF has invited universities that offer forestry-related career programs to contribute their scientific knowledge to the development of some of the project typologies to be included a priori in the PBCCh. This initiative was launched through a workshop held from October 5, 2012. By December 2012, cooperation agreements had been signed with the Universidad Mayor and the Universidad de Concepción (Los Ángeles Campus), and another cooperation agreement was being negotiated with the Consortium of Universities of the Southern Zone [*Consortio de Universidades de la Zona Sur* CUZS), made up of the Universidad Austral de Chile, the Universidad Católica de Temuco, the Universidad de Concepción (Concepción Campus), and the Universidad de la Frontera. Of special interest within the framework of the present R-PP is the agreement with the Universidad Mayor, which will be developing the typology for the rehabilitation of Mediterranean forests through the OTERRA Center for Natural Resources Studies in its School of Forestry and Agricultural Sciences. In fact, this center is already conducting a study in collaboration with the Foundation for Agricultural Innovation [*Fundación para la Innovación Agraria* FIA] on the generation of allometric functions for the primary tree species present in the Sclerophyllous forest type throughout its geographical distribution from the region of Coquimbo to the region of Biobío (see: <http://www.ladiscusion.cl/index.php/noticias/noticias964883477/nuble1136751237/21268-estudian-capacidad-de-captura-de-carbono-en-especies-locales>). The future agreement with CUZS is especially important because this consortium of universities has offered, among other proposals, to develop the typologies corresponding to the country's native forest across the geographic area ranging from the region of Maule to the Aysén, with emphasis on the degradation of native forest due to the extraction of firewood and extensive grazing of cattle.

Another step forward in building the PBCCh took place on November 20, 2012, when Chile's initiative "Implementation of a National Forestry and Climate Change Strategy, Including the Development and Implementation of a Platform for the Generation and Trading of Forest

Carbon Credits,” to be funded by the Government of Switzerland, was officially registered as a Nationally Appropriate Mitigation Action (NAMA) under the United Nations Framework Convention on Climate Change (UNFCCC) ([http://unfccc.int/cooperation\\_support/nama/items/6982.php](http://unfccc.int/cooperation_support/nama/items/6982.php)). The objective of this initiative is to identify and implement alternative financial mechanisms based on current and projected demand within the framework of the PBCCh. This NAMA, to be carried out with the support of the Government of Switzerland, is in alignment with the PBCCh and will lead to the development of one or more project typologies focusing specifically on reducing the financial barriers faced by owners of forests or land preferentially suited for forestry.

The technical expertise and knowhow that will be generated once the NAMA is implemented and concrete results are in hand will make it possible to establish a system for recognizing and implementing similar projects in other countries of the Region.

Chile’s long history in forestry provides a solid base for executing the proposed NAMA, and a collateral benefit of this initiative is that, once the project has been carried out, the experience will be very useful in promoting international cooperation agreements with other countries of the Region that have latent needs regarding the role of forests in the challenge of dealing with climate change.

With regard potential synergies with other sectors of the national economy, the forestry sector’s role relative to the energy, transportation, and industry sectors in the mitigation of GHGs was made clear in Chile’s Second National Communication to the United Nations Framework Convention on Climate Change (MMA, 2011). As part of the solution for meeting the strict targets that have been set in the Plan for 2020, the Chilean energy sector has given signs that it is looking for market mechanisms leading to mitigation as a contribution to the global reduction of greenhouse gas emissions and lowered costs for adaptation. At the Xth Energy Seminar: ElecGas 2011, held in May of that year, Jaime Bravo, head of the Sustainable Development Division in the Ministry of Energy, raised the possibility of implementing an emissions trading system (ETS) in Chile (EDITEC, 2011). His comments were based on an analysis of market mechanisms for the reduction of greenhouse gases and a feasibility study on implementing an ETS in Chile conducted by the Poch-Ambiental environmental consultants (Poch, 2011). This study raises some crucial points in the context of the country’s development priorities. To begin with, the rising rate of emissions in Chile and the projected trend calls for an effective policy to curtail this growth. Prompt action to regulate carbon emissions will enable the country to maintain its leadership role, set standards, and have a head start vis-à-vis regulations imposed from outside. Thus, the national REDD+ Strategy and development and implementation of the PBCCh would be in keeping with a scenario for establishing the bases for a future ETS in Chile, contributing the appropriate elements to curb the internal release of greenhouse gases and benefit from the reduction of their emissions.



Thus, the main activities to be carried out in relation to the REDD+ Strategy options are:

1. Assessment and priority ranking of strategy options through a cost-effective analysis of the options for controlling the extraction of firewood, the excessive harvesting of timber from native forests, and the extensive grazing of cattle.
2. Diagnosis of the development measures contained in Decree-Law 701 and Law 20,283, and their implications for REDD+ actions.
3. Strengthening of the development measures contained in Decree-Law 701 and Law 20,283 within the REDD+ context—specifically: expanding the network of forestry extension workers; strengthening the systems for forest oversight and inspection in the geographic area corresponding to the REDD+ Strategy; and defining the legal and technical terms of the REDD+ Forest Management Plan for the Environmental Carbon Capture Service.
4. Development of a carbon credits trading model based on REDD+ activities within the PBCCh framework. The model is expected to include the definition of typologies for REDD+ forest carbon capture projects; the definition of steps for the validation, generation, registration, and certification of carbon credits; the assessment, priority ranking, and selection of international standards for the voluntary market; and the definition of modalities for trading emissions certificates generated through REDD+ activities.
5. Dissemination of results through the publication of technical documents, preparation of public information materials, and maintenance of a website containing the information generated.

From the operational standpoint, the following table summarizes the main activities that need to be carried out to address each of the degradation drivers identified.

Degradation Driver	Main Control Options
Intensive harvesting of high-value timber	<ul style="list-style-type: none"> <li>– Quantify the degree of extraction vis-à-vis the type of forest and owner</li> <li>– Quantify levels of timber extraction (with the possibility of cutting trees) by growth rates of the type of forest in question</li> <li>– Assess current cutting practices being followed by forest owners</li> <li>– Based on Law 20,283, support forest landowners in preparing management plans to make better use of native forest resources</li> <li>– Use the forest extension program to help implement Forest Management Plans for Environmental Carbon Capture Services (PMSACC REDD+)</li> </ul>

Firewood extraction (for own consumption and sale on the informal market)	<ul style="list-style-type: none"> <li>– Quantify the proportion of firewood being illegally cut and marketed in Chile</li> <li>– Assess the impact of firewood extraction in terms of forest ecology and the socio-environmental value of the affected forests</li> <li>– Consider the use of existing technical and legal instruments to limit the extraction of firewood (Law 20,283 and Forest Management Plan)</li> <li>– Implement new technical and legal instruments to reduce the extraction of firewood</li> <li>– Support the formalized harvesting of high-quality firewood from Chile's native forests</li> <li>– Enlist qualified forest extension workers to provide training in proper forestry techniques for firewood harvesting and in the technical aspects of its production and marketing</li> <li>– Use the forest extension program to help implement Forest Management Plans for Environmental Carbon Capture Services (PMSACC REDD+)</li> </ul>
Use of forest as refuge and grazing reserve for cattle	<ul style="list-style-type: none"> <li>– Quantify the pressure exerted on native forests by their use as a refuge and grazing reserve for cattle, by type of forest and landowner</li> <li>– Set up demonstration parcels to show the theoretical effect of cattle on regeneration, modification of the native forest structure, and maintenance and improvement of biodiversity</li> <li>– Enlist forestry extension workers to raise awareness and provide training on the importance of keeping cattle out of forests when the goal is to regenerate them</li> <li>– Use the forest extension program to help implement Forest Management Plans for Environmental Carbon Capture Services (PMSACC REDD+)</li> </ul>

**Table 2b: Summary of REDD+ Strategy Activities and Budget (or Results Framework)**

Note: UN-REDD requested this table in a slightly different format from the rest of the tables.

Output (major activity)	Organizations involved	Activities or sub-activities	Budget allocation in thousands (estimated cost in thousands of \$)				
			2012	2013	2014	2015	Total
Outcome 1: Definition of best strategy options to be adopted in the context of REDD+ actions							
Output 1.1: Consultancy reports on priority ranking of the strategy options for controlling the extraction of firewood, excessive harvesting of timber, and extensive grazing of cattle	CONAF, AIFBN, Ministry of Energy, Universidad Austral de Chile	MA 1.1: Assessment and priority ranking of strategy options	55	110	110	90	365
		SA 1: Cost-effective analysis and priority ranking of options for controlling the extraction of firewood and excessive cutting (consultancy)	20	40	40	30	130
		SA 2: Cost-effective analysis and priority ranking of options for controlling extensive grazing of cattle (consultancy)	20	40	40	30	130
		SA 3: Validation of consultancy reports by panel of technical experts	15		30	30	105
Outcome 2: Amendment of development instruments and strengthening of institutional forest governance with a view to maximizing the benefit of REDD+ activities							
Output 2.1: Review of information on past and potential future implications of current forest development policies in the context of REDD+	CONAF, ODEPA, consultant, or university, depending on result of call for proposals	MA 2.1: Diagnosis of the development measures contained in Decree-Law 701 and Law 20,283, and their implications for REDD+ actions	55	130	100	100	385
		SA 1: Consultancy to assess past and potential future implications of Decree-Law 701 for the REDD+ framework	20	50	20	20	110
		SA 2: Consultancy to assess the implications of Law 20,283 as an	20	50	50	50	170

		early REDD+ action and future projections					
		SA 3: Meetings with panel of technical experts to validate consultancy reports	15	30	30	30	105
Output 2.2: Implementation of actions to strengthen institutional forest governance	MINAGRI-CONAF	<b>MA 2.2: Strengthening of the development measures contained in Decree-Law 701 and Law 20,283 within the REDD+ context</b>	30	320	320	320	990
		SA 1: Expansion of the network of forest extension workers at the subnational level	0	200	200	200	600
		SA 2: Strengthening pg the systems for forest oversight and inspection in the geographic area corresponding to the REDD+ Strategy	30	100	100	100	330
		SA 3: Definition of the legal and technical terms of the REDD+ Forest Governance Plan for the Environmental Carbon Capture Service	0	20	20	20	60
<b>Outcome 3: Establishment of a technical and administrative platform for the generation and trading of carbon credits from REDD+ activities</b>							
Output 3.1: Establishment of the necessary technical and administrative structure to incorporate REDD+ activities into the PBCCh	CONAF, SCX, Patagonia Sur, LessCarbon, Poch-Ambiental, PricewaterhouseCoopers, VCS	<b>MA 3.1: Development of a carbon credits trading model based on REDD+ activities within the PBCCh framework</b>	35	220	220	220	695
		SA 1: Definition of typologies for REDD+ forest carbon capture projects	0	60	60	60	180

		SA 2: Definition of steps for the validation, generation, registration, and certification of carbon credits for REDD+ activities	20	60	60	60	200
		SA 3: Assessment, priority ranking, and selection of international standards for the voluntary market that apply to REDD+	15	60	60	60	195
		SA 4: Definition of modalities for trading emissions certificates generated through REDD+ activities	0	40	40	40	120
Outcome 4: Information and feedback from key stakeholders in the REDD+ process							
Output 4.1: Materials and modalities for reporting results to key stakeholders in the REDD+ process	CONAF, FUCOA	MA 4.1: Dissemination of results	10	60	60	60	190
		SA 1: Publication of technical documents	10	20	20	20	70
		SA 2: Preparation of public information materials	0	20	20	20	60
		SA 3: Website maintenance	0	20	20	20	60
Others, to be identified			56	252	243	237	788
National Government			46	210	203	198	656
FCPF			37	168	162	158	525
National Private Sector			46	210	203	198	656

Note: Although in many cases Terms of Reference have not yet been prepared for the budgeted consultancies, consideration should always be given to including pilot exercises as part of these activities as a way of progressing toward implementation of the strategy options.

**MA: MAIN ACTIVITY**

**SA: SUB-ACTIVITY**

Notes: 1. Countries are encouraged to include outcomes, outputs, and organizations involved in this table for this component, for consistency with normal program outcomes and indicator procedures. If identifying outcomes and outputs is difficult at this stage, include your tentative early ideas and then revisit them during Readiness Preparation.

2. Outcome: Actual or intended change in development condition that project interventions are seeking to support. Outcome includes key results such as governance reforms functioning national inter-ministry coordination, national, or regional policy or legal reforms, etc.

3. Output: The direct result of project inputs, achieved through the completion of project activities, including tangible products for services necessary to achieve the outcomes of a program or project—e.g., workshop reports, studies, new training courses, etc.

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## **2c. REDD+ Implementation Framework**

The REDD+ Strategy will be conceived and implemented within the context of the country's national development priorities. In the area of climate change, these priorities focus on three fundamental areas:

1. Institutional structure for addressing climate change;
2. Role of the forestry sector in actions to mitigate the effects of climate change; and
3. International commitments to which Chile has subscribed.

In institutional terms, although Chile is not an Annex I country under the UNFCCC and therefore has no commitment to reduce emissions, it is not a stranger to the challenges of climate change. In 2006, its National Advisory Committee on Climate Change [*Comisión Nacional Asesora sobre Cambio Climático* CNACC], a body of nine governmental institutions created in 1996 (CNACC, 2006), prepared a National Climate Change Strategy that is currently being implemented under the National Climate Change Action Plan 2008-2012. The Plan reflects public policy and is intended to articulate the various action lines being carried out by public agencies in areas related to climate change and its adverse effects (CONAMA, 2007). To strengthen this interinstitutional approach, especially within the framework of international negotiations on climate change, in 2009 the president of Chile created an Interministerial Committee on Climate Change. Today the committee includes representatives from the Ministries of the Environment, Foreign Affairs, Agriculture, Transportation and Telecommunications, Energy, Economy, Treasury, Mining, and Public Works. The committee also has a technical advisory team that meets more frequently to work on specific topics and provide advice at the ministerial level, as noted earlier.

The role of the forestry sector in actions to mitigate the effects of climate change has become a substantial component of the work of CONAF, an institution under the Ministry of Agriculture (MINAGRI) that participates actively in the meetings of the technical team that advises the Interministerial Committee on Climate Change. Its efforts led to the promulgation of Law 20,283, known as the Native Forest Recovery and Forestry Development Act, in 2008, which is recognized as prompt action taken by Chile to implement activities related to REDD+. This measure was followed by creation of both the Working Group on Climate (Resolution 35-2011) and the Platform for the Generation and Trading of Forest Carbon Credits in Chile (Resolution 226-2012), designed to promote initiatives to mitigate the effects of climate change through forest carbon capture.

In terms of international commitments, Chile became party to the Copenhagen Accord on January 29, 2010, presenting information for inclusion in Annex II of the UNFCCC on August 26 of the same year. Its presentation declared that Chile would take nationally appropriate actions for the mitigation of greenhouse gases with a view to diverting 20% of the emissions

projected for 2020 (base year 2007), and that to fulfill this commitment the country would need international support. The main measures to be adopted would be taken with concern for energy efficiency, renewable energy and land use, and changing land and forest use. Addressing these challenges calls for a new approach that reconciles economic interests with those of other forest ecosystem services such as carbon capture.

In addition, the proposed framework for the implementation of REDD+ is based on the Government of Chile's principles for action and the strategic objectives of the National Forest Corporation, which will make it possible to ensure the appropriateness of the process and its effective implementation—namely:

- Consolidate the integration of forests and native vegetation into the country's economic and social development process within a framework of international competitiveness, modernity, and integrity in the design and implementation of policies;
- Give renewed impetus to afforestation in order to support increased productivity and expanded production of forest sub-products, thus providing a decent livelihood for rural dwellers and local communities who depend on the forests;
- Promote the conservation, expansion, management, and utilization of forest resources and protect the country's environmental heritage;
- Provide encouragement for small and medium-sized producers in the forestry sector, enabling them to continue drawing benefit from their land while at the same time reducing poverty and promoting gender equity;
- Improve the institution's administrative performance and services, promoting intra- and interinstitutional synergy between the sectors involved in drafting and implementing forest policy actions;
- Promote plurality and engagement, involving local and indigenous communities in the process of defining forest policies;
- Promote transparency in the work of the Corporation as part of the Agenda for Integrity and Transparency in order to make governance more accessible to the public, generating new spaces for engagement and improving accountability in the public governance of Chile.

### **2.c.1. Property Rights, Carbon Rights, and Land Tenure**

The right to own property is guaranteed, *inter alia*, under Article 19, paragraph 24, of the 1980 Constitution of the Republic of Chile, which stipulates that this right may only be limited or restricted by law and only by reason of the social function of property, which includes the conservation of environmental patrimony. This guarantee and limitation apply to all types of property. According to Article 580 of the Civil Code, the right to property entitles the owner to use, enjoy, and dispose of it as long as these actions are not violate the law or infringe on the rights of others. Property ownership is materialized through the right of domain. In Chile, real estate is acquired by means of a public bill of sale-purchase, which must be filed with a real estate registry office. At the time of registration, the Conservator conducts a title search and,

upon registering the property, delivers a valid certificate of title. Ownership of real property may also be acquired by inheritance, but all documents related to ownership of the property must be registered with the Conservator. The registration database in Chile includes a cadastre of all existing realty in the country, so that a buyer can find out about the condition of a property before purchasing it. Chile has *secure titles* (as opposed to “title insurance” in other countries). Throughout the country, information about registered properties is clearly presented, organized, complete, up to date, reliable, and available to the public, and the record also shows any delinquent taxes or liens against the property. It should also be noted that, according to Article 590 of the Civil Code, the State owns any land within its territorial borders that is not registered under the name of another party.

On the right to own property and the freedom to conduct business, Toledo (1992) explains that Article 19, paragraph 24, of the Constitution ensures all persons the right to own property of all kinds, including both tangible and intangible assets. In addition, paragraph 21 of the same article guarantees the right to conduct any economic activity that is not an offense against morality or the public good or have the potential to affect national security. He goes on to say that the owner’s entitlements to use, enjoy, and dispose of this right are the essential entitlements that constitute ownership of private property. Thus, if any of them are denied, it is the obligation of the State to pay corresponding indemnification. Entitlement to use allows the owner to avail himself of the asset; entitlement to enjoy or exploit it allows the owner to benefit from the fruits or products that the land is capable of yielding; and entitlement to disposal allows him to sell, consume, or transform the property (Quezada, 2010).

In terms of the ownership of carbon, according to Article 643 of the Civil Code, the owner of the property is also the owner of whatever it produces, which may be either natural or civil benefits. There is no other law of equal or greater force that would change this situation, and therefore in Chile there is no doubt whatsoever concerning the ownership of carbon, which is a natural product of the forest.

According to Leyton (2009), 52% of Chile’s forests are privately owned and 48% belong to the public. Of those in private hands, 2% of the area belongs to indigenous communities. Although there are no detailed studies of ownership by small and medium-sized landholders, it is estimated that approximately 1,000,000 ha of native forest consists of parcels smaller than 200 ha which belong to peasant families (small landowners) and indigenous communities (Tecklin and Catalán, 2005). Leyton (2009), based on data from the 1997 Cadastre of Native Vegetation Resources and the 2007 National Agricultural Census, estimates that 2,000,000 ha of native forest belong to large landowners; 2,500,000, to medium-sized landowners, and 1,500,000, to small landowners. Among the activities to be carried out, it is expected to conduct studies to clarify the distribution of native foreign property, especially lands owned by small and medium-sized landholders, and identify the areas that belong to indigenous groups.

However, before landholders can be eligible for forestry incentives, they will need to have clear title to their land. According to the 2007 Agricultural Census, the ownership of about 1,800,000 ha of forest land has yet to be regularized. In the case of forest plantations, the owners of all but a small fraction of the land hold legal title, but when it comes to the native

forest, titles need to be cleared for a high proportion of the owners, especially those with small parcels (Leyton, 2009).

Temporary or ongoing programs, projects, and legal measures are needed to straighten out this situation. First of all, an updated cadastre is needed in order to identify the specific reasons why owners are having difficulty securing title. Typically, either the titles are out of date, or the identity of the owner of a given property is unclear. The first case is more common: the landowner dies and his heirs take material possession of the property without following the required procedures to ensure that they actually own it. In the second case, if the land is not registered in the name of a particular individual, the law assumes that it belongs to the State and therefore falls under the administration of the Ministry of National Resources. In such circumstances, the history of prior ownership of the land needs to be reviewed, and, based on the results of this review, steps will have to be taken with the Ministry of National Resources to regularize ownership by the person who demonstrates that he or she has possession of it.

Ownership of indigenous lands raises basically the same issues, but to a lesser extent, since recently the Indigenous Land and Water Fund Program [*Programa Fondo de Tierras y Aguas Indígenas*] of the National Indigenous Development Corporation [*Corporación Nacional de Desarrollo Indígena* CONADI] turned indigenous lands over to the communities. As a result, the problem of up-to-date titles has been drastically reduced. While it was important to turn the lands over to the communities, the reality is that these communities have divided up the land and given each of their members either a parcel of their own or a shared interest in it, and this process has generated the need to update the titles. In fact, Article 15 of Law 19,253 created the Public Registry of Indigenous Lands and entrusted CONADI with its maintenance. The main purpose of this permanent registry is to incorporate the lands under CONADI and accredit them with indigenous status. This accreditation generates legal effects that impact society in general, CONADI, and the indigenous landholders, and it also generates legal obligations for other services, such as Conservators of Real Property [*Conservadores de Bienes Raíces*], notaries, the courts, and the Internal Revenue Service.

## **2.c.2. Land and Carbon Ownership in the Implementation of REDD+**

Along with land ownership, CONAF has promoted and will continue to promote measures to support landholders, including indigenous communities, in clearing their land titles as soon as possible, since a sizable number of people in the rural sector have not completed the necessary formalities to regularize their possession of land which, because of soil- or climate-related conditions or the fact that it has native forest cover, would qualify them for benefits under Decree-Law 701 or Law 20,283. In other words, they are excluded from the system of incentives because their ownership has not been established. The problems mainly have to do with the subdivisions and inheritances from members who have died. In such cases, the procedures for ensuring full title to the land are complicated. The Corporation is implementing a follow-up framework to help landowners in this situation, and it needs to be strengthened. As part of this effort, CONAF is working with the Ministry of National Resources to promote a program for clearing land titles specifically to existing forest and prime forest land. This program is being carried out under a specific agreement between the two institutions and is

currently being formalized. In addition, to institutionalize the effort to deal with this problem, in 2011 CONAF created the staff position of National Coordinator for Title Clearance [*Coordinador Nacional de Saneamiento de Títulos*]. Another approach to resolving the problem has been to clear the titles through the Civil Registry and Identification Service. To summarize, CONAF is taking the following steps to address the situation:<sup>29</sup>

1. **Cadastre of land parcels to be regularized.** Based on information from the 2007 Agricultural Census, coupled with field-checking by CONAF professionals, a list has been prepared of parcels to be regularized in the regions of Coquimbo and Los Lagos.
2. **Coordination with INDAP.** The National Agricultural Development Institute invited CONAF to join forces in clearing titles to agricultural and forest land. This partnership—with the advantage of government funding, the advice of land use attorneys and professionals contracted by INDAP, and input from CONAF staff based in its regional offices—was able to put together a portfolio of land titles to be cleared. Progress in this matter has been uneven because each region presents its own realities and complexities.
3. **Direct collaboration with the Ministry of National Resources.** Tacit agreement has been reached at both the national and regional level on incorporating CONAF's initiatives into the Ministry's regular programs for the clearance of land titles. As mentioned above, progress has been greater in some areas than others because of the different realities and complexities encountered in each region.
4. **Direct collaboration with the Civil Registry and Identification Service.** CONAF has been cooperating with SRCEI on several regional initiatives in which the Service's field staff have initiated procedures to regularize land ownership in areas over which it has jurisdiction, such as cases of actual possession (Maule Region).
5. **Collaboration with municipal governments.** There have been cases in which municipal governments have worked directly with the Ministry of National Resources to clear titles at the request of CONAF.

Another step forward in ensuring that indigenous landholders have access to the benefits of Decree-Law 701 has been a provision in Law 20,488 (the 2010 extension of Decree-Law 701) that changes Article 12 of the 1979 Decree-Law 2,565. The new language allows for the exception that, when indigenous persons, indigenous communities, or members of an indigenous community who have, or may have, access to land purchases or subsidies under the provisions of Article 20, paragraphs (a) and (b) of Law 19,253, known as the Indigenous Act, they shall be allowed to opt for the incentives offered in that law notwithstanding the fact that the land area in question has been the subject of a previous benefit, with the proviso that this option shall only apply in the case of forests that were exploited by owners other than indigenous persons, indigenous communities, or members of an indigenous community who benefited by the subsidy referred to in Law 19,253.

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<sup>29</sup> This same point is covered in Component 1.

In addition, the new Forestry Development Act currently in the process of being enacted and is intended to replace the system of incentives in Decree-Law 701 that ended in 2012, or else an extension of the benefits under the present Decree-Law 701 will provide for the payment of forest incentives related to carbon capture, with the main emphasis on small and medium-sized landowners. The new law or the amendment to Decree-Law 701 will explicitly state that captured carbon belongs to the producer, and furthermore, that the carbon captured (with the incentive) must be traded within the country so that this capture offsets the national greenhouse gas inventory.

### **2.c.3. Activities Planned with REDD+ Co-financing**

Chile's forestry sector has an impressive record in terms of increased forest cover, conservation, and management, based on laws and regulations that have encouraged the planting of forests on land devoid of vegetation and limited the unreasonable exploitation of native forests, with the goal of ensuring their sustainability, that dates back to Decree 4,363 of 1931, known as the Forest Act.

Decree-Law 701 was enacted in 1974 with the twofold objective of preserving existing forests (mainly native forests) and planting new forests on land devoid of vegetation. This instrument has undergone several modifications and remains valid to this day, and up until the end of 2012 it provided incentives for the afforestation and recovery of degraded land. Between 1976 and 2010 the Government spent more than US\$520 million on incentives under Decree-Law 701, not including CONAF administrative costs. During the period 1975–2005, thanks to 815,399 ha planted in *Pinus radiata* and 260,237 ha in *Eucalyptus* spp. (total 1,075,636 ha) under the benefits of Decree-Law 701, approximately 33.27 million tons of carbon were captured, representing about 122 million tons of carbon dioxide equivalent (tCO<sub>2</sub>e) (Gilabert *et al.*, 2007). By comparison, the Climate Change Center at the Universidad Católica de Chile (CCG-UC, 2011) predicted that if Decree-Law 701 incentives were to end in 2011, the forestry subsector's annual mitigation rate would drop to an average of only 2,874,334 tCO<sub>2</sub>e in 2011–2020, and that this figure would further decline to 2,449,278 tCO<sub>2</sub>e in 2020–2030 and 1,555,266 tCO<sub>2</sub>e in 2030–2050.

More recently, Law 20,283 was enacted in 2008. The Government's investment under this law amounts to approximately US\$8.5 million a year, of which about 80% goes to incentives for forest conservation and management and the rest for research on the country's native forest ecosystems.

INFOR (2010) has analyzed the potential mitigation to be derived from the incentives in Law 20,283. Based on the estimate that 1.1 million ha of land will benefit from interventions offered under this law over a period of 20 years in the regions of Maule and Magallanes, assuming the use of biomass for energy, the enrichment of native forest by the exclusion of cattle-grazing, and specific levels of budgetary allocations for incentives (an annual minimum of 30% and maximum of 70% for each mitigation mechanism), the authors conclude that 523,000 to 733,000 ha of forest managed over this period would yield the potential to capture between 34 million and 52 million tCO<sub>2</sub>.

Consideration is currently being given to a new Forestry Development Act that would replace the incentives component of Decree-Law 701. It differs from Decree-Law 701 in that it focuses on small and medium-sized landholders, the forest incentives are aimed at carbon capture, and a small annual stipend is paid to small landowners. Laroze and Nazif (2012) estimate that a total of approximately 110 million tCO<sub>2</sub> could be sequestered in the next 40 years if an annual budget of US\$37.3 million were allocated over a 20-year period, which would make it possible to plant approximately 592,000 ha in *Pinus radiata*, *Eucalyptus* spp., energy forests, and “permanent or semi-permanent forests” to serve exclusively as carbon sinks. If the reduction of emissions through the replacement of fossil fuels is added to this analysis, another 73 million tCO<sub>2</sub> would be accumulated by the end of the period, thus achieving an average of 5.7 million tCO<sub>2</sub>/year as a result of the proposed new law.

In addition, the following complementary activities are under way.

- The Project on Sustainable Land Management [*Proyecto de Manejo Sustentable de la Tierra*], an initiative undertaken with support from the Global Environment Facility (GEF), focuses on the management of degraded lands, the conservation of biodiversity in productive areas, and activities for the mitigation of climate change. It is working to strengthen the Chilean Government’s incentive mechanisms for sustainable agriculture and forestry as well as protection of the environment. The Government offers economic benefits to landowners so that they can manage their properties with these objectives in mind. This five-year project will receive a total of US\$6 million from the Global Environment Facility.
- Under Chile’s Nationally Appropriate Mitigation Action, a model is being developed for the establishment and administration of a revolving fund or other similar financing mechanism to encourage the planting of forests and management of the native forest with emphasis on carbon capture and other ecosystem services. It has received funding from the Government of Switzerland amounting to approximately US\$1 million a year over a three-year period, with the possibility of an extension, depending on the results.
- Also, as part of the process of gathering information on the country’s forests, CONAF has been administering and regularly updating the Cadastre of Native Vegetation Resources in Chile since 1997. To date, the funds allocated for this activity come to a total of US\$3 million.
- To supplement the information from the cadastre, which is qualitative on the subject of land use changes, since July 2011 a joint project with the Universidad Austral de Chile has focused on designing and implementing an ongoing monitoring system through the study of sample parcels. This initiative is already supplementing the cadastre by generating quantitative information on several forest variables. To date, CONAF has spent approximately US\$170,000 on this effort.
- CONAF has allocated US\$40,000 and issued a call for proposals to prepare conceptual and methodological guidelines for the development of typologies for forest carbon capture projects, mentioned in 2b above, which will also contribute to development and implementation of the PBCCh.

- In addition, CONAF has committed approximately US\$378,000 for the development of PBCCh typology studies by the Universidad Mayor and the Universidad de Concepción (Los Ángeles Campus), also mentioned in 2b above, which will provide further support for development and implementation of the PBCCh.

Today all these initiatives on forests and climate change are making an important contribution to future co-funding of the REDD+ Strategy, since they are part of a development model designed to foster synergy and the efficient use of technical and financial resources for a common purpose—namely, to strengthen the role of Chilean forests in the mitigation of climate change.

#### **2.c.4. Potential Use of a National Carbon Monitoring System or Registry for REDD+ Activities and Transactions**

It is proposed to establish a National Unit for the Administration and Registration of Forest Carbon Credits and a transparent system for recording credits, collecting payments, and managing related costs, which would make it possible to track the growth of carbon reserves and follow the data on the reduction of emissions received from the Monitoring, Reporting, and Verification System (MRV) and thereby allow the available credits to be claimed for carbon capture initiatives. This unit would not be dedicated exclusively to REDD+ activities but rather would be part of the PBCCh described in Section 2b above.

The Administration and Registration Unit is planned to be an essential component of the system for administering and regulating the market as part of the process of officializing reductions and emissions. It will also support the development of financial mechanisms in the carbon market as the opportunity arises. Its basic functions are to:

- Provide information on the participants registered, area covered, and credits issued, with a view to ensuring the market's transparency;
- Guarantee that the registered credits meet all quality requirements, which will lend credibility to the system;
- Work directly with the financial system, which will ensure the value and traceability of the carbon credits.

Within this framework, an analysis will be undertaken to assess the need for and the technical, institutional, and economic feasibility of implementing a national unit for the administration and registration of forest carbon credits generated in Chile, as well as its compatibility with the requirements of the PBCCh being promoted by CONAF and other national and international registries. For this purpose, the following activities should be undertaken:

- Identify international experiences in the administration and registration of carbon credits, especially on the voluntary market;
- Assess the similarities and differences between the situation in Chile and the experiences identified in other countries in terms of their technical, institutional, and economic aspects;



- Study the initiatives undertaken in the Ministry of the Environment and the Ministry of Energy, which also have registration units, with a view to reconciling the objectives of these different administrative units;
- Propose and assess the operational modality of a proposed unit for the administration and registration of forest carbon credits in Chile.

It should be noted that because of Chile's status with the UNFCCC as an Annex I country, the PBCCh is based on voluntary markets, which are less volatile than the regulated market. Although the verified carbon standard (VCS) applies at the outset, this does not mean that future projects cannot use other standards, most of them complementary to the VCS, that emphasize other attributes—for example, environmental and social values—and offer a more supportive context from the standpoint of the initiative's sustainability. It is also possible that future projects could fall within the framework of the regulated market as long as this is advantageous to the country from the cost-benefit perspective and consistent with commitments already assumed with the UNFCCC or that might be assumed in the future. Another possibility is that these credits could be traded at the national level if there is sufficient potential demand for them in the future. As part of Chile's Forest Nationally Appropriate Mitigation Action funded by the Government of Switzerland, it is planned to conduct a study of actual and projected demand at both the national and international levels and in both the voluntary and regulatory markets.

Finally, it is necessary to clearly establish the relationship between the unit for the administration and registration of forest carbon credits and the MRV System, as well as its links to other public and private institutions involved in emissions reduction schemes. It will be extremely important to offer workshops to discuss these issues, design the new entity, establish its institutional architecture, and mobilize the financial resources needed to turn it into a legally recognized institution.

The main activities planned for this component are:

1. Support for landholders, including indigenous communities, in clearing their land titles and regularizing ownership of the forest carbon, which will include an analysis of the current native forest property and the relationship between forestry incentive systems and the different forms of land tenure, as well as consideration of provisional or permanent alternative legal proposals regarding property rights;
2. Definition of mechanisms to ensure the participation of indigenous communities in the REDD+ deliberative body based on the rights and obligations of indigenous people enshrined in national legislation and any international accords to which the country has subscribed, including the relationship between these elements and REDD+;
3. Creation of mechanisms for independent monitoring, evaluation, and review, with links to REDD+ and all the institutions concerned with this subject, including the following: analysis of the technical, institutional, and economic aspects involved in implementing a unit for the administration and registration of forest carbon credits in Chile; identification of possible challenges and pitfalls in guaranteeing transparency,

accountability, and equity; and finally, definition of the duties and responsibilities of the relevant local and national, public and private, governmental and nongovernmental institutions.

<b>Table 2c: Summary of REDD+ Implementation Framework Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Support for landholders, including indigenous communities, in clearing their land titles	Study of the current distribution of native forest cover by type of owner	0	30	30	30	<b>90</b>
	Consultancy to analyze legislation on land ownership rights and forest carbon	0	60	60	60	<b>180</b>
	Relationship between forestry incentives and forms of land tenure	0	20	20	0	<b>40</b>
	Study for proposal of programs, projects, or provisional or permanent legal measures to regularize property rights	0	40	0	0	<b>40</b>
	Meetings with technical expert panel to validate consultancy results	0	15	15	15	<b>45</b>
Definition of mechanisms to ensure the participation of indigenous communities in the REDD+ deliberative body	Analysis of rights and obligations of indigenous peoples and their relationship to REDD+	20	30	30	30	<b>110</b>
	Identification of agencies and institutions with links to indigenous peoples and their role within the framework of REDD+ activities	20	30	30	30	<b>110</b>
	Definition of the ways in which indigenous peoples and communities can participate in REDD+ actions	20	30	30	30	<b>110</b>
Creation of mechanisms for independent monitoring, evaluation, and review with a view to establishing a legally recognized unit for the administration and registration of carbon credits	Analysis of technical, institutional, and economic aspects involved in implementing the National Unit for the Administration and Registration of Forest Carbon Credits in Chile	20	50	50	50	<b>170</b>
	Identification of the institutions involved in independent monitoring, evaluation, and review	0	25	40	0	<b>65</b>
	Identification of possible challenges and pitfalls in guaranteeing transparency, accountability, and equity	0	25	25	0	<b>50</b>

	Definition of the relevant local and national, public and private, governmental and nongovernmental institutions	20	20	20	20	<b>80</b>
	Meetings with technical expert panels to validate consultancies	15	15	15	15	<b>60</b>
Dissemination of results	Publication of technical documents	20	20	20	20	<b>80</b>
	Dissemination of trifold brochures	20	20	20	20	<b>80</b>
	Website maintenance	25	25	25	25	<b>100</b>
<b>Total</b>		<b>180</b>	<b>455</b>	<b>430</b>	<b>345</b>	<b>1,410</b>
National Government		40	94	88	66	<b>288</b>
<b>FCPF</b>		<b>32</b>	<b>75</b>	<b>70</b>	<b>53</b>	<b>230</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		40	94	88	66	<b>288</b>
Others, to be identified		68	192	184	160	<b>604</b>

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## **2d. Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation**

Strategic Environmental and Social Assessment (SESA) is an instrument that will be applied before, during, and after the process to identify possible negative and positive impacts on various human populations and on the environment; to design measures for dealing with these impacts; and to measure the performance and results produced by the design as part of the REDD+ Strategy. It is especially important to identify and measure the social and environmental risks and opportunities for indigenous groups and local communities as part of guaranteeing the rights of indigenous groups. The main objective of this analysis is to ensure alignment with World Bank safeguard policies and prepare a specific Environmental and Social Management Framework (ESMF) for the country.

### **2.d.1. National Legislative Requirements Related to World Bank Safeguard Policies**

The World Bank has established policies and procedures with a view to guaranteeing the economic, financial, social, and environmental soundness of its operations. More specifically, it has developed policies to be applied in the areas of financing, contracting, disbursement, information access, safeguards, and participation.

The Bank's Operational Policies (OPs) on Indigenous Peoples (4.10), Environmental Assessment (4.01), and Forests (4.36) are the frame of reference for the SESA. OP 4.12 is concerned with restrictions on the use of resources, and OP 4.04 focuses on the conservation of natural habitats, which, along with other measures for protection and enhancement of the environment, is essential for long-term sustainable development, especially in regions of the world that have unique ecosystems such as the Mediterranean Temperate Forests and Coastal Temperate Rainforests of Chile. In addition, the country's national legislation on the environment, indigenous peoples, and forests is a compulsory frame of reference.

This document will use the definitions of *indigenous people* and *local community* contained in Convention 169 of the International Labour Organization (ILO, 2006). Both the World Bank Operational Policy 4.10 and the document "REDD Legal Issues: Indigenous Peoples and Local Communities" use these definitions (Griffiths, 2005; CIEL, 2009).

With regard to environmental legislation, up until 1990 the institutional governance of Chile's environment consisted basically of a series of sectoral agencies that oversaw given aspects of the environment, including the environmental effects of specific productive activities. With the promulgation of Law 19,300, the Environmental Bases Act, in 1994, for the first time Chile had comprehensive legislation to regulate protection of the environment. This law also created a government agency, the National Environmental Commission (CONAMA), and entrusted it with overseeing proper application and compliance with this legislation, as well as the design and implementation of a national policy on protection of the environment. The Environmental

Bases Act also introduced new environmental governance instruments into the legal system, most notably the Environmental Impact Assessment System [*Sistema de Evaluación de Impacto Ambiental* SEIA], quality and emissions standards, and plans for prevention and decontamination (Figueroa and Hervé, 2005). This legislation was updated in 2010 by Law 20,417, published on January 26 of that year, which created the Ministry of the Environment, the Environmental Assessment Service [*Servicio de Evaluación Ambiental*], and the Superintendency of the Environment [*Superintendencia del Medio Ambiente*]. Unlike the previous model, the new institutional structure is based on a hybrid model that combines the roles of coordinating, drafting, and applying public environmental policies, all under the Ministry of the Environment, with the cross-cutting function of deliberating government policy on sustainability entrusted to a Council of Ministers for Sustainability [*Consejo de Ministros para la Sustentabilidad*] (MMA, 2012).

The Environmental Impact Assessment System is the main preventive instrument available under the law. It seeks to improve the environment affected by projects and activities through comments by the relevant services with competency in the subject. The procedure, which is overseen by the Environmental Assessment Service, determines whether the potential environmental impact of a project or activity falls within the approved standards, and in the case of studies, whether they have provided for adequate steps to mitigate, compensate for, and repair any impacts on the environment. The person responsible for the proposed project or activity must present an environmental impact declaration [*Declaración de Impacto Ambiental* DIA] acknowledging that if there is a risk that the project could generate or present any of the effects, characteristics, or circumstances covered in Article 11 of Law 19,300, that he or she must present an Environmental Impact Study [*Estudio de Impacto Ambiental* EIA]. Title II of the SEIA Regulations sets forth the variables, criteria, and scope of the effects, characteristics, or circumstances that would apply. In the case of the forestry sector, the system is also governed by the pertinent provisions mentioned above in Decree-Law 701 and Law 20,283. Engagement of the community and its citizens is a fundamental aspect of environmental assessment because it enables people to become informed and comment responsibly on the proposed project or activity, as well as for them to receive responses based on their comments. Communities and their members contribute valuable information to the environmental assessment process, and their participation lends transparency to the review of studies and declarations and provides solid ground for decisions taken by authorities (Annex 2d-1)

(<http://www.sea.gob.cl/contenido/que-entendemos-por-participacion-ciudadana-en-el-sistema-de-evaluacion-de-impacto-ambienta>).

With regard to indigenous peoples, Law 19,253 of October 5, 1993, reflects most of the positions formulated by indigenous organizations over the years. This law created the National Indigenous Development Corporation (CONADI) as a public agency responsible for promoting, coordinating, and implementing public policy on indigenous matters, including funds and programs for the restitution of lands and waters, cultural strengthening, and the development of indigenous peoples. The Indigenous Peoples Act was a first step; it was followed later by Chile's ratification of ILO Convention 169, which thereby became the law of the land, and finally, recognition of indigenous peoples in the National Constitution (CONADI, 2010).



Within the framework of the obligations assumed under ILO Convention 169 and the commitments made in the program Coalition for Change [*Coalición por el Cambio*], the Government of Chile convened an indigenous consultation (<http://www.consultaindigena.cl/consulta-1.html>) at which individuals and institutions representing the indigenous peoples expressed their opinion and offered comments on the following initiatives:

- a) Proposed constitutional reform to recognize indigenous peoples;
- b) Drafts laws to create an indigenous development agency and an indigenous peoples council; and
- c) Procedures for consultation and participation.

The framework of the new indigenous institutional structure includes a consultation process for hearing, collecting, channeling, and incorporating, insofar as possible and appropriate, proposals from indigenous peoples and communities as part of refining the procedures for consultation and participation with these groups. The Environmental Assessment Service [*Servicio de Evaluación Ambiental SEA*] is currently in the process of submitting documents on the role of existing environmental institutions and its effects on indigenous peoples (Annex 2d-2) (<http://www.sea.gob.cl/contenido/consulta-indigena-reglamento-seia>).

#### **2.d.2. Identification and Management of Social and Environmental Impacts**

During the REDD+ Preparation phase, the strategic environmental and social assessment (SESA) approach makes it possible to identify and even integrate key environmental, social, legal, and public policy points associated with deforestation and forest degradation that are directly tied in and relevant to development of the national REDD+ Strategy. SESA is based on a participatory process in which perspectives and issues seen from the point of view of different key stakeholders can be fed back into the process of designing the REDD+ national strategy.

It should be made clear that this assessment does not have the legal or technical implications of an Environmental Impact Study, which is required by the Environmental Assessment Service within the context of the Government's Environmental Impact Assessment System.

The World Bank conducts preliminary environmental studies for each of its proposed projects to determine the scope and type of environmental assessment that would be needed and assigns the project to one of four categories depending on its type, location, and scope, as well as the nature and magnitude of its possible environmental impact (Álvarez, 2012). The options under a national REDD+ Strategy and consequent REDD+ measures would probably fall within the World Bank's Environmental Safeguard Policy Category C in terms of possible negative impact—in other words, the project would be expected to have minimal or no adverse environmental impact.

In all cases, the results of the environmental assessments will be reviewed with the relevant stakeholders and made available to the public within the framework of the participatory

process that is part and parcel of any preparation that the country would undertake (Component 1). The results of the assessments will be presented to the stakeholders with adequate advance notice and in language that is understandable by all of them. The presentations will clearly demonstrate the possible or likely impacts and the possible areas in question in a manner that will allow for discussion of alternative approaches and enable the participants to make informed decisions. Any monitoring program for the implementation phase of REDD+ measures would address the points that arose during the previous assessment exercise and comments on the respective areas in question. Practically speaking, the development of local environmental monitoring plans at the level of the communities can be integrated with both social impact plans and socio-environmental plans.

With regard to the *gender approach*, although it is not a specific technical issue in either the national climate change strategy or the REDD+ Strategy, it is considered a very important aspect of the SESA process, and for this reason it is intentionally included in the implementation and development of any forest-related action or strategy in order to learn about the special and specific interests and practices of women in the context of this resources and reflect them into the decisions taken. The gender approach is inherent in any action that involves CONAF either directly or indirectly, as described in Sub-component 1b, and it is incorporated into the institution's work through such initiatives as its Management Improvement Program for Gender, an interministerial initiative in Chile.

In the REDD+ Strategy, an effort will be made to incorporate women into its implementation as part of the ongoing goal of achieving greater equity among forest users. Specifically, there is not only concern for equity in the benefits offered by carbon capture, but also a commitment to respond to the different needs, practices, and interests as they are seen from the perspective of women. Accordingly, SESA will seek to:

- ❖ Strengthen the participation of women in the processes of information sharing, consultation, and engagement;
- ❖ Provide information broken down by sex and region as input for focused regional actions that incorporate the gender approach in the REDD+ context;
- ❖ Determine the impact of the REDD+ initiative on gender issues.

The social impact of REDD+ measures is an area of even greater potential conflict than the environment, since curtailing forest degradation and promoting conservation and sustainable management of forest resources may be in direct competition with other economic activities and the needs of the country's communities and productive sectors. The social assessment will include at least the following steps:

- Evaluation of the legal and institutional framework applicable to indigenous and/or peasant communities from the standpoint of the proposed REDD+ measures;
- Collection of basic demographic, social, cultural, and other information on indigenous and peasant communities in the priority REDD+ areas;

- Development of a social assessment of the REDD+ measures in coordination with representatives from the communities, and joint preparation of proposals for avoiding negative effects and promoting positive effects in local communities;
- Identification of training needs for the communities;
- Development of specific plans for participation and consultation with indigenous peoples and peasant communities based on the results of the foregoing analysis.

The World Bank Operational Policy on Indigenous Peoples, OP 4.10, applies to projects in which it is involved. The purpose of the policy is to help ensure “that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples.” Since the forest area where activities under the REDD+ Strategy will be carried out corresponds to indigenous territories recognized under Law 19,253, it will be important to prepare an Indigenous Peoples Plan [*Plan de Pueblos Indígenas*]. This process involves characterizing the communities potentially involved; learning about their perception of the REDD+ Strategy prior to its implementation; specifying and describing the territorial intervention methodologies to be used; estimating the possible effect of the actions to be implemented; and finally, setting up a schedule for the indigenous consultations, as recommended by the Bank’s Operational Policies. Furthermore, in the case of Chile, these steps need to be planned and carried out in keeping with the standards set by ILO Convention 169, the Indigenous and Tribal Peoples Convention.

In fact, work is already under way on an Indigenous Peoples Plan, which will also serve as a social assessment tool, within the framework of implementing the Sustainable Land Management Project [*Proyecto de Manejo Sustentable de la Tierra*] sponsored by the Ministry of Agriculture (MINAGRI) with the participation of the Global Environment Facility and the World Bank. The project will be carried out in the Pilot Area of Putre (region of Arica and Parinacota) and the Carahue-Puerto Saavedra Area (region of Araucanía) in the Aymara and Mapuche territories, respectively (Aguilera, 2012). These plans consider various aspects of existing laws and institutions; the population and indigenous lands potentially affected; findings from a sociodemographic, organizational, and productive diagnosis that would be applicable under the terms of the national Indigenous Peoples Act and ILO Convention 160; and permanent mechanisms for indigenous engagement. The Indigenous Peoples Plan proposed here will be consistent with the MINAGRI-GEF-WB project mentioned above.

In no case do the objectives or activities under the national REDD+ Strategy envision any involuntary resettlement actions—understood to mean displacement or loss of lands, homes, real property, or physical assets—that will affect the beneficiaries. However, it could happen that, in order to meet specific objectives of the strategy, there might be some displacement or relocation of productive activities, or restrictions thereon, and such actions could result in a change or reduction in household income for the participants, which could affect their quality of life. Accordingly, appropriate safeguards and measures will be taken during preparation and implementation of the REDD+ Strategy whenever a situation described in the previous paragraph should arise. All this will be done in strict compliance with national and institutional laws and regulations, as well as the World Bank Operational Policies on Involuntary

Resettlement, OP 4.12. In this regard, the Manual on Procedural Standards (Aguilera, 2012) prepared within the framework of the MINAGRI-GEF-WB Sustainable Land Management Project is provided here to give an idea how the subject will be addressed (Annex 2d-3).

### **2.d.3. Work Plan for the SESA Process and Preparation of the ESMF**

The Strategic Environmental and Social Assessment produces the basic elements for preparing and finalizing the safeguard documents required by the World Bank. Its specific objectives are as follows:

- (a) Identify, through a participatory basis, the environmental and social impacts as well as the legal and public policy implications for the REDD+ Strategy;
- (b) Conduct studies on the possible impacts/issues identified by the stakeholder groups;
- (c) Obtain feedback from key stakeholders on the results of the studies and the safeguard instruments;
- (d) Obtain recommendations for the design of the REDD+ Strategy based on a diagnostic analysis and the views of stakeholders;
- (e) Prepare the safeguard documents required by the World Bank, which, in addition to helping to guide implementation of the national REDD+ Strategy, will contain the mitigation measures and the measures planned for avoiding possible impacts, especially on local indigenous and non-indigenous communities.

Component 1 of the R-PP presents a plan for the consultation and participation of stakeholder groups during the design of the REDD+ Strategy. The participatory process required for the SESA Work Plan will be based on the principles of consultation and participation within the framework of R-PP Component 1b, which may also undergo modification during the preparation phase. The SESA participatory process will be planned, implemented, and finalized according to the following steps:

- (a) Preparation of a draft SESA Work Plan;
- (b) Dissemination of the draft SESA Work Plan to solicit input and comments from the various stakeholder groups through national or subnational workshops, as appropriate;
- (c) Finalization of the SESA Work Plan, integrating the contributions received;
- (d) Dissemination of the SESA Work Plan to the stakeholder groups and the general public;
- (e) Organization of a series of consultation workshops to provide information and receive contributions and comments regarding the diagnostic studies and analyses that informed the SESA Work Plan, the workshops to be based on the overall framework of the consultation plan in Component 1 of the R-PP;
- (f) Organization of a national workshop, or several subnational workshops, to present and discuss progress to date on the draft SESA Report and the draft ESMF and reach a

consensus on the key findings to be integrated into and/or addressed by the national REDD+ Strategy;

(g) Final review and public dissemination of the SESA Report and the ESMF.

Thus, the specific actions to be carried out will be:

- An ex ante social and environmental assessment of the negative and positive impacts of REDD+ (including a threat analysis); identification and assessment of the social and environmental impacts of REDD+ by magnitude and relevance; and specification of the vulnerable human populations and ecosystems under threat and at risk.
- Design of measures to be taken as part of a social and environmental management plan. A management plan for dealing with the significant impacts of REDD+, incorporating the SESA recommendations regarding socio-environmental assessments made in the past that might be relevant in the REDD+ context, will be drafted and implemented. In this case, CONAF has already had the experience of conducting two indigenous consultation processes in the past on forestry issues (extension of Decree-Law 701 in 2010, and an amendment of the Forestry Development Act in 2012, as well as experience in connection with the MINAGRI-GEF-WB Sustainable Land Management Project, all of which will be drawn upon as appropriate.
- Ex post social and environmental assessment of the positive and negative social and environmental impacts of the REDD+ process—in other words, an ex post assessment of the impacts and performance of REDD+ from the socio-environmental perspective.
- Plan for monitoring and evaluation of the consultation and participation process, which will permit appropriate follow-up of the REDD+ consultation and participation process.

Systematic organization of the steps listed above will yield the following documents as specific initial products of the SESA, based on consultation with key stakeholder groups and findings from the diagnostic studies:

(a) SESA Report, including the following:

- Documentation of the benefits and risks of opting for the national REDD+ Strategy;
- Analysis of the contextual challenges that could weaken or strengthen sustainability of the national REDD+ Strategy;
- A detailed description of the process of integrating the social, environmental, and legal issues involved in designing the national REDD+ Strategy and how issues of this nature raised by the stakeholder groups have been addressed.

(b) Environmental and Social Management Framework (ESMF), a World Bank safeguard instrument, including the following:

- Environmental Assessment (OP4.01) with plan for mitigating possible environmental impacts;

- Indigenous Peoples Planning Framework (OP 4.10) for dealing with possible negative and positive impacts affecting indigenous peoples.

The main activities involved are:

1. Definition and analysis of impact assessment proposals within the context of SESA and the Environmental and Social Management Framework (ESMF), including an exhaustive analysis of World Bank safeguard policies as they relate to national legal requirements, as well as definition of ways in which the community will be engaged in the social and environmental assessment (citizen participation), and especially, mechanisms for gathering opinions and comments from persons and institutions representing indigenous peoples.
2. Development of the Environmental and Social Management Framework, including identification of the social and environmental risks and impacts and a cause-effect analysis of each, with an analysis of the main problems in this area that entail risks for the equitable distribution of benefits and opportunities.
3. Application of the ESMF in pilot cases following adaptation of the general ESMF to specific pilot cases; definition of measures for monitoring the environmental and social impact of early implementation REDD+ projects, using specific assessment indicators; and definition of measures for controlling or mitigating impacts, resolving conflicts, and monitoring social response, with validation of the instruments, actions, and indicators through meetings with technical expert panels.
4. Dissemination of the results and experiences through the publication of technical documents, distribution of trifold brochures, and addition of the new information on the official website.

<b>Table 2d: Summary of Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation Activities and Budget</b>						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Definition and analysis of impact assessment proposals within the context of SESA and the Environmental and Social Management Framework (ESMF)	Analysis of the World Bank safeguard policies as they relate to national legal requirements	10	20	20	20	70
	Definition of ways in which the community will be engaged in the social and environmental assessment (citizen participation)	10	25	25	25	85
	Mechanisms for gathering opinions and comments from persons and institutions representing indigenous peoples	15	25	25	25	90
	Proposals for the implementation of SESA and ESMF	10	30	30	30	100
	Meetings with technical expert panels to validate consultancies	10	20	20	20	70
Development of the Environmental and Social Management Framework (ESMF)	Identification of social and environmental risks and impacts	10	20	20	20	70
	Cause-effect analysis of social and environmental risks and impacts	0	0	0	0	0
	Analysis of the main problems in this area that entail risks for the equitable distribution of benefits and opportunities	0	20	20	20	60
	Meetings with technical expert panels to validate consultancies	15	15	15	15	60
Application of ESMF in pilot cases	Adaptation of the general ESMF to specific pilot cases	0	15	15	15	45
	Definition of measures for monitoring the environmental and social impact of early implementation REDD+ projects	15	30	30	30	105
	Definition of measures for controlling or mitigating impacts, resolving conflicts, and monitoring social response	20	20	20	20	80
	Meetings with technical expert panels to validate consultancies	15	20	20	20	75
Dissemination of results	Publication of technical documents		20	20	20	60
	Dissemination of trifold		20	20	20	60

	brochures					
	Website maintenance		20	20	20	60
<b>Total</b>		<b>130</b>	<b>320</b>	<b>320</b>	<b>320</b>	<b>1090</b>
National Government		33	80	80	80	273
<b>FCPF</b>		<b>26</b>	<b>50</b>	<b>60</b>	<b>60</b>	<b>196</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		33	94	80	80	287
Others, to be Identified		39	96	100	100	335

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### **Component 3: Develop a National Forest Reference Emission Level and/or a Forest Reference Level**

As mentioned earlier, one of CONAF's main objectives is to contribute substantially to mitigation of the effects of climate change through the role that forests can play. It has therefore been decided to include among the options for promoting forestry activity the development and promotion of a model for the generation, registration, certification, and trading of exotic and native forest carbon credits that meet the international standards of the voluntary market, with special attention to small and medium-sized landowners of both native forest areas and lands preferentially suited for forestry<sup>30</sup> at different levels of human intervention (subject to establishment of the PBCCh described in the earlier components).

Chile has made it clear that whatever is generated within the context of the national REDD+ Strategy with the support of the Forest Carbon Partnership Facility will become part of the PBCCh, especially those aspects that relate to the strengthening of social safeguards through public dissemination and consultation, as well as definition of national and subnational reference levels (for the carbon capture project typologies) and monitoring, reporting, and verification systems (MRVs).

In practice, this means that the reference levels will be defined during a first general phase at the national level with input from both the Ongoing National Inventory of Forest Ecosystems [*Inventario Nacional Forestal Continuo de los Ecosistemas Forestales*] (INFOR 2001 to date) and the information generated since 1996 by the Universidad Austral de Chile through its work on the Cadastre of Native Vegetation Resources in Chile, to be followed by more detailed work on the carbon capture project typologies—in other words, at the subnational or jurisdictional level—that will make it possible to add specific reference levels for each of the typologies. In this way, a methodological base will be shared across the board and at the same time the estimates will be more precise.

With regard to Chile's commitment for 2020, it has been decided at the national level that 2007 will be taken as the base year, and it will also be used as the reference date for the forestry sector. In addition, it will be applied to the framework for the first phase reference

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<sup>30</sup>*Terrenos de aptitud preferentemente forestal (terrenos APF).*

levels in the Mitigation Actions Plans and Scenarios (MAPS)<sup>31</sup> Project that Chile is implementing.

Given the figures reported in Component 2 above for increased forest cover in Chile during 2000-2010, it has been decided, in addition to the obvious justification, that the best approach will be to focus Chile's efforts on the recovery of degraded native forest, with particular emphasis on the ecosystems of greatest interest from the standpoint of emissions reductions and the conservation of biological diversity. The loss of forest resources in Chile is now considered to be the consequence of an ongoing process of forest degradation (mainly from forest to degraded scrubland) related to the existence of a large informal firewood market and a subsistence economy being practiced by many small forest landowners.

Thus, the objective for this component may be stated as follows:

*Develop and apply an internationally recognized methodology for the establishment of subnational reference levels that incorporates a means for identifying and quantifying forest degradation in the central area of the country, to be consistent with implementation of the Platform for the Generation and Trading of Forest Carbon Credits in Chile (PBCCh) and the Voluntary Market Verified Carbon Standard (VCS) as it applies to AFOLU,<sup>32</sup> as well as in alignment with the requirements of the REDD+ mechanism.*

The construction of reference scenarios based on historical trends requires access to solid data on forest cover and forest carbon stocks. Although Chile has a large body of information on its forest resources, there is still need for a more detailed analysis and specific efforts aimed at applying this information to the construction of reference levels. Some of the inputs available for developing the reference levels on degradation include:

- Cadastre of Native Vegetation Resources in Chile, administered by CONAF since 1997;
- Ongoing National Inventory of Forest Ecosystems, conducted by INFOR since 2001;
- Forest Carbon and Wood Energy Monitoring System in the Regions from Coquimbo to Magallanes;
- Extensive National Forest Inventory, 1996-1997;<sup>33</sup>
- Data on emission factors (allometric functions);
- MAPS/Chile Project;

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<sup>31</sup> Project being carried out by the Climate Change Office [*Oficina de Cambio Climático*] in the Ministry of the Environment with support from the UNDP Office in Chile.

<sup>32</sup> Agriculture, Forestry, and Other Land Use (AFOLU).

<sup>33</sup> CONAF-CONAMA-Banco Mundial-BIRF. Inventario Forestal Extensivo. Catastro y Evaluación de Recursos Nativos de Chile. 1999.

- Demographic, economic, and social statistics;
- Statistics for the sector, managed by CONAF, INFOR, CORMA, as well as other key stakeholders.

Annex 3.1 lists the various inputs that Chile can use to establish reference scenarios based on historical trends.

As mentioned in the list of inputs, the Forestry Institute (INFOR) conducts an Ongoing National Inventory of Forest Ecosystems which covers approximately 10 million ha of native forest. This initiative has a stable budget, funded directly by the Ministry of Agriculture, and it is formalized under an INFOR-MINAGRI cooperation agreement that remains in force.

To supplement the above, and essentially to increase the network of permanent parcels in the country and specify their parameters in the Ongoing National Inventory of Forest Ecosystems, a project proposal was submitted to the Global Environment Facility entitled “Integrated National Monitoring and Assessment System for Forest Ecosystems (SIMEF) in Support of Policies, Regulations, and SFM Practices Incorporating REDD+ and Biodiversity Conservation in Forest Ecosystems” (GCP/CHI/032/GFF). The GEF approved the proposal on November 15, 2012, and work is currently under way in a coordinated effort involving CONAF, INFOR, and CIREN. Once this project reaches the implementation stage, based on high-level agreements between the participating institutions, it will make a substantial contribution to the development of reference levels and an MRV System for Chile, which in turn will undoubtedly have a positive impact on Chile’s implementation of the proposed REDD+ Strategy and forest climate change platform.

Work on the definition of forest degradation got under way in October 2012, starting with an analysis of existing international and local definitions. In each case the proposed definitions are reviewed to see if they are quantifiable in the same terms as the ongoing forest inventories and satellite images. In addition, they will be validated by a broad-based panel of national and foreign experts, thus giving them solid support and acceptance by all parties in Chile who are involved in the matter.

This work will be carried out jointly with universities and research centers with proven experience in the area, most notably the Forestry Institute (INFOR), a government research agency in the forestry sector under the Ministry of Agriculture, which has already made some progress in this regard. CONAF, for its part, is responsible for both the technical and conceptual aspects of this task, and it will also be in charge of follow-up evaluation, quality control, and ongoing dissemination of the results generated in this sensitive area for the country’s REDD+ Strategy.

The main criterion that the definition of degradation needs to meet, in addition to being accepted by the national community and also probably as a conceptual referent for the international community, is that it must be demonstrated to be measurable using methods that are both technically and economically accessible over time periods that do not exceed five years.

## Reference Levels

The logical sequence proposed for the construction of a reference scenario and the estimated year of its application to forest degradation in Chile is envisioned as follows:

- i. In the first phase, based on the national-level results of the MAPS Project, a reference level will be defined for each of several sectors in the country, including AFOLU (2013).
- ii. In the second phase, based on the development of project typologies at the jurisdictional level, a specific and more detailed reference level will be derived at the subnational level for each of the typologies (2012-2014).
- iii. Finally, the subnational reference scenarios will be consolidated to arrive at a more detailed national scenario than the one defined in the beginning (2014).

**Phase 1. MAPS Project.** In fact, Chile has already been working on the definition of reference scenarios for the forestry sector with both national and international financing. The main part of this effort has been the MAPS Project, which got under way in May 2012 in connection with preparing a call for bids to prepare a baseline emissions scenario for the forestry and land use change sector (awarded to Poch-Ambiental environmental consultants, working in collaboration with the Universidad Astral, in August 2012). Reference levels will be developed for each of several economic sectors in the country based on shared information on all the possible economic, demographic, and social variables that can be homogenized (Annex 3.1).

CONAF works directly with the project's Steering Committee, and specifically on aspects related to the forestry sector, which guarantees consistency of the results vis-à-vis the requirements of the sector. The results will be available in early 2013.

More specifically, CONAF works with MAPS on such activities as:

- Preparation and review of terms of reference for the consultancy on the development of reference scenarios in the forestry sector;
- Evaluation and selection of consultants;
- Technical counterpart support during the consultancy;
- Receipt and approval of the results of the consultancy.

The MAPS project has a solid, well-developed structure for participation, which guarantees involvement of all the key national stakeholders in this area and, therefore, a valuable basis for conceiving the activities associated with the country's REDD+ Strategy.

The essential methodology for constructing national reference scenarios through the MAPS Project starts with determining the current situation and applying econometric projection models that include degradation drivers in the forestry sector. The resulting reference levels are quantitative but not geographically distributed. The basic purpose is to establish compatibility between the results from the different sectors involved in the project.

**Phase 2. Subnational Reference Scenarios.** The construction of subnational reference levels will be standardized following the conceptual and methodological guidelines to be established for the development of typologies for forest carbon capture projects in Chile. This process is currently under way, based on a consultancy that CONAF has awarded, following a call for proposals, to Poch-Ambiental environmental consultants. These guidelines were scheduled to be available during the second half of 2012 (see Annex 2b-1 for the Terms of Reference in the call for proposals).

In this way, the subnational reference level results (reflected in the project typologies) will be internally compatible, which will then make it possible to consolidate them into a detailed national reference scenario.

It is expected that the development of these carbon capture project typologies, and hence the associated reference levels, will be carried out and financed by several national and international public and private agencies, thus making for broad participation both technically and financially, which will result in a valuable pool of technical expertise for the country in areas related to REDD+ as well as other carbon capture initiatives.

Arrangements were being made to obtain financing for at least one project typology during the second half of 2012.

From the methodological standpoint, it is expected that the subnational reference scenarios will be based on past records of variations by type of forest and, especially, degradation based on the cartographic history, which would then allow for projections using specific models that incorporate the degradation drivers identified in each jurisdiction<sup>34</sup> to predict the future behavior of both processes under different scenarios. In this way, it is expected to obtain the needed quantitative information, which will have a specific geographic distribution. For the initial phase, it has been proposed to conduct the analyses and make the subnational

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<sup>34</sup>Several studies conducted in Chile provide information about the main degradation drivers, and these would be used as the basis for development of each of the project typologies, as applicable.

projections using IDRISI,<sup>35</sup> which incorporates the requirements of the Voluntary Carbon Market Standard (VCMS).

REDD baseline modeling using the IDRISI Land Change Modeler basically involves the following three phases:

**Phase 1. Overview of historical trends.** First, it is necessary to have an understanding of the historical trends in land use changes for the study area.

**Phase 2. Identification of the drivers.** The next step is to identify the land uses and the changes in coverage—for example, from native forest to degraded forest (the operational definition having previously been established)—which are believed to have taken place based on underlying forces at work in the study area. For example, highway routes are often a strong indicator of potential deforestation; other indicators might be proximity to markets or population density. Since the drivers can be environmental and/or socioeconomic in nature, multiple factors and influences in the area need to be considered, including infrastructure development, topography of the terrain, and agricultural expansion, among others.

**Phase 3. Modeling of future scenarios.** The final stage is to estimate future changes. The Land Change Modeler has controls for dynamically predicting land use changes. Future scenarios are modeled on maps that show potential transition. Both hard and soft predictions are generated. The hard prediction map represents a specific scenario. The output of a soft prediction is a continuous map of vulnerability to change coupled with an exhaustive evaluation of all possible scenarios.

For this purpose, it is necessary to create maps based on the current information that show the (estimated) distribution of biomass as of the 2007 reference level for regions VII, VIII, IX, XIV, X, and XI. This can be done quickly and easily using the images available from the Cadastre of Native Vegetation Resources. The country's remaining regions will require more extensive mapping, which began to be addressed at the end of 2012 using the work that CONAF is doing with the Universidad Austral and the Ministry of Energy,<sup>36</sup> where there is also a multidisciplinary expert panel that validates the methodologies being implemented.

Finally, based on this sequence, it is expected to have more detailed information available for the country's reference scenarios. The methodological procedures are expected to become increasingly refined, since a large number of professionals from different disciplines related to

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<sup>35</sup> IDRISI is software developed by Clark Laboratories at Clark University that integrates an geographic information system (GIS) software with remote sensing for the analysis and visualization of geospatial digital technology.

<sup>36</sup> Agreement between the Subsecretariat of Energy, the Universidad Austral de Chile, and CONAF: Assessment of the Forest Biomass Market and Its Potential, Regions IV and XII of Chile [*Evaluación del Mercado de Biomasa Forestal y su Potencial entre la IV y XII Regiones del País*].

the national forestry sector in particular and other related sectors will be participating in the definition of project typologies.

To summarize, the activities related to this component are:

1. Institutional participation as a technical counterpart for the MAPS Project, which is being led by the Office on Climate Change in the Ministry of the Environment, in the construction of reference scenarios for the country's forestry sector, thus ensuring the incorporation of necessary and sufficient technical guidelines to arrive at a first national approximation of reference levels for the sector. (Annex 3.2. shows the MAPS Project ToR for a consultancy to establish reference levels for the forestry sector in Chile).

CONAF is the technical counterpart of MAPS for the development of reference levels for the forestry sector. Most of the basic data for constructing the reference scenarios come from the cartographic and statistical information generated by CONAF in the course of its daily work.

From the above explanation, it should be clear that the results to be delivered by MAPS will be fully compatible with the requirements of the climate change initiatives that CONAF is carrying out in the forestry sector.

2. Preparation of maps of the geographic area of interest as of base year 2007 to serve as a point of departure for the development of reference scenarios.

The baseline reference scenario as of 2007 will be generated taking into account the rates of land use change for the various categories of the COT Land use Code classification system. These rates are obtained by calculating the historical annual percentage of use change over the time period spanned by the cadastre and monitoring projects in each region.

Specifically, for the use "forest," the rates of change will be estimated based on uses (e.g. "use"), underuses (e.g. "native forest"), and forest structures ("mature").

With these rates, the mapping done on the date closest to the 2007 baseline will be either "updated" or "de-updated." For example, for Region VIII the mapping done in 2008 will be de-updated to reference mapping base year 2007 using estimated annual rates of change over the period 1998-2008 (see Table 3-1 below for dates for the various regions).

To estimate carbon stocks, the Ongoing Forest Inventory measured by the Universidad Austral de Chile in 1997 will be calibrated (or corrected) to match the average INFOR Forest Inventory values and also the estimated stocks based on the CONAF network of permanent parcels, which were measured in 2012.



Estimates at the level of the trees will be made using the allometric functions available for the country. The species for which functions are not available will be estimated using functions available in the literature (default IPCC values, for example) or functions for species of similar form and height.

**Table 3-1: Mapping Projects—Date of Cadastre and Updates**

Region	Year of Project Cadastre	Year of first update	Year of second update
XV	1997	-	
I	1997	-	
II	1997	-	
III	1997	-	
IV	1997	2003	2008 ( priority sites)
RM	1997	2001	2012
V	1997	2001	2012
VI	1997	2001	2012
VII	1997	1999	2009
VIII	1997	1998	2008
IX	1997	2007	-
XIV	1997	1998	2006
X	1997	1998	2013
XI	1997	2011	-
XII	1997	2005	-

Updating of regions IV, V, VI, and XII will be done using available images from around 2012. The alphanumeric information for each polygon is extrapolated from the cartography done during the updating process. Initially, Google Earth images will be used, which provide georeferenced data down to error margins of less than 50 m at the polygon borders (the main errors being found in the Andes mountains). In the future, it is planned to use images from Chile's FASat-Charlie satellite.

3. Initiation of monitoring through the Forest Carbon and Wood Energy Monitoring System in the regions from Coquimbo to Magallanes and through the Ongoing National Inventory of Forest Ecosystems conducted by INFOR with a view to capturing regular information from all the degradation sites identified in the specified area.

To supplement the information from the cadastre, which is qualitative as far as land use changes are concerned, since July 2011 a joint project with the Universidad Austral de Chile has worked on designing and implementing an ongoing monitoring system based on parcel sampling. The system is already supplementing the cadastre by generating quantitative information on several forest variables.

Working at the national level to supplement data generated by the Ongoing National Inventory of Forest Ecosystems being conducted by INFOR, the system has delineated some 2,200 parcels measuring 500 m<sup>2</sup> in forests located in the regions of Coquimbo and Magallanes, which are now scheduled to be re-measured every five years. It collects data on species composition, trunk diameter at breast height (Dbh), tree height, condition, trunk form, canopy cover, and subanalysis of natural regeneration, among other variables, to generate various reports on the status of Chile's forest ecosystems, including carbon stocks.

Technically, the design adopted for this work is called *two-phase stratified sampling*. In the first phase, sampling points are distributed across the native forest cover in regions IV to XII. The network of phase 1 sampling points constitutes a mesh measuring 1 km x 1 km, and the population of interest is found on the country's native forest cover surface.

Each of the sampling points is assigned to a stratum, and subsampling points will be selected to establish permanent parcels. The points selected constitute the base for phase 2. The selected parcels will be re-measured periodically by CONAF personnel.

Phase 1 of the two-phase sampling involves annual or biennial classification of a systematic network of phase 1 points, depending on the status of soil use or use change—for example: forest canopy cover or other attributes.

In the future, it is intended to use Chilean satellite images, which will permit full coverage and classification of regions within a short time and at less cost, thus facilitating the periodic detection of major use changes in the regions. In phase 1, the network makes it possible to derive a sample-based assessment of change at the regional level, which will facilitate identification and prioritization of areas where field monitoring needs to be stepped up. It will also generate a sample change rate for updating statistics on the international indicators of national land use change. The main variables in phase 1 are:

- Land use change; and
- In the case of forests, change in canopy cover (based on spectral values).

The linkage to phase 2 is done through models that correlate use change and, ultimately, socioeconomic indicators, degradation, econometric models, and land tenure.

The phase 2 parcels make it possible to assess what is actually going on inside the forests observed in phase 1, then link the data to the phase 1 cartography.

The field samples are collected by CONAF staff, who have received training from the technical advisory institution—namely, the Universidad Austral de Chile—which guarantees that CONAF has the needed institutional strengthening to carry out subsequent monitoring.

4. Strengthening of the program for deriving emission factors (allometric functions) for the native species present in the area of interest (i.e., the regions of Coquimbo and Magallanes).

A nationally funded study on carbon content and biomass functions (*Contenidos de Carbono y Funciones de Biomasa*) conducted by the Universidad Austral de Chile and INFOR in 2002 provided the needed data and technical coefficients for reliably estimating carbon flows and storage in the different forest ecosystems. Based on the fact that the flows are estimated by comparing carbon stocks over time, the study started by measuring the carbon content in biomass from various components of the tree and then determined the allometric functions for estimating the biomass. Next, according to the project's Carbon Inventory Report [*Informe de Inventario de Carbono*], permanent parcels were established for monitoring the variations in accumulated carbon emissions and measuring carbon in the understory, necromass, litter, and soil.

The measurements were based on collecting and 672 trees and 197 roots corresponding to 11 species of the Evergreen forest type, 6 species of the Roble-Raulí-Coihue type, and 4 exotic species. The sampling sites covered a wide geographical range, from 37° S to 45° S latitude, including both the coastal mountain range and the Andean foothills.

Later, on January 18, 2012, CONAF signed a cooperation agreement with the Universidad Austral de Chile to supplement the previous work and, more specifically, to reduce the error rate in the functions obtained for the species *Nothofagus obliqua* (roble), which is found in abundance between the Metropolitan Region and the Los Lagos Region, and to generate functions for the species *Araucaria araucana* (monkey puzzle tree).

Also, during 2012 work began on developing allometric functions for the species *Nothofagus pumilio* (lenga beech), conducted by the Universidad Austral de Chile, and for the four main species of the Sclerophyllous type (Mediterranean forest)—namely:

*Quillaja saponaria* (soap bark), *Cryptocarya alba* (peumo), *Acacia caven* (Roman cassie), and *Peumus boldu* (boldo)—carried out by the Universidad Mayor.

In conclusion, although there is a good database in this area, it needs to be supplemented in order to reduce the sources of uncertainty in the emission factors of the various forest types in the country.

5. Expansion of the list of variables to be sampled in the Forest Carbon and Wood Energy Monitoring System and the Ongoing National Inventory of Forest Ecosystems conducted by INFOR to cover the five carbon pools defined for the REDD+ mechanism (aerial, roots, litter, necromass, and soil), as well as subsampling for biodiversity and social components.

So far, the Forest Carbon and Wood Energy Monitoring System provides for determining carbon levels in aerial and root carbon, and it also considers a series of variables associated with characterization of the site and the forest mass present. Starting in 2013, each sampling unit will have subparcels for estimating carbon content in litter (square subparcels measuring 1 m<sup>2</sup>), dead wood or necromass (along 20 m transect lines), and soil (core samples to 30 cm) in a proportion of the phase 2 sampling units.

In addition, consideration will be given to adding subsamples for the biodiversity and social components. The former would involve indicators of vegetational diversity, including shrubs and herbaceous species, while under social variables it is proposed to incorporate surveys in the sampling unit's area of influence that will help to adequately characterize socioeconomic conditions in the areas of interest and their dynamics over time. This task in the social area will include gathering data on the forest resource, but the researchers involved will be from areas of expertise (anthropology, sociology, etc.) that complement the specialties of the forestry professionals, lending further solid support in this area.

6. Development of guidelines for the construction of carbon capture project typologies in Chile's forestry sector following standardized criteria for the development of subnational reference scenarios (Annex 2b-1).

In August 2012 a contract was awarded, following a call for proposals, to prepare guidelines for the development of carbon capture project typologies in Chile's forestry sector. The stated objective of the contract is to: ***prepare conceptual and methodological guidelines for the development of typologies for forest carbon capture projects based on the Voluntary Market Standard of the Verified Carbon Standard Association (VCSA) in Agriculture, Forestry, and Other Land Uses (AFOLU)***

***area, in alignment with the requirements of REDD+ and the UNFCCC-based Land Use, Land Use Change, and Forestry (LULUCF) criteria and reflecting the current legislative norms of Chile on forestry and the environment.***

The scope of this project includes the collection and logical integration of all the technical, normative, and procedural elements that will enable a public or private entity to adequately characterize a project typology, define applicable methodologies, and manage the design and implementation of a pilot project to test the practical applicability of the elements defined.

The contract was awarded to Poch-Ambiental environmental consultants, to work in collaboration with PricewaterhouseCoopers, and the results were expected to be available by the end of 2012. With these results, it will be possible to start developing specific typologies for the PBCCh in an orderly and systematic manner, ensuring that each typology meets the appropriate standards for inclusion.

7. Development of methodologies and protocols that are easy to implement, using inputs and capacity already existing in Chile, to identify and quantify CO<sub>2</sub> emissions as they relate to forest degradation, based on national and international experiences that offer feasible and cost-efficient approaches to the task.

From the technical standpoint, several methodological approaches to this task are already being used in Chile. The most important of these was developed by INFOR as part of the Forest Degradation Analysis Project within the REDD+ framework. This work suggests that forest stock values can be efficiently used to approximate forest degradation.

This approach is based on the definition of degradation proposed by Cadman (2008): “Forest degradation is the reduction of the carbon stock in a natural forest, compared with its natural carbon carrying capacity due to the impact of all human land-use activities.” The usefulness of this definition lies in the implicit concept of carrying capacity, which may be defined as a fully occupied forest under relative conditions of density.

This method is based on the stock graph proposed by Gingrich (1967),<sup>37</sup> and it incorporates and relates this same figure to the following data:

- Number of trees
- Base area
- Tree-to-area ratio
- Canopy competency factors

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<sup>37</sup> Gingrich, S. F. 1967. Measuring and evaluating stocking and stand density in upland hardwood forests in the central states. Forest Science 13: 38-53.

The data for populating the stock graph may come from a forest inventory, a specific sampling, or other available samples from the forest inventory. The proposed methodology uses two spatial scales: landscape scale, and stand scale. The methodology is simple and easy to apply, but it requires information about various states and conditions of forest development which in many cases is difficult to obtain or may not exist at all in some regions or countries. Despite this drawback, however, the methodology makes it possible to monitor stock changes, which can indicate improvement in a forest's status from a degraded forest to a forest with normal stock (Bahamondez et al., 2009<sup>38</sup>).

In conclusion, it may be assumed that the definition and operational implementation of a methodology for assessing forest degradation is one of the most important tasks involved in implementing the MRV System within the framework of the country's REDD+ Strategy and the creation of typologies for projects aimed at curbing carbon losses by this means. There is considered to be a solid technical and professional base for addressing this challenge and achieving operational and economically viable solutions based on information available in the country.

8. Identification, compilation, and analysis of the impact of demographic, economic, and social variables, as well as public policies, on the forest degradation dynamic, followed by comparison of the findings against historical trends to produce potential scenarios.

Once the most appropriate and operationally feasible method for quantifying degradation has been established, the next step will be to identify and analyze the variables related to the dynamic in order to generate different potential scenarios based on the historical trends that were defined.

The development of baselines and reference levels for each project typology will be delegated to consultants specialized in the subject, while CONAF will be responsible for follow-up, supervision, and acceptance of the work assigned.

9. Development of a subnational reference level for CO<sub>2</sub> emissions originating from forest degradation based on historical trends from 1997 to 2011, with 2007 as the base year.

Based on the results from the two previous activities (Activities 7 and 8), it will be possible to define a specific reference level for degradation at the subnational level in

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<sup>38</sup> Bahamóndez, C., Martín, M., Müller-Using, S., Rojas, Y. y G. Vergara. 2009. Case studies on measuring and assessing forest degradation: an operational approach to forest degradation. Rome: FAO, Forest Resources Assessment Programme, Forestry Department. Working paper 158. 14 p.

the carbon capture project typologies, which will be proposed initially as the ones closest to natural forest degradation in the country.

10. Integration of the resulting subnational reference scenarios in order to define a detailed National Reference Scenario based on the development of PBCCh carbon capture project typologies.

Technically, integration of the various baselines and reference levels for the carbon capture project typologies will constitute the national reference level, supplementing the results obtained from the MAPS Project at a greater level of detail. The specific procedures for carrying out this task will be part of the analysis done by the various technical entities involved in developing the reference levels and reference scenarios for each typology. This analysis will be coupled with contributions from CONAF, which will have a broader overview of all the work being carried out.

The integration of subnational levels derived from developing each of the carbon capture project typologies being generated within the PBCCh framework will be done by a consulting institution that is highly specialized (i.e., it works mainly with prestigious academic institutions at the national and international level) and has adequate experience in the corresponding area.

As when any tasks in the various components of the country's REDD+ Strategy are outsourced, CONAF will be responsible for providing conceptual and methodological guidelines, follow-up, and supervision and quality control of the outsourced work.

<b>Table 3: Summary of Reference Level Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Participate as technical counterpart institution in MAPS Project construction of reference scenarios for the country's forestry sector	Technical meetings to follow up on outsourced tasks	10	10	0	0	<b>20</b>
	Dissemination of partial and definitive results		10	10	10	<b>30</b>
Prepare maps of the geographic area of interest as of base year 2007 to serve as a point of departure for the development of reference scenarios	Definition of methodology to be used	0	10	0	0	<b>10</b>
	Application of the methodology defined	0	40	0	0	<b>40</b>
	Publication of results	0	0	30	0	<b>30</b>
Develop guidelines for the construction of typologies for	Consultancies	30	0	0	0	<b>30</b>

carbon capture projects in Chile's forestry sector, including standards for the construction of subnational reference scenarios	Workshops for socialization and validation	0	30	0	0	<b>30</b>
	Publication of results	0	30	0	0	<b>30</b>
Generate inputs for the construction of reference levels associated with forest degradation	Step up sampling within the Forest Carbon and Wood Energy Monitoring System between Regions VII and XI	0	50	50	50	<b>150</b>
	Strengthen the program for obtaining emission factors (allometric functions) for the native species present between Regions VII and XI		50	50	50	<b>150</b>
	Expand the list of variables sampled in the Forest Carbon and Wood Energy Monitoring System to cover 5 carbon pools		45	45	45	<b>135</b>
Develop methodologies and protocols for identifying and quantifying CO <sub>2</sub> emissions related to forest degradation	Consultancy to identify technical and economically feasible options to be implemented	0	50	0	0	<b>50</b>
	Consultancy to identify, systematize, and analyze the impact of demographic, economic, and social variables, as well as public policies, on the dynamic of forest degradation	0	50	0	0	<b>50</b>
	Workshops for socialization and validation	0	0	50	0	<b>50</b>
	Dissemination of methodology and definitive protocols	0	0	50	0	<b>50</b>
Develop a subnational reference level for CO <sub>2</sub> emissions originating from forest degradation based on historical trends from 1997 to 2011, taking 2007 as the base year	Consultancy to develop reference levels for forest degradation in the area of interest	0	0	300	0	<b>300</b>
	Workshops for socialization and validation	0	0	30	30	<b>60</b>
	Dissemination of methodology and definitive protocols	0	0	50	0	<b>50</b>
Integrate the resulting subnational reference scenarios to define a detailed National Reference Scenario	Integration of subnational reference levels to form a national reference level based on the development of typologies for PBCCh carbon capture projects	0	0	0	100	<b>100</b>
	Workshops for socialization and validation	0	0	0	25	<b>25</b>
	Dissemination of methodology and definitive protocols	0	0	0	25	<b>25</b>
<b>Total</b>		<b>40</b>	<b>375</b>	<b>665</b>	<b>335</b>	<b>1,415</b>
National Government		40	180	300	85	<b>605</b>
<b>FCPF</b>		<b>0</b>	<b>28</b>	<b>250</b>	<b>200</b>	<b>478</b>



UN-REDD Programme (if applicable)	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector	0	100	80	50	<b>230</b>
Others, to be identified	0	67	35	0	<b>102</b>

## **Component 4: Design Systems for National Forest Monitoring and Information on Safeguards**

### **4a. National Forest Monitoring System**

A **Monitoring, Reporting, and Verification System (MRV)** is required by both the REDD+ mechanism and the validating standards for projects that involve the voluntary and regulated carbon markets. Such a system makes it possible to update information on carbon emissions, carbon capture, and other key elements addressed in this type of initiative that has social and environmental implications. The notion of a country-defined PBCCh poses the need to design and implement a single MRV System for the entire country that includes all the information needed for the Government, international institutions, standards organizations, certifying bodies, and the entities involved in carbon trading to carry out their specific activities in a streamlined way that lends greater dynamism to the established model and also provides inherent benefits.

In keeping with its positions stated in the previous components of this document, Chile has opted for the REDD+ Strategy and FCPF support to be an integral part of its PBCCh, which will obviously be reflected in the design and development of its MRV System.

As reported in the earlier components, CONAF started to work on its PBCCh in 2011. After signing an agreement to cooperate with the Voluntary Carbon Market Standard, it embarked on the process of defining project typologies that will enable individual landowners or groups, working through the project developers, to formalize carbon capture initiatives and begin trading their carbon credits.

The next step is to design and implement the national MRV System. For this purpose it already has various technical inputs, which will have to be integrated—and supplemented—with the elements needed in order to create an MRV System that is highly reliable to serve all the stakeholders involved in the PBCCh.

The inclusion of all kinds of landowners (large, medium-sized, and small, indigenous and non-indigenous) will be confirmed through institutionalization of the CONAF project typologies, which in turn will be translated (as explained Component 2 of this document) into a generic management plan designed precisely to include landowners in the forest carbon capture initiatives.

In practice, the incorporation of indigenous and non-indigenous property owners into the PBCCh will be accomplished through private developers with the assistance of forest extension workers who provide technical advisory services on the establishment and management of forests to the sector's small and medium-sized landowners in an effort to stimulate economic and social development in rural areas. Forest extension workers provide advice on identifying

sources of funding for forestry initiatives, support in presenting projects in response to calls for proposals under Law 20,283 incentives and Decree-Law 701 subsidies, and assistance in the preparation of forest management plans.

In addition, it will be entirely possible for individual landowners to have access to the PBCCh without having to rely on private project developers or forest extension workers by filing their paperwork directly with CONAF with only the assistance of a forestry engineer, who will prepare the technical documentation necessary for the management plans. Usually called forest operators, these forestry engineers work in the field and encourage landowners to come together and form groups. This is the same practice already being followed for conventional forestry activities.

According to the working PBCCh model, once the technical and legal documents required for the Forest Management Plans for Environmental Carbon Capture Service (PMSACCs) are approved by CONAF, the next step is to request that the technical and legal background be included in the MRV System, where it will be available to proceed with independent validation/verification, as required by the model. At this point, the developers will have the option to add more attributes to their initiatives in order to refine them in keeping with their objectives, and also to avoid having monitoring activities charged directly to their specific project, which in turn permits valid comparability between initiatives, since the same core information is used.

The following the inputs are available to the country for developing an MRV System to support implementation of the PBCCh and, therefore, the national REDD+ Strategy:

- **Cadastre of Native Vegetation Resources in Chile**, with a historical record going back to 1997 and updated annually by regions or groups of regions.

Based on national data, CONAF has been administering the Cadastre of Native Vegetation Resources in Chile since 1993, allocating approximately US\$3 million for this purpose to date. This cadastre is the country's main source of vegetation mapping data, and it is configured to support any reference level or MRV activity under way. In its 19 years of existence, it has been able to provide basic data for governance in areas related to forestry, the environment, and policies for the management and conservation of these resources.

In September 1997, CONAF reported, in its comments on the results of the project Cadastre and Assessment of Native Vegetation Resources in Chile, that the country has a total forest cover 15,637,233 ha. Based on the technology available at the time, the rate of deforestation was estimated at between 0.1% and 0.2% a year.

A cartographic survey of actual land use in Chile conducted in 1994–1997 used the COT Land Use Code classification system developed by the L. Emberger Center for Phytosociological and Ecological Studies (CEPE) in Montpellier, France, which was adapted to define a coherent land use classification system at the national level. Development of the maps was based on simple aerophotogrammetric techniques and included an intensive phase of photo interpretation and field checks. Zeiss instruments available at the time were used to transfer the photo interpretation to the cartographic base. This made it possible to produce a survey map that was sufficiently precise to then produce regional maps. The method described had advantages

at the time, since efforts were focused on preparing maps for extensive land areas using aerial photographs and a high-quality topographic base from the regular charts produced by the country's Military Geographic Institute (IGM).

Most notably, this project produced the first official digital map of Chile's native vegetation, as well as related statistics on the environmental variables for the terrain and for the country's political divisions.

Monitoring and updating the original cadastre has made it possible to reduce the initial cartographic errors in basically two respects:

- i. Orthorectification of the aerial photographs, which has improved the planimetrics; and
- ii. Additional field work, thanks to improved access, which has helped to enhance the the polygon attribute descriptions.

In the coming years it will be important to scale down to finer details—for example: multiscales for classifying forest and other land uses, specification of predominant crops within agricultural use during the study period, and detailed information on land ownership and socioeconomic conditions.

Based on a program formulated by CONAF to update the information obtained in the Cadastre Project, a series of studies were undertaken focused on implementing an institutional geographic information system that would permit administration, consultation, and updating of the existing national cartographic base. One of the activities along this line was a project aimed at establishing a system to follow up and monitor the conservation status of natural plant formations (*Establecimiento de un Sistema de Seguimiento y Monitoreo del Estado de Conservación de las Formaciones Vegetales Naturales*), which was carried out by CONAF working in collaboration with the Schools of Forestry Engineering at the Universidad Austral de Chile and the Universidad de Concepción in 1997–1998. This initiative resulted in the creation of a unified querying system at the disposal of CONAF—the first land use cartographic user querying system at the national level.

Another important outcome of the project was a standardized relational database model with capacity to store the alphanumeric and graphic information generated. Its design allowed for incorporating such additional attributes as biodiversity indicators, land ownership, and socioeconomic profile of the population. Although the plan was to incorporate this information in 1998, survey funds were insufficient for that phase. Its inclusion should be considered in future monitoring projects.

At present, the main monitoring activities being carried out in connection with the Cadastre are:

- (a) Correction of the original polygons;
- (b) Interpretation of remote sensing data;
- (c) Incorporation of other studies, such as the Coastal Shoreline Master Plan;

- (d) Description of areas undergoing change vis-à-vis the corrected cartography in the 1995 cadastre;
- (e) Campaign of field studies throughout the study area using the COT Land Use Code classification system, with emphasis on NATIVE FOREST;
- (f) Extrapolation of characteristics of the polygons visited in the field to those not yet visited that have similar characteristics;
- (g) Production of updated land use charts;
- (h) Final report on areas devoted to different land use types and updated changes.

Law 20,283 of 2008 affirmed the importance of the Cadastre when it entrusted CONAF with maintenance of an ongoing monitoring system and further stipulated that it must be updated at least every ten years and provide information to the public (Title I, Article 4).

- In addition, an agreement is currently being negotiated with the Chilean Air Force's Aerophotogrammetric Service [*Servicio Aerofotogramétrico* SAF] to use images from the **Chilean satellite FASat-Charlie** starting in 2012 to update the Cadastre of Native Vegetation Resources in Chile.

The Chilean satellite FASat-Charlie was launched into orbit in December 2011, and images began being received in February 2012. It has five bands. Three of them (B.1, B.2, and B.3) are visible, similar Landsat bands (RGB). Another (B.4) is near-infrared, for analyzing vegetation, which generates vegetation indexes that could be useful for developing an early warning deforestation and forest degradation system. These four bands have a resolution of 5.8 m, similar to that delivered by RapidEye. However, the additional 1.45 panchromatic band improves on that resolution. With current software it is possible to combine the four multispectral bands with the panchromatic band and come up with a detailed multispectral image in which one pixel equals 1.45 m of land.

Compared with traditional satellites, FASat-Charlie has the added advantage of offering stereoscopic analysis, as with aerial photography. In theory, with good calibration in the field and proper software, these images can be used to measure heights in the same way that stereoscopic pairs are used in aerial photography. This feature would be very useful in defining a methodology for measuring forest degradation based on selective cuts.

- Process for standardizing and improving governance of the national and regional forest and agriculture sector using the **Spatial Data Infrastructure** developed by the Ministry of Agriculture and now shared by all the agriculture-related services with 49 different service layers

The purpose of the Spatial Data Infrastructure developed by the Ministry of Agriculture (MINAGRI) is to improve governance of the national forest and agriculture sector through the use of an ordinary spatial data infrastructure for all agriculture-related services.

IDE-MINAGRI currently has 49 data layers corresponding to the different services. In addition, it has access to maps prepared by the Military Geographic Institute and data layers through ministerial agreements, including the Aerial Photogrammetric Service (SAF), the Ministry of Public Works (MOP), and others.

All professionals in agencies under the Ministry of Agriculture are entitled to use IDE-MINAGRI. Implementation of this model will provide Ministry of Agriculture authorities and technical personnel with a reliable tool that delivers timely information to support decision-making.

This system will also make it possible to reduce GIS costs in general because it captures and transfers data automatically. Specialists are on hand to provide technical support.

The system currently has a total of 1,200 users. A training course will brief staff on connecting to IDE-MINAGRI, and courses will also be given on using GIS tools.

- **The Forest Carbon and Wood Energy Monitoring System** in the country's regions IV and XII is already being implemented by CONAF staff with methodological support from several universities. Its purpose is to establish permanent sample parcels

Also described in Component 3, the Forest Carbon and Wood Energy Monitoring System being implemented by CONAF, with technical assistance from the Universidad Austral de Chile and other research centers to be gradually added in the future, will make it possible to perform regular field monitoring based on sample parcels. In principle, it is planned to repeat the measurements every five years.

This is a two-phase stratified system. The strata correspond to the twelve forest types that have been identified in the country. The phases refer to the type of information being surveyed. In phase 1 an image-based systematic network of sampling units is established and classified annually or biennially, while in phase 2 subsamples of the sampling units are taken in the field.

The network of phase 1 sampling points forms a 1 km x 1 km grid of 130,874 sampling units. Phase 2, which began in 2012, is expected to define 2,200 permanent sample parcels in the forests located in the study area. The phase 2 parcels make it possible to assess what is actually going on inside the forests observed in phase 1 and then link the data to the phase 1 cartography.

One of the main advantages of this sampling design is that it allows for the stepwise incorporation of new variables of all kinds (forest-related, environmental, socioeconomic, and others); only the dendrometric model changes, without affecting the original sampling design. Using this approach, it is intended to fill in the missing information on forest carbon pools required for REDD+ and also generate supplementary information on benefits, co-benefits, and safeguards.

The sampling is done directly by CONAF professionals trained for the purpose. In the case of indigenous and non-indigenous communities, the landowners are briefed about the project in advance, with an explanation of the usefulness of sample parcels in their forests, and asked to sign a letter of consent for CONAF to place geodetic control monuments on their land to mark

the parcels. In the future, it might be possible to enhance the current parcel network by training people from the local communities to establish supplementary sampling points themselves.

It has also been proposed to generate indicators of carbon stocks at the level of forest subtypes based on the amount of tCO<sub>2</sub>e per hectare. This information will be recorded using dedicated software for the purpose. The currently available allometric functions for each of Chile's native species will be entered in the database and the system will be updated as additional permanent sample parcels are established. In the future it is planned to represent this indicator graphically so that any SIT-CONAF user will be able to see it displayed online.

In addition to the foregoing, information will be available from the Ongoing National Inventory of Forest Ecosystems conducted by INFOR and the GEF 4968 project, approved on November 15, 2012, which will create a national monitoring system that calculates the country's greenhouse gas inventory for REDD+ purposes and biodiversity in general.

- Program for the construction and improvement of **allometric functions** (local emissions factors) for the country's forest species

As indicated in Component 3 above, Chile has made good progress at the national level in the construction of allometric functions for the main species that grow in its forests.

A systematic effort to generate allometric models for 11 species of the Evergreen forest type, 6 species of the Roble-Raulí-Coihue type, and 4 exotic species was initiated in 2002. In 2012, the focus shifted to reducing the error rate of the functions derived for the species *Nothofagus obliqua* (now down to 15.5%) and generating functions for the species *Araucaria araucana* under the aegis of the Forest Carbon and Wood Energy Monitoring System managed by INFOR and with technical assistance from the Universidad Austral de Chile.

This project is seeking ways to generate reliable information in two areas: biomass stocks for the country as a whole, and carbon stocks sequestered in the various forest strata (branches, leaves, trunk, roots, soil, etc.).

So far, several studies have been done to refine the information available on carbon stocks in the native forest. This work has been carried out mainly by the Universidad Austral de Chile.

Broadly speaking, the process consists of deriving specific functions for each of the forest species in order to then calculate the carbon stocks based on measurements of such variables as trunk diameter at breast height (Dbh) and/or height of the tree. These variables are measured repeatedly over time in the ongoing forest inventories, thus generating a steady flow of information.

To derive these functions, it may be necessary to engage in a process that involves destroying the tree, depending on the geographic variability of the species and the number of individuals that have to be disturbed.

The generation of allometric functions is a slow, elaborate process that takes place both directly in the field and in the laboratory: in the field, samples are cut from trees measuring 1

m Dbh and then classified and weighed; the parts are then sent to the laboratory, where they are measured with precision tools. These steps need to be planned in advance, giving priority to species that are commonly found in the country, as well as ones that pose challenges for conservation.

In 2012, work began on constructing allometric functions for *Nothofagus pumilio* and other species, including at least four of the Sclerophyllous forest type, in order to complete the factors needed for arriving at assessments with known and controlled levels of uncertainty. Work in this area is getting under way, and several universities in the country are being enlisted for assistance, based on their areas of expertise and geographic location, as well as the forest resource being studied.

It is considered that Chile has a strong database in this area, although it still needs to be expanded to cover all the forest species in the country.

- National cartographic and alphanumeric registry of **management plans** (Department for the Administration of Forestry Legislation)

Current forestry legislation, which is based on Decree-Law 701 of 1974, known as the Forestry Development and Regulation Act, establishes a series of procedures aimed at regulating forestry activity, protecting and recovering soils throughout the country, and stimulating afforestation and forest management.

The Department of Forestry Administration was established at the national level to plan, coordinate, and assess the processing of requests and technical studies generated by this law, and the priority of its regional and provincial counterparts is to ensure that all forestry activity is in compliance with the law and follows the principles of proper forest development and management—the key criteria that contribute to sustainable use of this resource.

As a result of application of Decree-Law 701, during the period 1976-2011 a total of US\$259,673,206.6 was granted as incentives for afforestation activities in general, benefiting a total area of 1,232,205.7 ha; US\$217,545,806.6 went for soil recovery and afforestation over an area of 211,370.8 ha; US\$2,489,952.6 was spent to recover 9,126.0 ha of dunes; and US\$17,512,954.7 was granted to prune and/or thin forests over a total area of 431,605.5 ha.

The total amount spent under Decree-Law 701 during this period, including funds for administration, afforestation of the remaining 15%, and the establishment of windbreaks, was US\$538,490,071.7.

This same law made it possible during 1975-2011 to classify lands preferentially suited for forestry and known forestable lands covering a total area of 5,058,881 ha in the country as a whole. Also during this period, management plans and standards were approved for forest plantations covering 10,956,069.5 ha.

In parallel with the application of Decree-Law 701 and other forestry-related regulations, Law 20,283, the Native Forest Recovery and Forestry Development Act, was promulgated in July 2008. Since then, the Department has assumed the challenge of implementing the processes established therein, as well as its regulations, at the national level. Its proposals for 2008-2011



included management plans for 77,961.1 ha of native forest and plans for working with xerophytic formations on 1,662.6 ha of land. Managed through the Fund for the Conservation, Recovery, and Sustainable Management of Native Forest, which is regulated by this same law, these programs benefited a total of 1,181 ha of native forest in 2010-2011 with an investment of US\$397,905.3.

With regard to evaluating the requests filed under these forestry laws, which in 2002-2011 came to an average of 24,000 per year nationwide, the Department for the Administration of Forestry Legislation was responsible for generating and validating all the corresponding statistical information, which is available not only to forest-related agencies but also to sectoral agencies, the communities, and the general public.

The Department is also responsible for designing, coordinating, and administering the database information systems used in the enforcement of current forestry legislation. In 2004 it implemented the Forest Administration and Inspection System [*Sistema de Administración y Fiscalización Forestal SAFF*] at the national level to digitize the processing and evaluation of requests, standardize information, reduce response times, and finally, deliver better service to users. This up-to-date modular system is fully operational, interacts with other government services, and has responded effectively despite the major changes that have affected forestry legislation. It has become the basis for the development of various other database initiatives which have come together to form a management system that is currently serving the institution in the areas of forestry development, administration, and oversight.

- Nationwide **enforcement** tracking system: oversight of execution of management plans and illegal cutting

One of CONAF's responsibilities is to regulate, apply, and enforce compliance with legislation related to the country's native forest, forest plantations, and xerophytic formations, thus contributing to sustainable exploitation of the forest ecosystems and their environment.

There are several legal norms that grant CONAF the authority to regulate and approve the felling of trees following established parameters, with a view to rationally exploiting the forest ecosystems through such instruments as the management plan. CONAF is also authorized to enforce compliance with these plans.

The norms referred to above are Ministry of Lands and Settlement Supreme Decree 4,363 of 1931; Decree-Law 701 of 1974 on forestry development; Law 20,283 of 2008 on the recovery of native forest and forestry development, and Law 19,300 of 1994 on general bases for the environment.

In addition, the following norms regulate particular species: Supreme Decree 490 of 1976 covers *Fitzroya cupressoides* (alerce); Supreme Decree 43 of 1990, *Araucaria* spp.; and Supreme Decree 13 of 1995, *Beilschmiedia berteriana* (belloto del sur), *Beilschmiedia miersii* (belloto de norte), *Gomortega keule* (queule), *Pitavia punctata* (pitao), and *Nothofagus alessandri* (ruil). Under these decrees, CONAF is only allowed to authorize the cutting of these species for research purposes, the clearing of land for public construction or national defense works, or measures aimed exclusively at conserving the species.

Despite CONAF's strong presence throughout the country, the forests cover such a vast geographic area that the enforcement strategy has to focus on priority areas characterized by such issues as the presence of species at risk (endangered, rare, vulnerable, or not sufficiently known), species that have been declared natural heritage, those threatened by overuse, etc.

To supplement these efforts and optimize the available human and financial resources, use is also being made of geographic information systems (GISs) and aerial photographs, which make it possible to prioritize operations in the field and at the same time detect any illegal cutting in remote areas.

Enforcement is approached in two ways: first, the detection of illegal cutting, which is usually reported to CONAF by third parties, and second, oversight of compliance with the management plans that CONAF has approved.

Illegal cutting is detected by land, river, aerial, and maritime patrols (the last in the area of the southern channels), and there is also a vigorous campaign to create citizen awareness through special events on the subject of forests, talks to various groups, and other information-sharing activities, which has built strong ties with society. In addition to these efforts, enforcement activities have been optimized by reports from third parties or specific requests from other institutions. Between 2000 and 2010, a total of 7,092 reports were filed by third parties, showing that this issue has broad public support.

With regard to unauthorized cutting, a total of 4,961 cases were detected in 2000–2010, of which 77.14% corresponded to native forest and the rest to exotic forest plantations, together covering a total of 14,133 ha subject to illegal intervention. However, this is a small achievement compared with what has been accomplished through sustainable forest management under Law 20,283 and Decree-Law 701.

Under this activity, an average of 1,672 checks for compliance with management plans were performed each year between 2001 and 2010, representing a supervised area of approximately 44,000 ha a year.

In addition, as specified in the general regulations, Title IV of Law 20,283, CONAF issues passes to those who wish to transport primary products out of the native forest. These passes can only be used once and they must accompany the products after they have been transported, which facilitates the detection of any illegal cutting by CONAF's patrols or inspectors in the course of their oversight operations.

Law 20,283 on the recovery of native forest and forestry development and Decree-Law 701 specify penalties for violations in the case of illegal cutting, including a schedule of fines for forest extraction activities that have not been authorized or fail to comply with the management plans. Products found on the property at the time of inspection may be confiscated by court order, and CONAF is then responsible for selling them at auction.

It should be noted that Chile has been a signatory party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 1974. It became the law of the land under Ministry of Foreign Affairs Supreme Decree 141 of 1975, which specifically mentions the native forest species *Fitzroya cupressoides* (alerce), *Araucaria* spp., and *Pilgerodendron uviferum* [ciprés de las Guaitecas] its Appendix I and stipulates that these

species may not be imported or exported for primarily commercial purposes, and if they are the subject of research, the investigator must go through an exhaustive process to obtain a certificate from CITES that attests to the origin and proposed use of the samples in question.

The average number of inspections, including inspections at timber processing centers, highway checkpoints, and the other activities mentioned above, come to 5,000 at the national level per year.

- Nationwide system for recording and studying **forest fires**.

For conceptual and statistical purposes, CONAF defines a forest fire as a *fire which, regardless of its origin or threat or harm to persons, the environment, or property or material assets, spreads without control on rural land via timber vegetation, shrubs, or herbaceous undergrowth, either living or dead*. Except in the arid north, forest fires are reported every year throughout the country. Because of the combination of burnable vegetation and a growing population that could accidentally spark fires, the area prone to the highest occurrence and greatest damage corresponds to the central and south-central regions of the country, from Coquimbo to Los Lagos, and in turn, from the central valley west to the Pacific coast. In Chile, the forest fire season runs from about October or November of a given year, when springtime conditions already favor the spread of fires started by humans, to almost April of the following year, and sometimes May. In a normal distribution, the months of January and February are typically the most critical in terms of the number of fires per day and also usually the size of the affected area. However, conditions at the hemispheric level, such as El Niño and La Niña, can make the fires more or less severe or extensive during this period.

Unlike other areas of the world, in Chile fires due to natural causes are not part of an environmental process. Since lightning strikes are rare, almost all fires are started by humans, either accidentally or intentionally. Investigation of the causes of forest fires and the perpetrators is a police matter covered by pertinent legislation and the corresponding courts.

CONAF's work in combating and preventing forest fires is based on a series of legal norms that establish its powers, authority, responsibilities, and duties. There is a regularly updated database that includes the number of fires, area affected by type of vegetation, geographic distribution, and other elements that help to plan future prevention and control measures.

- Program for the inspection of forest pests and diseases (**plant health control**)

CONAF, aware that the management of forest pests is now considered an integral part of the sustainable management of forest resources, carries out a number of activities related to forest health protection, including information-sharing, technology transfer, and promotion of research and training as it works in cooperation with other public and private institutions.

Basically, it maintains a health inspection system on forest plantations that tracks the distribution of attacks by the country's main pests, as well as their impact in terms of economic losses.

In addition, CONAF has an Entomology Center where biopesticides are developed for controlling the pests typically associated plantations of *Pinus radiata* (Monterey pine) and *Eucalyptus* spp. and then released by its personnel stationed in the regions.

Bearing in mind the importance and vast extension of forest plantations in Chile, CONAF has developed cooperative relations with the large forestry companies and works jointly with them on surveillance and control, as well as surveys of staff competency and relations with small forest landowners. Examples are the coordinated efforts with Bioforest S.A. in the Arauco forest complex and the firm Controladora de Plagas Forestales, which provides services for a number of forestry companies.

In the native forests, the Forest Carbon and Wood Energy Monitoring System described above tracks symptoms of plant health problems in its established parcels, generating pertinent information on this type of resource. Several universities and research centers have conducted studies on native forest health.

It should be noted that all quarantinable pests are managed by the Agriculture and Livestock Service (SAG), while those that affect forest ecosystems are handled in coordination with CONAF and research centers, if necessary.

- Territorial Information System (**SIT-CONAF**)

The purpose of this initiative is to share the maps and cartographic coverage developed as part of monitoring and updating the Cadastre of Native Vegetation Resources in Chile, as well as other institutional projects, through a Web Atlas available to the general public. Further details will be provided on proposed developments in the future.

- CONAF Forestry Development Program (**forest extension workers**)

One of CONAF's regular activities is its Forestry Development Program [*Programa de Fomento Forestal*], which focuses on small and medium-sized landowners, both indigenous and non-indigenous, throughout the country. This program is carried out by forest extension workers, who provide ongoing advice for the owners on using the tools for forest development that are available. Details about this program are given in Component 2.

Under the REDD+ Strategy, it is planned to strengthen this program by increasing the number of extension workers to meet the demand for the technical and administrative tools that the Government offers to forest landowners.

It is assumed that forest extension workers will play a major role in the monitoring system being proposed for the PBCCh and the REDD+ Strategy, since these are the people who have the most direct contact with the owners of exotic and native forests.

To build on these relationships, CONAF is constantly coming up with new technical, economic, and administrative solutions in order to give extension workers a wider set of options that can be tailored to meet the specific needs of individual landowners. An example is agreements with other agencies working in the rural sector. One of the most notable of these is the

relationship with the National Agricultural Development Institute [*Instituto Nacional de Desarrollo Agropecuario* INDAP] in the Ministry of Agriculture, with which there is close coordination to provide landowners with a comprehensive range of services.

Annexes 3.1 and 4.1 review the background related to these elements.

## Monitoring and Reporting

Chile's MRV System is designed not only to meet international requirements for the monitoring of GHG emissions related to forest degradation but also to consolidate and upgrade CONAF's current information and management systems, which it relies on to generate statistical and operating information on the country's forest sector. The goal is to incorporate all reporting, monitoring, and enforcement actions in the different areas into a geographically distributed dynamic that will make it possible to significantly increase the institution's capacity in forest public administration, policy assessment, programs, projects, and other activities.

The long-term goal of this undertaking is to develop a multilevel monitoring system that will be capable of interacting on various subjects using the stored cartographic and alphanumeric data and processing logic specifically designed for each element.

The requirements for this project involve all aspects of forest management and also tie into the REDD+ guidelines and environmental and related social safeguards. All the requirements are interrelated in one way or another and come together to create a system that has to meet all the criteria defined by Intergovernmental Panel on Climate Change: robustness, transparency, comparability, consistency, completeness, and accuracy. So far, most of the country's historical data available to feed into a forest monitoring system qualify for IPCC's Tier 1, and attention is now focused on gradually generating a system that will meet the requirements for Tier 2. The elements needed for Tier 3 will eventually be added as funding allows.

The objective of this component may be summarized as follows:

*Design and implement a Monitoring, Reporting, and Verification System (MRV) that will serve as a basis for operating a PLATFORM FOR THE GENERATION AND TRADING OF FOREST CARBON CREDITS IN CHILE (PBCCh), currently in the implementation phase, that is compatible with the Voluntary Market Standard of the Verified Carbon Standard Association (VCSA) for AFOLU<sup>39</sup> and in alignment with REDD+ requirements, integrating inputs related to the country's environmental and forest legislation and incorporating supplementary elements on environmental and social safeguards.*

Within the national REDD+ Strategy, an economically feasible level of detail will be defined for monitoring, reporting, and verifying emissions associated with forest degradation, which is considered the most important driver of change in the southern part of the country where the efforts will be focused.

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<sup>39</sup> VCS Program in Agriculture, Forestry, and Other Land Uses (AFOLU).

The following inputs are proposed for developing the full design of a subnational monitoring system integrated at the national level:

1. **Development of a methodology for the assessment and quantification of degradation.** One of the most important inputs being proposed in order for Chile to conduct monitoring under the REDD+ Strategy is the development of a solid and scientifically acceptable methodology for assessing forest degradation over time. It was already pointed out in Component 2 above that the first step is to decide on a national definition of forest degradation. Based on this definition, together with other existing inputs, a practical methodology will be developed that will make it possible to quantify the stages or categories of forest degradation for a specific geographical area, the corresponding drivers, the variation in carbon content, and the corresponding gains and/or losses thereof.

Several methodological approaches to this task are already being used in Chile. The most important of these was developed by INFOR as part of the Forest Degradation Analysis Project [*Proyecto Análisis de la Degradación Forestal*] within the REDD+ framework.<sup>40</sup> This work suggests that forest stock values can be efficiently used to approximate forest degradation. The approach is based on the definition of degradation proposed by Cadman (2008): “Forest degradation is the reduction of the carbon stock in a natural forest, compared with its natural carbon carrying capacity due to the impact of all human land-use activities.” The usefulness of this definition lies in the implicit concept of carrying capacity, which may be defined as *a fully occupied forest under relative conditions of density*.

This method is based on the stock graph proposed by Gingrich (1967),<sup>41</sup> and it incorporates and relates this same figure to the following information:

- Number of trees
- Base area
- Tree-to-area ratio
- Canopy competency factors

The data for populating the stock graph may come from a forest inventory, specific sampling, or other available samples based on data from the forest inventory.

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<sup>40</sup> **Chile**, Instituto Forestal (INFOR); Argentina, Centro de Investigación y Extensión Forestal Andino Patagónico (CIEFAP); Colombia, Corporación Nacional de Investigación y Fomento Forestal (CONIF); Centro Agronómico Tropical de Investigación y Enseñanza (CATIE). Proyecto desarrollo metodológico y de herramientas para la REDD en bosques de tipo templado. Proyecto Funded by: MIA, Proyecto Cooperativo sobre Mitigación y Adaptación al Cambio Climático en la Gestión Forestal Sostenible en Iberoamérica.

<sup>41</sup> **Cadman, S. 2008.** Defining forest degradation for an effective mechanism to reduce emissions from deforestation and forest degradation (REDD).

The proposed methodology uses two spatial scales: landscape scale, and stand scale. The methodology is simple and easy to apply, but it requires information about various states and conditions of forest development which in many cases is difficult to obtain or may not exist at all in some regions or countries. Despite this drawback, however, the methodology makes it possible to monitor stock changes, which can indicate improvement in a forest's status from *degraded* to *forest with normal stock* (Bahamondez et al., 2009).

In conclusion, it may be assumed that the definition and operational implementation of a methodology for assessing forest degradation is one of the most important tasks involved in implementing the MRV System within the framework of the country's REDD+ Strategy and the creation of typologies for projects aimed at curbing carbon losses by this means. It is believed that there is a solid technical and professional basis for addressing this challenge and achieving operational and economically viable solutions based on information available in the country.

2. **Development of typologies for carbon capture projects.** The PBCCh concept calls for the development of carbon capture project typologies that establish a standardized means for any landholder to access the mechanisms for generating and trading carbon credits within the country. The development of different carbon capture project typologies will make a significant contribution to both development and implementation of the national MRV System by defining the specific monitoring criteria in each case, as well as general criteria at the national level. In practice, the typologies to be developed will also serve as a detailed subnational guide for following the national MRV System. Work on developing the typologies was scheduled to begin during the second half of 2012, with support from national and international public and private funding currently being arranged.

In the specific case of REDD+ degradation initiatives, it is proposed that FCPF REDD+ contribute to the definition of typologies of interest in this area, supplementing the work initiated by Chile while at the same time creating a base for the establishment of applicable methodologies in other situations in both Chile and other countries. The typologies directly linked to avoiding degradation would initially include the following:

- **Enrichment of degraded native forest**
- **Reduction of native forest degradation (firewood driver)**

It is planned to integrate additional typologies when they are deemed to be relevant, such as those related to the conservation of vulnerable species.

Further information on these carbon capture project typologies can be found in Annex 4.2.

3. **Identification and characterization of existing elements to serve as inputs for the national MRV System.** A list was shown earlier of some of the elements of possible interest when it comes to designing the national MRV System. These inputs should be analyzed in detail for consistency, content, availability, and the regularity with which they occur. This analysis will determine their actual usefulness in the MRV System design.

4. **Development of a conceptual model for the MRV System in Chile that takes into account all the inputs necessary in order for the system to meet the national and international criteria of transparency, effectiveness, and accuracy.** A strong conceptual model needs to be developed for ongoing follow-up of the REDD+ actions defined in the Strategy based on precise knowledge of the existing inputs as well as capacity to construct reference levels and additional necessary inputs for this process.
5. **Identification of information gaps and methodological approaches to overcoming them.** It is highly likely that points will come up during the conceptual design phase that will need to be developed in order to comply with the national and international requirements for an MRV System. This activity provides the space and resources for developing or acquiring the missing elements in order to proceed with implementation of the MRV System.

For example, current efforts have focused on collecting data on carbon in soil, and it is now being planned to include subsamples and reliable analyses of soil carbon.

6. **Design of a logical database application to properly integrate all the inputs identified for the operation of a national MRV System.** Once the conceptual design is agreed on, it will be necessary to design a logical database application to integrate the elements that have been defined as necessary and sufficient to meet the requirements of an MRV System at the national level, with subnational refinements based on the carbon capture project typologies to be developed throughout the country.

The country has already has some experience with linking information from the various forest sector activities through the cartographic base from the Cadastre of Native Vegetation Resources in Chile. An example is the Territorial Information System (SIT) developed by CONAF's Department of Forest Ecosystem Monitoring in its Bureau of Forest Management. The purpose of this initiative is to share the maps and cartographic coverage developed as part of monitoring and updating the Cadastre of Native Vegetation Resources in Chile, as well as other institutional projects, through a Web Atlas available to the general public.

This tool is already fully operational within CONAF, and a series of additional applications are being developed with a view to integrating other areas of information of interest to CONAF and its users, thus enhancing the benefits offered by this tool.

Specifically, the SIT undertakes to:

- Collect and build institutional knowledge for an online digital platform;
- Integrate information on the national territory, where all spheres of reality come together;
- Offer a shared institutional knowledge base that permits fluid interaction between the different stakeholders;
- Generate an operational online communication channel between subject-area administrators and users.

The main technical characteristics of this tool's design and operation are as follows:



- Using specialized platforms for publishing maps in GIS, MapServer, and PostGIS format, together with geoprocessing tools, the system allows for fast, dynamic query and display.
- Searches can be exported to a graphic format that is compatible with ArcView;
- It includes a feature similar to “Identify” in ArcView, which, when activated over a polygon, delivers the database linked to that polygon;
- Information on updates to the Cadastre are delivered at the regional, provincial, and local level at a resolution 6.25, or 4 ha, depending on when the region was updated;
- All types of coverage are available for the user to select what he or she needs;
- The system is administered through an interface designed by the site administrator that manages the data, permissions, user privileges, etc., and all the information contained in the system.

This tool is already fully operational within CONAF. A series of additional applications are being developed with a view to integrating other areas of information of interest to CONAF and its users in order to enhance the benefits offered by this tool.

From the technical standpoint, the main modules of this system are shown in the figure below.



In practice, it has been determined that SIT-CONAF will be the basis for the design and construction of the national Monitoring, Reporting, and Verification System, which will provide a good point of departure for modeling the elements that have been defined as necessary and sufficient to meet the requirements of both the REDD+ Strategy and the PBCCh at subnational levels, and in the future, the national level.

7. **Development of a database application that contains the background information for input to the MRV System and delivers the necessary and sufficient statistics, criteria, and indicators (in the form of reports) to efficiently monitor carbon capture and emissions in the Chilean forest sector within the framework of the PBCCh.** Based on the conceptual and logical design of the national MRV System, work will begin on

physical development of the Territorial Information System administered by CONAF, including establishment of the subnational reference levels obtained and methods for following up on the commitments assumed as part of this process.

8. **Independent assessment of the MRV System once it is implemented.** With a view to fully complying with international requirements, the MRV System developed by Chile will be submitted to independent reviewers to certify that both the procedures and the information contained in the system correspond to elements that will facilitate the objective validation of country information on this subject.
9. **Launch and implementation of the MRV System.** This activity is aimed at physically implementing the MRV system, launching it for a trial phase, and bringing together all the necessary tools for initial upload of the geographic and alphanumeric data that have been defined as necessary.
10. **Development and implementation of a plan for training and creating awareness about the MRV System among all the stakeholders involved in the PBCCh, as well as defining its role in the monitoring system.** A plan for training and capacity-building for users at all levels will be indispensable in order to familiarize them with how the monitoring system works and specify the roles of each of the public and private international and independent stakeholders.

With the new monitoring systems that emphasize forest carbon and environmental services, it is hoped that the native forest will play a much more important role in the country's forestry sector. The prospect of compensation for carbon capture, together with the tools for traditional forestry development that the country already has, will undoubtedly increase current rates of sustainable management and afforestation.

The idea behind developing the national MRV System is to generate an ongoing institutionalized platform for monitoring the dynamic of forest carbon emissions and capture that enables all owners of prime forest land in the country to take part in a shared mechanism for the generation and trading of carbon credits, obviating the need to design and implement an MRV for each specific initiative.

A unified and institutionalized MRV system for the forestry sector available to all stakeholders would make it possible to standardize the procedures involved and thus significantly reduce the economic, technical, and time-related barriers that hamper access by forest landowners to the carbon capture initiatives available in the country. In the case of REDD+ Strategy initiatives (carbon capture project typologies, enrichment of degraded native forest, and reduction of native forest degradation (firewood driver)), it is proposed that they be treated as pilot projects in which all activities related to the development of reference levels such as the MRV system can be validated. In this way, consistency between the national PBCCh initiative and the country's REDD+ Strategy can be guaranteed.

Building an MRV system at the national level is an administrative, technical, institutional, and economic undertaking that is bound to run into unexpected difficulties, and CONAF accepts this challenge. Based on the logic behind development of the carbon capture project typologies for the PBCCh, it is planned to treat the monitoring component of each typology as

a pilot project. In this way, it is hoped to gain technical and operational experience with each of the typologies prepared and to gradually fill in the gaps identified and continue building a solid and transparent MRV System for the global initiative.

**Table 4-1: Summary of Development of the Monitoring Work Plan**

<b>Main elements of the Monitoring System in Components 4a and 4b</b>						
<b>Time frame</b>	<b>National Forest Inventory</b>	<b>Remote sensing of land cover change and major drivers</b>	<b>Forest degradation</b>	<b>Carbon density data</b>	<b>Non-carbon multiple benefits, and impacts</b>	<b>Governance and stakeholder participation</b>
Current country monitoring capacity	Forest Carbon and Wood Energy Monitoring System now in place	System in place for updating cartography every 5 years	Studies have been done to quantify degradation	Program in place for updating and supplementing data on emission factors for native species	Action Plan on Biodiversity and Climate Change being prepared	Participation platforms in place based on Native Forest Act, Council on Climate Change, and ongoing work of CONAF
Near-term monitoring capacity objectives	The Forest Carbon and Wood Energy Monitoring System will be helping to obtain data on 5 carbon pools	Images from the Chilean satellite FASat- Charlie will be being used for updating every 2 years	A feasible methodology will be in place for identifying and quantifying degradation in technical and economic terms	Complete data will be available on the most important native species in the country	Action Plan on Biodiversity and Climate Change will be being implemented	Existing platforms will be linked to the REDD+ Strategy through institutional arrangements defined in Component 1.
Longer-term monitoring capacity objectives	Increase the sampling intensity of the Forest Carbon and Wood Energy Monitoring System	Plan to automate or semi- automate the updating processes every 2 years	Apply methodology for identifying and quantifying degradation for operational use with reverence levels and MRV	Complete the construction of functions for all native forest and forest plantation species	Incorporate elements from society	Evaluate and give feedback on participation alternatives

#### **4b. Designing an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards**

An important element of the REDD+ Strategy proposed by Chile, which is also in line with the conceptual and operational approach defined for the PBCCh, is the emphasis on having specific, internationally validated methodologies for recording and evaluating the safeguards and the co-benefits from activities related to carbon capture initiatives.

So far, there have been a number of experiences in this area both at the national level and in connection with technical cooperation projects supported by international agencies. It is intended to use these inputs to create a module in Chile's MRV System that will generate reports on this subject.

It is planned for the Forest Carbon and Wood Energy Monitoring System to collect information at each forest species sampling point, which will help to quantify and characterize the situation even more reliably. This system also generates biodiversity-related subsamplings based on inventories of herbaceous plants and insects, which will undoubtedly provide key information on biodiversity indicators for the forest ecosystems—information called for under the United Nations Convention on Biological Diversity and other international commitments (Chile is signatory to all three of the Rio Conventions).

In addition, Chile participates in the Montréal Process for establishing Criteria and Indicators of Sustainable Forest Management. CONAF has served as national focal point for this initiative since it first got under way in 1994.

This process was initiated in response to the affirmation of Forest Principles at the Rio Summit, and today it has 12 member countries: Argentina, Australia, Canada, Chile, China, Japan, Mexico, Republic of Korea, New Zealand, the Russian Federation, the United States of America, and Uruguay, which together are home to 83% of the world's temperate and boreal forests, 49% of its forests, and 33% of the world's population, and they are the source of 45% of the world's wood production.

The objective of the Montréal Process, through its Criteria and Indicators of Sustainable Forest Management, is to offer their member countries a common framework for monitoring, assessing, and reporting on trends in national forest conditions, as well as on the progress toward sustainable forest management (see the Montréal Process Criteria and Indicators at : [http://www.montrealprocess.org/Resources/Criteria\\_and\\_Indicators/index.shtml](http://www.montrealprocess.org/Resources/Criteria_and_Indicators/index.shtml)).

Chile was the first South American country to join the Organisation for Economic Co-operation and Development (OECD). Its membership, ratified in early 2010, means that Chile has assumed a series of environmental and social commitments. For example, as a member of OECD, it is required to report regularly on agricultural and environmental indicators, including variables related to the forest sector. CONAF participates in preparing the reports on these indicators through a ministerial group created for the purpose (see Annex 4.3).

In addition, it is expected to conduct a socioeconomic study of forest landholders to determine the true extent to which they are dependent on these ecosystems and whether government programs have improved their quality of life.

Furthermore, the base images from the Vegetation Cadastre are ideally suited for studies on fragmentation of the landscape, thus establishing reliable information on the wildlife movement corridors of birds and mammals.

One of the main initiatives being carried out in Chile that will aid in monitoring carbon-related environmental benefits is the National Action Plan on Biodiversity and Climate Change being prepared by the Ministry of the Environment's Climate Change Bureau, Division of Natural Resources and Biodiversity.

The overall objective of the Action Plan is to identify measures at the national level that will offer synergistic advantages for both biodiversity and climate change while also generating conditions for the implementation of these actions, with a view to mitigating the effects of climate change and enhancing the resilience of ecosystems and species in terrestrial, marine, coastal, and inland water environments, as well as strengthening the country's capacity at all levels to deal with the impact of climate change on biodiversity.

The plan is essentially operational in nature: in other words, it seeks to contribute to the implementation of activities already under way while at the same time identifying and generating new measures or courses of action from a strategic perspective that looks at both the short (2014) and the medium (2015-2020) term.

The Action Plan has three components:

- **Mitigation component.** Contribute to the mitigation of greenhouse gases generated by the degradation of land and deforestation, as well as the enrichment of carbon stocks from terrestrial, marine, coastal, and inland water carbon stocks.
- **Adaptation component.** Enhance the resilience of our terrestrial, marine, coastal, and inland water ecosystems while at the same time fostering the capacity of local and indigenous communities living in these vulnerable ecosystems to adapt to climate change.
- **Capacity-building component.** Build capacity within environmental institutions, public agencies, private entities, and civil society to address the challenges that climate change poses for biological diversity, its processes, and the ecosystem goods and services that it provides, as well as to strengthen the positive role of biodiversity in adapting and mitigating the effects of climate change.

Preparation of the Action Plan is funded by the Government through the Ministry of the Environment. The actions that emanate from it will be financed by public agencies that qualify as potential contributors to the plan. While the Action Plan involves all the ministries that sit on the Interministerial Group on Climate Change, there is greater emphasis on the Ministry of Agriculture, of which CONAF is a part (see Annex 4.4 for special terms of the Action Plan for the protection and conservation of biodiversity as it relates to adaptation to climate change).

Within this framework, the country must move forward with the development of criteria and indicators for monitoring the multiple environmental and social benefits. This work should be tied in with initiatives already under way in the country, and it must be consistent with the results obtained from carrying out the activities proposed in Section 2d of the present document on the development and analysis of proposals for Strategic Environmental and Social Assessment (SESA) and within the Environmental and Social Management Framework (ESMF).

In the social area in particular, it is proposed to carry out a socioeconomic study that will follow the families of small forest landowners with a view to measuring their quality of life and balancing it against the ultimate degradation of forest resources due to the extraction of fire wood, and based on that, evaluate other productive alternatives.

The proposal for preparing and implementing the consultation and participation component of the REDD+ Strategy emphasizes institutional capacity-building and the identification of priority groups. Among the latter, participation of the indigenous and non-indigenous communities that benefit from the forests is fundamental, considering their socioeconomic and cultural characteristics and their relationship to the country's forests and forest ecosystems, as well as the contribution they make to implementing the Strategy.

With the participation of stakeholders (universities, NGOs, associations, and trade groups) and above all the participation of indigenous and non-indigenous communities as the direct beneficiaries, what is essentially sought is ongoing feedback and consensus-building, both in the preparation stage and during implementation of the Strategy. The key agenda for this participation is:

- Incorporating their vision, concerns, priorities, and interests;
- Reducing risks and avoiding potential conflicts;
- Selecting and analyzing social and environmental issues and priorities that the stakeholders feel are being affected by deforestation and forest degradation drivers;
- Assessing the potential impact and the social and environmental externalities that might arise during the preparation and execution of program actions under the Strategy with a view to minimizing, mitigating, and/or avoiding each of them.
- On the last point mentioned, the definition of a socioeconomic baseline for the communities will be based on a satisfaction survey like those that CONAF already conducts with its other programs. This survey will be applied both before and after the implementation of specific measures in each territory to gauge any changes in perception or satisfaction once the activities have been implemented.<sup>42</sup>

Carrying out REDD+ activities will also be an opportunity for more benefits for the communities involved, for the national forestry sector, and for CONAF's own institutional capacity-building.

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<sup>42</sup>In its technology transfer programs, CONAF has more than 20 years of experience conducting surveys of this kind, which in many cases become indicators of the institution's internal management.

<b>Table 4-1: Summary of Monitoring Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Identify and characterize existing elements that could serve as inputs for the national MRV System	Consultancy on systematizing potentially useful elements for the MRV System	0	50	0	0	<b>50</b>
	Workshop with validation experts	0	10	0	0	<b>10</b>
Develop a conceptual model for Chile's national MRV System	Consultancy on conceptual design of the MRV	0	50	0	0	<b>50</b>
	Consultancies on overcoming information gaps	0	100	0	0	<b>100</b>
	Workshops for follow-up, validation, and socialization	0	50	0	0	<b>50</b>
Identify information gaps and propose methodological methods for filling them in	Arrangements to ensure availability of satellite images from FASat- Charlie	0	150	150	150	<b>450</b>
	Proposal and installation of program for establishment of permanent parcels	0	100	100	100	<b>300</b>
	Other specific consultancies, to be identified	0	100	100	100	<b>300</b>
Develop the logical and informational design for an application that will fully integrate all the inputs identified for the operation of a national MRV System	Consultancy on the logical and informational design of the MRV System	0	50	0	0	<b>50</b>
	Workshop with validation experts	0	10	0	0	<b>10</b>
Develop an information system that will store background data for the MRV System and deliver the necessary and sufficient statistics, criteria, and indicators (reports) to efficiently monitor the dynamics of carbon capture and emissions in the Chilean forestry sector within the operational framework of the PBCCh	Development of application software	0	0	200	0	<b>200</b>
	Follow-up and assessment of progress	0	0	10	10	<b>20</b>
	Workshops for validation and socialization	0	0	20	20	<b>40</b>
Arrange for independent evaluation of the MRV System once it is implemented	Independent evaluation	0	0	0	30	<b>30</b>

Launch and implement the MRV System	Launch of MRV System	0	0	0	50	<b>50</b>
Design and apply a plan for training and sharing the MRV System, once it is developed, with all the stakeholders involved in the PBCCh and define its role in the monitoring system	Design of plan for training and capacity-building	0	0	30	0	<b>30</b>
	Application of training plan	0	0	80	80	<b>160</b>
	Evaluation of training plan	0	0	0	50	<b>50</b>
Develop indicators for monitoring multiple co-benefits	Environmental criteria and indicators	0	30	0	0	<b>30</b>
	Social criteria and indicators	0	30	0	0	<b>30</b>
	Workshops for validation and socialization	0	20	0	0	<b>20</b>
<b>Total</b>		<b>0</b>	<b>750</b>	<b>690</b>	<b>590</b>	<b>2,030</b>
National Government		-	670	350	300	<b>1,320</b>
<b>FCPF</b>		-	<b>90</b>	<b>150</b>	<b>300</b>	<b>540</b>
UN-REDD Programme (if applicable)		-	-	-	-	-
National Private Sector		-	-	170	-	<b>170</b>
Others, to be identified		-	-	-	-	-



## Component 5: Schedule and Budget

<b>Table 1a: Summary of National Readiness Management Arrangements Activities and Budget</b>						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Establishment of Forest and Climate Change Board	Meetings	15	20	20	20	75
	Capacity-building workshops	15	15	15	15	60
Survey of key stakeholder capacities	Workshops: public sector	15	20	20	20	75
	Workshops: private sector and NGOs	15	20	20	20	75
	Workshops: indigenous and non-indigenous communities	15	20	20	20	75
Consultancy for the establishment of a platform for ongoing consultation and information-sharing	Conceptual design of platform (meetings and workshops with key stakeholders)	40	50	50	50	190
	Implementation of platform in trial phase	0	50	50	50	150
	Final adjustments based on feedback from trial phase and national implementation	0	0	60	60	120
<b>Total</b>		<b>115</b>	<b>195</b>	<b>255</b>	<b>255</b>	<b>820</b>
National Government		40	68	89	89	287
<b>FCPF</b>		<b>48</b>	<b>82</b>	<b>107</b>	<b>107</b>	<b>344</b>
UN-REDD Programme (if applicable)		0	0	0	0	0
National Private Sector		12	20	26	26	82
Others, to be identified		15	25	33	33	107

<b>Table 1b: Summary of Information Sharing and Early Dialogue with Key Stakeholder Groups Activities and Budget</b>						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Sharing of background information and early dialogue with key stakeholders (collection and compilation of REDD+ program feedback)	Internal planning meetings	50	60	60	60	230
	Planning meetings with key stakeholders (public-private sector and civil society)	30	70	70	70	240
	Circulation among and subsequent revision of the R-PP proposal with all stakeholders identified and validated during the process of stakeholder-mapping	60	60	60	60	240

	Compilation of feedback received and plan for addressing it	35	45	45	45	<b>170</b>
	Formulation of a communication strategy	60	60	60	60	<b>240</b>
<b>Total</b>		<b>235</b>	<b>295</b>	<b>295</b>	<b>295</b>	<b>1,120</b>
National Government		82	103	103	103	<b>392</b>
<b>FCPF</b>		<b>99</b>	<b>124</b>	<b>124</b>	<b>124</b>	<b>470</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		24	30	30	30	<b>112</b>
Others, to be identified		31	38	38	38	<b>146</b>

<b>Table 1c: Summary of Consultation and Participation Activities and Budget</b>						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Process of consultation and information-sharing about REDD+ strategy	Internal coordination meetings (CONAF)	30	30	30	30	<b>120</b>
	Meetings with public sector agencies and MINAGRI regional ministerial bodies	30	50	50	50	<b>180</b>
	Workshops/seminars for consultation and information-sharing with communities	40	60	60	60	<b>220</b>
	Workshops/seminars for consultation and information-sharing with civil society and NGOs	30	50	50	50	<b>180</b>
	Workshops/seminars for consultation and information-sharing with private sector	20	30	30	30	<b>110</b>
	Printing and distribution of printed support materials	20	20	20	20	<b>80</b>
	Development of visual materials (support for information-sharing)	20	20	20	20	<b>80</b>
	Implementation of web media for consultation and information-sharing	10	10	10	10	<b>40</b>
	Ongoing compilation of feedback received through the platform designed in 1a	15	15	15	15	<b>60</b>
<b>Total</b>		<b>215</b>	<b>285</b>	<b>285</b>	<b>285</b>	<b>1,070</b>
National Government		75	100	100	100	<b>375</b>
<b>FCPF</b>		<b>90</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>449</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		22	29	29	29	<b>107</b>
Others, to be identified		28	37	37	37	<b>139</b>

**Table 2a: Summary of Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance Activities and Budget (Follow-up Activities Needed)**

Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Delimitation of geographic area of interest based on a detailed analysis of forest resources for REDD+	Workshops to survey information in the regions concerned	15	20	20	20	75
	Consultancy on processing the information collected	25	35	35	35	130
	Meeting with technical expert panel to validate consultancy results	15	15	15	15	60
	Socialization workshops	20	30	30	30	110
Analysis of economic activities at the sub-national level (area of interest) and their relationship to forest degradation	Specialized consultancy on sectoral analyses	30	35	35	35	135
	Meeting with technical expert panel to validate consultancy results	15	15	15	15	60
	Socialization workshops	20	30	30	30	110
Adoption of a national definition of forest degradation by the country's institutions	Specialized consultancy on harmonizing international definitions and proposing a national definition	0	20	20	20	60
	Workshops with interested groups to arrive at a definition of degradation	0	10	15	15	40
	Incorporation of the definition into legal instruments governing the country's forestry activity	0	0	10	20	30
Identification and assessment of degradation drivers at the subnational level	Specialized consultancy on identifying local drivers of degradation		50	50	50	150
	Specialized consultancy on land use opportunity costs	50	70	70	70	260
	Meeting with technical expert panel to validate consultancy results	15	15	15	15	60
	Socialization workshops	20	30	30	30	110
Diagnosis of the changing dynamic and REDD+ potential vis-à-vis public policies, the institutional situation, and the legal framework.	Workshops to collect information	20	20	20	20	80
	Consultancy on information system development		20	20	20	60
	Meeting with technical expert panel to validate consultancy results	10	15	15	15	55
Dissemination of results	Publication of technical documents	20	20	20	20	80
	Dissemination of informational material	20	20	20	20	80
	Website maintenance	15	25	25	25	90
<b>Total</b>		<b>310</b>	<b>495</b>	<b>510</b>	<b>520</b>	<b>1,835</b>
National Government		78	124	128	130	459
<b>FCPF</b>		<b>62</b>	<b>99</b>	<b>102</b>	<b>104</b>	<b>367</b>

UN-REDD Programme (if applicable)	0	0	0	0	0
National Private Sector	78	124	128	130	459
Others, to be identified	93	149	153	156	551

**Table 2b: Summary of REDD+ Strategy Activities and Budget (or Results Framework)**

Output (major activity))	Organizations involved	Activities or sub-activities	Budget allocation in thousand (estimated cost in thousands of \$)				
			2012	2013	2014	2015	Total
Outcome 1: Definition of best strategy options to be adopted in the context of REDD+ actions							
Output 1.1: Consultancy reports on priority ranking of strategy options for controlling extraction of firewood, excessive harvesting of timber, and extensive grazing of cattle	CONAF, AIFBN, Ministry of Energy, Universidad Austral de Chile	MA 1.1: Assessment and priority ranking of strategy options	55	110	110	90	365
		SA 1: Cost-effective analysis and priority ranking of options for controlling the extraction of firewood and excessive cutting (consultancy))	20	40	40	30	130
		SA 2: Cost-effective analysis and priority ranking of options for controlling extensive grazing of cattle (consultancy)	20	40	40	30	130
		SA 3: Validation of consultancy reports by technical expert panel	15	30	30	30	105
Outcome 2: Amendment of development instruments and strengthening of institutional forest governance with a view to maximizing the benefit of REDD+ activities							
Output 2.1: Review of information on past and potential future implications of current forest development policies in the context of REDD+	CONAF, ODEPA, consultant, or university, depending on result of call for proposals	MA 2.1: Diagnosis of the development measures contained in Decree-Law 701 and Law 20,283, and their implications for REDD+ actions	55	130	100	100	385
		SA 1: Consultancy to assess past and potential future implications of Decree-Law 701 within the REDD+	20	50	20	20	110

		framework					
		SA 2: Consultancy to assess the implications of Law 20,283 as an early REDD+ action and future projections	20	50	50	50	170
		SA 3: Meetings with technical expert panel to validate consultancy reports	15	30	30	30	105
Output 2.2: Implementation of actions to strengthen institutional forest governance	MINAGRI-CONAF	<b>MA 2.2: Strengthening of the development measures contained in Decree-Law 701 and Law 20,283 within the REDD+ context</b>	30	320	320	320	990
		SA 1: Expansion of the network of forest extension workers at the subnational level	0	200	200	200	600
		SA 2: Strengthening pg the systems for forest oversight and inspection in the geographic area corresponding to the REDD+ strategy	30	100	100	100	330
		SA 3: Definition of the legal and technical terms of the REDD+ Forest Management Plan for the Environmental Carbon Capture Service	0	20	20	20	60
<b>Outcome 3: Establishment of a technical and administrative platform for the generation and trading of carbon credits from REDD+ activities</b>							
Output 3.1: Establishment of the necessary technical and administrative structure to	CONAF, SCX, Patagonia Sur, LessCarbon, Poch-Ambiental, PricewaterhouseCoopers, VCS	<b>MA 3.1: Development of a carbon credits trading model based on REDD+ activities within the PBCCh framework</b>	35	220	220	220	695

incorporate REDD+ activities into the PBCCh		SA 1: Definition of typology for REDD+ forest carbon capture projects	0	60	60	60	180
		SA 2: Definition of steps for the validation, generation, registration, and certification of carbon credits for REDD+ activities	20	60	60	60	200
		SA 3: Assessment, priority ranking, and selection of international standards for the voluntary market that apply to REDD+	15	60	60	60	195
		SA 4: Definition of modalities for trading emissions certificates generated through REDD+ activities	0	40	40	40	120
		Outcome 4: Information and feedback from key stakeholders in the REDD+ process					
Output 4.1: Materials and modalities for reporting results to key stakeholders in the REDD+ process	CONAF, FUCOA	MA 4.1: Dissemination of results	10	60	60	60	190
		SA 1: Publication of technical documents	10	20	20	20	70
		SA 2: Preparation of public information materials	0	20	20	20	60
		AS 3: Website maintenance	0	20	20	20	60
Others, to be identified			56	252	243	237	788
National Government			46	210	203	198	656
FCPF			37	168	162	158	525
National Private Sector			46	210	203	198	656

Table 2c: Summary of REDD+ Implementation Framework Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total

Support for landholders, including indigenous communities, in clearing their land titles	Study of the current distribution of native forest cover by type of owner	0	30	30	30	<b>90</b>
	Consultancy to analyze legislation on land ownership rights and forest carbon	0	60	60	60	<b>180</b>
	Relationship between forestry incentives and forms of land tenure	0	20	20	0	<b>40</b>
	Study for proposal of programs, projects, or provisional or permanent legal measures to regularize property rights	0	40	0	0	<b>40</b>
	Meetings with technical expert panel to validate consultancy results	0	15	15	15	<b>45</b>
Definition of mechanisms to ensure the participation of indigenous communities in the REDD+ deliberative body	Analysis of rights and obligations of indigenous peoples and their relationship to REDD+	20	30	30	30	<b>110</b>
	Identification of agencies and institutions with links to indigenous peoples and their role within the framework of REDD+ activities	20	30	30	30	<b>110</b>
	Definition of the ways in which indigenous peoples and communities can participate in REDD+ actions	20	30	30	30	<b>110</b>
Creation of mechanisms for independent monitoring, evaluation, and review with a view to establishing a legally recognized unit for the administration and registration of carbon credits	Analysis of technical, institutional, and economic aspects involved in implementing the National Unit for the Administration and Registration of Forest Carbon Credits in Chile	20	50	50	50	<b>170</b>
	Identification of the institutions involved in independent monitoring, evaluation, and review	0	25	40	0	<b>65</b>
	Identification of possible challenges and pitfalls in guaranteeing transparency, accountability, and equity	0	25	25	0	<b>50</b>
	Definition of the relevant local and national, public and private, governmental and nongovernmental institutions	20	20	20	20	<b>80</b>
	Meetings with technical expert panels to validate consultancies	15	15	15	15	<b>60</b>
Dissemination of results	Publication of technical documents	20	20	20	20	<b>80</b>
	Dissemination of trifold brochures	20	20	20	20	<b>80</b>

	Website maintenance	25	25	25	25	100
<b>Total</b>		<b>180</b>	<b>455</b>	<b>430</b>	<b>345</b>	<b>1,410</b>
National Government		40	94	88	66	288
<b>FCPF</b>		<b>32</b>	<b>75</b>	<b>70</b>	<b>53</b>	<b>230</b>
UN-REDD Programme (if applicable)		0	0	0	0	0
National Private Sector		40	94	88	66	288
Others, to be identified		68	192	184	160	604

<b>Table 2d: Summary of Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation Activities and Budget</b>						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Definition and analysis of impact assessment proposals within the context of SESA and the Environmental and Social Management Framework (ESMF)	Analysis of the World Bank safeguard policies as they relate to national legal requirements	10	20	20	20	70
	Definition of ways in which the community will be engaged in the social and environmental assessment (citizen participation)	10	25	25	25	85
	Mechanisms for gathering opinions and comments from persons and institutions representing indigenous peoples	15	25	25	25	90
	Proposals for the implementation of SESA and ESMF	10	30	30	30	100
	Meetings with technical expert panels to validate consultancies	10	20	20	20	70
Development of the Environmental and Social Management Framework (ESMF)	Identification of social and environmental risks and impacts	10	20	20	20	70
	Cause-effect analysis of social and environmental risks and impacts	0	0	0	0	0
	Analysis of the main problems in this area that entail risks for the equitable distribution of benefits and opportunities	0	20	20	20	60
	Meetings with technical expert panels to validate consultancies	15	15	15	15	60
Application of ESMF in pilot cases	Adaptation of the general ESMF to specific pilot cases	0	15	15	15	45
	Definition of measures for monitoring the environmental and social impact of early implementation REDD+ projects	15	30	30	30	105



	Definition of measures for controlling or mitigating impacts, resolving conflicts, and monitoring social response	20	20	20	20	<b>80</b>
	Meetings with technical expert panels to validate consultancies	15	20	20	20	<b>75</b>
Dissemination of results	Publication of technical documents		20	20	20	<b>60</b>
	Dissemination of trifold brochures		20	20	20	<b>60</b>
	Maintenance of website		20	20	20	<b>60</b>
<b>Total</b>		<b>130</b>	<b>320</b>	<b>320</b>	<b>320</b>	<b>1,090</b>
National Government		33	80	80	80	<b>273</b>
<b>FCPF</b>		<b>26</b>	<b>50</b>	<b>60</b>	<b>60</b>	<b>196</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		33	94	80	80	<b>287</b>
Others, to be Identified		39	96	100	100	<b>335</b>

**Table 3: Summary of Reference Level Activities and Budget**

Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Participate as technical counterpart institution in MAPS Project construction of reference scenarios for the country's forestry sector	Technical meetings to follow up on outsourced tasks	10	10	0	0	<b>20</b>
	Dissemination of partial and definitive results		10	10	10	<b>30</b>
Prepare maps of the geographic area of interest as of base year 2007 to serve as a point of departure for the development of reference scenarios	Definition of methodology to be used	0	10	0	0	<b>10</b>
	Application of the methodology defined	0	40	0	0	<b>40</b>
	Publication of results	0	0	30	0	<b>30</b>
Develop guidelines for the construction of typologies for carbon capture projects in Chile's forestry sector, including standards for the construction of subnational reference scenarios	Consultancies	30	0	0	0	<b>30</b>
	Workshops for socialization and validation	0	30	0	0	<b>30</b>
	Publication of results	0	30	0	0	<b>30</b>
Generate inputs for the construction of reference levels associated with forest degradation	Step up sampling within the Forest Carbon and Wood Energy Monitoring System between Regions VII and XI	0	50	50	50	<b>150</b>

	Strengthen the program for obtaining emission factors (allometric functions) for the native species present between Regions VII and XI		50	50	50	<b>150</b>
	Expand the list of variables sampled in the Forest Carbon and Wood Energy Monitoring System to cover 5 carbon pools		45	45	45	<b>135</b>
Develop methodologies and protocols for identifying and quantifying CO <sub>2</sub> emissions related to forest degradation	Consultancy to identify technical and economically feasible options to be implemented	0	50	0	0	<b>50</b>
	Consultancy to identify, systematize, and analyze the impact of demographic, economic, and social variables, as well as public policies, on the dynamic of forest degradation	0	50	0	0	<b>50</b>
	Workshops for socialization and validation	0	0	50	0	<b>50</b>
	Consultancy to identify technical and economically feasible options to be implemented	0	0	50	0	<b>50</b>
Develop a subnational reference level for CO <sub>2</sub> emissions originating from forest degradation based on historical trends from 1997 to 2011, taking 2007 as the base year at the subnational level	Consultancy to develop reference levels for forest degradation in the area of interest	0	0	300	0	<b>300</b>
	Workshops for socialization and validation	0	0	30	30	<b>60</b>
	Dissemination of methodology and definitive protocols	0	0	50	0	<b>50</b>
Integrate the resulting subnational reference scenarios to define a detailed National Reference Scenario	Integration of subnational reference levels to form a national reference level based on the development of typologies for PBCCh carbon capture projects	0	0	0	100	<b>100</b>
	Workshops for socialization and validation	0	0	0	25	<b>25</b>
	Dissemination of methodology and definitive protocols	0	0	0	25	<b>25</b>
<b>Total</b>		<b>40</b>	<b>375</b>	<b>665</b>	<b>335</b>	<b>1,415</b>
National Government		40	180	300	85	<b>605</b>
<b>FCPF</b>		<b>0</b>	<b>28</b>	<b>250</b>	<b>200</b>	<b>478</b>
UN-REDD Programme (if applicable)		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
National Private Sector		0	100	80	50	<b>230</b>
Others, to be identified		0	67	35	0	<b>102</b>

<b>Table 4-1: Summary of Monitoring Activities and Budget</b>						
<b>Main Activity</b>	<b>Sub-Activity</b>	<b>Estimated Cost (in thousands of US\$)</b>				
		<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Identify and characterize existing elements that could serve as inputs for the national MRV System	Consultancy on systematizing potentially useful elements for the MRV System	0	50	0	0	<b>50</b>
	Workshop with validation experts	0	10	0	0	<b>10</b>
Develop a conceptual model for Chile's national MRV System	Consultancy on conceptual design of the MRV	0	50	0	0	<b>50</b>
	Consultancies on overcoming information gaps	0	100	0	0	<b>100</b>
	Workshops for follow-up, validation, and socialization	0	50	0	0	<b>50</b>
Identify information gaps and propose methodological methods for filling them in	Arrangements to ensure availability of satellite images from FASat- Charlie	0	150	150	150	<b>450</b>
	Proposal and installation of program for establishment of permanent parcels	0	100	100	100	<b>300</b>
	Other specific consultancies, to be identified	0	100	100	100	<b>300</b>
Develop the logical and informational design for an application that will fully integrate all the inputs identified for the operation of a national MRV System	Consultancy on the logical and informational design of the MRV System	0	50	0	0	<b>50</b>
	Workshop with validation experts	0	10	0	0	<b>10</b>
Develop an information system that will store background data for the MRV System and deliver the necessary and sufficient statistics, criteria, and indicators (reports) to efficiently monitor the dynamics of carbon capture and emissions in the Chilean forestry sector within the operational framework of the PBCCh	Development of application software	0	0	200	0	<b>200</b>
	Follow-up and assessment of progress	0	0	10	10	<b>20</b>
	Workshops for validation and socialization	0	0	20	20	<b>40</b>
Arrange for independent evaluation of the MRV System once it is implemented	Independent evaluation	0	0	0	30	<b>30</b>
Launch and implement the MRV System	Launch of MRV System	0	0	0	50	<b>50</b>

Design and apply a plan for training and sharing the MRV System, once it is developed, with all the stakeholders involved in the PBCCh and define its role in the monitoring system	Design of plan for training and capacity-building	0	0	30	0	<b>30</b>
	Application of training plan	0	0	80	80	<b>160</b>
	Evaluation of training plan	0	0	0	50	<b>50</b>
Develop indicators for monitoring multiple co-benefits	Environmental criteria and indicators	0	30	0	0	<b>30</b>
	Social criteria and indicators	0	30	0	0	<b>30</b>
	Workshops for validation and socialization	0	20	0	0	<b>20</b>
<b>Total</b>		<b>0</b>	<b>750</b>	<b>690</b>	<b>590</b>	<b>2,030</b>
National Government		-	670	350	300	<b>1,320</b>
<b>FCPF</b>		-	<b>90</b>	<b>150</b>	<b>300</b>	<b>540</b>
UN-REDD Programme (if applicable)		-	-	-	-	-
National Private Sector		-	-	170	-	<b>170</b>
Others, to be identified		-	-	-	-	-

<b>Table 5: Schedule and Budget</b>						
Component	Sub-Component	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Component 1. Organize and Consult	1a. National Readiness Management Arrangements	115	195	255	255	<b>820</b>
	1b. Information Sharing and Early Dialogue with Key Stakeholders	235	295	295	295	<b>1,120</b>
	1c. Consultation and Participation Process	215	285	285	285	<b>1,070</b>
Component 2. Prepare the REDD+ Strategy	2a. Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy, and Governance	310	495	510	520	<b>1,835</b>
	2b. REDD+ Strategy Options	185	840	810	790	<b>2,625</b>
	2c. REDD+ Implementation Framework	180	455	430	345	<b>1,410</b>
	2d. Social and Environmental Impacts during Readiness Preparation and REDD+ Implementation	130	320	320	320	<b>1,090</b>

Component 3. Develop a National Forest Reference Emission Level and/or a Forest Reference Level	3. Reference Levels	40	375	665	335	<b>1,415</b>
Component 4. System Designs for National Forest Monitoring and Information on Safeguards	4-1. Monitoring, Reporting, and Verification	0	760	670	600	<b>2,030</b>
Component 5. Schedule and Budget						<b>0</b>
Component 6. Design a Program Monitoring and Evaluation Framework		0	195	35	35	<b>265</b>
<b>Total</b>		<b>1.410</b>	<b>4.215</b>	<b>4.275</b>	<b>3.780</b>	<b>13,680</b>
National Government		434	1.824	1.475	1.186	<b>4,919</b>
<b>FCPF</b>		394	836	1.145	1.226	<b>3,600</b>
UN-REDD Programme (if applicable)		-	-	-	-	-
National Private Sector		253	699	832	607	<b>2,391</b>
Others, to be identified		329	856	824	762	<b>2,770</b>

<b>Table 6: Summary of Program Monitoring and Evaluation Activities and Budget</b>						
Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Development of a logical framework for the national REDD+ Strategy	Definition of structural logic for the REDD+ Strategy	0	20	0	0	<b>20</b>
	Development of impact and performance indicators at the level of Objectives and Outcomes	0	20	0	0	<b>20</b>
	Validation and socialization of structure and indicators for monitoring, follow-up, and evaluation of the REDD+ Strategy	0	30	0	0	<b>30</b>
Development of a Web portal for monitoring, follow-up, and evaluation, and for sharing information about progress under the REDD+ Strategy.	Design of a Web portal for M&E	0	20	0	0	<b>20</b>
	Workshops for validation and socialization	0	30	0	0	<b>30</b>
	Database development and physical implementation of M&E Web portal	0	40	0	0	<b>40</b>
	Ongoing maintenance of M&E Web portal	0	5	5	5	<b>15</b>
Evaluation and internal and external audits of progress under the REDD+ Strategy	Internal audits	0	5	5	5	<b>15</b>
	External audits	0	15	15	15	<b>45</b>
	Follow-up meetings	0	5	5	5	<b>15</b>

	Feedback on dissemination platforms	0	5	5	5	<b>15</b>
<b>Total</b>		<b>0</b>	<b>195</b>	<b>35</b>	<b>35</b>	<b>265</b>
National Government		0	195	35	35	<b>265</b>
<b>FCPF</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
UN-REDD Programme (if applicable)		0	0	0	0	<b>0</b>
National Private Sector		0	0	0	0	<b>0</b>
Others, to be identified		0	0	0	0	<b>0</b>

**Note 1.** The amounts under “private sector” are in the process of being obtained directly from local companies with an interest in mitigating their emissions or carrying out activities of this kind as part of their corporate responsibility, although there are not yet any formalized documents to include with this document. With regard to others that have not been identified, there is already a Forestry NAMA with technical and financial support promised by Switzerland, described in detail in Components 1 and 2.

**Note 2.** Criteria for the cost of meetings and workshops are based on amounts that CONAF has budgeted for these activities in the past, except for differences in some cases because the events coincide with dates of other previously scheduled internal CONAF coordination activities, thus saving the cost of travel and per diem.

## **Component 6: Design a Program Monitoring and Evaluation Framework**

The Monitoring and Evaluation (M &E) Framework described in this section is intended to provide a means of following up on execution of the R-PP for REDD+ in the country, as well as the MRV System outlined in sections 4a and 4b that focuses on carbon emissions and removal and the multiple benefits to be gained from measures being implemented within the REDD+ framework.

To implement the Monitoring and Evaluation Framework for the REDD+ Strategy in Chile, it is proposed to construct a logical framework within which the objectives, outcomes, products, activities, and assumptions involved can be properly laid out. Evaluation of progress will be based on indicators of impact on objectives and outcomes, as well as performance in the case of the products defined.

The work both on designing the logical framework and on implementing and operating the M&E framework will be undertaken and managed by the Forest and Climate Change Board, defined in detail in Section 1a of this document.

To ensure participation and adequate dissemination of updates on progress under the country's REDD+ Strategy, it is planned to share the logical framework design with key stakeholders, not only for their information but also to set the stage for their future contributions once a Web portal is in place that has been specifically developed to record and visually display progress to both internal users and outside stakeholders.

Finally, in order to guarantee objectivity in the evaluation, it is proposed to schedule both internal and independent external audits on an annual basis. In addition, the Forest and Climate Change Board will hold regular follow-up meetings to review progress and make any needed adjustments to the program.

To summarize, it is proposed to undertake the following activities in this Component:

1. Preparation of a logical framework for the n REDD+ Strategy that incorporates indicators of impact and performance at the corresponding levels;
2. Development of a Web portal for monitoring, follow-up, and evaluation, and for sharing information about progress under the REDD+ Strategy;
3. Evaluation and internal and external audits of progress under the REDD+ Strategy.

**Table 6: Example of a Simple Program Monitoring and Evaluation Framework**

R-PP components	Outcome for this Component	Output (for each outcome)	Main Activities, and Responsible Organization for Each Output	Qualitative or Quantitative Indicators for Each Output or Activity	Time Frame for Indicators
1a. National Readiness Management Arrangements	Outcome 1: An institutional framework for the REDD+ mechanism has been established	Forest and Climate Change Board in place	Establishment of Forest and Climate Change Board	Resolution creating and officially establishing the Forest and Climate Change Board	2015
	Outcome 2: Permanent mechanism for consultation and sharing information has been established as part of the REDD+ mechanism	Permanent mechanism for consultation and sharing information in place and operational	Survey of capacity of key stakeholders Consultancy on the establishment of a permanent platform for consultation and sharing information	Resolution officially establishing and implementing a platform for consultation and sharing information	2015
1b. Information Sharing and Early Dialogue with Key Stakeholders	Outcome 1. The main groups of interested stakeholders have been identified, contacted, and kept informed about the country's REDD+ Strategy	Information processed and incorporated (insofar as possible) within the country's REDD+ Strategy	Information sharing with key stakeholders and early dialogue (collecting and processing feedback on REDD+ program)	Reports of workshops, meetings, or other contacts	2015
1c. Consultation and Participation Process	Outcome 1: Consultation has been held within the framework of the REDD+ mechanism, with all national and international requirements met	Consultation held	Process of consultation and sharing information on the REDD+ Strategy	Documentation on materials, methods, and outcomes of the consultation	2015
2a. Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy, and Governance	Outcome 1: The physical and economic environment in the geographic area covered by the REDD+ Strategy has been assessed	Output 1.1.: Digital photography showing administrative boundaries and current land use	Delimitation of geographic area of interest based on a detailed analysis of forest resources for REDD+	Documentation and maps	2014
		Output 1.2.: Consultancy report on relationship between economic activities and forest degradation	Analysis of economic activities at the subnational level (area of interest) and their relationship to forest degradation		
	Outcome 2: National definition of forest decided on taking international definitions into account	Output 2: Incorporation of definition of forest degradation into national legislation	Adoption of a national definition of forest degradation by the country's institutions	Official document defining forest degradation	2014
	Outcome 3: The institutional and political situation in Chile has been analyzed in terms of its positive and negative relationship to native forest degradation	Output 3.1.: Report on the social, environmental, and economic implications of degradation drivers	Identification and assessment of degradation drivers at the subnational level	Documentation of the analyses	2014
		Output 3.2.: Report that establishes the past, present, and future relationship of legislation and public policies to forest degradation	Diagnosis of the changing dynamic and REDD+ potential vis-à-vis public policies, the institutional situation, and the legal framework		



	Outcome 4: Information and feedback exchanged with key stakeholders in the REDD+ process	Output 4.1: Materials and modalities for reporting results to key stakeholders in the REDD+ process	Sharing of information about the planned outcomes	Reports of workshops, meetings, or other contacts	2014
2b. REDD+ Strategy Options	Outcome 1: Definition of best strategy options to be adopted in the context of REDD+ actions	Output 1.1: Consultancy reports on priority ranking of strategy options for controlling the extraction of firewood, excessive harvesting of timber, and extensive grazing of cattle	MA 1.1: Assessment and priority ranking of strategy options	Document on information system development and priority-ranked options	2014
	Outcome 2: Amendment of development instruments and strengthening of institutional forest governance with a view to maximizing the benefit of REDD+ activities	Output 2.1: Review of information on past and potential future implications of current forest development policies in the context of REDD+	MA 2.1: Diagnosis of the development measures contained in Decree-Law 701 and Law 20,283, and their implications for REDD+ actions	Official proposal on strengthening development actions	2014
		Output 2.2: Implementation of actions to strengthen institutional forest governance	MA 2.2: Strengthening of the development measures contained in Decree-Law 701 and Law 20,283 within the REDD+ context		
	Outcome 3: Establishment of a technical and administrative platform for the generation and trading of carbon credits from REDD+ activities	Output 3.1: Establishment of the necessary technical and administrative structure to incorporate REDD+ activities into the PBCCh	MA 3.1: Development of a carbon credits trading model based on REDD+ activities within the PBCCh framework	Trading model designed, agreed upon, and implemented	2015
	Outcome 4: Information and feedback exchanged with key stakeholders in the REDD+ process	Output 4.1: Materials and modalities for reporting results to key stakeholders in the REDD+ process	MA 4.1: Dissemination of results	Reports of workshops, meetings, or other contacts	2015
2c. REDD+ Implementation Framework	Outcome 1: Elimination of administrative barriers to participation in REDD+ by forest landowners in general and local and indigenous communities in particular	Output 1.1.: Temporary or permanent legal alternatives for regularizing current forma of land tenure incompatible with the forestry incentives system	Support for landowners, including indigenous communities, in regularizing their land tenure	Mechanisms officially in place for helping to eliminate access barriers	2015
		Output 1.2.: Identification of formal institutionalized channels for indigenous community participation	Definition of mechanisms for ensuring indigenous community participation in the REDD+ deliberative body		
	Outcome 2: Barriers to guaranteeing transparency, accountability, and equity identified	Output 2.1.: Definition of duties and responsibilities of local and national public and private institutions in terms of follow-up, evaluation, and review	Creation of mechanisms for independent follow-up, evaluation, and review	Agreements in place for independent evaluation	2015

	Outcome 3: Information and feedback exchanged with key stakeholders in the REDD+ process	Output 3.1: Materials and modalities for reporting results to key stakeholders in the REDD+ process	Dissemination of results	Reports of workshops, meetings, or other contacts	2015
2d. Social and Environmental Impacts during Readiness Preparation and REDD+	Outcome 1: Tie-in established between safeguard policies and national legal and institutional requirements	Output 1.1.: Proposal for implementation of SESA and ESMF	Development and analysis of impact assessment (SESA) and management framework (ESMF)	ESMF prepared and validated by key stakeholders	2015
		Output 1.2.: Identification and cause-effect analysis of social and environmental risks and impacts	Development of Environmental and Social Governance Framework		
	Outcome 2: ESMF validated in operational situations	Output 2.1.: Actions and performance indicators for monitoring environmental and social impact of early REDD+ projects	Application of ESMF in pilot cases	Report on evaluation of ESMF in pilot cases	2015
	Outcome 3: Information and feedback exchanged with key stakeholders in the REDD+ process	Output 3.1: Materials and modalities for reporting results to key stakeholders in the REDD+ process	Dissemination of results	Reports of workshops, meetings, or other contacts	2015
3. Develop a national forest reference emission level and/or a national forest reference level	Outcome 1: Forest sector reference scenarios prepared for Chile through the MAPS initiative	Forest sector reference scenarios at the national level	Participate as technical counterpart institution in MAPS Project construction of reference scenarios for the country's forestry sector	Documentation prepared and disseminated on forest sector reference scenarios	2013
	Outcome 2: Detailed subnational reference scenarios for forest degradation developed based on nationally and internationally validated inputs and methodologies	Detailed subnational reference scenarios for forest degradation	Prepare maps of the country as of base year 2007 to serve as point of departure for development of reference scenarios	Documentation of at least 2 reference scenarios for REDD+ activities validated and disseminated (methodologies, definitions, and pilot applications)	2015
			Develop guidelines for the construction of typologies for carbon capture projects in Chile's forestry sector, including standards for the construction of subnational reference scenarios		
			Generate inputs for the construction of reference levels associated with forest degradation		
			Develop methodologies and protocols for identifying and quantifying CO2 emissions related to		

			forest degradation		
			Develop a subnational reference level for CO2 emissions originating from forest degradation based on historical trends from 1997 to 2011, taking 2007 as the base year at the subnational level		
	Outcome 3: Subnational reference scenarios integrated to form a National Reference Scenario	Detailed national reference scenarios	Integrate the resulting subnational reference scenarios to define a detailed National Reference Scenario	Documentation on national reference scenarios based on national details available and disseminated	2015
4a. National Forest Monitoring System	Outcome 1: Technical, institutional, and administrative inputs in place for undertaking design and development of a national MRV System	Systematic organization of necessary and sufficient elements for designing and developing a national MRV System	Identify and characterize existing elements that could serve as inputs for the national MRV System	Conceptual model for Chile's MRV System developed and validated by key stakeholders	2013
			Develop a conceptual model for Chile's national MRV System		
			Identify information gaps and propose methodological methods for filling them in		
	Outcome 2: A national MRV System has been designed, developed, and implemented that covers all initiatives for the capture of forest carbon	MRV System implemented and evaluated by independent entities	Develop the logical and informational design for an application that will fully integrate all the inputs identified for the operation of a national MRV System  Develop an information system that will store background data for the MRV System and deliver the necessary and sufficient statistics, criteria, and indicators (reports) to efficiently monitor the dynamics of carbon capture and emissions in the Chilean forestry sector within the operational framework of the PBCCh	(1) Logical design of MRV System; (2) MRV System in operation; (3) documentation of independent evaluation; (4) documentation of execution of training and dissemination plan for MRV System	2015

			Arrange for independent evaluation of the MRV System once it is implemented		
			Design and apply a plan for training and sharing the MRV System, once it is developed, with all the stakeholders involved in the PBCCh and define its role in the monitoring system		
4b. Design of an Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards	Outcome 1: An information system has been developed for assessing environmental and social benefits	Multiple benefits information system in place	Development of indicators for monitoring multiple benefits	Documentation of conceptual design and operation of system for recording and assessing multiple benefits	2015
5. Schedule and Budget					
6. Design of a Program Monitoring and Evaluation Framework	Outcome 1: A framework for monitoring and evaluation of the REDD+ Strategy in Chile has been developed and implemented	M&E Program for the REDD+ Strategy in Chile	Development of a logical framework for the national REDD+ Strategy Development of a web portal for monitoring, follow-up, and evaluation, and for sharing information about progress under the REDD+ Strategy Evaluation and internal and external audits of progress under the REDD+ Strategy	Logical framework, evaluation methods, and monitoring mechanisms implemented on a web portal available for public consultation	2015

**Table 6: Summary of Program Monitoring and Evaluation Activities and Budget**

Main Activity	Sub-Activity	Estimated Cost (in thousands of US\$)				
		2012	2013	2014	2015	Total
Development of a logical framework for the national REDD+ Strategy	Definition of structural logic for the REDD+ Strategy	0	20	0	0	20
	Development of impact and performance indicators at the level of Objectives and Outcomes	0	20	0	0	20
	Validation and socialization of structure and indicators for monitoring, follow-up, and evaluation of the REDD+ Strategy	0	30	0	0	30
Development of a web portal for monitoring, follow-up, and evaluation, and for sharing information about progress	Design of a Web portal for M&E	0	20	0	0	20
	Workshops for validation and socialization	0	30	0	0	30

under the REDD+ Strategy.	Database development and physical implementation of M&E Web portal	0	40	0	0	<b>40</b>
	Ongoing mainenance of M&E Web portal	0	5	5	5	<b>15</b>
Evaluation and internal and external audits of progress under the REDD+ Strategy	Internal audits	0	5	5	5	<b>15</b>
	External audots	0	15	15	15	<b>45</b>
	Follow-up meetings	0	5	5	5	<b>15</b>
	Feedback on dissemination platforms	0	5	5	5	<b>15</b>
<b>Total</b>		<b>0</b>	<b>195</b>	<b>35</b>	<b>35</b>	<b>265</b>
National Government		0	195	35	35	<b>265</b>
<b>FCPF</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
UN-REDD Programme (if applicable)		0	0	0	0	<b>0</b>
National Private Sector		0	0	0	0	<b>0</b>
Others, to be identified		0	0	0	0	<b>0</b>