

## The Forest Carbon Partnership Facility (FCPF) (R-PIN) Template

January 06, 2012

### Guidelines:

1. The purpose of this document is to: a) request an overview of your country's interest in the FCPF program, and b) provide an overview of land use patterns, causes of deforestation, stakeholder consultation process, and potential institutional arrangements in addressing REDD (Reducing Emissions from Deforestation and Forest degradation). This R-PIN will be used as a basis for the selection of countries into the FCPF by the Participants Committee. Information about the FCPF is available at: [www.carbonfinance.org/fcpf](http://www.carbonfinance.org/fcpf)
2. Please keep the length of your response under 20 pages. You may consider using the optional Annex 1 Questionnaire (at the end of this template) to help organize some answers or provide other information.
3. You may also attach at most 15 additional pages of technical material (e.g., maps, data tables, etc.), but this is optional. If additional information is required, the FCPF will request it.
4. The text can be prepared in Word or other software and then pasted into this format.
5. For the purpose of this template, "Deforestation" is defined as the change in land cover status from forest to non-forest (i.e., when harvest or the gradual degrading of forest land reduces tree cover per hectare below your country's definition of "forest." "Forest degradation" is the reduction of tree cover and forest biomass per hectare, via selective harvest, fuel wood cutting or other practices, but where the land still meets your country's definition of "forest" land.
6. When complete, please forward the R-PIN to: 1) the Director of World Bank programs in your country; and 2) Werner Kornexl ([wkornexl@worldbank.org](mailto:wkornexl@worldbank.org)) and Kenneth Andrasko ([kandrasko@worldbank.org](mailto:kandrasko@worldbank.org)) of the FCPF team.

**Country submitting the R-PIN: CHILE**

**Date submitted: 06-10-2011**

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**2. Which institutions are responsible in your country for:****a) forest monitoring and forest inventories:**

National Forest Service (CONAF)

Forestry Institute (INFOR)

Agrarian Innovation Foundation (FIA)

Agrarian Policies Office (ODEPA)

**b) forest law enforcement:**

National Forest Service (CONAF)

**c) forestry and forest conservation:**

National Forest Service (CONAF)

**d) coordination across forest and agriculture sectors, and rural development:**

Ministry of Agriculture

**3. Current country situation (consider the use of Annex 1 to help answer these questions):****a) Where do forest deforestation and forest degradation occur in your country, and how extensive are they? (i.e., location, type of forest ecosystem and number of hectares deforested per year, differences across land tenure (e.g., national forest land, private land, community forest, etc.):**

In September 1997 the Ministry of Agriculture, through CONAF, made known to public opinion the results of the “*Cadastre and Evaluation of Chile’s Native Vegetation Resources*” project, indicating that the country’s total forested area amounted to 15,637,233 hectares. With the technological limitations existing at that time, deforestation rates were estimated to be between 0.1 a 0.2%.

Later, and according to official data from the latest Cadastre of Chile’s Native Vegetation Resources carried out in 2011, the country possesses 16.5 million hectares of forests, 13.6 million hectares of which are natural forests and 2,9 million<sup>1</sup> hectares are forest plantations.

In Chile, considering the 2000-2010 period, an increase in the country’s forest cover has been reported, evidenced in rapid-growth exotic species plantations (mainly *Pinus radiata* and *Eucalyptus spp*) as well as in the native forest, a situation reported by only 3 countries in Latin America and the Caribbean (Chile, Uruguay and Costa Rica). For this reason, problems associated with deforestation are not reported, the country’s efforts being concentrated on recovering the native forest systems, inasmuch as in some cases these have been managed employing unsustainable practices, a

<sup>1</sup> It should be noted that, owing to errors of commission and omission in the cartography of the Cadastre, mainly with regard to ravines and roads included as plantations, the area of the country’s forest plantations is corrected to 2,620,486 hectares, a figure resulting from the analysis of 13 census districts in the Maule, Bio-bío and Araucanía regions, carried out by the Universidad Austral de Chile and CONAF between January and March 2011.

situation that needs to be quantified and analyzed in order to promote the best possible recovery alternatives.

The above is also confirmed by comparing the figures of the 1997 cadastre with those of the 2010 one, from which it can be inferred that the most significant increase in forest area between both periods is that of forest plantations (increase of 753,002 hectares) followed by Secondary Growth Native Forest (positive difference of 223,023 hectares). It should be noted that a negative variation of 65,604 hectares has been recorded in the area of mature native forest, notwithstanding the fact that the total balance also shows an increase in the country's forest cover<sup>2</sup>.

In this context Chile's efforts are directed toward recovery of the degraded native forest, placing special emphasis on the ecosystems of greater interest from the point of view of emission reduction and conservation of biological diversity. For instance, the temperate natural rain forest, an endemic forest ecosystem recognized by UNESCO and lying between 39° and 44° latitude south -- Regions IX (Araucanía), XIV (De Los Ríos) and X (Los Lagos) – is one of the main sources of fuel wood in the southern area of the country. This practice affects approximately 4 million hectares of private and community property, thus making it one of the main factors causing forest degradation in the country, inasmuch as a large portion of the wood extracted, including the fuel wood, originates from non-sustainable use of the forest and from logs obtained in an illegal manner from these natural forests. Some of the estimates that have been made in order to quantify the above indicate that each year up to 10 million cubic metres of fuel wood, the equivalent of the production of almost 77,000 ha/year, are believed to be exploited without management plans (see Annex 1, question 3. Biophysical). Notwithstanding the above, it is precisely the accuracy of this type of data that needs to be improved by means of new studies and work in the field.

Indiscriminate cutting of fuel wood generates, among other types of damage, an intense fragmentation progress in forests as well as a progressive forest degradation, which is also accentuated by the inclusion of livestock in overexploited and fragmented areas, hindering an adequate regeneration of the forest.

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**b) Are there any estimates of greenhouse or carbon dioxide emissions from deforestation and forest degradation in your country? If so, please summarize:**

At present there are no official data regarding carbon dioxide emissions resulting from deforestation or forest degradation, but it is possible to use estimates based on allometric functions (see Annex 1) and data from the Continuous Forest Inventory of Chile's Forestry Institute (INFOR) for the purpose of calculating these emissions.

Within the short and medium term it is sought to develop a permanent system for inventory of greenhouse gas emissions associated with forest plantations as well as with the native forest. Nonetheless, in Chile's Second National Communication before the United Nations Framework Convention on Climate Change, based on the available data and on certain estimates, it was determined that in the year 2006 the agricultural sector generated emissions of 13,401 GgCO<sub>2</sub>eq and, for their part, the sequestration of the forests during the same period amounted to 19,386 GgCO<sub>2</sub>eq positioning the farming and livestock breeding sector, considered as a whole, as the only “*carbon neutral*” one in the country. These figures need to be adjusted, incorporating accurately the role of native forests in this accounting, inasmuch as field data still needs to be gathered in order to obtain more precise figures in this respect.

To date, the sequestration contribution of the native forest has been incorporated into this accounting, using predetermined values (UNFCCC – Tier 1), information which could be adjusted substantially if specific allometric functions are generated for species currently lacking them in this country.

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**c) Please describe what data are available for estimating deforestation and/or forest degradation. Are data published? Describe the major types of data, including by deforestation and forest degradation causes and regions if possible (e.g., area covered, resolution of maps or remote sensing data, date, etc.).**

INFOR keeps up a Continuous Forest Inventory at subnational level since the year 2001 under the Forest Ecosystems Monitoring Program, with data obtained from permanent sampling plots (supported by satellite images) by means of a statistical sampling design. The data contained includes information regarding several components of the forest ecosystem such as soil, water, vascular and non-vascular vegetation, lichens, wildlife and arthropods. According to the plan established in the inventory, the plots must be evaluated every 8 years. Although the inventory is considered to be of a national character, the strategy for its implementation is regional (subnational), in other words the statistic quality is established regionally. Eleven regions of the country are already under this design (as at 2011), representing close to 72% of the country's total area declared as forest land (9.8 million hectares in Regions IV, V, Metropolitan, VI, VII, VIII, IX, X, XI, XII and XIV).

<sup>2</sup> Source: National Forest Service (CONAF) 2011: “Cadastre of Chile's native vegetation resources: Monitoring of changes and updates during the 1997-2011”. 25pp.

Estimates of carbon sequestration by type of forest, biomass, stocks, fragmentation, species abundance and other diversity indices are available at INFOR. Other data regarding the state and condition of forests are gathered in the field, such as over-exploitation, soil condition, absence/presence of livestock, degradation (based on the structure of the trees), silvicultural treatment, among others. Thematic maps on a 1:50,000 scale are prepared for different users. On the other hand, the Cadastre of Chile's Native Vegetation Resources administered by CONAF provides detailed information at the national level, on a 1:50,000 scale, regarding type of forest cover, changes in land use and possible deforestation rates.

In order to back up both these elements, arduous work is under way for the purpose of obtaining funds, both national and international, with a view to expanding the network of permanent forest inventory plots and reducing the updating periods of the cadastre, thus making it possible to rely on a rigorous system of monitoring, verification and reporting that can fully satisfy the directives of the IPCC as well as the country's own requirements.

One example of the above is the proposal that the Ministry of Agriculture, through INFOR and CONAF, is making before the Global Environment Facility (GEF) for the purpose of furthering a project known as the "*Integrated system for stocktaking and monitoring forest ecosystems in support of the national greenhouse gas inventory*", which contemplates GEF co-financing amounting to US\$ 6.6 million and is expected to get underway during the year 2013, with a horizon of 4 years.

The objective of this project is to strengthen the capacity of the country in terms of evaluation, monitoring and reporting of the situation of the national forests, for which purpose it is intended to establish, among other elements, a National Directive Committee and a Technical Advisory Committee involving relevant players in these matters. The project would also enable a substantial improvement in the information that the country reports in its national greenhouse gas inventories in accordance with the stipulations of the United Nations Framework Convention on Climate Change, particularly with reference to National Communications.

CONAF maintains a record of the management plans carried out in the country and therefore the necessary information exists for establishing the volume of timber obtained in a sustainable manner. This should make it possible to estimate the movement of timber for fuel wood without prior approval by CONAF. It should be noted that the figure for the volume of fuel wood consumed in this country without compliance of management plans has not been updated and is based on a great number of assumptions. Therefore, and considering the fact that the basic information exists, it is urgent that the values be determined precisely, particularly considering that this is one of the main causes of forest degradation in Chile.

Additionally, demonstrative initiatives of sustainable forest management have been carried out in this country such as, for instance, the Project for Conservation and Sustainable Management of the Native Forest (PCMSPN, in Spanish) supported by German cooperation (GTZ), in which valuable information was generated regarding the response of the forest to certain silvicultural interventions. This could be analyzed from the point of view of carbon stocks, for the purpose of increasing the availability of trustworthy data with regard to which actions affect, negatively or positively, carbon stocks in certain forest types.

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**d) What are the main causes of deforestation and/or forest degradation?**

The main causes of degradation are based on the need of small landowners to obtain regular income from the forest land they own, for which purpose they try to extract the greatest possible volume of high-value logs, as well as of fuel wood for their own consumption and for sale in the informal market. Another common practice is to allow livestock into the forest for feeding purposes, particularly during the winter season (for shelter in view of the low temperatures). These practices lead to the generation of highly fragmented forests where open areas are used for livestock breeding, thus hindering the regeneration process and foiling the possibilities of recovery of the forest cover. The subjacent causes of degradation are the poverty of the small landowners and their need to obtain a regular income from their lands (monthly income).

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**e) What are the key issues in the area of forest law enforcement and forest sector governance (e.g., concession policies and enforcement, land tenure, forest policies, capacity to enforce laws, etc.?)**

Administration and inspection of the forest legislation in Chile is the responsibility of CONAF, the most important laws that govern the forestry activity being Decree Law N°701 of 1974 and Law N°20,283 of 2008, on Recovery of the Native Forest and Forestry Promotion.

CONAF is responsible for control of activities carried out in the forest, performing this action by means of approval of management plans which the interested parties must submit, within defined parameters, for approval by CONAF. Parallel to this, in its inspection function, CONAF carries out a series of inspections in the field as well as by means of satellite images, concentrating mainly on detection of illegal felling for which, based on the indicated regulations, sanctions are established for those who are caught committing this illegal action..

In greater detail, Chile has a number of regulations, some of them longstanding, which govern forest intervention. Worthy

of note is Supreme Decree N°4,363 of 1931, of the Ministry of Lands and Colonization, in addition to the aforementioned Decree Law N°701 of 1974 on Forestry Promotion and Law N° 20,283 of 2008 on Recovery of the Native Forest. To these must be added Law N°19,300 of 1994 on General Bases regarding the Environment. (In this law CONAF acts as a competent agency only with reference to projects or declarations of environmental impact affecting forests).

Added to these are Supreme Decrees N°490 of 1976, regarding Alerce (*Fitzroya cupressoides*), N°43 of 1990, regarding Araucaria (*Araucaria araucana*) and N°13 of 1995, regarding Belloto del Sur (*Beilschmiedia berteriana*), Belloto del Norte (*Beilschmiedia miersii*), Queule (*Gomortega keule*), Pitao (*Pitavia punctata*) and Ruil (*Nothofagus alessandrii*), which restrict the felling authorizations granted by CONAF for these species only to those intended for purposes of research, preparation of lands for public construction, national defence or development of actions with the exclusive objective of conservation of the species.

Given the geographical extent of the forests and despite the fact that CONAF has more than 130 offices and approximately 3000 officials, making it one of the country's public institutions with greater territorial representation, the inspection strategy is concentrated primarily in priority areas which consider aspects such as presence of species in risk categories (risk of extinction, scarce, vulnerable or insufficiently known), presence of species declared as natural monuments, use pressure, among others.

Complementary to the above, and for the purpose of optimizing human and financial resources, use is made of geographical information systems (GIS) and aerial photographs, which serve to prioritize terrestrial operations as well as to detect possible illegal felling activities in areas of difficult access.

The inspections carried out are split into two types, one focused on detecting unauthorized felling activities, which are generally reported to CONAF by third parties, and the other on controlling fulfilment of approved management plans.

In line with the above, CONAF carries out patrolling activities by land, sea and air, as well as a vigorous civic sensitization campaign by means of forest days, talks and other disseminative events. This has led to a favourable link with the community, optimizing inspection activities resulting from reports from third parties or from specific requirements on the part of other institutions. It should be noted that during the 2000-2010 period there were 7,092 third-party reports, the civic contribution in this matter being amply valued.

With regard to illegal felling, during the 2000-2001 period a total of 4,961 cases were detected, with 77.14% affecting native forest and the remainder occurring in exotic plantations, comprising an illegally intervened area of 14,133 hectares, which can be considered marginal with respect to what is promoted by means of sustainable forest management through Law N°20,283 and Decree Law N°701.

For their part, an annual average of 1,672 inspections of management plan fulfilment were carried out between 2001 and 2010, with an annual inspected area of around 44,000 hectares.

Additionally, and as stipulated in Law N°20,283 in its general regulations (title 4), CONAF provides free transit permits for interested parties who need to transport primary products originating from the native forest. These permits can only be used once and must remain with the products once the transfer is completed, the purpose being that in their control operations the police or CONAF inspectors should be able to detect illegal felling.

The sanctions for infringers of the law in illegal felling matters are contained in N°20,283 on Recovery of the Native Forest and Forest Promotion as well as in Decree N°701, establishing various types of fines for unauthorized forest extraction activities or for non-fulfilment of management plans. The products found on the property at the moment of the inspection can be confiscated by order of the Judge, instructing CONAF to auction them.

It should be noted that since 1974 Chile is a signatory of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), which at present is established as a law of the republic by means of Supreme Decree N°141 of 1975 of the Ministry of Foreign Affairs. The native tree species Alerce, Araucaria and Ciprés de las Guaitecas (*Pilgerodendron uviferum*) are included in Appendix I, whereby these species cannot be imported or exported for primarily commercial purposes and, in the case of research purposes, an exhaustive process of emission of CITES certificates accrediting the source and intended use of the specimens is considered.

Additionally, it is important to indicate that during recent years the principal forestry companies have initiated, or have already obtained certification of their forestry processes, with systems homologous to Europe's Program for the Endorsement of Forest Certification Schemes (PEFC), or are working toward obtaining Forest Stewardship Council (FSC) certification, which is recognized and validated all over the world. It is estimated that in the near future 85% of the

country's plantations will have some certification system guaranteeing their social and environmental sustainability.

With regard to land tenure, CONAF has furthered actions in support of owners, including indigenous communities, for them to be able to free their title deeds of encumbrance as soon as possible, since a significant portion of the people associated with the rural sector do not have the formalities needed to accredit ownership of their land. Thus, although soil and climate conditions or the fact of containing native forest make the property eligible for obtaining the benefits of Decree Law N°701 or Law N°20,283, it cannot have access to the incentive system because the necessary documentation for accrediting ownership is not available.

The main problem lies in sub-divisions that have been made of the land or in hereditary successions with some of the members deceased, where it is difficult to undertake the actual possession proceedings before the respective authorities. CONAF's actions accompanying owners in this situation must necessarily be reinforced.

**m4) What data are available on forest dwellers in lands potentially targeted for REDD activities (including indigenous peoples and other forest dwellers)? (e.g., number, land tenure or land classification, role in forest management, etc.):**

The indigenous communities and all owners are clearly defined and geographically localized. Also, the Income Tax Service (SII, in Spanish) has set up identification numbers and cartography for all legally recognized lands. The information is stored digitally in forestry organizations such as CONAF, INFOR, the Centre for Information on Natural Resources (CIREN, in Spanish) and the Ministry of the Environment. The state of conservation of the forest is stored in databases which define level of protection (natural monument, forest reserve, national park, conservation area, etc.)

Sufficient digital cartography exists on land use at the national level, on a 1:50,000 scale, originating from the CONAF-CONAMA National Cadastre (1997). INFOR possesses thematic maps on the same scale showing natural and exotic forest stocks as well as environmental information regarding the forests. Also available is information contained in the national census, which is performed by the National Statistics Institute (INE, in Spanish) and includes economic and social data at the community level.

The country also has at its disposal information organized in the Integrated National Territorial Information System (SNIT, in Spanish) data model, which devotes itself to storing or disposing of all the country's auxiliary territorial information.

INFOR also possesses auxiliary information concerning different thematic maps regarding the variables of the forest, such as roads, digital elevation models, administrative limits, hydrography, climatic series, records of climate-tracking stations and their location, satellite images, aerial photographs on different scales, information regarding soils, etc.

**5. Summarize key elements of the *current* strategy or programs that your government or other groups have put in place to address deforestation and forest degradation, if any:**

**a) What government, stakeholder or other process was used to arrive at the current strategy or programs?**

Law N°20,283, on Recovery of the Native Forest and Forestry Promotion, has been in force since 2008. This law promotes sustainable management aimed at obtaining timber and non-timber forest products, maintaining biodiversity and providing other services generated by the forests. The promulgation of this law considers early action on the part of Chile in the sense of implementing activities related with REDD+. This law also considers a specific fund for applied research regarding the native forest, whereby universities and academic centres can offer financing for initiatives in this regard.

An important point is that Law N°20,283 considers the participation of multiple stakeholders through the structure of an Advisory Council, detailing its manner of operation, authority and responsibilities in a specific regulation contained in the law.

The objective of the Native Forest Advisory Council is to counsel the Ministry of Agriculture in the different matters contemplated in the law, incorporating into the discussion relevant players from State organizations and the private sector, small-scale forest owners (who could belong to indigenous communities), universities and NGOs<sup>3</sup>.

The implementation of Law N° 20,283 seeks to generate an important impact on the management and recovery of native

<sup>3</sup> It should be noted that many aspects of interest for the indigenous communities, with regard to Law N°20.283, are channelled through the representation that NGOs have in the Advisory Council.

forest resources. In order to achieve this objective, dissemination activities are carried out among forest owners through the work of field professionals known as “extensionistas”, who are subcontracted by CONAF for this purpose. The annual budget of the native forest law is around 10 million dollars, which are destined to subsidizing forest management and to financing research activities as well as to actions of implementation and administration of this law.

Other advisory processes that propose and guide the strategy regarding native forests in the country are: the Forestry Board, which is a forest committee amplified by representatives of public and private institutions, the Regional Forest Development Council (COREDEFOR, in Spanish) which works with regional stakeholder groups related to natural forest matters, the Advisory Council on Conservation and Sustainable Use of the Alerce (CCA, in Spanish), Advisory Councils on Protected Wildlife Areas, among others.

It should be noted that a consultation system that has been successful for the country and already widely proved in the field over more than 15 years, is the one carried out by forest “extensionistas”. A recent example is the consultation process with indigenous communities, as stipulated by ILO Convention N°169, carried out in March 2011 regarding the extension of the validity of Decree Law N°701 on Forest Promotion to the year 2012.

In this context, the greater part of the interaction with communities, by means of direct contacts with owners, was carried out by CONAF’s “extensionistas”, who informed communities regarding the benefits they could obtain through the extension of the validity of this promotion instrument, while in turn they compiled and analyzed proposals that they wanted to submit in this context.

With regard to the Native Forest Law’s Advisory Council, it can be stated that, thanks to the proposals of owners and other relevant players, a number of improvements have been implemented regarding reduction of deadlines in the processing of the granting of incentives. Also, the proposed system enables the citizenry in general, through advisors, to suggest amendments to the law as well as to the associated regulations.

In addition, there is dissemination and feedback work with forest owners through links that CONAF maintains with most of the country’s municipalities. This is considered to be an important meeting point for gathering inputs and opinions from the communities in order to improve legal as well as operational aspects for the different forest initiatives operating in this country.

On the other hand, in Chile there is also Law N°20,285 on Access to Public Information, known as the “Transparency Law”, which came into force in April 2009 and grants citizens the right to access information handled by the State’s administrative bodies. This is considered by forest owners to be another input channel that is currently in full operation.

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**b) What major programs or policies are in place at the national, and the state or other subnational level?**

Since 1931, through the so-called Forest Law (Supreme Decree N°4,363), the country shows concern for forest ecosystems, regulating the extraction of vegetation close to watercourses and outlining the first afforestation subsidies. Later, Decree Law N°701 was published in 1974 and proved to be a successful program of incentives and recovery of degraded soils which, following subsequent amendments mainly aimed at benefiting small-scale owners and indigenous communities, is still in force.

This success is evidenced by the figures, inasmuch as the records show that the average annual afforestation rate was 150 hectares for the 1885-1930 period, 16,000 hectares for the 1975-1977 period and 65,000 hectares for the 1975-1997 period. At present, even considering a reduced availability of lands suitable for forestry, an annual average of 38,000 hectares has been recorded for the 1998-2010 period.

As mentioned earlier, Law N°20,283 on Recovery of the Native Forest and Forestry Promotion has been in force since 2008. Despite its short implementation, it has already led to the granting of incentives for owners to carry out rational exploitation of this resource, seeking to revert the heavy impacts undergone by the forest in the past as a result of preparation of farmland, building of road and dwelling infrastructure and use of timber extracted in an unsustainable manner.

To date, and mainly due to the forest development instruments furthered by the State, the sector is reported as the second most important one with regard to exports, representing approximately 8% of total exports and close to 3.5% of the GDP.

It should be noted that for the 2000-2010 period, on the basis of the latest updating of the Cadastre of Chile's Native Vegetation Resources headed by CONAF, an increase in the country's forest cover is reported, not only associated with plantations but also with the native forest, a situation that the country shares only with Uruguay and Costa Rica within the Latin America and Caribbean Region.

The challenges lie, therefore, in the recovery of approximately 2 million hectares of bare and highly-eroded lands whose afforestation and recovery through sustainable management is still feasible, as well as close to 3 million hectares of native forest, incorporating this resource into the productive sector to the extent possible.

**6. What is the current thinking on what would be needed to reduce deforestation and forest degradation in your country? (e.g., potential programs, policies, capacity building, etc., at national or subnational level):**

In order to reduce the degradation of the native forests, the following actions are considered to be necessary:

- 1. Definition of degradation at the national level.** To define what is understood as degradation is one of the key problems that must be resolved by the country's stakeholder groups. The adoption of a harmonized international definition could prove to be the right means although this matter has not been totally resolved at the global level.
- 2. Definition of a baseline methodology for identifying and monitoring degraded forests.** Once the degradation of the native forest is adequately defined by the stakeholder groups, it will be necessary to promote the establishment of a baseline regarding the country's degraded forests. One situation prior to the year 2000 appears reasonable inasmuch as the permanent sampling plots of the Continuous Forest Inventory reflect the state and condition of the forests up to that date. Monitoring the actions carried out in these areas is essential for the purpose of recognizing the changes in the carbon stocks of the forests. Workshops and seminars have been proposed for the purpose of attaining a consensual methodological approach.
- 3. Development of key studies for identifying and quantifying the causes of forest degradation:** On the basis of the information available and further information still to be generated, the proportion of fuel wood that is extracted and commercialized illegally in Chile should be quantified, its impact on the forests from which it was extracted should be determined and the most effective measures aimed at diminishing these actions must be defined by means of the available instruments..
- 4. Coordination of programs of organizations connected with the forest.** Several institutions connected with the forest are carrying out forest monitoring programs, among them being CONAF's National Cadastre and INFOR's Continuous Forest Inventory, both of which cover the country. These two programs and other subnational initiatives should be coordinated with a view to achieving the establishment of an adequate and cost-effective monitoring system.
- 5. Take advantage of globally recognized instruments regarding certification of forest management and carbon mitigation.** There are several well-established processes throughout the world concerning sustainable forest management (FSC or PEFC certification), the lessons learnt in Clean Development Mechanism (CDM) projects of the Kyoto Protocol as well as the experience gained in the voluntary carbon markets such as Chicago Climate Exchange (CCX), particularly with regard to forest management. All these, among other similar instruments, should be considered in an adequate structure aimed at ensuring the accounting of emission reduction by means of sustainable forest management (or in other words, avoiding degradation).
- 6. Reinforcement of the implementation of Law N°20,283:** The coming into force of this law in July 2008 has resulted in the country having to face a series of operating and technical challenges for its implementation. Thus, it becomes extremely necessary to generate more informative-explanatory instruments regarding the benefits, mainly incentives, to which forest owners can resort in order to carry out sustainable forest management. In this regard, it is proposed that the network of "extensionistas" with whom CONAF operates throughout the country should be augmented, inasmuch as these professionals are responsible for promoting, in the field and in close cooperation with the communities, actions leading to recovery of the forest ecosystems referred to in the law.

**a) How would those programs address the main causes of deforestation?**

The main causes of forest degradation are associated with the poverty of owners, which induces them to utilize the resource in an inefficient manner. Also, the owners are more familiar with farming and animal husbandry than with forestry, a fact that causes them to prepare areas within the forests for use as grazing land in order to obtain income in the shorter term.

In this respect, both Decree Law N°701 and Law N°20,283 seek, by means of their incentives, to make the forestry activity more economically attractive, setting it up as a real alternative whereby owners can improve their living conditions in



harmony with the establishment of new forests as well as with management of existing ones.

**b) Would any cross-sectoral programs or policies also play a role in your REDD strategy (e.g., rural development policies, transportation or land use planning programs, etc.)?**

Yes, the government programs regarding the recovery of soils (INDAP), training of small-scale owners in agricultural techniques, water conservation, livestock management programs, genetic improvement of artificial grazing lands, etc., are issues transversal to the REDD+ strategy. At subnational level the regional strategy for development is also part of a cross-sectoral analysis inasmuch as each administrative region has its own development strategy.

**c) Have you considered the potential relationship between your potential REDD strategies and your country's broader development agenda in the forest and other relevant sectors? (e.g., agriculture, water, energy, transportation). If you have not considered this yet, you may want to identify it as an objective for your REDD planning process.**

All the issues related to climate change are considered by a special high-level committee (Inter-institutional Committee on Climate Change), presided by the Minister of Agriculture, which coordinates the different efforts and initiatives related to climate change as well as to problems such as water deficit, species adaptation, vulnerability, etc. This committee is also related to other ministries through the Ministers Committee (Cabinet), under the supervision of the President of the Republic..

It should be noted that the Ministry of Agriculture, through CONAF, is outlining initiatives of integration with emission sectors such as energy, transportation and others, for the purpose of designing a mechanism that would enable them to compensate their emissions by means, for instance, of the financing of forest plantations or the restoration of native forests, given the sequestration that this would signify.

Also, inasmuch as talks with the Ministry of the Environment regarding this matter have already been initiated for the purpose of analyzing with this ministry the possibility of carrying out carbon sequestration actions in lands under its administration, it is even intended to analyze the manner and pertinence of establishing an Internal Emission Transaction Scheme for the country.

Discussions are under way with the Ministry of Energy regarding the development of joint initiatives designed to help to compensate the emissions associated with that sector, which is reportedly the country's principal source of emissions, according to the Greenhouse Gas Inventory which was forwarded to the United Nations Framework Convention on Climate Change (UNFCCC) in August 2011. In this context, along with designing strategies to enable the establishment of plantations and/or management of the native forest for carbon sequestration purposes, actions would also be taken with a view to adding value to the forest biomass as a renewable source of energy.

It should be noted that the foregoing is in line with the commitment made by Chile before the UNFCCC, whereby it was decided to collaborate in a voluntary manner in the world's initiatives aimed at mitigating greenhouse gas emissions, adopting for this purpose actions to make it possible to diminish emissions by 20% by the year 2020.

**d) Has any technical assistance already been received, or is planned on REDD? (e.g., technical consulting, analysis of deforestation or forest degradation in country, etc., and by whom):**

Not for the moment. This R-PIN application will provide an option for applying for the technical assistance that should prove necessary in order to advance in REDD+.

**7. What are your thoughts on the type of stakeholder consultation process you would use to: a) create a dialogue with stakeholders about their viewpoints, and b) evaluate the role various stakeholders can play in developing and implementing strategies or programs under FCPF support?**

There exists a solid base, as well as lessons learnt from past experiences, with regard to inviting participation or creating a participative dialogue (derived from the Native Forest Law) within the society. Previously, all the stakeholder groups (research centres, NGOs, government, academia, industry, indigenous communities, etc) were invited and given the chance to express their opinion as well as to participate in the construction of this law. This methodology offered a great opportunity for discussion and finally for the attainment of consensus in an issue that was amply debated and could be applied to a new participative process.

For the particular issue of REDD+, the map of stakeholders relevant to this matter could be updated and a methodology for dissemination and consultation could be jointly outlined.

**a) How are stakeholders normally consulted and involved in the forest sector about new programs or policies?**

They are invited to participate in consultation groups. Generally, the person invited should be a representative of some stakeholder group.

The bases for instances of working closer with rural communities and indigenous peoples shall be those implemented by CONAF in conjunction with other relevant players. The degree to which this satisfies a consultation process associated with REDD+ will be evaluated. If adjustments are required, these can be implemented in the "Readiness" phase.

**b) Have any stakeholder consultations on REDD or reducing deforestation been held in the past several years? If so, what groups were involved, when and where, and what were the major findings?:**

Not yet.

**c) What stakeholder consultation and implementation role discussion process might be used for discussions across federal government agencies, institutes, etc.?**

There would be no problem in using the consultation platforms available in the country, such as public-private forestry boards, and even more concretely because the Native Forest Advisory Council is safeguarded by Law N°20,283.

It should be noted that ILO Convention N°169 also came into force in the country in 2008, some experiences in forestry matters having been reported, specifically regarding the extension of the validity of Decree Law N°701 until the year 2012, with the participation of representatives of indigenous communities.

**d) Across state or other subnational governments or institutions?**

On a subnational level, the same model for obtaining a flow of information and opinions from base organizations is proposed.

**e) For other stakeholders on forest and agriculture lands and sectors, (e.g., NGOs, private sector, etc.)?**

The same as in d).

**e) For forest-dwelling indigenous peoples and other forest dwellers?**

As mentioned previously, Chile has signed Convention N°169, whose purpose is to promote the rights of indigenous and tribal peoples, to encourage dialogue concerning the issues that affect them and to strengthen the capacity of these peoples for promoting and protecting their own rights. In this regard, all instances associated with the project shall be respectful of what is stipulated therein.

Emphasis is placed on the point indicated in letter c), in the sense that experiences already exist regarding the application of Convention N°169 for the definition of forestry issues (extension of the validity of Decree Law N°701).

**8. Implementing REDD strategies:**

**a) What are the potential challenges to introducing effective REDD strategies or programs, and how might they be overcome? (e.g., lack of financing, lack of technical capacity, governance issues like weak law enforcement, lack of consistency between REDD plans and other development plans or programs, etc.):**

Potential Challenges for the REDD Strategy	Possible Solutions
Strengthening of current promotional institutions and	▪ Improve the baseline and monitoring of capabilities.

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instruments.	<ul style="list-style-type: none"> <li>▪ Increase CONAF's current network of "extensionistas" (professionals subcontracted for purposes of dissemination and technical assistance for forest owners).</li> <li>▪ Intensify the work of "extensionistas" with owners in areas showing greater cutting of fuel wood without management plans, as well as reinforce aspects of dissemination and consultation carried out by these professionals as detailed in the reply to question 5).</li> <li>▪ Increase professional capabilities in REDD activities.</li> <li>▪ Define a committee of experts on climate and REDD issues.</li> </ul>
Socio-cultural barriers (social conflicts in certain regions, land tenure among small and medium-scale owners).	<ul style="list-style-type: none"> <li>▪ Improve coordination between private and public sectors.</li> <li>▪ Promote consultations with forest owners (the term forest owner is used regardless of ethnic considerations and therefore includes indigenous peoples, peasants, etc.).</li> <li>▪ Promote land-tenure regulating programs through government institutions.</li> </ul>
Economic barriers (landowners with lack of financing, rural poverty).	<ul style="list-style-type: none"> <li>▪ Coordinate social programs between public institutions..</li> <li>▪ Promote other payment schemes for ecosystemic services as a financial improvement alternative for owners.</li> <li>▪ Perform studies regarding the subjacent causes of changes in land use or of forest degradation.</li> </ul>

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**b) Would performance-based payments though REDD be a major incentive for implementing a more coherent strategy to tackle deforestation? Please, explain why. (i.e., performance-based payments would occur *after* REDD activities reduce deforestation, and monitoring has occurred):**

The incentives established by Law N°20,283 on Recovery of the Native Forest and Forestry Promotion, with a reinforcement regarding its operative implementation phase, should prove to be an adequate scheme of payments based on results for the purpose of improving the condition of forest ecosystems, thus diminishing degradation levels and consequently increasing the sequestration capacity of this resource.

It should be noted that a new forest promotion law is already in preparation whereby the incentive system of the present Decree Law N°701, whose validity expires in 2012, is to be replaced by one with a strong component associated with payment for ecosystemic services in the forests, with emphasis on carbon sequestration.

This proposed law is currently being prepared with the participation of public-private bodies, holding a series of validation workshops with relevant players for the purpose of giving shape to their concerns and suggestions. To date, contributions have been obtained from several political sectors as well as from the civil society through formal and informal channels.

**9. REDD strategy monitoring and implementation:****a) How is forest cover and land use change monitored today, and by whom? (e.g., forest inventory, mapping, remote sensing analysis, etc.):**

Use and changes in land use are evaluated permanently, and by legal mandate, by CONAF by means of the Cadastre of Chile's Native Vegetation Resources, which is updated for the entire country on a ten-yearly basis, concentrating on changes in land use as well as on the country's forest cover. In the latest version of this cadastre, aerial photographs were used, resulting in an increase of the minimum resolution (1 hectare) of the results, significantly improving the quality of the information..

As of 2001 INFOR is responsible for the Continuous Forest Inventory at subnational level, within the scope of the Forest Ecosystems Monitoring Program, whose data are based on permanent sampling plots in accordance with a statistical sampling design. This inventory can show the condition of the forests across wide areas, making it an instrument that can be used for monitoring forest degradation (see Annex 1, question 9).

**b) What are the constraints of the current monitoring system? What constraints for its application to reducing deforestation and forest degradation? (e.g., system cannot detect forest degradation of forest stands, too costly, data only available for 2 years, etc.):**

Although there are instruments available for monitoring forests, like the Forest Cadastre and Inventory, there is a need for certain aspects to be reinforced, such as emission factors (allometric functions and others) for the vast majority of Chile's forest types, reduction of the time elapsed between one updating and another as well as increase of the network of permanent sampling plots installed in the territory, with a view to obtaining the most reliable data possible.

**d) How would you envision REDD activities and program performance would be monitored? (e.g., changes in forest cover or deforestation or forest degradation rates resulting from programs, using what approaches, etc.)**

Monitoring of degradation in forests under a REDD system could be applied in the country by employing medium/high resolution images. This could be possible as of 2012, when a new Chilean satellite could make it possible to obtain images for the purpose of detecting changes in forest cover as well as variations in forest biomass.

Additionally, an institutional strengthening could be conceived by means of improving the country's current forest inventory and vegetation cadastre. In this regard, a systematic sampling scheme with a bi- or tri-annual frequency could improve the assessment of the impacts of logging upon the biomass as well as the detection of other indicators by applying international protocols such as, for example, the IPCC guide or the Winrock methodologies.

A system for evaluation of the socioeconomic impacts of the REDD strategy upon rural populations and their relationship with sustainable forest management is an important approach to be considered. Control of permanent plots in all the forests under a REDD approach should support the information requirements for the making of strategic decisions.

**10. Additional benefits of potential REDD strategy:****a) Are there other non-carbon benefits that you expect to realize through implementation of the REDD strategy (e.g., social, environmental, economic, biodiversity)? What are they, where, how much?**

A positive effect of forest conservation is related to protection of other ecosystemic services such as biodiversity, water, landscape, tourism and non-timber forest products. It could also serve as an important support for the integrated management of river basins that is currently being carried out in Chile, with emphasis on improving the quantity and quality of water supply for purposes of human as well as agricultural and livestock consumption..

Similarly, the economic and social benefits of a possible REDD scheme would prove to be additional effects of this strategy. Special attention will be applied to the reduction of poverty among the indigenous and non-indigenous populations that depend on forestry activities.

**b) Is biodiversity conservation being monitored at present? If so, what kind, where, and how?**

Biodiversity conservation is considered as part of the national biodiversity strategy headed by the Ministry of the Environment, which is operating as such since the year 2010 (formerly this was the responsibility of the National Commission on the Environment - CONAMA). The main purpose of this strategy is to define the policy for the purpose of

promoting, conserving and improving ecosystems, one of which is, of course, the forest.

Furthermore, CONAF is evaluating the biodiversity through the National System of State-owned Protected Wildlife Areas (SNASPE, in Spanish) in different regions of the country. Chile is making considerable efforts to complete the representation of all forest ecosystems in the system.

In addition, by means of the cadastre carried out by CONAF, analyses can be made of forest fragmentation, an aspect very closely associated with biodiversity when, for example, animal species use these ecosystems as biological corridors. On the other hand, all the efforts of the Ministry of Agriculture and its competent services in forestry matters concentrate on permanent forest inventory initiatives aimed at studying vegetation biodiversity variables up to the vascular plant level. Topics associated with fauna biodiversity need to be complemented by pertinent bodies, in this case through the Ministry of the Environment, which has a unit engaged specifically in this matter.

**c) Under your early ideas on introducing REDD, would biodiversity conservation also be monitored? How?**

Under the REDD strategy, biodiversity conservation could extend additional benefits to carbon inasmuch as it would enable the expansion of areas of biological interest to include others not conserved so far. Thus, biodiversity could be considered as one more variable to be monitored in the REDD process. Initially, it could be evaluated through time by means of teledetection and the existing permanent sampling plots. At present there exists a methodological proposal (INFOR 2007) for evaluating biodiversity in a sampling design linked with the one that is part of the Continuous Forest Inventory (based on Stohlgren T. 1998). There is still a need for determining which specific aspects of biodiversity could be assessed. These could be selected through consultation with experts and stakeholder groups.

**d) Are rural livelihood benefits currently monitored? If so, what benefits, where, and how?**

The National Statistics Institute (INE) carries out a country-wide survey every 10 years. This survey includes urban as well as rural areas and evaluates a complete set of socioeconomic indicators. The latest edition was carried out in 2002.

INE also applies a rural survey which focuses on measuring the socioeconomic variables of rural welfare. This survey is also carried out every 10 years, the last one having been completed in 2007.

**e) Under your early ideas on introducing REDD, would rural livelihood benefits also be monitored? How?**

The rural population welfare surveys associated with the REDD program should evaluate possible benefits or negative impacts on indigenous and rural populations. This monitoring could consider assessing the effects of the REDD scheme such as access to information, definition of the type of land use for participation in the program, changes in quality of life, among other possible impacts.

This information will be important for the purpose of evaluating the performance of the REDD program. Continuous adjustments could be necessary for the development of the strategy for this country.

**11. What type of assistance are you likely to request from the FCPF Readiness Mechanism?**

- **Identify your early ideas on the technical or financial support you would request from FCPF to build capacity for addressing REDD, if you are ready to do so. (Preliminary; this also could be discussed later.)**
- **Include an initial estimate of the amount of support for each category, if you know.**
- **Please refer to the Information Memorandum and other on-line information about the FCPF for more details on each category:**

ITEM	Year				Total (US\$)
	2012	2013	2014	2015	
<b>1. Dissemination regarding REDD mechanism and current promotion instruments to stakeholder groups (government institutions, NGOs, indigenous and rural communities, etc.)</b>					<b>224.000</b>
Regional and local dissemination	26.000	26.000	26.000	26.000	104.000

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National dissemination	30.000	30.000	30.000	30.000	120.000
<b>2. National REDD Strategy</b>					<b>311.000</b>
Designing of REDD strategy	100.000	100.000			200.000
Communications and Publications	27.000	40.000	22.000	22.000	111.000
<b>3. Institutional strengthening and reinforcement of current forestry regulations</b>					<b>3.065.000</b>
Studies and advisory services	242.500	242.500	150.000	150.000	785.000
“Extensionistas” subcontracts, Native Forest Law (objective: to reinforce direct work with owners in areas showing greater cutting of fuel wood without management plans as well as to promote dissemination and consultation aspects carried out by these professionals, as detailed in the answer to question 5).	510.000	510.000	510.000	510.000	2.040.000
National consultation process	30.000	30.000	30.000	30.000	120.000
Integrated institutional coordination	30.000	30.000	30.000	30.000	120.000
<b>TOTAL</b>					<b>3.600.000</b>

Note 1: There is no budget specified for MRV because, as already indicated, it is intended to approach this point by means of GEF co-financing..

Note 2: Originally it was proposed that some pilot forest management trials should be performed with communities. Nonetheless, in view of the impossibility of financing activities of this type with the FCPF, it is intended to analyze the pertinence of carrying out work in this regard in association with the GEF project known as “Sustainable land management”, which is also coordinated by CONAF’s Forestry Office management.

**a) Setting up a transparent stakeholder consultation on REDD (e.g., outreach, workshops, publications, etc.):**

An informative process and consultation with stakeholders is a structural manner of attaining a successful forestry program structure. In order to face this challenge, support will be needed for the purpose of developing integral communication among all the shareholder groups during the process. Regional and national workshops will be organized and different communications media will support the initial steps in this country.

**b) Developing a reference case of deforestation trends: Assessment of historical emissions from deforestation and/or forest degradation, or projections into the future.**

It is sought to finance aspects of Monitoring Reporting and Verification (MRV) by means of national as well as international funding which the country is currently exploring through its competent institutions in this matter. This point, added to the reinforcing of Law N°20,283 by means of the hiring of more “extensionistas” for the purpose of making known in greater measure the benefits to which forest owners can resort, will undoubtedly represent a substantial contribution toward recovery of the country’s native forest.

**c) Developing a national REDD Strategy: Identification of programs to reduce deforestation and design of a system for providing targeted financial incentives for REDD to land users and organizations (e.g., delivery of payments, governance issues, etc.):**

Development of a national REDD strategy will require technical and financial support on the part of the FCPF. Despite the Chilean experience regarding market instruments, the REDD financial incentives will demand greater understanding of the setting in operation and the effects of possible payments for carbon sequestration, which will require a new focus for the attainment of targets. Some of the aspects considered in this area are related to the creation of a unit that can help to coordinate, negotiate and execute all aspects associated with the reduction of emissions derived from forest degradation, concentrating for instance on the procedures for making possible payments for carbon bonds, defining key aspects of an internal emission transaction mechanism, defining the manner of determining rights over the forest carbon, among other variables. An institutional strengthening at the national and local level has also been considered. A greater inter-institutional integration has also been considered.

**e) Other?:**

One important aspect considered in this proposal is the strengthening of institutional capabilities as well as the attainment of a greater institutional integration.

**12. Please state donors and other international partners that are already cooperating with you on the preparation**

**of relevant analytical work on REDD. Do you anticipate these or other donors will cooperate with you on REDD strategies and FCPF, and if so, then how?:**

As indicated with regard to the entire system of Monitoring, Reporting and Verification, international and national alternatives are being sought for its financing, one of the most advanced initiatives being that of obtaining a GEF donation for the purpose of reinforcing the Permanent Forest Inventory, a matter that could possibly be resolved during the year 2012.

**13. Potential Next Steps and Schedule:**

**Have you identified your priority first steps to move toward Readiness for REDD activities? Do you have an estimated timeframe for them yet, or not?**

At present there is no estimated deadline for moving toward the REDD Readiness activities. However, this would require that the following stages be supported by the FCPF:

- A comprehensive informative process for stakeholder groups.
- Definition of degradation at the national level.
- Definition of a national REDD strategy.
- Institutional strengthening and communicational integration.

**14. List any Attachments included  
(Optional: 15 pages maximum.)**