Executive Summary

This study considers regional or sub-regional *in situ* conservation planning for remnants of native forests in the coastal area of the Maule region of Chile.

The paper is divided into two main parts. The first part is an investigation and analysis of the conservation status of coastal forests, the main species in the flora, the relative conservation value of the species found and their geographical areas of occurrence (bio-quality), and the connectivity among forest fragments of a model species (queule). The main results of diagnosis are:

(1) The coastal sub-region of Maule is one of the regions in Chile which, until recently, has suffered the highest rates of native forests conversion;

(2) The high degree of fragmentation and intermixing of the remaining native forests with other land uses, mainly exotic forest plantations, suggests the value of incorporating conservation objectives into the productive management plans of companies;

(3) The populations of many native species, except roble and hualo, comprise small numbers of individuals. In some cases, they may already be below or near the minimum thresholds for the maintenance of evolutionary adaptability. However, further inventory surveys and research into reproductive behaviour are necessary to clarify the situation;

(4) While there is a risk of genetic degradation for some species, the demographic dangers (e.g., destruction of habitat, lack of natural regeneration, harvesting), especially for species such as michay rojo, pitao, queule and possibly ruíl are much more immediate;

(5) In the botanical survey 475 species were found (44% endemic) of which 20% have high or very high conservation value;

(6) Bio-quality analysis identified 26 (grids) geographical locations (grid squares) of interest for forest conservation. The actions in the Strategic Plan are directed at these 26 areas;

(7) The study of connectivity between forest fragments using queule showed that all the fragments, however small, contribute to the connectivity matrix of reproductive populations;

(8) Many gaps remain in knowledge about basic species' biology, particularly precise geographical distributions, population sizes, reproductive biology and genetic systems.

The second part of the paper is of a Strategic Plan for the management of conservation actions, arising from Part One, presented in a logical hierarchical framework. The Strategic Plan, at the level of its major objectives, is linked to existing planning frameworks in force in the Maule Region (Maule Regional Strategy 2008-2020, Maule Biodiversity Strategy, 2002) and is intended to complement the latter for forest conservation issues in the coastal sub-region. The Strategic Plan has three work programs that address three major challenges for forest conservation in the sub-region:

(1) Conservation areas with high conservation value and species with very small populations where there are genetic threats and demographic threats are imminent;

(2) Conservation areas and localities of species of high conservation value that occur in large populations that have not yet reached critical thresholds for survival;

(3) Improving knowledge about the biology and ecology of species and their conservation status, and distribution of this knowledge among relevant stakeholders.

We also provide a cost estimate of planned actions for a 20-year time horizon and a proposed monitoring matrix of the strategy, with indicators based on the goals formulated in work programs.