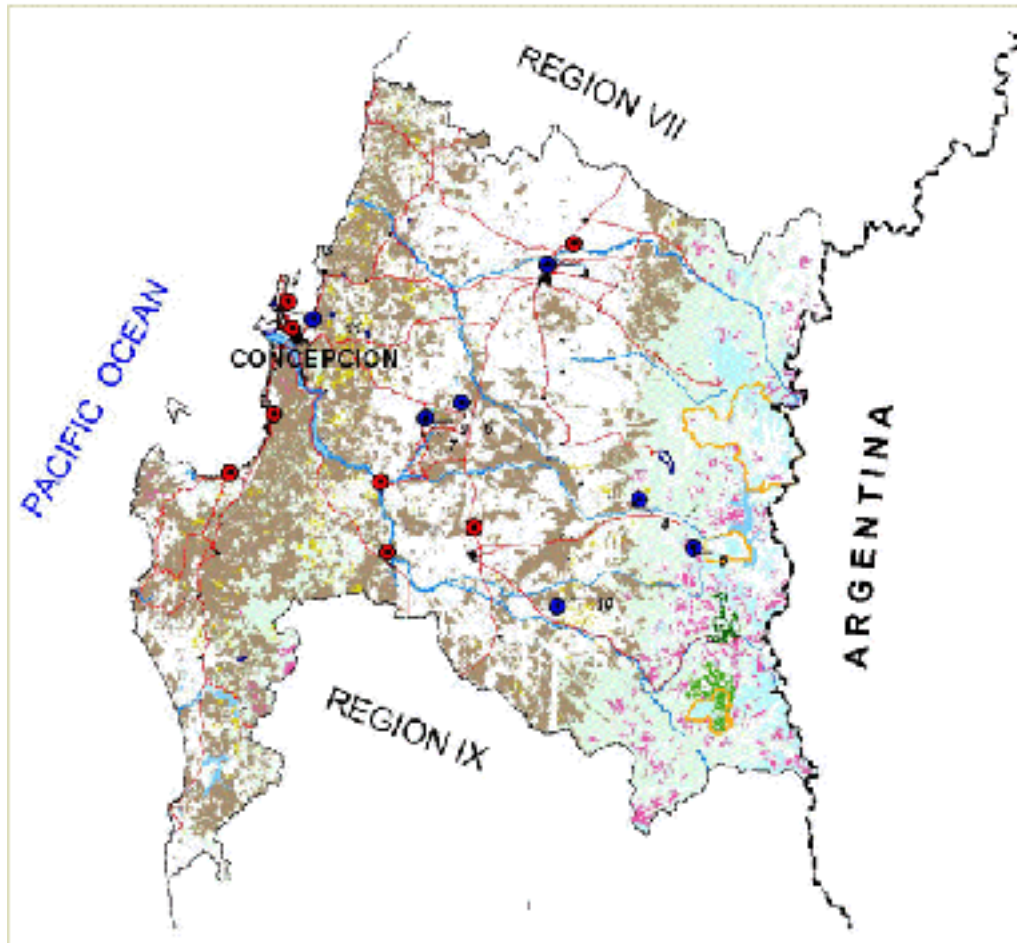


Chile's Frontier Forests: Frontier Forests, Other Vegetative Cover, Protected Areas, and Forest Activities in Administrative Regions VIII



Map Projection: Transverse Mercator

Citation: Neira, E., H. Verscheure and C. Revenga. 2002. Chile's Frontier Forest: Conserving a Global Treasure. WRI, CODEFF and UACH, Washington, DC.

Analytical Overview:

The Official Land Register and Evaluation of the Native Vegetative Resources of Chile used topographic maps at a scale of 1:50,000 provided by the Military Geographic Institute of Chile (Instituto Geografico Militar).

The land register project produced 641 native vegetation maps. According to the objectives of the CONAF (Corporacion Nacional Forestal-- the Chilean government agency responsible for forest management) land register, the country was divided into zones which were mapped at different scales as follows:

Administrative Regions I, II, III, and IV = 1:250,000 scale

Administrative Regions V through X = 1:50,000 scale

Administrative Regions XI and XII = 1:100,000 scale

Region XII Fiords = 1:250,000 scale

The land register was based almost entirely on aerial photographs at varying scales depending on the region. Scales ranged between 1:20,000 and 1:70,000.

The extremes of the country, the desert areas to the North, and the canals and fiords to the south were mapped based on satellite images at a scale of 1:250,000 with a 79 meter resolution. Aerial photographs were also interpreted.

Nine land use categories were developed, with some forest sub-categories. In addition to classifying the different land use categories and the vegetation density for the different stands identified in the aerial photographs, other attributes also were measured in the field. All of the information was digitized and entered into a Geographic Information System (GIS).

This map was produced by Global Forest Watch partners Comite Nacional Pro Defensa de la Fauna y Flora (CODEFF) and Universidad Austral de Chile.

Description:

This map shows the different vegetative land cover types in Chile's Administrative Region VIII. The forests in this region have been heavily altered, as reflected in the large area of forestry plantations composed mainly of Monterey pine. Region VIII actually has the largest expanse of forestry plantations in the country, with 44.3 percent of total plantation area. Region VIII contains more than 17,000 hectares of frontier forest, representing 2.2 percent of the native forests in the region. Frontier forests¹ are defined as mature forests or dense timberline forests which are of at least 5,000 hectares, are made up of native species, and are intact or have been only slightly altered.

Conserving the forests of Region VIII is crucial, given that, as in Regions VI and VII, these are the only remaining examples of forests that once covered the central parts of Chile. Conservation of these forests would entail establishing either public or private protected areas and incorporating forest conservation into management and plantation zoning plans. This map also shows the national (yellow outlines) and private (black outlines) protected areas in these regions, as well as the location of the main development projects² and forestry companies affecting native forests. Region VIII has a small fraction of 17,624 hectares of its frontier forests protected; however, at the national level, this percentage is marginal. These figures all point to the need to extend protection in these northern regions before these last fragments of native forest ecosystems are lost.

Region VIII contains the largest number of development projects, with a total of eight large-scale projects which may have a negative impact on native forests (numbered 4-11 on map). These projects include the placement of electricity transmission lines in the Chillan district by the company Transelec (number 4 on the map); the placement of the trans-Andean gas pipeline and natural gas distribution network by Gasoducto Transandino S.A. in the districts of Antuco and Yumbel (numbers 5 and 6 on the map); the construction of the Laja thermoelectric plant by Energia Verde S.A. in the Cabrero district (number 7); the Pehuen- Rucue hydroelectric plants in Santa Barbara owned by Eléctrica Mampil (number 8); the establishment of a door molding processing plant (FIBRAMOLD S.A.) owned by Terranova S.A. in the Cabrero district (number 9); the Ralco hydroelectric plant owned by ENDESA in the Quilaco district (number 10); and the San Vicente Temuco oil pipeline by Soc. Nacional de Oleoductos Ltda. in Concepción (number 11).

FOOTNOTES:

1 The map contains two categories of frontier forests, according to the minimum block size (or the minimal surface area of forests that meets Global Forest Watch's definition and criteria for frontier forest)-- those that have a surface area of at least 5,000 hectares, and those with an area of at least 10,000 hectares. These block size thresholds were determined by the Global Forest Watch- Chile Technical Advisory Committee in consultation with Chilean foresters and biologists.

2 The development projects included here are only industrial projects. Forest management projects are shown in the map, but are not listed individually.