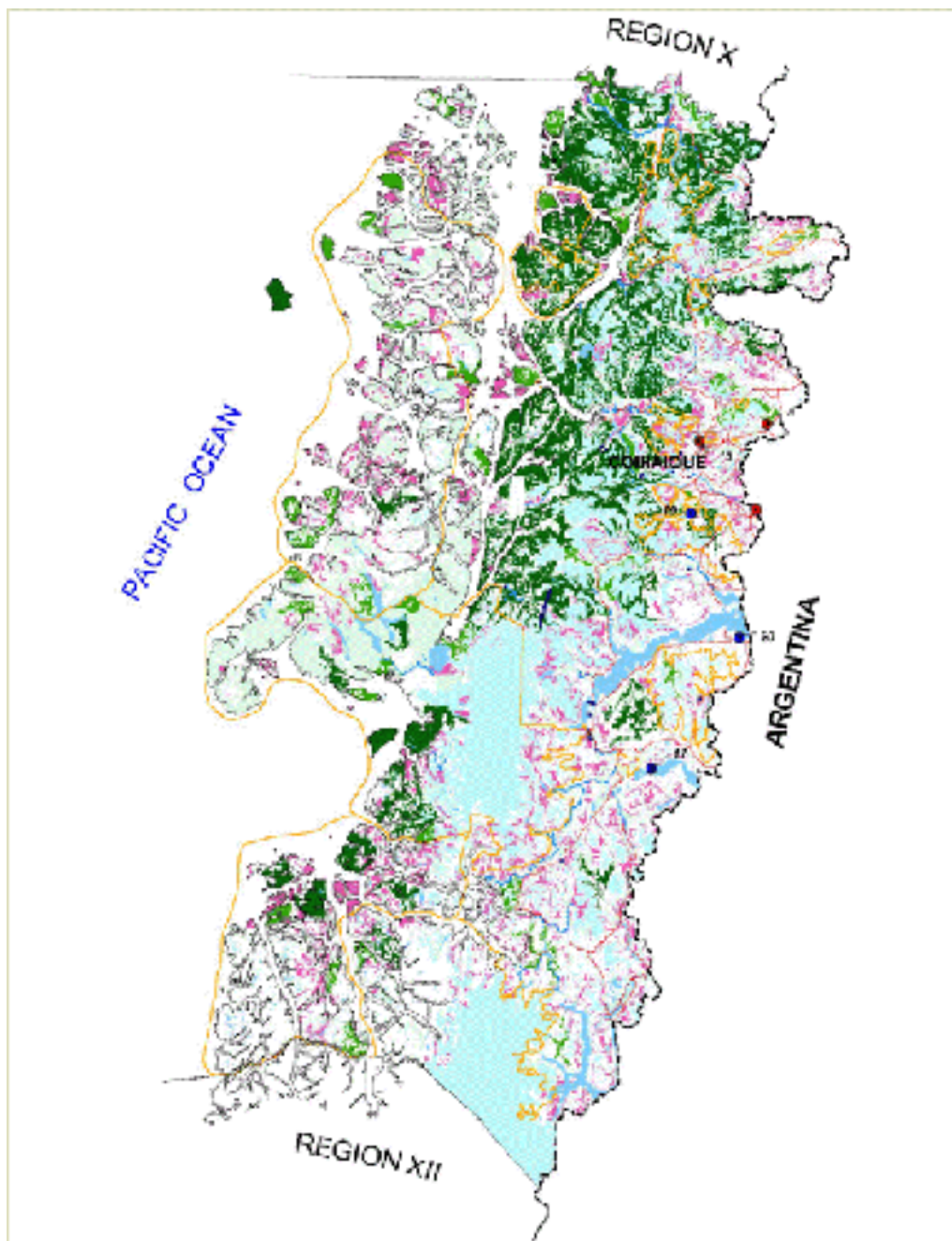


Chile's Frontier Forests: Frontier Forests, Other Vegetative Cover, Protected Areas, and Forest Activities in Administrative Regions XI



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 Comit  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 XI. This region is one of the least disturbed regions in Chile, containing the largest expanse of native forest-- 4,830,711.6 hectares, or 35.9 percent of all native forest area in Chile. Of these, 1,778,428.3 hectares or 36.8 percent are considered frontier forests¹. Frontier forests 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.

The 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. After Region IX, the next most important region in terms of share of frontier forests protected is Region XI, with 31.4 percent. This is probably because this region has low human population density and few forest-related industrial developments. However, although the southernmost regions (Region XI and XII) contain some of the country's largest tracts of protected frontier forests, representation of some of their unique forests types within the protected areas system is lacking.

As of 2001, there were four development projects in Region XI that may negatively impact frontier forests. These include the Furioso mining exploration activities by the CDE Chilean Mining Corporation in the Cochrane district (number 17 on map); the Patagonia mining exploration project owned by Aur Resources Colin Charles Br. in the district of Coihaique (number 18 on map); the Lago Atravesado hydroelectric plant owned by ENDELAYSEN S. A. also in the Coihaique district (number 19 on map); and the Beta Raul mining exploration project by Compa ia Minera CDE in the Chile Chico district (number 20 on map).

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.