



Universal Transverse Mercator projection, Zone 18 south  
Elevation and hillshade image map derived from National Geospatial-Intelligence Agency (NGA) 1:50 000 scale map contours

Sun illumination from the northwest (315°) at 35° above horizon

Disturbance data derived from Landsat Thematic Mapper imagery at 30-m resolution

All vector data provided by the Center for Conservation, Investigation, and Management of Natural Areas, Lima, Peru (CIMA)

## 2000 Disturbances - Cordillera Azul National Park, Peru

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**Cordillera Azul National Park**  
In May 2001, the government of Peru established a 13,530 km<sup>2</sup> stretch of largely untouched forest as Cordillera Azul National Park, the second largest park in Peru. The park was created primarily through the efforts of the Peruvian Association for the Conservation of Nature (APECO), in conjunction with scientific and technical assistance from The Field Museum of Natural History. A new organization, el Centro de Conservación, Investigación y Manejo de Áreas Naturales (CIMA), is now responsible for park management. Cordillera Azul National Park lies between the Ucayali and Huallaga River valleys in northern Peru. Elevations in the park range from 200 meters (m) to more than 2,000 m above sea level. The eastern edge of the Cordillera Azul range rises abruptly from the Amazon Plain to more than 1.6 kilometers (km) in elevation. This escarpment forms most of the eastern border of the park. The dramatic topography and relative isolation from human activities combine to form an area that is rich in biodiversity.

In recent years, both before and since the park's creation, there have been substantial increases in human population in the Huallaga and Ucayali River valleys. This growth has been accompanied by increased land clearing for settlements, food crops, cocoa production, and timber harvest. To date, most of this conversion has occurred in the buffer zone around the park, not within its borders. However understanding spatial and temporal patterns of land clearing remain critical for effective park management.

These maps show the results of an analytical process used to detect clearings as seen on Landsat imagery. Clearings are defined as bare ground likely related to human activity. This definition excludes landslides, sandbars, and mountaintops naturally free of vegetation. The definition includes roads, croplands, towns, and other settlements.

### Digital Elevation Model

The elevation data used in this map was created using National Geospatial-Intelligence Agency (NGA) 1:50 000 topographic maps in digital format. Twelve individual maps were needed to cover the entire study area. Contour interval varied by map. Areas in white are locations of "no data" in the digital NGA maps.

### Disturbance Mapping

Forest disturbances in and adjacent to Cordillera Azul National Park were mapped using remotely sensed imagery for 1996, 1999, 2000, 2001, and 2002. Both Landsat Thematic Mapper (TM) and Enhanced Thematic Mapper Plus (ETM+) data were used to map forest disturbances at a spatial resolution of 30 meters.

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<http://maponline.wr.usgs.gov/peru>