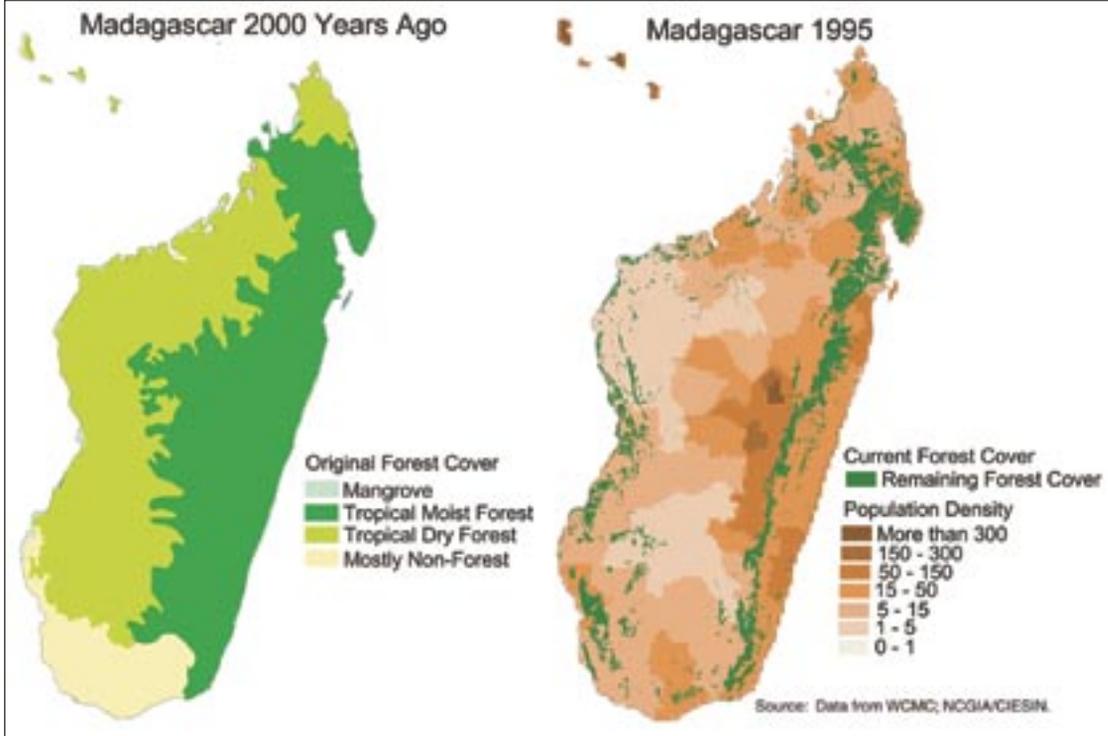


## DEFORESTATION

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Claretha, R.P. and B. Enelmaa. 2000. *Nature's Place: Human Population and the Future of Biological Diversity*. Washington, D.C.: Population Action International.

This map of the island of Madagascar is striking evidence of the extent of deforestation. One of the most biologically rich and unique spots on Earth (home to 5 percent of the world's species), it is in danger of becoming one of the least. All but 10 percent of the forests have been burned, replaced mainly by coffee plantations, cattle ranches, and mining operations. A booming population, mass migration to cities, and hard economic times complete the scenario of destruction.

*Definition*

Deforestation is the removal of tree cover for the sake of agriculture, mining operations, water impoundments, infrastructure creation and maintenance, expansion of cities, and other consequences of a rapidly growing human population.

*Description*

The world's forests have shrunk significantly over the last several thousand years. The extent of deforestation that can be directly traced and attributed to human activity has not been precisely determined. Extrapolations based on current knowledge of the soil, elevation, and climatic conditions required by forests suggest that the planet's original forest cover may have been reduced, from the time of the earliest civilizations to the present, by nearly fifty percent.

More importantly, the rate of deforestation appears to be accelerating. More than 12.5 million hectares of natural forest (an area slightly larger than Iceland) are lost every year. This loss is unevenly distributed as well. In the tropics, where the vast majority of the world's known species lives—making tropical forests both the engine and refuge of biodiversity—14.2 million hectares of natural forest are lost yearly, while in the industrialized temperate and boreal countries, natural forest cover is increasing by 1.7 million hectares per year.

Deforestation appears to be the consequence of a lack of understanding of the role forests play in human lives and the benefits they provide. As habitats decline and larger numbers of plant and animal species disappear, vital environmental services—regulation of river water flow, water filtration, soil conservation, absorption of greenhouse gases, for example—are lost as well. In the long run, deforestation undermines the foundations of the very economies, industries, and commercial interests that are most responsible for and dependent on deforestation. A decline in human well-being, in other words, is ironically the cost of unchecked development.

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Food and Agriculture Organization of the United Nations. 2001. *State of the World's Forest 2001*. Rome: FAO Publications.

United Nations Environment Programme. 2001. *An Assessment of the Status of the World's Remaining Closed Forests*. Nairobi: UNEP.

### *Web sites*

[www.ulb.ac.be/ceese/meta/sustvl.html](http://www.ulb.ac.be/ceese/meta/sustvl.html)

A comprehensive list of Internet sites dealing with sustainable development, including organizations, projects, and activities; electronic journals; libraries; references and documents; databases; directories; and metabases.

[www.forests.org](http://www.forests.org)

Forest conservation portal, vast collection of rain-forest, forest, and biodiversity conservation news and information.

[www.forestinformation.com](http://www.forestinformation.com)

Offers educational content on sustainable forest management from Canadian, United States, and United Nations forestry resources. Operated by forestry companies and industry associations. Includes a kids' and teacher's section.

### *Further reading*

Chew, Sing C. 2001. *World Ecological Degradation: Accumulation, Urbanization, and Deforestation 300 B.C.–A.D. 2000*. Lanham, Maryland: Altamira Press.

Rudel, Thomas K. and Bruce Horowitz. 1993. *Tropical Deforestation: Small Farmers and Land Clearing in the Ecuadorian Amazon (Methods and Cases in Conservation Science)*. New York: Columbia University Press.

Vajpeyi, Dhirendrea K., editor. 2001. *Deforestation, Environment, and Sustainable Development: A Comparative Analysis*. New York: Praeger Publications.