

# Encyclopedia of Global Warming & Climate Change

## Madagascar

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The Republic of Madagascar comprises the island of Madagascar as well as several small peripheral islands in the Indian Ocean off the southeastern coast of Africa. The land area of the island of Madagascar is 226,658 sq. mi. (587,041 sq. km).

Between 1984 and 2003, the average temperature has increased in northern Madagascar between 0.18 and 0.45 degree F (0.10 and 0.25 degree C); there has been no recorded average temperature change in the south. The effect of this warming in Madagascar has been an increase in El Niño Southern Oscillations, which are associated with droughts and wildfires. In addition, there has been an increase in the intensity and number of cyclones, which displace human communities and lead to local famine and cholera outbreaks. Although warmer ocean temperatures caused by global climate change have been recorded in northern Madagascar, the effects of this change on the coral reefs in the region has been mitigated, at least temporarily, because of cooler water from deep ocean currents.

Madagascar's unique flora and fauna are also susceptible to climate change: for example, reduced rainfall has negatively affected endangered sifaka lemur populations. Madagascar's western coast mangrove forests are particularly susceptible to increasing sea levels caused by global warming. The impact of climate change and global warming in Madagascar is exacerbated by deforestation resulting from increased population and unsustainable swidden farming and logging that has reduced forest cover and increased desertification, causing higher temperatures, lower humidity, and diminishing annual rainfall.

Efforts to reduce the effect of climate change and global warming on Madagascar's flora and fauna includes the U.S. Agency for International Development's attempt to reduce brush fires, which release carbon emissions into the atmosphere, in addition to destroying vegetation. The Wildlife Conservation Society, Conservation International, and the government of Madagascar's Makira Forest Project seek to protect over 74,131 acres (300,000 hectares) of rainforest in northeastern Madagascar. It is hoped that the Makira Forest will offset 9.5 million tons of carbon dioxide (CO

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) over 30 years by carbon sequestration, preserve habitat for threatened species, and provide economic opportunities for local indigenous communities.

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See Also

#### Further Readings

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