Venezuela is a major oil-producing state and a founding member of the Organization of Petroleum Exporting Countries (OPEC). Its leaders resist global efforts to accelerate cuts in carbon dioxide emissions, and the country's low-cost oil supply to Latin America and the Caribbean countries may stall regional transition to alternative energy sources. Venezuela has been criticized for encouraging energy inefficiency with oil subsidies, but new state environmental programs promote conservation.

Venezuela has proven crude oil reserves of 80,012 million barrels, and the state-owned Petróleos de Venezuela (PDV) is one of the world's largest oil companies. Most of the nation's oil exports enter the United States. PDV's subsidiary Citgo refines the crude oil in Texas. In addition to Venezuela's petroleum trade with the United States, its Chinese oil investments are growing. Venezuela recently signed energy agreements guaranteeing petroleum to many Latin America and Caribbean countries. These pacts include subsidized oil, an exchange of goods and services for oil, and interest-deferred financing for oil purchases.

There are many uncertainties about the potential effect of climate change on Venezuela. As a precautionary method, the development of agricultural varieties resistant to drought and adverse climate conditions has been recommended. Flooding is likely in other areas. In December 1999, Venezuela experienced its highest monthly rainfall in a century. Massive landslides and flooding led to the deaths of more than 30,000 people. The risk of increased mortality from diseases with mosquito vectors such as yellow fever increases after floods, and malaria has been documented to increase in the country's coastal regions after the onset of El Niño.

Although the country has been criticized for contributing to global warming, some conservation measures are in place. Venezuela ratified the UN Framework Convention on Climate Change in 1994 and the Kyoto Protocol in 2005. In 2006, President Hugo Chavez launched a reforestation program to plant 100 million trees. These trees will be intercropped with cacao and coffee to give farmers an incentive to abandon environmentally destructive farming methods. Chavez also launched an energy efficiency program that promotes improved light bulbs and natural gas, wind, and solar power. Venezuela's large reserves of natural gas remain largely untapped.

Venezuela is among the top 20 countries in terms of endemism, and more than 200 protected areas cover in excess of 70 percent of the nation. Its diverse climatic and biogeographical regions cover a range of elevations, and there are 1,740 mi. (2,800 km.) of coastline, including vast mangrove swamps and numerous islands. There has been a documented retreat of glaciers in the Sierra Nevada range, however, and the glacier on Pico Bolivar may completely disappear during the next decade.

A climate change mystery occurs in Venezuela: methane builds up over the country at night. Scientists that researched this peculiar phenomenon have recently suggested, amid some skepticism, that the methane is being released from certain plants growing in the savanna.
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