

US in the WORLD

CONNECTING PEOPLE AND COMMUNITIES TO ENSURE A HEALTHY PLANET



New York



Comparison at same scale

New York
 Area: 49,108 sq. miles
 Population: 18.1 million

Brazil
 Area: 3,286,488 sq. miles
 Population: 160.3 million

Brazil



Largest urban areas by population (1995): São Paulo (16,533,000), Rio de Janeiro (10,181,000), Belo Horizonte (3,775,000)

Largest metropolitan areas by population (1996): New York (11,890,819), Buffalo-Niagra Falls (1,175,240), Rochester (1,088,037)

For a generation, ranchers, farmers, and miners have been bulldozing, hacking, and burning the world's largest tropical rain forest in the Brazilian Amazon. As in 19th-century New York, developers and colonists in Brazil have stripped and settled the forests with government support. Until recently, colonists to Amazonia received encouragement in the form of tax and other incentives and government-financed roads. New York is working to preserve its remaining temperate forests from development, and Brazil, too, has now ended most incentives that encouraged the rain forest's development. But with an area as large as California already cleared and burned, and with a growing population and limited resources, Brazil may do just what New York did: clear forests for short-term gain and ignore long-term sustainability.

Forests are just one of New York and Brazil's many common features. Their huge, diverse economies have strong agricultural bases and modern industries, as well as financial sectors and stock exchanges in cities clustered on or near their coasts. Both are heavily urbanized; the megacities of São Paulo and Rio de Janeiro are among 11 Brazilian cities with populations exceeding 1 million. Both are dynamic, racially mixed societies. Brazil's population is 8 percent black and 42 percent black-white mixed.

These similarities sometimes obscure obvious differences. After a generation of industrial development, Brazil is still gripped by poverty and inequality. Only one-third of children enter secondary school, and 18 percent of adult Brazilians are illiterate. New Yorkers consume on average nine times as much energy as Brazilians, and New

York, with an average annual per capita income eight times that of Brazil's, has vastly more resources at hand to manage and restore its natural resources. New York's population is nearly stable; Brazil's growth has been rapid but is slowing: Women now bear on average 2.5 children, down from 6.5 in 1960.

Metropolitan São Paulo and New York City, with their large populations, place enormous demands on energy and water resources. Emissions standards for industry (from shoes to automobiles and aircraft) have helped curb pollution in São Paulo, but with the number of cars growing and public transportation already overcrowded, further improvements will be difficult. New York City, like most of the rest of the state, draws much of its energy from hydroelectric power; only 25 percent of the entire state uses the highest-emissions fuel, coal.

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NEW YORK

Demographic and Health Trends

- Growing just 1 percent since 1990, New York fell to the third most populous state in 1994, behind California and Texas. Although forecasts project nearly 20 million New Yorkers by 2025, Florida is expected to have overtaken New York for third place by then.
- After California, New York receives the largest number of immigrants. In 1996 the greatest numbers came from the Dominican Republic, China, Ukraine, and Jamaica.
- After its population fell to 7.1 million in 1980, the “Big Apple” added 58,000 people during the 1990s,

reaching 7.4 million in 1996. New York City’s suburban counties have grown at a much faster rate than the city.

- New York City is home to 41 percent of the state’s population, down from 53 percent in 1950.
- Much of upstate New York has struggled to adapt to a service-based economy. The Buffalo-Niagara Falls area has lost 14,000 persons during the 1990s, and three upstate counties—Broome, Oneida, and Clinton—have lost at least 5 percent of their populations since 1990.

Natural Resources and Wildlife Issues

- Manufacturing plants released 35.1 million pounds of toxic chemicals to the air, waterways, and soil. This represents a 68 percent decline from the 94.4 million pounds released in 1988.
- Air quality in New York has shown considerable improvement since the 1970s. For example, the level of sulfur dioxide has been reduced to one-fourth of the 1970 level.

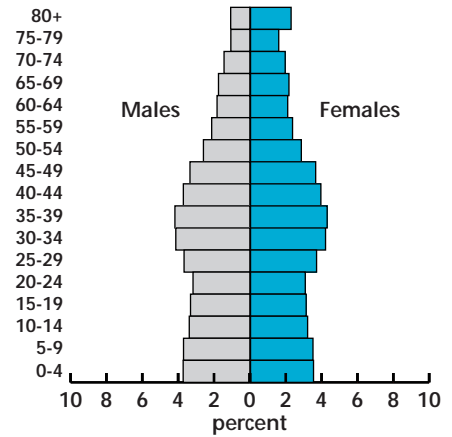
■ The Catskill-Delaware watershed provides 90 percent of New York City’s water supply. But, as upstate towns earmark land for commercial development, competition for water resources will increase.

- The bald eagle, peregrine falcon, piping plover, and Chittenango ovate amber snail are among New York’s endangered and threatened animals. The American hart’s-tongue fern and Houghton’s goldenrod are endangered and threatened plants.

Socioeconomic Factors

- The income gap between the wealthiest families and the poorest families is greater for New York than any other state. In the mid-1990s, the wealthiest 20 percent earned an average of \$132,390 per year, while the poorest 20 percent averaged \$6,787.

POPULATION BY AGE AND SEX

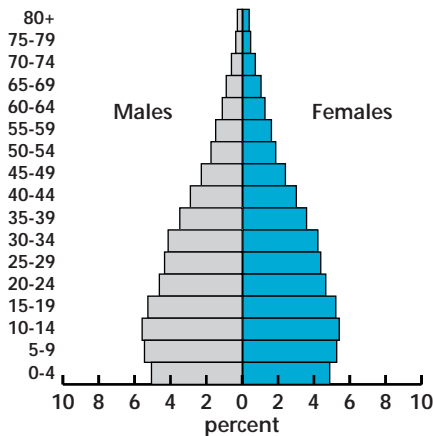


NEW YORK FACTS

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| Population, 1997: 18.1 million |
| Projected population, 2025: 19.8 million |
| Annual growth rate: 0.0% |
| Doubling time (at current rate): n.a. |
| Average number of children per woman: 2.0 |
| Infant deaths per 1,000 live births: 7.7 |
| Life expectancy: 71 (male), 78 (female) |
| Persons per square mile: 384 |
| Percent urban: 84 |
| Endangered/threatened animals: 8 species |
| Endangered/threatened plants: 6 species |
| Percent of land protected: 10 |
| Wetlands loss, 1780-1980: 60% |
| Daily water use per capita: 928 gallons |
| Water use for domestic purposes: 20% |
| Water use for agriculture: 0.4% |
| Water use for industry: 2% |
| Water use for energy production: 78% |
| Cropland per capita: 0.3 acres |
| Energy use per capita: 37.1 barrels of oil equiv. |
| Persons per motor vehicle: 1.8 |
| Adults who are high school graduates: 82% |
| Elected officials who are women: 19% |
| Labor force in agriculture: 1% |
| Labor force in industry: 14% |
| Labor force in services: 84% |
| Gross State Product, 1994: \$31,379 per capita |

BRAZIL

POPULATION BY AGE AND SEX



BRAZIL FACTS

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|--|
| Population, 1997: 160.3 million |
| Projected population, 2025: 212.9 million |
| Annual growth rate: 1.1% |
| Doubling time (at current rate): 63 years |
| Average number of children per woman: 2.5 |
| Infant deaths per 1,000 live births: 48 |
| Life expectancy: 64 (male), 70 (female) |
| Persons per square mile: 49 |
| Percent urban: 76 |
| Threatened animals: 240 species |
| Threatened plants: 463 species |
| Percent of land protected: 3.8 |
| Wetlands loss, through 1980s: n.a. |
| Percent with access to safe water: 73 |
| Percent with adequate sanitation: 44 |
| Daily water use per capita: 178 gallons |
| Water use for domestic purposes: 22% |
| Water use for agriculture: 59% |
| Water use for industry: 19% |
| Cropland per capita: 1.0 acres |
| Energy use per capita: 3.9 barrels of oil equiv. |
| Persons per motor vehicle: 10 |
| Percent of girls in secondary school: n.a. |
| Percent of boys in secondary school: n.a. |
| Women as % of national legislature: 7 |
| Labor force in agriculture: 25% |
| Labor force in industry: 25% |
| Labor force in services: 50% |
| GDP per capita, 1995: US\$4,360 |

Demographic and Health Trends

- Brazil has the world's fifth largest population. The population is increasingly urban, up from 45 percent in 1960 to just over 75 percent in 1997.
- Of every 1,000 live births, 60 Brazilian children do not survive to the age of 5. In the region, only Haiti,

Bolivia, and Guatemala have higher rates of child mortality.

- Brazil's São Paulo and Rio de Janeiro are among the world's 20 largest urban areas.
- The number of births per woman dropped dramatically from 6.2 in 1960 to 2.5 in 1997.

Natural Resources and Wildlife Issues

- Between 1980 and 1990, Brazil lost about 5.4 million acres of forest per year, an area larger than the state of New Jersey and more than one-fifth of all tropical forest lost worldwide during that time.

more than a few years. These degraded lands often are abandoned or converted to low productivity pasture land.

- Forests are cut to build roads and develop the area to serve cattle ranching, mining, cash-crop farming, and hydroelectric projects—all of which contribute to further deforestation. The roads also pave the way for hundreds of thousands of landless settlers who use slash-and-burn farming techniques to clear land.
- Without tree cover, soil erosion and leaching occur, leaving inadequate nutrients to sustain crops for

Water pollution is serious near many cities because sewage and industrial wastes are released untreated into rivers. Mercury, a toxic heavy metal used in gold mining, reaches streams and contaminates water.

- Brazil has 1,635 known species of birds, 394 known species of mammals, and 55,000 known species of plants. Threatened species include the black-faced lion tamarin, Amazonian manatee, giant armadillo, Brazilian merganser, white-necked hawk, and chestnut-bellied guan.

Socioeconomic Factors

- Despite solid economic growth, Brazil has one of the world's largest income disparities. The poorest 40 percent of households survive on only 7 percent of total household income, while the richest 20 percent receive more than 60 percent of total household income. Five percent of landowners control at least 70 percent of the arable land.

Brazil has perhaps 10 million children and youth who live and work in the streets. They include orphans, children separated from their families, and others living with their homeless families.

- About 30 percent of rural and 9 percent of urban children in Brazil work in the formal economy. In some rural areas, children ages 5 to 17 constitute 60 percent of the labor force.

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New York City benefits from a pure water supply drawn from the watersheds of the Delaware and Hudson Rivers. But the city's demand for pure water conflicts with upstate residents' and developers' desires to use the land and water resources. The city has bought strategic acreage and helped finance sewage and septic improvements.

Industry and agriculture in upstate New York, like gold and iron mines in the Amazon, yield wealth but pose threats to water and land. Lake Ontario and the St. Lawrence River suffer from industrial and agricultural runoff and chemical pollution from the other Great Lakes. Mercury used in gold extraction contaminates rivers in the Amazon Basin. Iron mines in Brazil create a demand for charcoal for smelting, which leads to the cutting of forests. Deforested land is easily eroded and leads to a build-up of silt in the rivers.

New York's parks and preserves, including the Adirondack Park, the largest park in the conterminous 48 states, do not face the growing population pressure or the illegal settlement, mining, and logging that threaten Brazilian rain forests. In recent years, much of Brazil has been affected by fires set to clear forest and undergrowth in the

Amazon Basin. These fires spread a pall of smoke that has caused widespread health problems, including respiratory diseases.

Responding to Challenges

Private organizations and government agencies have contributed to some promising solutions in New York and Brazil. Improving water quality in Lake Ontario and the St. Lawrence River involves the state governments in the Great Lakes Commission, Canada's national and provincial governments, and private conservation groups. Cleanups mandated in the St. Lawrence have targeted hazardous wastes and wastewater treatment at major metal processing plants along the river.

In Brazil, groups of indigenous people and workers have successfully promoted strategies that permit sustainable use of forest preserves—harvesting rubber and fruits, and limiting tree cuttings—known as extractive reserves. The reserves protect the forest

and are more profitable than clear-cutting. Reserves and other strategies receive financial support from an international Brazilian Tropical Rainforest Trust Fund to which industrialized countries have contributed.

The U.S. Agency for International

People in New York and Brazil, along with all other living creatures, need clean and healthy air, water, and land, and a stable climate. But as people strive to meet these fundamental needs and improve their lives, they make demands on Earth's resources—and leave footprints. No species demands as much and leaves as many footprints as humans do. The number of people on the planet has a direct impact on the environment and how resources are used. But the level of consumption and the ways in which natural resources are used also directly affect the health of the planet—locally, regionally, globally.

No matter where one lives, the activities of *all* humans will ultimately determine the well-being of *all* humans.

Development has no development aid programs in Brazil, but U.S.-based organizations such as Catholic Relief Services, the Rainforest Action Network, and Oxfam America support projects. The U.S. Peace Corps also supported the work of 4,842 volunteers in Brazil from 1961 to 1981. ■

DEFINITIONS: **Doubling Time:** The number of years it will take for a population to double, assuming a *constant* rate of natural increase. **Average Number of Children Per Woman:** Known as the Total Fertility Rate (TFR) or the average number of children a woman would have in her lifetime, assuming that birth rates remained constant throughout her childbearing years. **Endangered Species:** Any species in danger of extinction throughout all, or a significant portion of its habitat. **Threatened Species:** Any species likely to become endangered within the foreseeable future throughout all, or a significant portion of its habitat. **Gross Domestic Product (GDP):** The value of all goods and services produced within a nation in a given year. **Gross State Product (GSP):** The value of all goods and services produced within a state. It is the state counterpart of the nation's GDP.

SOURCES: Major sources are International Labour Organization; National Center for Health Statistics; UNICEF; U.S. Bureau of Economic Analysis; U.S. Department of Agriculture; U.S. Fish and Wildlife Service; U.S. Geological Survey; The World Conservation Union (IUCN); and World Resources Institute. For a complete list of sources, contact PRB.

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