

The Amazon River Basin and Tucuruí Dam



The modern Tucuruí Dam in the Brazilian Amazon stands 78 m high and 11 km long and is a model for future development.
Image courtesy of International Rivers and Amazonia

The Amazon River Basin is the largest in the world. From its source in the Andes Mountains, the Amazon courses across the South American continent for about 4,000 miles, encompassing the national borders of eight modern countries, including Bolivia, Brazil, Columbia, Ecuador, Guyana, Peru, Suriname, and Venezuela. The river basin is home to the earth's most significant surviving rain forest, hundreds of indigenous groups, and uncounted endemic flora and fauna species.

The Amazon River Basin has experienced environmental exploitation and human displacement since the first days of European exploration and colonization. The early twentieth century period known as the rubber boom instilled new interest in regional development, expanding transportation and communication networks to extract not only rubber, but also timber, bauxite, and iron. These discoveries and new mapping technology led to conception of the Tucuruí hydroelectric dam on the Tocantins River, a remote and strategically located interior site. This first major Amazon hydroelectric project, built between 1976 and 1984, cost roughly \$5 billion and brought more than 60,000 people into the area.



Police Threaten protesters at Tucuruí Dam.
*Photo by Movimento do Atingidos por Barragens (MAB).
Courtesy of International Rivers.*

Discovery of abundant energy supplies in Amazonia has created regional interdependence by integrating national economies and resources, including energy. Ninety percent of Brazil's own electricity supply comes from hydroelectric sources, which provide more clean and renewable energy than the national daily consumption of 1 million barrels of petroleum. More than 44 percent of Brazil's national hydroelectric potential is in Amazon tributary rivers, with the potential to generate considerable national income. In addition to creating energy, dams often displace communities. Since the 1980s, Amazon's indigenous peoples have organized and opposed proposed dam projects, many of which remain under debate.

An Amazonian Timeline

- 1492 Treaty of Tordesillas divides the wealth of the New World between Spain and Portugal.
- 1913 Former U.S. president Theodore Roosevelt and Brazilian Field Marshall Cândido Rondon on Amazon expedition down the River of Doubt (now the Roosevelt River) .
- 1914 World War I initiates first rubber boom.
- 1942 Brazil enters World War II, increasing demand for Amazon rubber.
- 1947 Cerro Bolívar, a huge iron ore deposit south of Puerto Ordaz, Venezuela, is found. in 1953, Puerto Ordaz is selected as a steel mill and huge hydroelectric plant site.
- 1962 Belém-Brasília Highway opens as first major all-year Amazon highway, linking Amazon River port city of Belém with the rest of Brazil.
- 1964 Military coup Brazil puts Brazilian democracy on hold. Economic miracle declared.
- 1967 Iron ore deposit at Serra dos Carajás is discovered in the eastern Brazilian Amazon. High quality ore (66% iron) is estimated at 18 billion tons.
- 1967 American business begins heavy investment in wood pulp and lumber plantations.
- 1970 Trans-Amazon Highway projects begun. Completed in 1974.
- 1980 Gold deposit at Serra Pelada is discovered. By 1986, Amazon gold rush is in full swing.
- 1984 Tucuruí hydroelectric dam floods the lower Tocantins River valley.
- 1988 New Brazilian constitution goes into effect, with social and environmental guarantees.
- 1988 First Amazon Indian Congress is held at Altamira, Brazil, to protest proposed construction of hydroelectric dams on the Xingu River.
- 1988 Rubber-tapper Chico Mendes is murdered.
- 1992 Brazil hosts UN Earth Summit in Rio de Janeiro.
- 1996 Renewed military presence seen in the Amazon region of Brazil, as a result of radar project and militarization of the borders against drug traffic. Cultural disruption leads to increased civil unrest and military crackdowns.
- 2005 Worst drought in 50 years hits the western Amazon Basin. Lakes and streams dry and massive fish mortality takes place. Turtle beaches are sacked by hungry residents.

Suggested Reading

- Onis, Juan de. *The Green Cathedral: Sustainable Development of Amazonia*. New York: Oxford University Press, 1992.
- Organization of American States, Office for Sustainable Development and Environment, *Amazon River Basin: Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin*, Water Project Series no.8 (2005).

Suggested Films

- Cousteau, Jacques Yves, Joseph Campanella, and Mose Richards. *River of the Future*. Cousteau/Amazon. [Atlanta, Ga.]: Turner Home Entertainment, 1991.
- Cousteau, Jacques Yves. *Amazon Journey to a Thousand Rivers*. Alexandria, Va: Time-Life Video, 1990.
- Jampel, Barbara, Andrea Florence, and William Shatner. *Amazon land of the flooded forest*. National Geographic Society special. [Washington, D.C.]: National Geographic Video, 1996.