US in the WORLD

CONNECTING PEOPLE AND COMMUNITIES TO ENSURE A HEALTHY PLANET

Comparison at same scale

Ohio
Area: 41,330 sq. miles
Population: 11.2 million

Ecuador
Area: 109,484 sq. miles
Population: 12.0 million

Largest metropolitan areas by population (1996): Cleveland-Lorain-Elyria (2,233,288), Cincinnati (1,597,352), Columbus (1,447,646)

Largest urban areas by population (1995): Guayaquil (1,831,000), Quito (1,298,000)

The Cuyahoga River, so polluted with oil in 1972 that it caught fire in Cleveland, became a symbol of federal antipollution efforts of that decade. After a generation of local initiatives, supported by the federal Clean Water Act, Lake Erie and the Cuyahoga River are substantially cleaner, coexisting with industry and urban populations. In Ecuador, oil spills foul thousands of acres of land and streams in its eastern Amazon forest, and a pall of smog often hangs over its capital, Quito. Its Pacific Coast is threatened by discharges of sewage and by shrimp farming ponds that replace mangrove forests. As residents and environmentalists campaign for cleanups and regulation, a troubling question arises: Can Ecuador, with one-sixteenth of Ohio's per capita income, overcome its environmental problems?

Ohio, on the shore of Lake Erie, and Ecuador, on South America's Pacific Coast, have some important problems in common. While water quality along the Pacific Coast and Lake Erie shore are perhaps the most acute, air pollution, in Quito and from Ohio's tire and steel factories, as well as urban land use, are also significant concerns.

Notable differences, however, are apparent. The populations are similar in size, but while Ohio's is fairly stable, Ecuador's is expected to double in 37 years. Ohio industrialized in the early 20th century and began to address its pollution problems 25 years ago. Today, Ecuador is struggling to raise incomes through oil and other exports, and is confronting the environmental consequences.

Ohio's three regions (North/Lake Erie, Central agro-industrial, Southern/Appalachian), are matched by Ecuador's three environmental regions. The Pacific Coast is a largely deforested tropical zone; the central highlands include the Andes Mountains; and the tributaries of the Amazon rise in Ecuador's east. Each place has its natural assets and its own set of problems.

Quito, at an altitude of 9,200 feet above sea level, is a beautiful city nestled between two chains of the Andes, but air pollution has grown as the number of cars and factories increase. In Cleveland, particulate pollution contributes to more than 1,000 premature deaths each year. Emissions from Ohio utilities and industry, sharply reduced in the last 25 years, are still associated with acid rain in the northeastern United States and eastern Canada.

In the Ecuadorian highlands, growing populations of ethnic Quechua people farm increasingly small plots and are forced onto steeper and more easily eroded marginal land. In Ohio,

continued on back page

OHIO

Demographic and Health Trends

■ Although Ohio's population grew from 10.8 million to 11.2 million in the 1990s, its growth rate over the decade (3 percent) was less than one-half the national average.

■ Between 1995 and 1996, the "Buckeye State" had a net gain of 39,000 persons, as natural increase and net immigration combined to offset a net loss of 15,000 persons to other states.

■ Due to its expanding white-collar economy, the Columbus area has boomed in the last 20 years. Since 1990, the Columbus metro area has grown nearly 8 percent, with the outlying counties of Delaware and Fairfield growing 24 percent and 15 percent, respectively.

■ With a population of 657,000 in 1996, Columbus has surpassed Cleveland and Cincinnati to become Ohio's largest city. Cleveland, however, remains the state's largest metropolitan area.

Natural Resources and Wildlife Issues

■ Since the federal Clean Water Act was passed in 1972, water quality in Ohio's rivers, lakes, and streams has improved. However, only about half of Ohio's waters—usually portions of rivers and lakes—have met the goals of this federal legislation.

■ Environmental groups have lobbied for tougher federal standards for air quality, including supporting renewable and "clean" energy research. Ohio EPA officials, however, have stated that the new rules would cost the state $2 billion annually, or $182 per person.

■ Ohio's endangered and threatened animal species include the bald eagle, peregrine falcon, northern copperbelly water snake, and two species of butterflies. The lakeside daisy and eastern prairie fringed orchid are among the state's endangered and threatened plants.

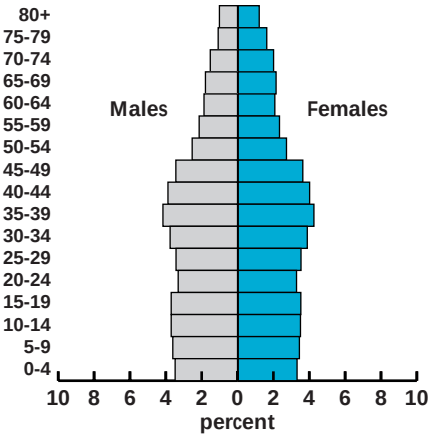
Socioeconomic Factors

■ The boom in Ohio's high-skill manufacturing industries and the growth of small entrepreneurs has boosted Ohio's economy in the 1990s, resulting in a sharp increase in jobs—roughly 129,000 between 1996 and 1997 alone.

■ Ohio's gross state product of $297 billion in 1996 was the seventh largest in the country. If Ohio were a country, the state's economic output would rank 16th worldwide.

■ Ohio is second only to California in the number of jobs it provides to the state's population—1.1 million jobs in 1994. The state also leads the nation in the production of rubber and plastics. On the other hand, three of four Ohio jobs are in the service sector.

POPULATION BY AGE AND SEX

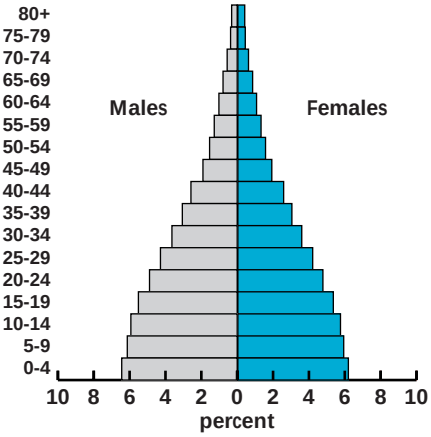


OHIO FACTS

Population, 1997:	11.2 million
Projected population, 2025:	11.7 million
Annual growth rate:	0.2%
Doubling time (at current rate):	350 years
Average number of children per woman:	2.0
Infant deaths per 1,000 live births:	8.7
Life expectancy:	72 (male), 78 (female)
Persons per square mile:	273
Percent urban:	74
Endangered/threatened animals:	16 species
Endangered/threatened plants:	6 species
Percent of land protected:	1
Wetlands loss, 1780-1980:	90%
Daily water use per capita:	938 gallons
Water use for domestic purposes:	15%
Water use for agriculture:	1%
Water use for industry:	6%
Water use for energy production:	78%
Cropland per capita:	1.3 acres
Energy use per capita:	62.5 barrels of oil equiv.
Persons per motor vehicle:	1.1
Adults who are high school graduates:	85%
Elected officials who are women:	21%
Labor force in agriculture:	2%
Labor force in industry:	23%
Labor force in services:	75%
Gross State Product, 1994:	$24,768 per capita

ECUADOR

POPULATION BY AGE AND SEX



ECUADOR FACTS

Population, 1997: 12.0 million
Projected population, 2025: 18.3 million
Annual growth rate: 1.8%
Doubling time (at current rate): 39 years
Average number of children per woman: 3.6
Infant deaths per 1,000 live births: 40
Life expectancy: 66 (male), 71 (female)
Persons per square mile: 112
Percent urban: 59
Threatened animals: 117 species
Threatened plants: 375 species
Percent of land protected: 39.2
Wetlands loss, through 1980s: n.a.
Percent with access to safe water: 68
Percent with adequate sanitation: 76
Daily water use per capita: 419 gallons
Water use for domestic purposes: 7%
Water use for agriculture: 90%
Water use for industry: 3%
Cropland per capita: 0.7 acres
Energy use per capita: 3.6 barrels of oil equiv.
Persons per motor vehicle: 22
Percent of girls in secondary school: 56
Percent of boys in secondary school: 54
Women as % of national legislature: 4
Labor force in agriculture: 7%
Labor force in industry: 25%
Labor force in services: 68%
GDP per capita, 1995: US$1,560

Demographic and Health Trends

- Ecuador's population is growing rapidly as a consequence of births outnumbering deaths. Ecuador adds about 250,000 people to its population each year.
- Growth is occurring despite declines in family size. Ecuador's fertility level is one of the highest in South America.
- High fertility has produced a population with the largest numbers in the youngest ages; 36 percent of the population is under age 15.
- The population is projected to increase nearly 53 percent by 2025 as large numbers of young people enter their childbearing years.
- Ecuador's infant mortality rate has dropped 65 percent since 1960 and equals the average for Latin America. The mortality rate for children under the age of 5 dropped 78 percent between 1960 and 1995.

Natural Resources and Wildlife Issues

- Twenty-two percent of Ecuador's forests were converted to other uses between 1980 and 1990. Another 8 percent were converted between 1990 and 1995. The central Andean highlands are nearly devoid of forest cover.
- Coastal ecosystems are being degraded as mangrove forests are cleared to cultivate shrimp. This activity also reduces the area's biological diversity.
- Commercial energy consumption in Ecuador increased 300 percent between 1973 and 1993. Much of this increase was a direct result of population growth. Use of traditional fuels decreased from 42 percent of total consumption in 1973 to 23 percent in 1993.
- Ecuador has the greatest number of plant species in South America. Ecuador's threatened animals include the Galapagos hawk, giant armadillo, wattled curassow, brown-headed spider monkey, and the giant otter.

Socioeconomic Factors

- Ecuador's rich petroleum resources have accelerated the country's modernization, leading to dramatic improvements in education, public health, and infrastructure, including irrigation, hydroelectric power, and road building.
- Major exports after petroleum include shrimp, bananas, and flowers.
- Although average gross domestic product (GDP) per capita is rising, income inequities persist. The poorest 40 percent of the population receives 14 percent of household income; the highest 20 percent receives 53 percent.
- Because of the limited supply of petroleum and volatility of petroleum prices, Ecuador may need a new strategy to sustain economic development.

continued from page 1

the increasing size of farm operations has led to increased runoff of manure into streams, a problem the extension service of The Ohio State University is working with farmers to correct.

Sewage, runoff, and industrial pollution from Guayaquil, a city of 1.8 million on the Pacific Coast, have created serious water pollution problems. Shrimp are an important export for Ecuador, but shrimp farming also threatens the coast through overflows of highly fertilized shrimp ponds and destruction of the natural coastline.

But none of these issues matches the volatility of oil exploration in eastern Ecuador. For 20 years multinational companies (MNCs) pumped oil from the rainforest, a rare biodiversity site and home to 300,000 indigenous people. Environmental groups have charged that such companies leave behind toxic waste pits and polluted rivers and communities. The MNCs argue that environmental practices are monitored by the Ecuadorian government and reflect prevailing standards. Even though some companies make efforts to clean these areas, environmental groups often believe that these are unacceptable partial solutions. This type of controversy reflects the difficulties that developing countries have in monitoring the activities of MNCs operating in their homeland.

Responding to Challenges

The Clean Water Act and local initiatives such as the Mill Creek Restoration Project and the Earth Day Coalition, have raised roughly half of Ohio's river-miles and lake-acres above the Clean Water Act's fairly high purity standards. In 1996, state legislation weakened protection for streams and rivers—such as the Cuyahoga in Cleveland, and Mill Creek and the Ohio in Cincinnati—with heavy industrial uses.

In Ecuador, promoting sustainable development involves both political action by local community organizations and projects by national and international aid donors. Ecuador's indigenous people have undertaken campaigns to publicize and resist corporate and government predatory practices in the Amazon, with support from such private organizations as Oxfam America.

The U.S. Agency for International Development's multiyear "Sustainable Uses for Biological Resources" project is part of its $9 million development program for the current year. The project helps to maintain wildlife preserves and buffer zones on their perimeters, while making the parks beneficial to local residents. Such projects protect parts of the Amazon from mining, oil exploration and road development, and involve local organizations, as well as CARE and The Nature Conservancy. In 1998 there were also 204 U.S. Peace Corps volunteers serving in Ecuador. ■

People in Ohio and Ecuador, along with all other living creatures, need clean and healthy air, water, 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.

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.

ACKNOWLEDGEMENTS: In 1998, the Population Reference Bureau (PRB) produced the *US in the World* fact sheet series in collaboration with the Population and Habitat Campaign of the National Audubon Society and the Population Coalition of local Leagues of Women Voters. The *US in the World* project, funded by the U.S. Agency for International Development and the Geraldine R. Dodge Foundation, is designed to help Americans explore how a shared concern for the environment links us to people of the world.

FACT SHEETS PRODUCED BY:

Population Reference Bureau, *1875 Connecticut Ave., NW, Suite 520, Washington, DC 20009; Phone: 202-483-1100; Fax: 202-328-3937; Web site: http://www.prb.org*

National Audubon Society, *Population and Habitat Campaign; Phone: 303-442-2600; Web site: http://www.earthnet.net/~popnet*

Population Coalition *of local Leagues of Women Voters, Phone: 909-625-5717; Web site: http://popco.org*