

US in the WORLD

CONNECTING PEOPLE AND COMMUNITIES TO ENSURE A HEALTHY PLANET



North Carolina



Comparison at same scale

North Carolina
Area: 52,669 sq. miles
Population: 7.4 million

Tanzania
Area: 364,900 sq. miles
Population: 29.5 million

Tanzania



Largest urban areas by population (1995): Dar es Salaam (1,747,000), Tabora (960,000)

Largest metropolitan areas by population (1996): Charlotte-Gastonia (1,173,769), Greensboro-Winston-Salem-High Point (1,141,238), Raleigh-Durham-Chapel Hill (1,025,253)

Cotton, tobacco, grain, timber, and livestock production form the economic foundation upon which generations of people from two distinct regions, North Carolina and Tanzania, have depended for their livelihood. Both located on the southeastern flank of large continents, these two regions share a common burden of environmental challenges and are able to harness differing levels of resources to address these challenges.

Beyond agriculture, both places enjoy tremendous geographical and wildlife diversity, abundant forest resources, and protected lands in parks or refuges. Mt. Mitchell in North Carolina (the highest point east of the Missouri River) and Mt. Kilimanjaro in Tanzania (the highest point in Africa) are two of the many scenic wonders that attract tourists to both places. Other parallels include principal industries such as food processing, textiles,

cigarettes, wood products, and brickmaking.

Given this context, the differences are startling. Tanzania is almost seven times larger than North Carolina and has four times the population. Tanzania's relatively large size has enabled almost one-seventh of its land to be dedicated to park land, game preserves, and other protected areas—area that combined are slightly larger than all of North Carolina, which itself has less than 5 percent of its land under similar protected status. North Carolinians, however, earn at least 200 times more than Tanzanians and use nearly 300 times more energy per capita. Tanzanian women bear an average of six children, while North Carolina women bear fewer than two. Infant mortality is 10 times greater in Tanzania, where almost one child of every nine births dies.

These differences mask common

environmental problems. The pressures of population growth, intensive agricultural practices, and the search for greater material security create inexorable demands on both natural and human resources. Deforestation of the Tanzanian northern highlands and pollution from large-scale hog and poultry operations in North Carolina underscore growing concern for and attention to the natural environment. Urban air quality, water supply problems, soil fertility degradation, and extensive use of fertilizers, pesticides, and insecticides are also serious environmental concerns in both places.

Because its population consumes far less food, fuel, fiber, water, and other resources per capita than North Carolina, Tanzania might seem to pose a lesser threat to the environment. Yet this third poorest nation in the world is far less prepared to deal with such

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NORTH CAROLINA

Demographic and Health Trends

- North Carolina's population increased 12 percent from 1990 to 1997, by about 793,000 persons. Only five other states gained more people.
- Nearly three-fifths of the state's population increase during the 1990s was due to net in-migration from other states. Natural increase accounted for more than an additional one-third, with just 5 percent as a result of net immigration from abroad.

Natural Resources and Wildlife Issues

- Many urban areas in North Carolina no longer have groundwater that is safe for drinking. Large-scale industrial withdrawal, such as from animal factories such as hog farms, has caused a considerable depression in much of the eastern shallow areas.
- The U.S. Fish and Wildlife Service reported that from 1972 to 1983, North Carolina had the highest net loss of wetlands among the southeastern states—1.2 million acres. Of the 4.7 million acres of wetlands that remain, over 95 percent are located in the coastal plain, an attractive area for visitors because of beaches, picturesque river towns, and golf resorts.

Socioeconomic Factors

- North Carolina has developed one of the nation's most diversified economies. The Research Triangle area is a top high-tech research and educational center, and the state is headquarters for three banking and financial giants—NationsBank and First Union in Charlotte, and

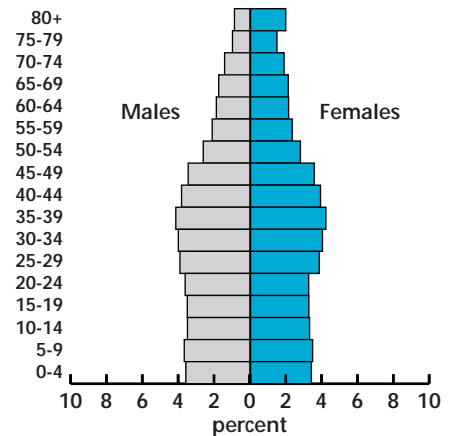
- Unlike most other states, North Carolina's growth has not been concentrated in a few large cities. Two-fifths of the state's 100 counties grew 10 percent or more during the 1990s, with the areas around Wilmington, Charlotte, the Research Triangle area (Raleigh, Durham, and Chapel Hill), and the Outer Banks growing at the fastest rates. Raleigh alone grew 15 percent from 1990 to 1996.

- The expansion of chip mills in North Carolina could lead to the elimination of natural and once-cut forests. Each mill impacts a radius of 50 to 100 miles, causing loss of habitat and sedimentation in rivers. The mills also encourage growth of monoculture pine plantations.
- The roseate tern, the bald eagle, the American peregrine falcon, the red wolf, and the loggerhead sea turtle are among North Carolina's 23 endangered and threatened animals. The state's 26 endangered and threatened plants include the Blue Ridge goldenrod, the swamp pink, and the rock gnome lichen.

Wachovia Corporation in Winston-Salem. Textiles, tobacco, furniture, and poultry also are important industries.

- Tourism generated \$9.8 billion to North Carolina in 1996, because of attractions such as the Outer Banks and the Great Smoky Mountains.

POPULATION BY AGE AND SEX

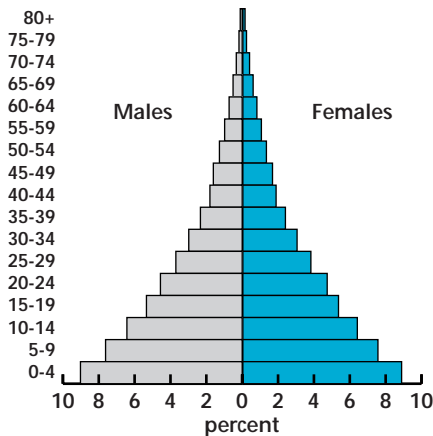


NORTH CAROLINA FACTS

Population, 1997:	7.4 million
Projected population, 2025:	9.3 million
Annual growth rate:	1.6 %
Doubling time (at current rate):	44 years
Average number of children per woman:	1.9
Infant deaths per 1,000 live births:	9.2
Life expectancy:	71 (male), 78 (female)
Persons per square mile:	152
Percent urban:	50
Endangered/threatened animals:	23 species
Endangered/threatened plants:	26 species
Percent of land protected:	4
Wetlands loss, 1780-1980:	49%
Daily water use per capita:	1,290 gallons
Water use for domestic purposes:	10%
Water use for agriculture:	6%
Water use for industry:	4%
Water use for energy production:	80%
Cropland per capita:	1.1 acres
Energy use per capita:	55.7 barrels of oil equiv.
Persons per motor vehicle:	1.3
Adults who are high school graduates:	76%
Elected officials who are women:	16%
Labor force in agriculture:	3%
Labor force in industry:	27%
Labor force in services:	70%
Gross State Product, 1994:	\$25,643 per capita

TANZANIA

POPULATION BY AGE AND SEX



TANZANIA FACTS

Population, 1997:	29.5 million
Projected population, 2025:	42.6 million
Annual growth rate:	1.6%
Doubling time (at current rate):	43 years
Average number of children per woman:	6.3
Infant deaths per 1,000 live births:	91
Life expectancy:	49 (male), 51 (female)
Persons per square mile:	86
Percent urban:	21
Threatened animals:	132 species
Threatened plants:	406 species
Percent of land protected:	15
Wetlands loss, through 1980s:	n.a.
Percent with access to safe water:	38
Percent with adequate sanitation:	86
Daily water use per capita:	29 gallons
Water use for domestic purposes:	9%
Water use for agriculture:	89%
Water use for industry:	2%
Cropland per capita:	0.3 acres
Energy use per capita:	0.2 barrels of oil equiv.
Persons per motor vehicle:	269
Percent of girls in secondary school:	5
Percent of boys in secondary school:	6
Women as % of national legislature:	17
Labor force in agriculture:	84%
Labor force in industry:	5%
Labor force in services:	n.a.
GDP per capita, 1995:	US\$126

Demographic and Health Trends

- Child mortality is high in Tanzania, where approximately one of every seven infants does not survive to the age of 5, surpassing the U.S. rate by 16 times. Over 80 percent of children in Tanzania are fully immunized against diphtheria, polio, and measles by age 1; 29 percent are underweight.
- Maternal mortality is also high. For every 1,000 births in Tanzania, almost eight women die from pregnancy-related causes. Women have an

average of 6.3 children.

- Even with declining rates of fertility, the sheer number of young people who will enter the childbearing years will ensure rapid growth well into the future (see figure).
- Only 42 percent of the population has access to health services. Even fewer people have access to safe water.

Natural Resources and Wildlife Issues

- Fishing methods that destroy coral reefs have damaged marine resources in Tanzania. These reefs provide habitat for fish, attract tourists, and protect shores from erosion. The country's marine resources include seven marine protected areas.

where else. In Africa, only the Democratic Republic of Congo (formerly Zaire) and Kenya have more bird species. Threatened species include the Taita falcon, lesser kestrel, wattled crane, and corncrake.

- Ten thousand species of higher plants are found in Tanzania. Only two countries on the continent have more known species. Eleven percent of these are found nowhere else.
- Tanzania has 1,005 known species of birds, 19 of which are found no-

- Threatened animals include the cheetah, chimpanzee, lion, African elephant, black rhinoceros, East African collared fruit bat, pemba flying-fox, eastern tree hyrax, and the black-and-rufous elephant-shrew.

Socioeconomic Factors

- Tanzania's gross national product is the third lowest of 133 countries ranked by The World Bank.
- The level of adult literacy in Tanzania (68 percent) is high even for sub-Saharan Africa. As in many developing countries, women are much less likely to be able to read and write than are men (57 percent and 79 percent, respectively).
- Agriculture is the largest sector of the economy, employing the majority

of workers and contributing most to the country's earnings from exports. About one-half of Tanzania's agricultural production is subsistence. The country's primary food crop is maize and the main export crops are coffee beans and raw cotton.

- Tanzania is building on its tourism potential by using its unspoiled beaches, vast game parks, and political stability to generate revenue for the economy.

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problems. Its weak educational, financial, and public infrastructure conditions make it ill-equipped to apply the costly, high-tech solutions now under way in North Carolina, such as the latest scrubbers in coal burning power plants and modern sewage treatment facilities. The 1.5 million residents of Dar es Salaam, Tanzania's capital, need foreign assistance to help replace antiquated water and sewage treatment facilities.

The more than 500,000 gallons of sewage and other wastes flowing daily from Tanzania into Lake Victoria, the world's second largest fresh water body, have disrupted a fishing economy upon which Tanzanians and other nations depend. Within just a few years, the number of fish species has declined by over 50 percent, and fish harvests have fallen dramatically. Added to the pollution problem is massive overgrowth of the lake by water hyacinths, which trap small boats and prevent sunlight from reaching essential submarine organisms.

Responding to Challenges

North Carolinians are looking for financial commitments to address the ecological needs of their state. With approximately 1 percent of its state

budget dedicated to environmental and natural resources, North Carolina ranks in the bottom one-tenth of all states in per capita environmental expenditures. Unlike Tanzania, North Carolina looks to its own national government, as well as to a variety of state and national citizen organizations, for substantial environmental program support. National standards determine the parameters within which North Carolinians are working to improve air and water quality. Local initiatives have led to the imposition of size limits on hog farming operations.

The World Bank last year pledged a \$35 million loan to a consortium project to eradicate the water hyacinths. Its Global Environmental Facility has pledged an additional \$35 million to the project. U.S. Agency for International Development assistance to Tanzania has amounted to about 5 percent of that nation's total bilateral economic assistance. U.S. assistance between 1996 and 1997 totaled \$23.5

million, including \$5.6 million for new initiatives in environmental projects and \$14 million for family planning programs and HIV/AIDS prevention programs. The University of North Carolina has participated in some of these health-related programs during

People in North Carolina and Tanzania, 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.

the past three years. CARE and the African Wildlife Foundation, among others, also are involved in worthwhile Tanzanian projects. About 89 U.S. Peace Corps volunteers are involved as well. ■

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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