

Population and the Environment

The link between population growth and environmental impact seems obvious at first glance: more people consume more resources, damage more of the earth and generate more waste. Humans are a force of nature. As nations develop, they increase consumption. This simple reasoning is true as far as it goes, but the larger picture is more complex.

- A very small proportion of the population consumes the majority of the world's resources. The richest fifth consumes 86% of all goods and services and produces 53% of all carbon dioxide emissions, while the poorest fifth consumes 1.3% of goods and services and accounts for 3% of CO₂ output. (1)

- Per capita municipal waste grew 30% in developed nations since 1975 and is now two to five times the level in developing nations. (1)

- An average American's environmental impact is 30 to 50 times that of the average citizen of a developing country such as India. (1)

The need is to balance the requirements of a growing population with the necessity of conserving earth's natural assets.

Human action has transformed between one-third and one-half of the entire land surface of the earth. We have lost more than one-quarter of the planet's birds, and two-thirds of the major marine fisheries are fully exploited, over-exploited or depleted. (2)

- Every 20 minutes, the world adds another 3,500 human lives but loses one or more entire species of animal or plant life - at least 27,000 species per year. This is a rate and scale of extinction that has not occurred in 65 million years. (3)

- Spreading deserts and declining water tables in a third of the planet are contributing to famine, social unrest and migration.

- Two thirds of the world's population lives within 100 miles of an ocean, inland sea or freshwater lake: 14 of the world's 15 largest megacities (10 million or more people) are coastal. Their impacts include growing loads of sewage and other waste, the drainage of wetlands and development of beaches, and destruction of prime fish nurseries. (4)

Technological advances can mitigate some of the impact of population growth, and market mechanisms raise prices for some diminishing resources, triggering substitution, conservation, recycling and technical innovation so as to prevent depletion.

But market systems often subsidize industries such as logging, mining and grazing without tallying environmental costs. No market considers commonly held resources such as groundwater levels or atmospheric and ocean quality. Nor do markets consider earth's "services," such as regulation of climate, detoxification of pollutants or provision of pollinators, much less questions of human equity and social justice. When water quality is degraded, well-off people can buy bottled water, for example, but poorer people cannot..

- A world conclave of 58 national Academies of Science agreed in 1993 that unchecked consumption and rapid population growth are likely to overwhelm technological improvements in affecting the environment. (5)

Clearly, the greatest environmental threat comes from both the wealthiest billion people, who consume the most and generate the most waste, and from the poorest billion, who may damage their meager resource base in the daily struggle to avoid starvation. In addition, the billions in between are doing their best to increase their standard of living, in part through increased consumption.

- Although the world's supply of water remains constant, per-capita water consumption is rising twice as fast as world population. Humanity now uses more than half of the available surface fresh water on earth (2); at least 300 million people live in regions that already have severe water shortages. By 2025, the number could be 3 billion. (6)

- The world's forests have shrunk from 11.4 to 7.3 square kilometers per 1,000 people since 1970. The loss is concentrated in developing countries, mostly to meet the demand for wood and paper by the industrialized world. Wild species are becoming extinct 50 to 100 times faster than they naturally would. (1)

- Over the last 50 years, 17% of the planet's soils have been severely degraded. That's nearly 2 billion hectares, the size of China and India combined. (1)

- The global emission of carbon dioxide, a "greenhouse gas" most researchers say causes global warming and disruption in weather patterns, has quadrupled since 1950, largely from deforestation and the burning of fossil fuels. The atmosphere now contains 30% more CO₂ than at the beginning of the industrial revolution. (2) Where the industrialized world produces 60% of it today, the developing world will be producing 60% of it by 2015.(1)

Sources: (1)United Nations Development Programme, Human Development Report 1998 (New York: Oxford University Press, 1998); (2) Jane Lubchenco, past president, American Association for Advancement of Science, speech: "Women, Population and Science in the New Millennium," Dec. 1, 1998, AAAS, Washington DC. (3) Ken Strom, Population and Habitat in the New Millennium, National Audubon Society and The Global Stewardship Initiative (Boulder CO 1998); (4)Population Action International, Why Population Matters (Washington DC: PAI, 1996); (5)Report, Population Summit of the World's Scientific Academies (Washington DC: The National Academy Press, 1993); (6)Simon, Paul, Tapped Out (New York: Welcome Rain Publishers, October 1998). Developed by World Population Foundation and the Communications Consortium Media Center, with editorial contributions from the U.S. NGOs in Support of the Cairo Consensus.

Report Archive
Population Connection