JOHANNESBURG SUMMIT 2002

GLOBAL CHALLENGE GLOBAL OPPORTUNITY

TRENDS IN SUSTAINABLE DEVELOPMENT

UNITED NATIONS

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TRENDS IN SUSTAINABLE DEVELOPMENT

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Johannesburg and Beyond
Making Sustainable Development a Global Reality

Since the Rio Earth Summit in 1992, sustainable development has emerged as a new paradigm of development, integrating economic growth, social development and environmental protection as interdependent and mutually supportive elements of long-term development. Sustainable development also emphasizes a participatory, multi-stakeholder approach to policy making and implementation, mobilizing public and private resources for development and making use of the knowledge, skills and energy of all social groups concerned with the future of the planet and its people.

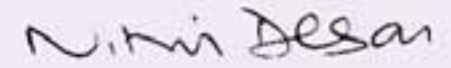
Ten years after Rio, the United Nations World Summit on Sustainable Development is being held in Johannesburg from 26 August to 4 September 2002. This meeting will review progress in implementing Agenda 21, the plan of action for sustainable development that was agreed in Rio, and develop a plan for the further implementation of sustainable development policies and programmes worldwide.

Secretary-General Kofi Annan has identified five themes for particular attention at the Summit: water, energy, health, agriculture and biodiversity. These are critical areas for long-term development, involving complex interactions among economic, social and environmental factors and involving different sectors, organizations and disciplines. Those issues, together with population and poverty, and the relationships among them, are the focus of the material collected here.

The purpose of this publication is to present, for a general audience, basic information on some current conditions, recent trends and future projections in these areas of sustainable development. It does not attempt to be comprehensive, either thematically or geographically, but offers a sample of the available information relating to some key issues to be addressed in Johannesburg and after.

The information and data presented here have been collected and analyzed by a variety of international organizations including the United Nations, the Food and Agriculture Organization (FAO), the World Health Organization (WHO), the United Nations Environment Programme (UNEP), the United Nations Children's Fund (UNICEF), the World Bank, the International Energy Agency and others. More detailed information, data, analysis and interpretation on these and other aspects of sustainable development, at national as well as regional and global scales, are available in the publications and websites of those organizations. Readers interested in further information and analysis are encouraged to consult those sources, further information on which is given in the notes at the end of the publication.

Sustainable development, as a complex process with many interacting factors, requires the participation of all members of society, as public policy makers, producers, consumers, scientists, engineers, educators, communicators, community activists and voters. It is hoped that this publication will contribute to the Johannesburg process and its follow-up by encouraging people to learn more about sustainable development and by mobilizing people in their various social roles to promote sustainable development for present and future generations.



Nitin Desai
Secretary-General, World Summit on Sustainable Development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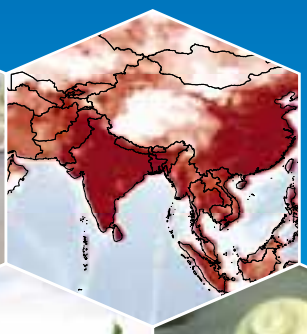
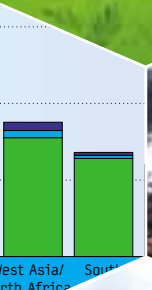
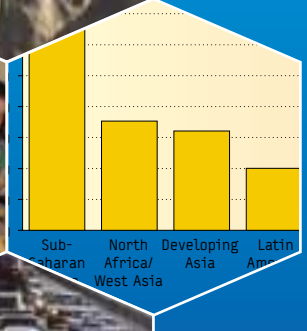
CONTENTS

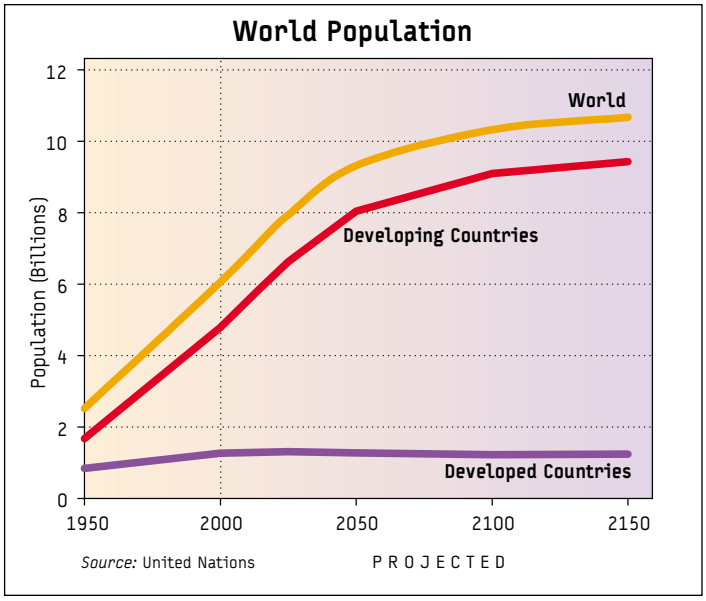


POPULATION

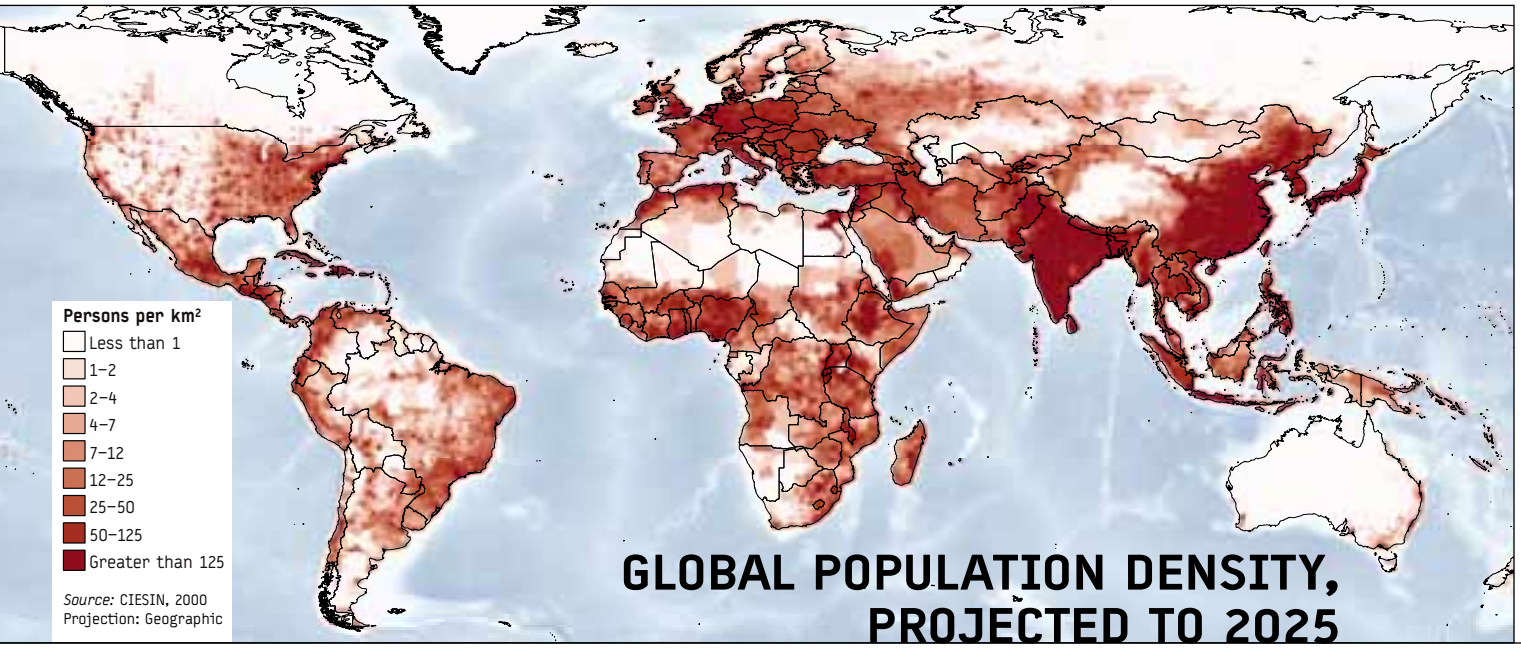
The world will need to support five billion more people

World population passed 6 billion in 2000, up from 2.5 billion in 1950, and 4.4 billion in 1980. World population is projected to grow to about 8 billion in 2025, to 9.3 billion in 2050, and eventually to stabilize between 10.5 and 11 billion. Almost all future population growth will occur in the developing world. The world will eventually need to feed, house and support about 5 billion additional people. This increased population, combined with higher standards of living, particularly in the developing countries, will pose enormous strains on land, water, energy and other natural resources.



Population density is high and growing in many developing countries

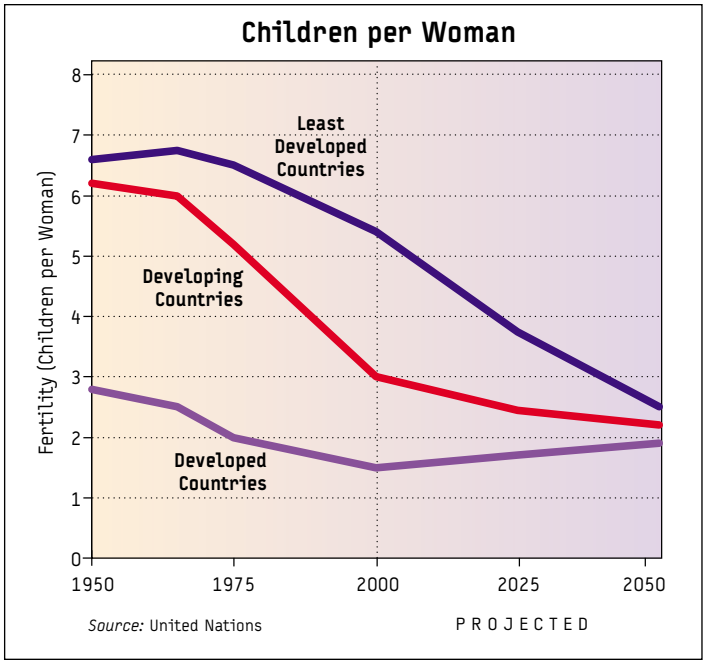
Population densities are highest in Asia and are increasing, although the growth rate is declining. There is currently about one-sixth of a hectare of arable land per capita in East and South Asia. With population growth, and almost no additional land available for agricultural expansion, arable land per capita will continue to decline. Limited unused freshwater resources in those regions will not allow irrigated agriculture to expand as it has in recent decades, so improving nutrition and reducing hunger will require increasing food imports. Population densities in Africa are currently lower and arable land per capita higher than in Asia, but population is still growing rapidly.



GLOBAL POPULATION DENSITY, PROJECTED TO 2025

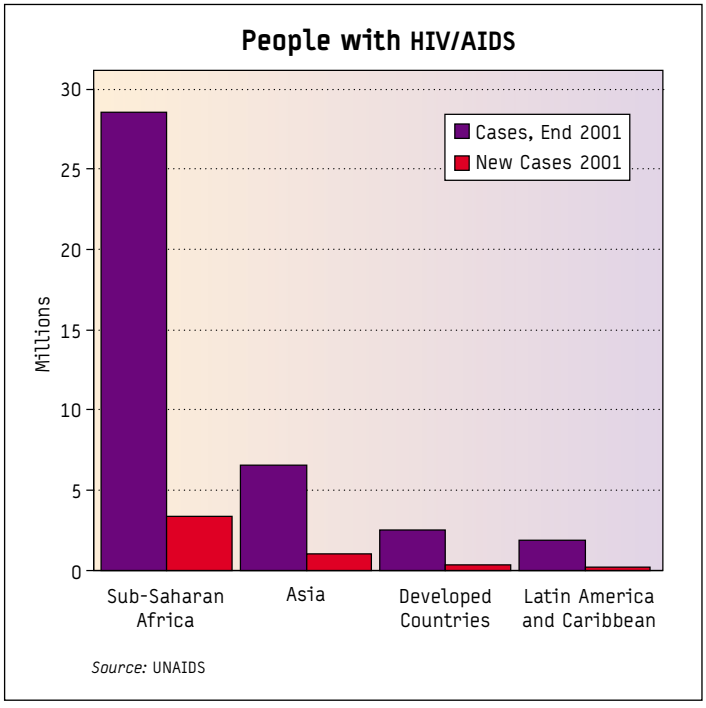
Smaller families allow more investment in children

The decline in the rate of population growth is due to a reduction in the number of children being born per woman. Following the decline in mortality resulting from health improvements and supported by increasing education and income, particularly for girls and women, the number of children borne by the average woman has been declining rapidly in most developing countries since 1970, from over six children per woman in the developing countries in 1970 to fewer than three now. This not only slows population growth, but more importantly in the short term, allows families to invest substantially more in education, nutrition and health care for each child, promoting long-term sustainable development.



AIDS epidemic is undermining development in Africa

Sustainable development is being undermined by AIDS, particularly in Africa, as countries lose young, productive people to the epidemic. AIDS is now by far the leading cause of death in sub-Saharan Africa, reducing life expectancy by 15 years, to 47 years. AIDS predominantly strikes young adults, reducing household income and resulting in high medical and funeral expenses, pushing households deep into poverty, breaking up families, removing children from school and leaving millions of orphans. Efforts to combat the epidemic through prevention and treatment are straining national budgets and health systems. The high mortality among workers disrupts enterprises and public institutions, increasing costs and reducing productivity. Studies suggest that economic growth in the countries most affected may be reduced by 1–2 per cent or more.

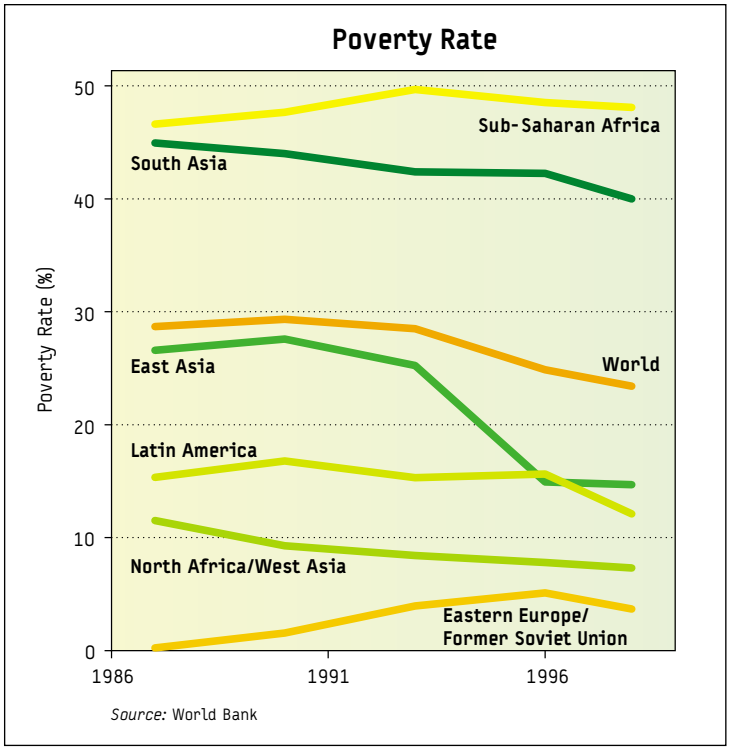


POVERTY AND INEQUALITY

Income poverty is declining in Asia and Latin America

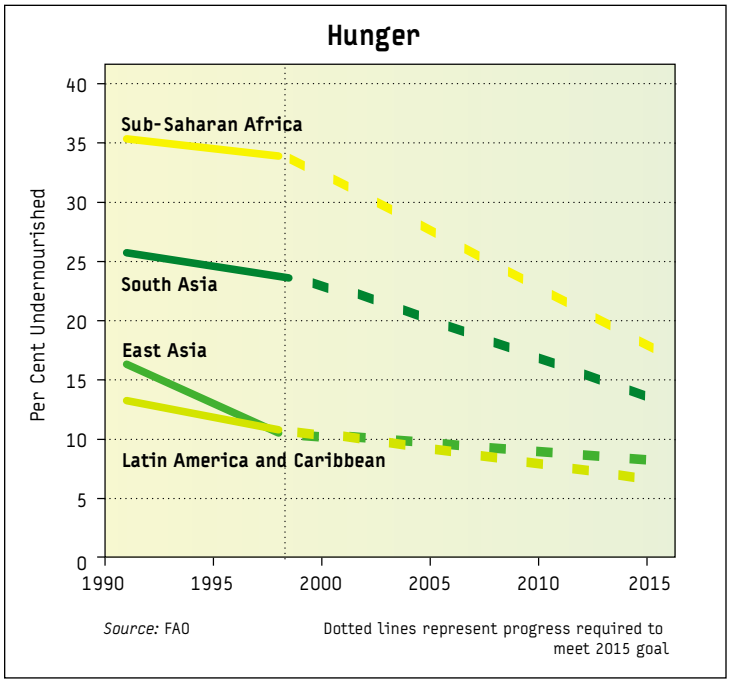
In the 1990s, the poverty rate in developing countries, based on an income threshold of $1 per day, declined from 29 per cent of the population to 23 per cent. If that rate of decline could be maintained, the poverty rate in 2015 would be just about half of the 1990 rate, in accordance with the United Nations Millennium Declaration goal. The total number of people living in poverty declined slightly in the 1990s from about 1.3 billion to 1.2 billion.

A large majority of the world's people living in poverty are in Asia, particularly in rural areas. However, the poverty rate is highest in sub-Saharan Africa, where almost half of the population live on less than $1 per day. Most of the decline in the poverty rate in the 1990s has been in East Asia.



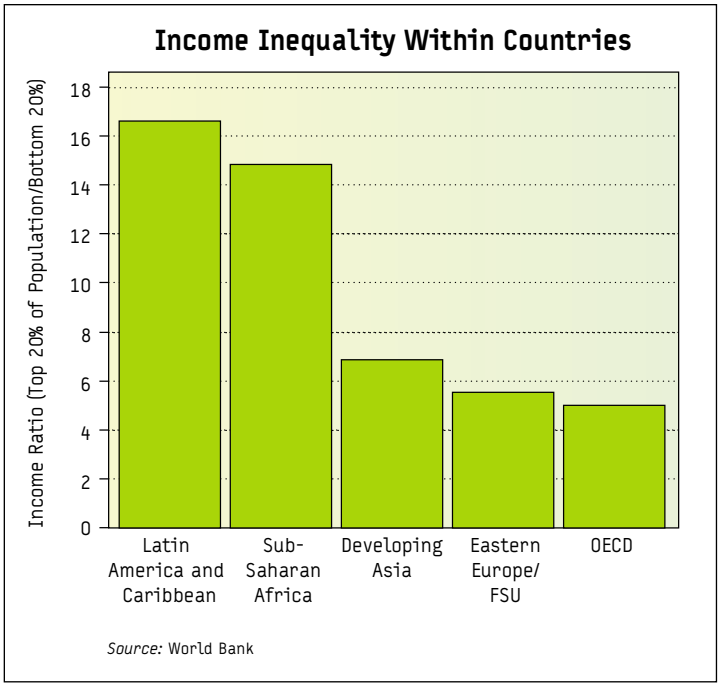
Hunger is slowly declining in all regions

Almost 800 million people in developing countries are chronically undernourished, a significant reduction from over 950 million in 1970, and a reduction of over 40 million since 1990. During the 1990s, hunger declined in all regions, even where per capita income fell, due in part to increasing global food production and a declining trend in food prices. Reducing hunger, in addition to improving general well-being, contributes to sustainable development by reducing illness and medical expenses, increasing productivity, and improving educational achievement in children. Regional trends indicate that East Asia and Latin America are on track to meet the Millennium Declaration goal of halving, by 2015, the proportion of people who suffer from hunger, while sub-Saharan Africa is falling well short of the goal.



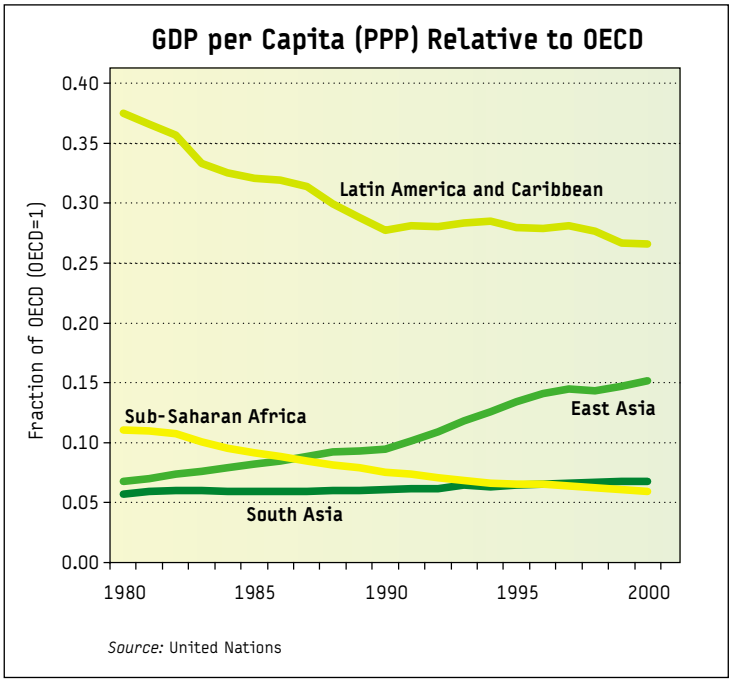
Inequality is an obstacle to sustainable development

Economic inequality remains high in many countries, particularly in Latin America and Africa. Overall, there was no clear trend in inequality within countries in the 1990s, with inequality increasing in some countries, both developing and developed, and declining in others. High inequality is an obstacle to reducing poverty as it reduces the effect of economic growth on poverty reduction. It is also thought that greater equality supports broad participation in sustainable development by encouraging people to focus on common long-term goals rather than on short-term distributional issues.



Standards of living in Asia are slowly catching up with developed countries

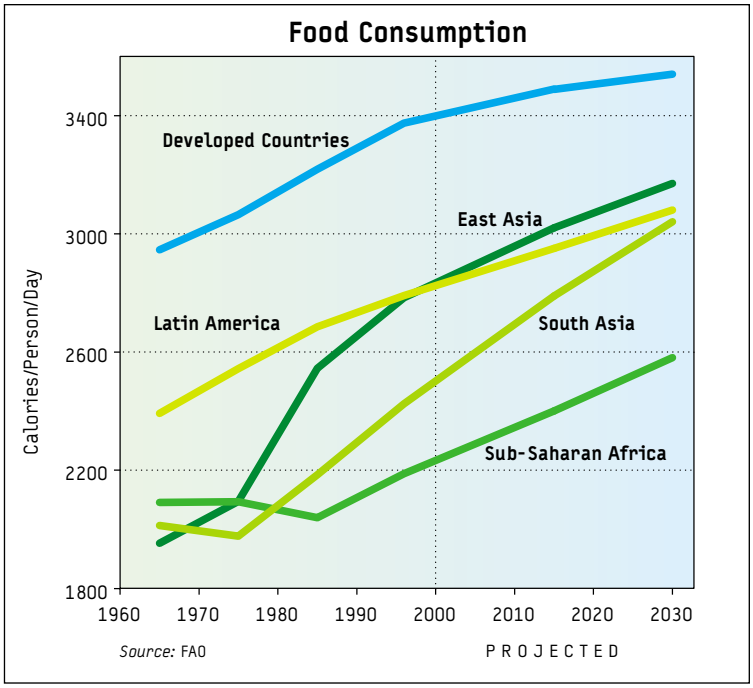
Most of the income inequality in the world is due to inequality between countries rather than inequality within countries. During the 1990s, Asian countries, with three-quarters of the developing world population, reduced the gap in standards of living with developed countries through rapid economic growth and a decline in the rate of population growth. However, most countries in sub-Saharan Africa and Latin America saw a widening gap with developed countries, particularly in the 1980s, but continuing in the 1990s.



FOOD AND AGRICULTURE

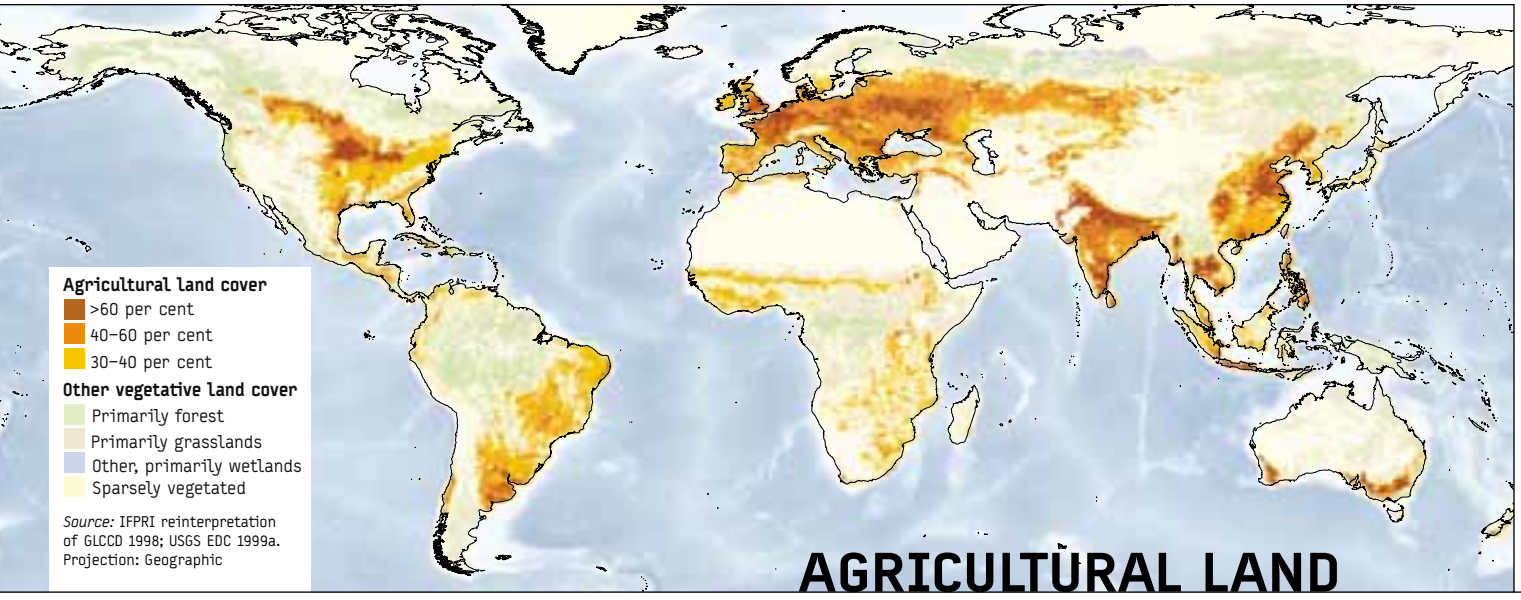
Food production and consumption are increasing

From 1970 to 1999, average food consumption per person increased in all regions, from an average of 2100 to 2700 calories daily in developing countries, and from about 3000 to 3400 calories in developed countries. Average food consumption in developing countries is projected to increase to over 3000 calories in 2030, through increasing food production and imports. Generally declining food prices have benefited consumers and improved nutrition, even in countries where incomes have declined.



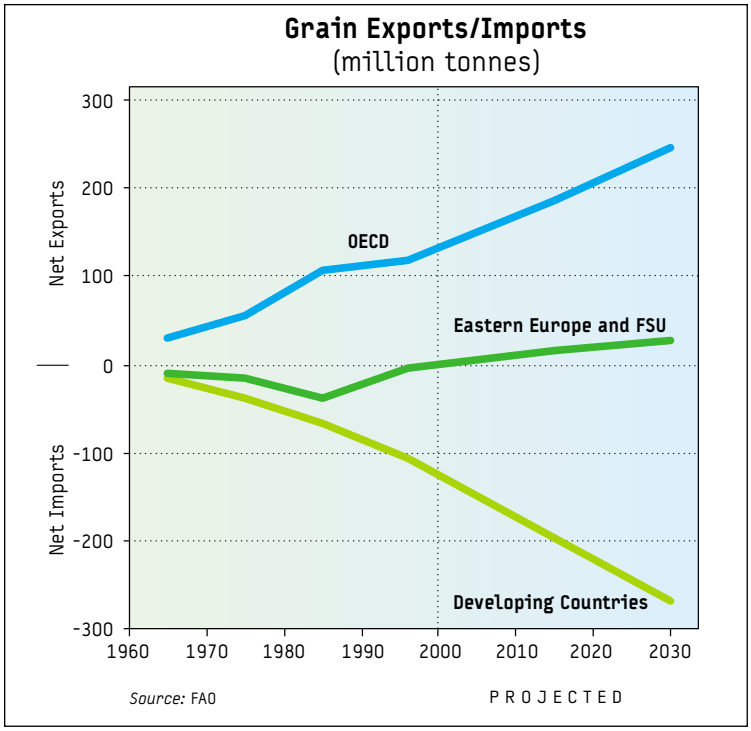
Potential to expand crop production is limited

At present, about 11 per cent of the world's land surface is used in crop production, including cultivated land and land under permanent crops. In South Asia, East Asia and Europe, most land is already used for agriculture and there is little scope for expansion in agricultural land or in irrigation. In developing Asia, increasing demand for food resulting from economic development and population growth will need to be met by increasing yields with existing water resources and by increasing imports. In West Asia and North Africa, increasing agricultural production is constrained by limited water resources, and imports are expected to increase to meet growing demand. In Latin America and sub-Saharan Africa, there is still potential for expansion of agricultural land as well as for increased productivity.



Agricultural trade is increasing

In most of the developing world, food imports have been growing, as demand has increased faster than production. Net imports of grain in developing regions increased from 39 million tonnes of grain in the mid-1970s to 107 million tonnes in the mid-1990s, or from 4 per cent of their total grain consumption to 10 per cent. The historical developing country surplus in agricultural trade has recently turned into a deficit of $2.5 billion. The agricultural trade deficit of developing countries is expected to increase in the future as consumption continues to grow more rapidly than production. The greatest increase in imports is expected in countries where there is little unused agricultural land or water resources, in particular, North Africa, West Asia and East Asia. It is expected that the growing demand for imports can be met by increased production and exports from developed country exporters, in particular North America and the European Union.



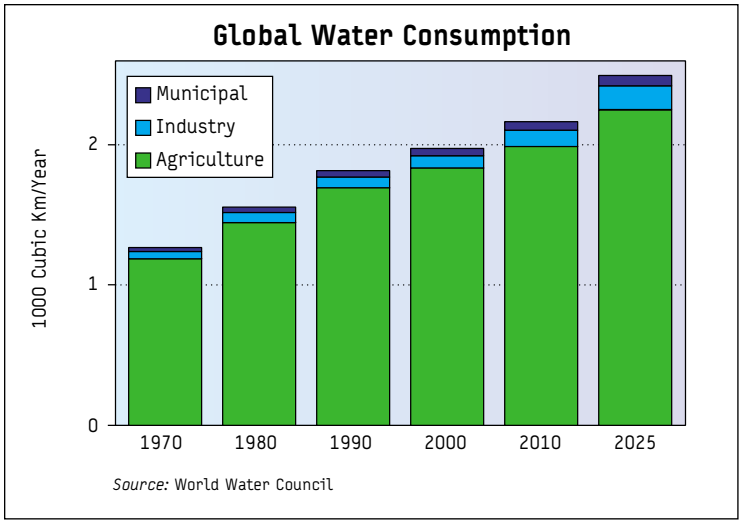
Agricultural expansion threatens other ecosystems

The greatest threat to forests, wetlands, mountains and biodiversity is the expansion of agricultural land due to increasing demand for food and loss of arable land due to over-intensive cultivation. In the long-term, pressure for agricultural expansion can be reduced through increasing yields, declining population growth and reduced land degradation through sustainable agricultural practices, such as high-efficiency irrigation systems, integrated pest management and efficient fertilizer use. Shifting consumption patterns, such as from beef to poultry, can also help reduce pressure for conversion of forests and wetlands to crops or pasture. In Europe and North America, stable or declining populations, continuing increases in yields and low growth in food consumption are already resulting in reductions in croplands and expansion of forests.

FRESHWATER

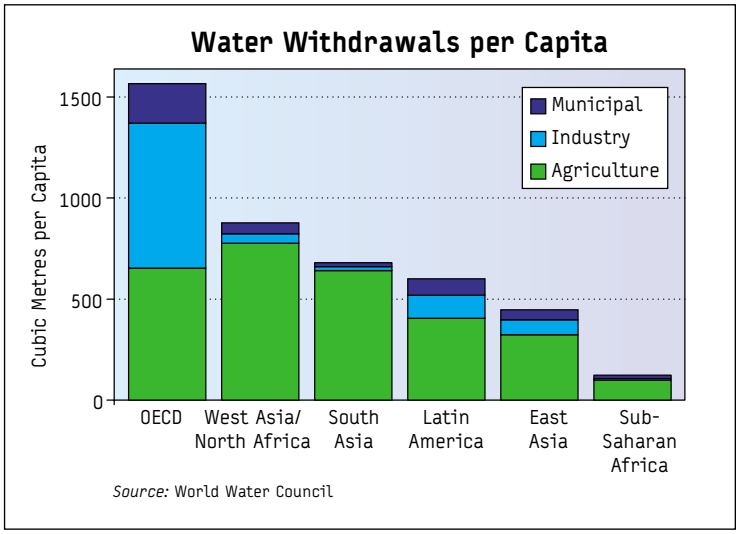
Agriculture dominates global water use

On a global basis, agricultural water use—mainly for irrigation—still represents about 70 per cent of total water withdrawn from sources and about 90 per cent of water actually consumed for human purposes. Smaller amounts are consumed by industry and by households and other municipal users. Water use has increased six-fold over the last century, more than twice the rate of population growth. In a growing number of areas, limited freshwater resources are a major constraint on sustainable development, requiring difficult decisions regarding water allocation among various users.



Industrial water use increases with development

Water use generally increases with economic development, particularly for industrial and municipal use. Industry requires water for cooling, washing and processing, with major uses including power generation, steel, chemicals, paper and petroleum refining. People also require water for drinking, food preparation, sanitation and other purposes. Industrial and municipal uses generally have much higher economic value than agricultural water use.

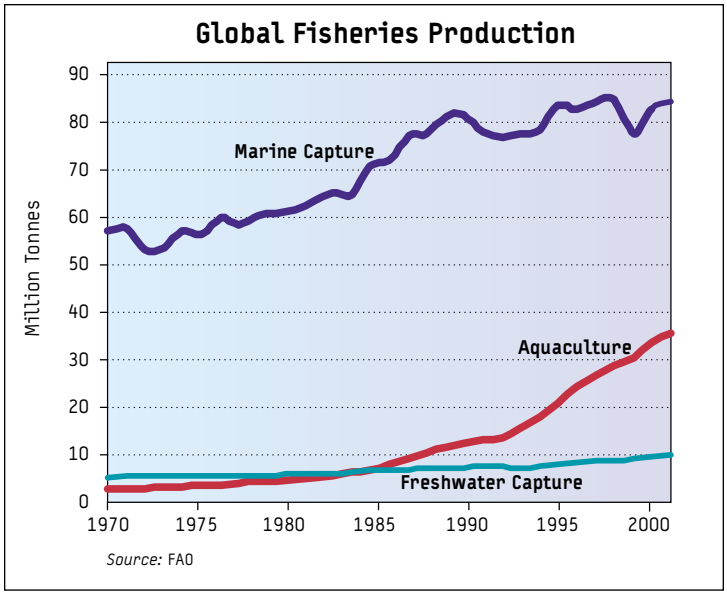


Services provided by freshwater ecosystems are threatened

Freshwater ecosystems—including lakes, rivers, wetlands and underground aquifers—provide a variety of critical services, including water supply, water purification, flood control, recycling and transport of nutrients, fish production and protection of biodiversity. But many freshwater systems are being degraded through excessive water withdrawals, water pollution and introduction of invasive species of plants and animals. Worldwide, about half of all wetlands have been lost and more than 20 per cent of the world's 10,000 known freshwater species are extinct, threatened or endangered. Freshwater management needs to take account of the water requirements of natural ecosystems in addition to the requirements of agriculture, industry and municipalities, but there is very limited data available on ecosystem requirements.

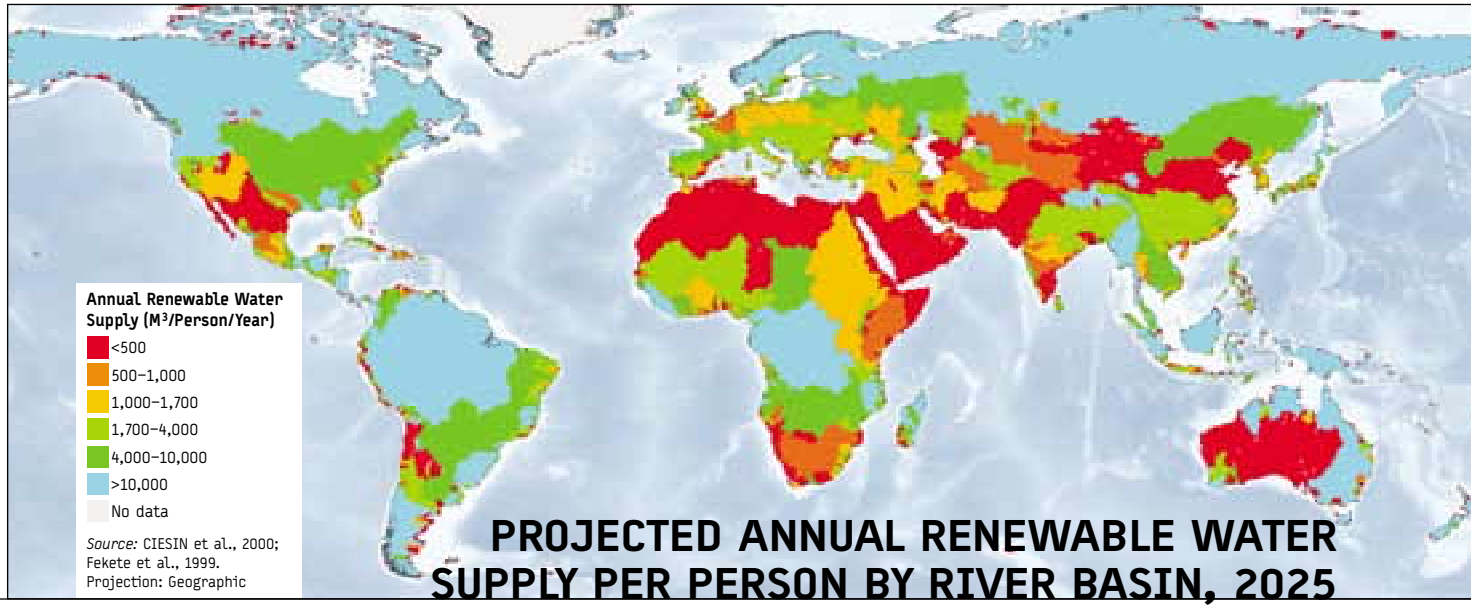
Aquaculture is expanding to meet growing demand for fish

While many ocean fisheries are fully exploited or over-exploited, aquaculture—both freshwater and marine—is increasing rapidly to meet growing demand for fish. In many areas, particularly in Asia, small-scale aquaculture production makes a major contribution to food security. In addition to fish, production includes shellfish, shrimp and aquatic plants. Further growth, however, will have to address competing demand for limited freshwater supplies, protection of water sources and management of environmental impacts.



Nearly half of the world's people will experience water shortages by 2025

On a global basis, water withdrawals amount to only 10 to 20 per cent of total renewable water resources. Water supplies, however, are very unequally distributed and cannot cost-effectively be moved long distances. About 40 per cent of the world population already live in river basins with less than 2000 cubic metres of water per person per year for all purposes, including natural ecosystems. In such areas, water shortages are increasingly limiting development options. By 2025, about half of the world's population—some 3.5 billion people—will live in areas facing such water shortages.

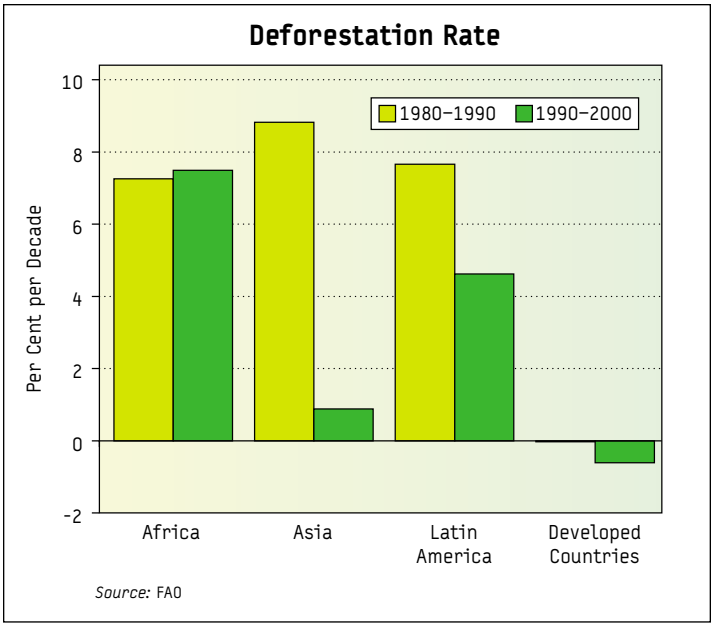


PROJECTED ANNUAL RENEWABLE WATER SUPPLY PER PERSON BY RIVER BASIN, 2025

FORESTS

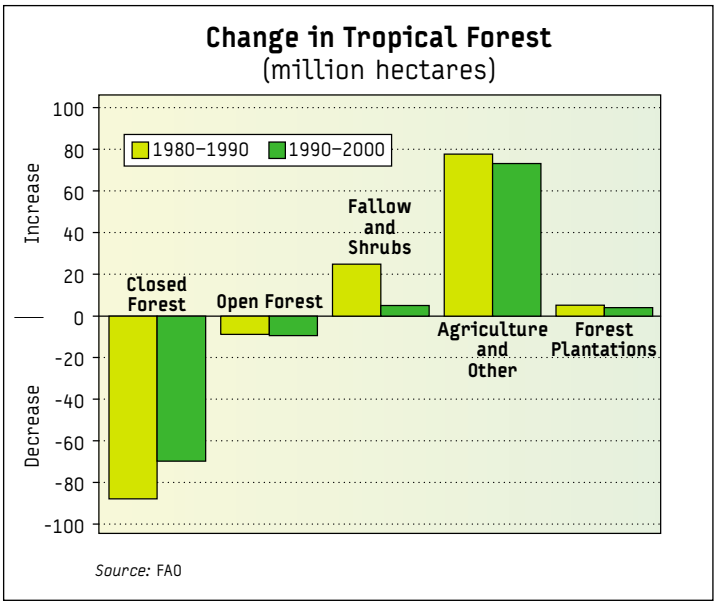
World's forested area continues to decline

The world's forested area declined by about 2.4 per cent in the 1990s, a loss of about 90,000 km^2 per year. The deforestation rate is highest in Africa, at over 7 per cent per decade, and Latin America, at somewhat under 5 per cent per decade. Deforestation declined markedly in Asia from the 1980s to 1990s, in part due to expansion of plantation forests. Almost all of the deforestation is taking place in tropical regions, which contain slightly less than half of the world's forests. In Europe and North America, natural forests have expanded since 1990, as less land has been needed for agriculture due to low population growth and continuing increases in agricultural productivity.



Agricultural expansion is the main cause of deforestation

Almost all deforestation is due to expansion of agriculture, including permanent cultivation, shifting agriculture and pastures. In tropical areas, the major change has been a decline in closed forest, closely matched by an increase in agricultural land. Urban expansion and increases in fallow land and other land uses have not been a significant factor. In developing regions, continuing population growth and increasing demand for food, particularly meat and dairy products, combined with declining growth in agricultural productivity, will increase pressure for deforestation.

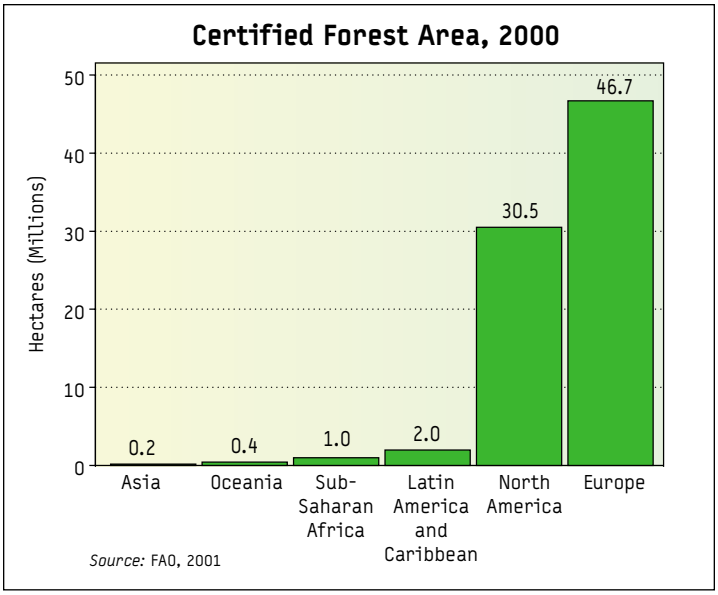


The capacity of forests to provide goods and services is decreasing

Forests provide a variety of economic services in addition to forest products, including water and soil conservation, flood control, climate change mitigation and protection of biodiversity. Nearly 30 per cent of the world's major watersheds have lost three-quarters or more of their original forest cover, reducing water quality and increasing the risk of floods. Forests harbour about two-thirds of known terrestrial species, and many forest-dwelling large mammals, half of the large primates, and nearly 9 per cent of all known tree species are at some risk of extinction.

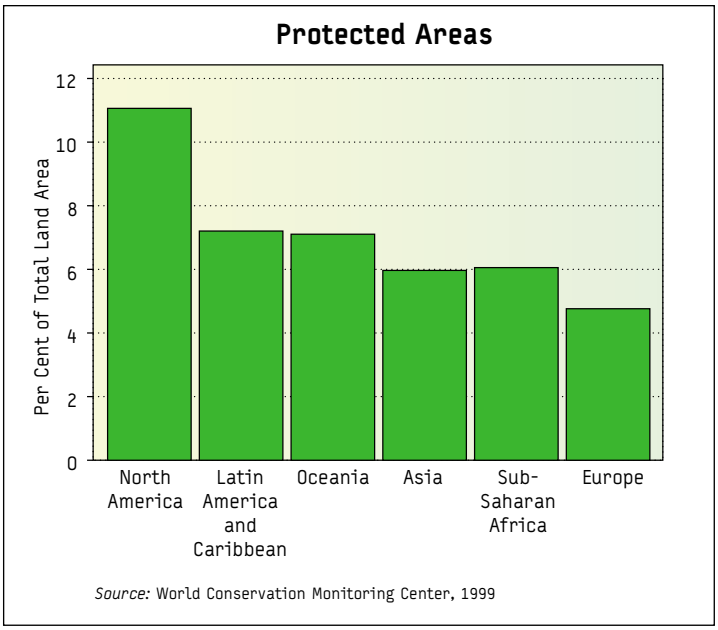
Sustainable management of forests is spreading

Regulatory pressure, social activism and consumer preferences have encouraged producers and marketers to provide a range of sustainably-produced forest products, including timber, coffee and fruit. Some of these products are certified as having been produced in an environmentally and socially responsible manner. About 2 per cent of forests worldwide are now certified as managed for sustainable yield and for providing wildlife habitat, watershed protection, biodiversity, and other ecological services. While the market share for certified products is small, growth rates are high.



Protected areas are increasing in all regions

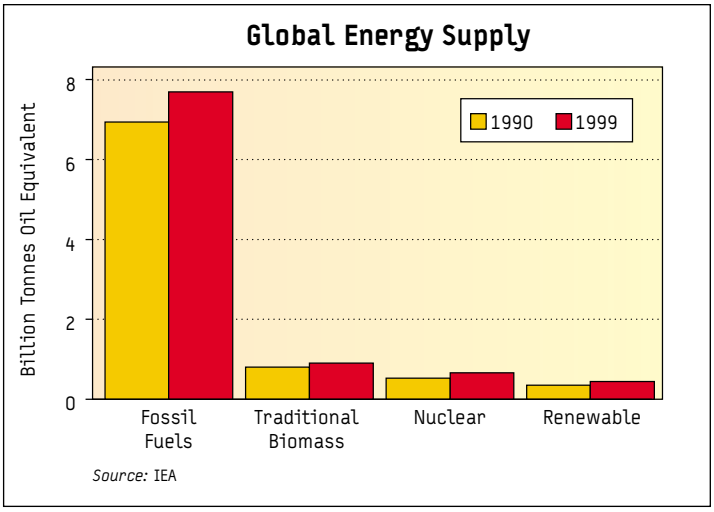
To protect natural ecosystems and biodiversity and the services they provide, countries are increasingly establishing nature reserves, national parks and wildlife sanctuaries. These areas, many of which are forested, provide a basis for the rapidly growing eco-tourism industry, which can finance their maintenance, as well as providing employment and enhancing knowledge of the ecosystems and the services they provide.



ENERGY

Consumption of all types of energy is growing

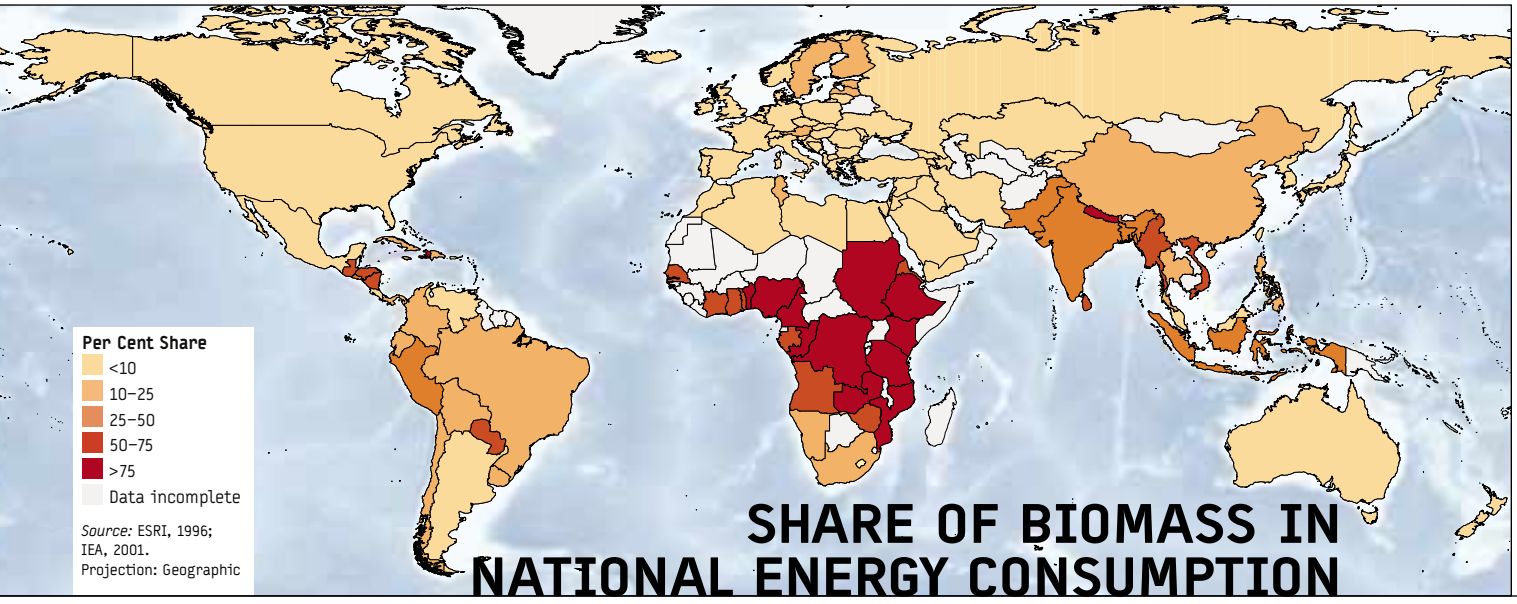
Global production and consumption of energy increased in the 1990s, despite large declines in Eastern Europe and the former Soviet Union. Consumption of all types of energy increased, with most of the increase in fossil fuels, but faster relative growth in nuclear energy and renewable energy. Use of traditional biomass in developing countries increased, although its share decreased slightly.



Low-income countries depend on biomass energy, but it is a health threat for billions

Most countries in sub-Saharan Africa, and some in Asia and Latin America and the Caribbean, depend on traditional biomass for most of their national energy supplies, in some cases up to 90 per cent.

Most people in rural Africa and Asia do not have access to, or cannot afford, fossil fuel or other modern energy supplies. For cooking, heating and other energy needs, over 2.5 billion people in developing countries depend on fuelwood or, when that is unaffordable, on crop residues and animal dung. Traditional cookstoves used in poorly ventilated spaces use biomass inefficiently and produce smoke, carbon monoxide, hydrocarbons and other air pollutants that damage the health of those who tend the stoves. About 2.5 million women and children die each year as a result of acute respiratory infections due to indoor air pollution from traditional cookstoves.



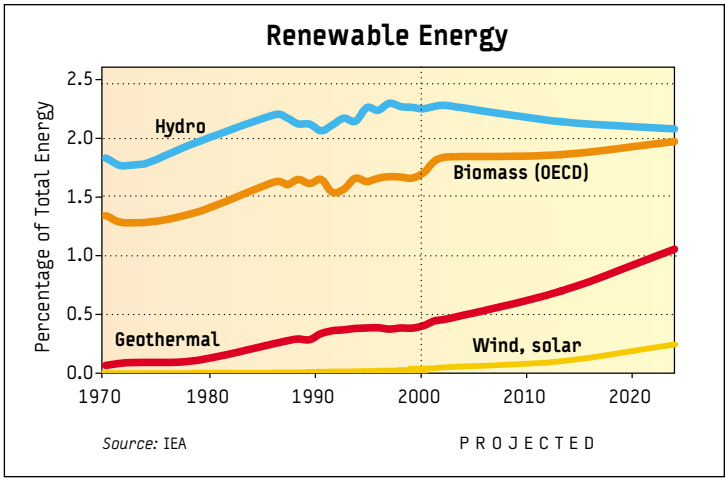
Smoke from biomass cooking has severe health effects on children and women

- In South Africa, children living in homes with wood stoves are almost five times more likely than others to develop respiratory infections severe enough to require hospitalization.
- In Tanzania, children younger than five years who die of acute respiratory infection are three times more likely to have been sleeping in a room with an open cookstove than healthy children.
- In the Gambia, children carried on their mothers' backs as they cook over smoky stoves contract pneumonia at a rate 2.5 times higher than unexposed children.
- In Colombia, women exposed to smoke during cooking are over three times more likely than others to suffer from chronic lung disease.
- In Mexico, urban women who use coal for cooking and heating over many years are subject to a risk of lung cancer two to six times higher than women who use gas. Rural coal smoke exposure can increase lung cancer risks by a factor of nine or more.
- In India, smoke exposure has been associated with a 50 per cent increase in stillbirths.

Source: World Resources Institute

Renewable energy is growing, but remains small-scale

About 4.5 per cent of total global energy production comes from modern renewable energy sources, up from 3.2 per cent in 1971. Hydropower is the largest renewable energy source, but large-scale hydropower can have major adverse environmental and social impacts. Modern biomass and geothermal energy are the other major renewable sources and have substantial growth potential. Wind and solar energy, while growing relatively rapidly, provide only about 0.02 per cent each of the total global energy supply.



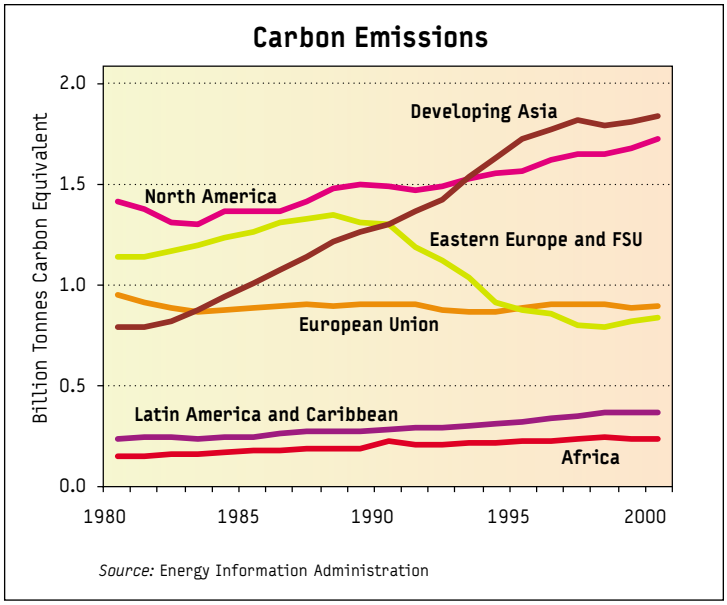
More efficient use of traditional biomass is improving the lives of women

For most poor households in rural Africa and Asia, improved biomass cookstoves are the most feasible option for reducing death and disease from traditional biomass cooking. They also conserve biomass resources and reduce the time and energy needed for collecting fuel and cooking, thus freeing women's time for other productive activities. The Upesi stove developed in Kenya, for example, with a clay liner in a mud and stone hearth, uses 40 per cent less fuel than the traditional three-stone stove and emits 60 per cent less smoke. For higher-income rural households, expanding the distribution networks for canisters of liquefied petroleum gas (LPG) can improve the welfare of women and children.

CLIMATE CHANGE

Fossil fuel consumption and CO_2 emissions continue to grow

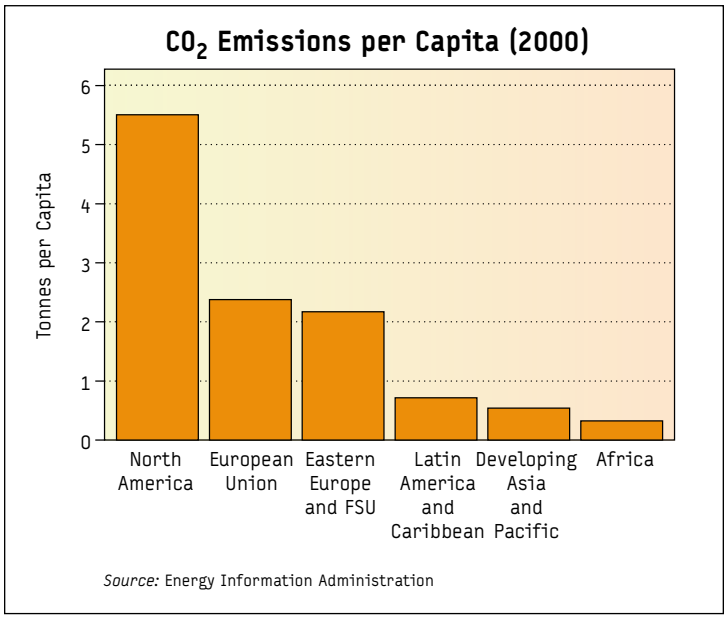
Emissions of carbon dioxide (CO_2), the major greenhouse gas, continued to rise in the 1990s, despite the calls in the 1992 United Nations Framework Convention on Climate Change and its 1997 Kyoto Protocol for the stabilization and reduction of greenhouse gas emissions. Growth has been particularly high in Asia, due to its large population and rapid economic growth, and in North America. Emissions have declined in the former Soviet Union due to economic decline and restructuring, while emissions have been stable in Europe and Japan.



Source: Energy Information Administration

People in developed countries consume up to 10 times as much fossil fuel as people in developing countries

Fossil fuel consumption and CO_2 emissions, on a per capita basis, are 10 times higher in North America than in the developing regions. Per capita CO_2 emissions in Europe are about half the levels in North America, due to different patterns of transport, housing, production and consumption.



Source: Energy Information Administration

There are many signs of climate change

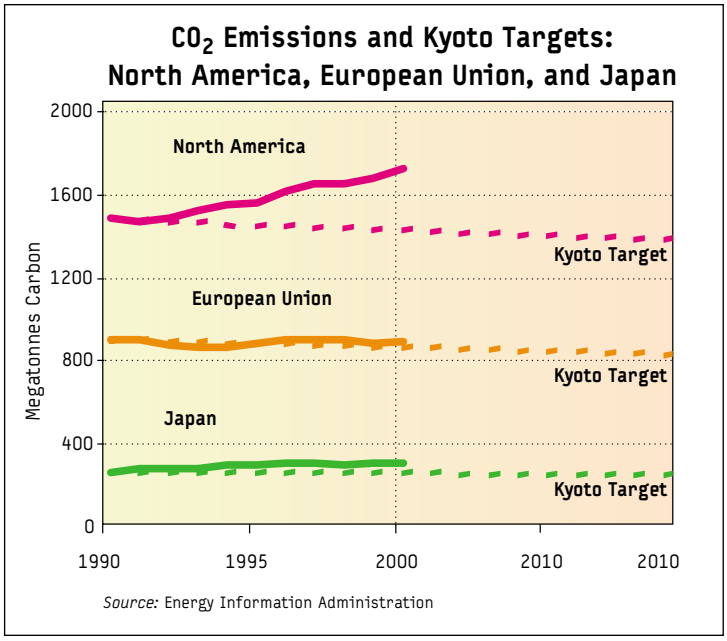
- Global average surface temperatures have increased by about 0.6°C since 1900.
- Sea levels are rising by about 1 cm per decade.
- Arctic sea ice thickness has declined 40 per cent in the past 40 years.
- Major glaciers throughout the world are retreating.
- Lake ice is forming later in the autumn and melting earlier in the spring.
- Precipitation in the Northern Hemisphere has increased, particularly as intense rainfall.
- El Niño events have become more common and more intense.
- In parts of Asia and Africa, droughts have increased in frequency and intensity.
- Insurance payments for damage from floods and storms increased from about $2 billion annually in the 1980s to $30 billion annually in the early 1990s.

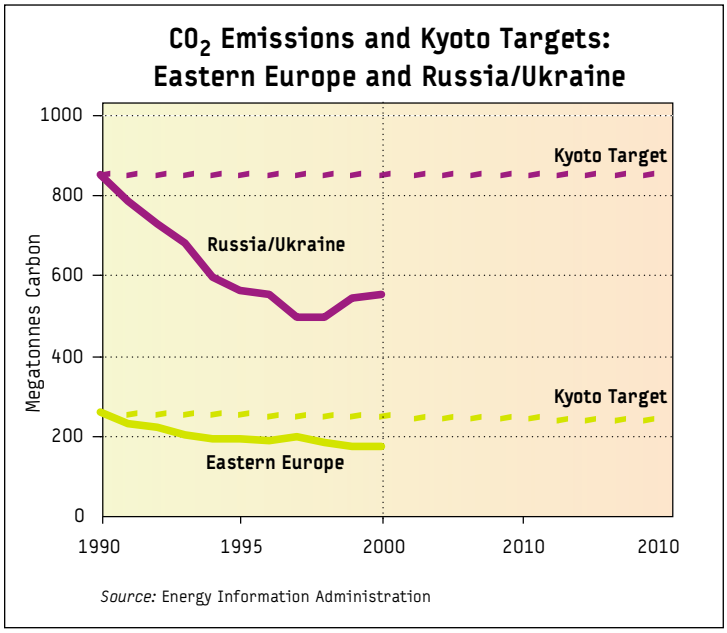
Source: IPCC

Kyoto Protocol sets emission targets for developed countries

For developed countries, the 1992 United Nations Framework Convention on Climate Change included a voluntary target for greenhouse gas emissions in 2000 to be lower than 1990 levels. Among OECD countries, only Germany, the United Kingdom and Luxembourg achieved this target.

The 1997 Kyoto Protocol, which has not yet entered into force, includes legally binding limits for emissions by developed countries for the period 2008–2012. For North America, CO_2 emissions have been steadily increasing since 1990 and in 2000 were 16 per cent above 1990 levels. The Kyoto Protocol target would therefore be a reduction of about 23 per cent below current levels. In the countries of the former Soviet Union, and to a lesser extent Eastern Europe, CO_2 emissions are well below 1990 levels as a result of economic restructuring and the closing of many energy inefficient factories. In the European Union and Japan, emission trends are slightly above the target level. In Australia and New Zealand, emissions in 2000 were well above 1990 levels and the Kyoto targets.

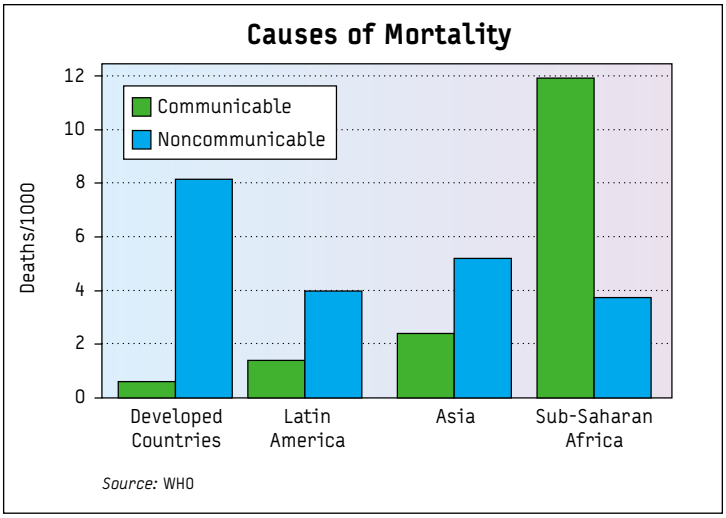




HEALTH AND WATER

Most deaths in the least developed countries are readily preventable

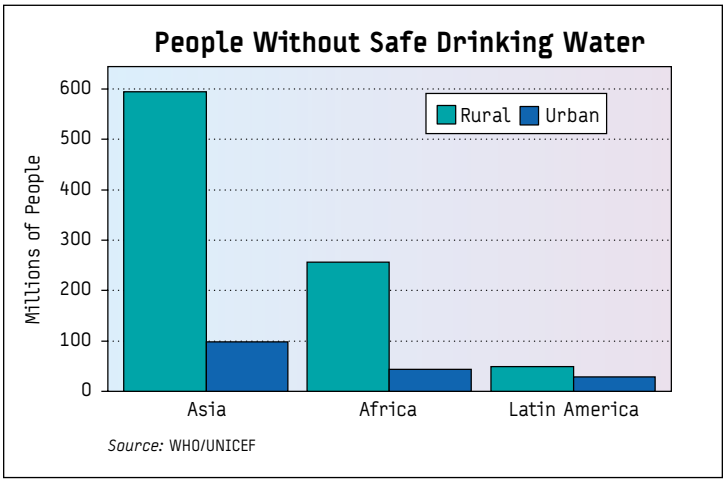
In developed countries, illness and death are primarily due to non-communicable diseases, especially heart disease and cancer, which strike primarily in old age. In sub-Saharan Africa and the least developed countries, disease and death—often in childhood—are primarily due to communicable, environment-related diseases. Most common are diarrhoeal diseases due to lack of clean water and sanitation facilities, and respiratory infections due to indoor air pollution. These diseases are readily preventable through simple and inexpensive technologies.

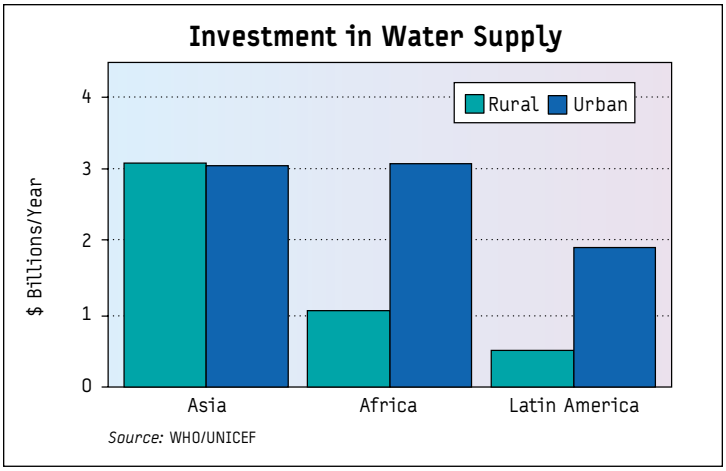


Over one billion people still lack access to safe water

Despite some progress in recent decades, over one billion people in developing countries do not have access to safe drinking water, and 2.5 billion lack adequate sanitation facilities. The great majority of those people live in rural Asia and Africa. Improved access to safe water would not only improve health, particularly for children, but would also give more time and energy to women and girls—who bear most of the responsibility for fetching water—for more productive purposes including education. In rural Asia and Africa, women on average walk about 6 km for water.

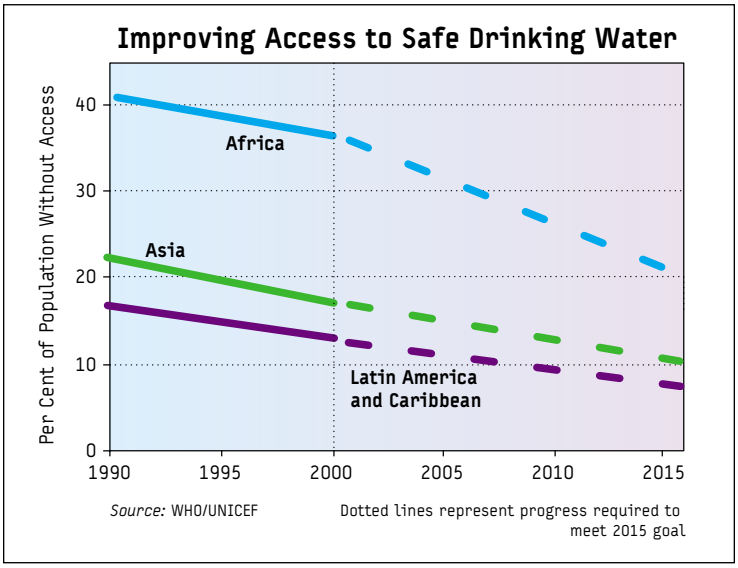
During the 1990s, some $15 billion per year was invested in improving drinking water supply and sanitation in Africa, Asia and Latin America. Over $12 billion per year was invested in drinking water, with about $3 billion invested in sanitation. The investments were largely concentrated in urban areas, although the great majority of people without access to safe drinking water live in rural areas.





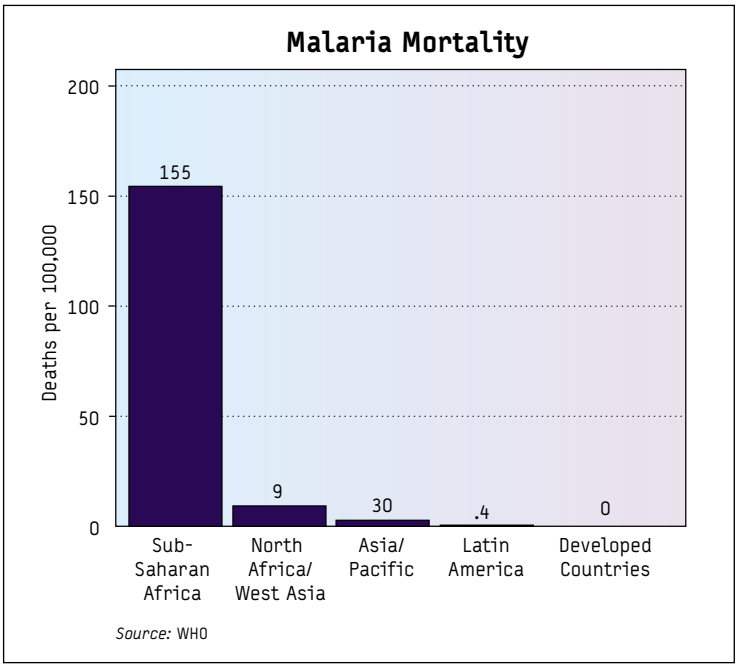
Progress is being made towards targets

The number of children under five who die each year from diarrhoeal diseases due to contaminated water and food, poor hygiene and inadequate sanitation is estimated to have fallen from 4.6 million in 1980 to 3.3 million in 1990 and 1.7 million in 1999. The goal of a 50 per cent reduction in child mortality due to diarrhoeal diseases, adopted at the World Summit for Children in 1990, has been achieved. Contributing factors have been better water supply and sanitation, increasing use of oral rehydration therapy (ORT), and better nutrition, including breastfeeding of infants. The General Assembly, in its Millennium Declaration, resolved to halve, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water.



Malaria is increasing in Africa

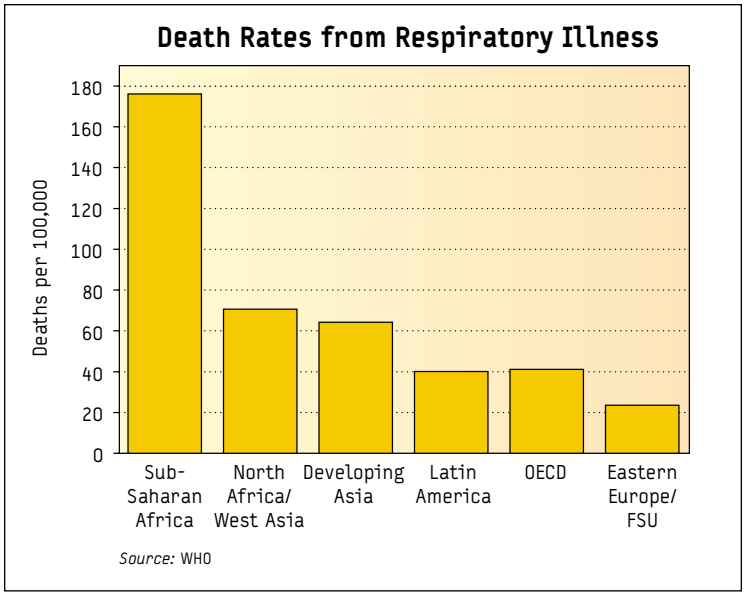
About 300 million people suffer each year from acute malaria, the main water-related illness. About one million people die each year of malaria, mostly children in Africa. Malaria is estimated to reduce the economic growth of African countries by more than one per cent per year, amounting to economic losses of about $12 billion per year. While mortality rates have fallen steadily in most regions, malaria deaths in Africa have been rising since the 1980s, primarily due to the declining effectiveness of the anti-malarial medication chloroquine. In addition, development of dams and irrigation systems, deforestation and global warming are favouring the development and spread of malaria-carrying mosquitoes.



HEALTH AND AIR POLLUTION

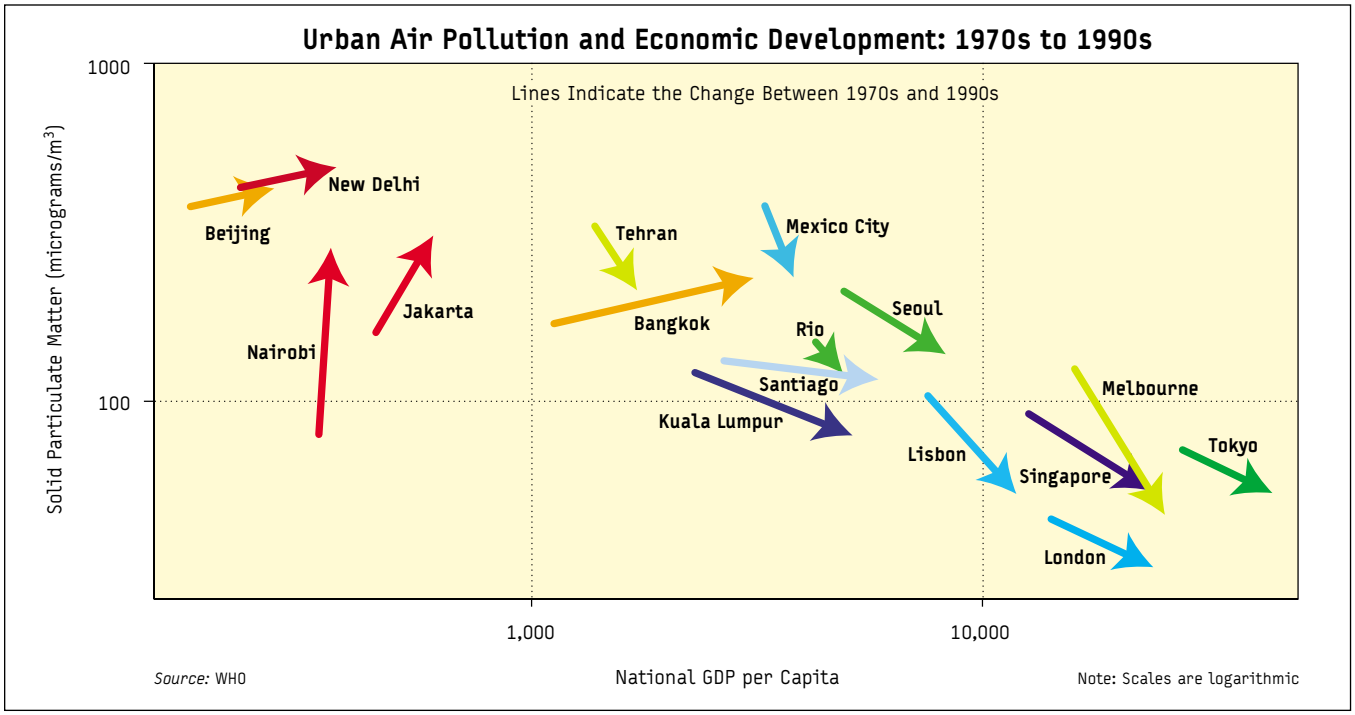
Indoor air pollution is a major killer

More than 3 million deaths each year are caused by air pollution, mostly due to particulate pollution. A great majority of the deaths are among children in developing countries who die of acute respiratory infections due to indoor air pollution resulting from burning fuelwood, crop residues or animal dung for cooking and heating. Yet most pollution control efforts and expenditures address outdoor air pollution in developed countries.



Urban air pollution is being reduced in middle and high income countries

As the diagram below shows, cities in the early phases of industrialization and urbanization experience increases in air pollution largely as a result of fossil fuel combustion by industry and motor vehicles without emissions controls. As standards of living increase, improving air quality becomes a priority, and emission control measures are established and enforced, bringing down levels of particulates and sulphur dioxide (so_2). Currently, in most large cities in the developing world, airborne particulate levels are five times higher than in developed countries.



Sources and Further Information

Population: Data, projections and analysis of population trends are available from the United Nations Population Division, in particular in *World Population Prospects, the 2000 Revision*. Publications and data are also available on urbanization, ageing, migration and other demographic issues (**www.un.org/population** and **www.un.org/popin**).

Poverty: Data on poverty are available from the World Bank, based on an international poverty line of $1 and $2 per day (**www.worldbank.org/poverty**). Data and analysis on poverty and other development issues are also published in the World Bank's annual *World Development Report* and *World Development Indicators* and other publications. Information on poverty is also contained in the *Rural Poverty Report 2001* of the International Fund for Agricultural Development (IFAD) (**www.ifad.org**). Poverty-related data and trends relating to children are available in the UNICEF annual reports on the *State of the World's Children* and the *Progress of Nations* (**www.unicef.org**). Information on poverty and other human development issues is also published annually in the UNDP *Human Development Report* (**www.undp.org**).

Food, Agriculture, Forests and Fisheries: The Food and Agriculture Organization (FAO) publishes data and analysis on food, agriculture, forestry and fisheries, with data available online through the FAOSTAT database (**www.fao.org**). Agricultural trends and projections have recently been published in *Agriculture: Towards 2015/30*. Information on hunger is available in the FAO annual *State of Food Insecurity in the World*. Information on forests is available in the FAO annual *State of the World's Forests* and the *Global Forest Resource Assessment 2000*.

Freshwater: Information on freshwater availability and use is available from the FAO and in the *World Water Vision* (2000) published by the World Water Council (**www.worldwatercouncil.org/vision.shtml**). Another recent survey of freshwater resources is "Appraisal and Assessment of World Water Resources" in *Water International,* Vol.25, No.1 (2000), by Igor Shiklomanov.

Energy and Climate: Information on trends and projections on energy are available in the *World Energy Assessment,* published in 2001 by UNDP, the United Nations Department of Economic and Social Affairs and the World Energy Council. Detailed national, regional and global data is available in the OECD publications *Energy Balances of OECD Countries* and *Energy Balances of Non-OECD Countries*. International energy data, including greenhouse gas emissions, is available online from the United States Energy Information Administration (**www.eia.doe.gov**). Information on climate issues is available from the Intergovernmental Panel on Climate Change, particularly in the IPCC *Third Assessment Report* (**www.ipcc.ch**).

Health: Data and analysis on health issues are available in the WHO annual *World Health Report*. Information on trends in drinking water and sanitation is available in the WHO/UNICEF *Global Water Supply and Sanitation Assessment 2000*. Air pollution data are available in the WHO Air Management Information System (AMIS) database, available on CD-ROM (**www.who.int**). Data and analysis on HIV/AIDS, including the recent *Report on the Global HIV/AIDS Epidemic* (2002), are available from UNAIDS (**www.unaids.org**).

Environment and Natural Resources: A survey of the global environment is published by UNEP every three years in the *Global Environmental Outlook* (GEO) report, most recently in *GEO-3* (2002) (**www.unep.org**). The OECD surveys environmental trends for OECD and non-OECD countries in the *OECD Environmental Outlook*. Data and analysis are also available in the biennial publication *World Resources* by the World Resources Institute (**www.wri.org**).

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