

WORLD·WATCH

WORKING FOR A SUSTAINABLE FUTURE

The Path To Johannesburg

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Excerpted from May/June 2002 WORLD WATCH magazine

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1776 Massachusetts Ave., NW
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The Path to the Johannesburg Summit

by Curtis Runyan and
Magnar Norderhaug

In the 1960s, many people around the world began to face critical environmental issues in their communities: forests were being destroyed by acid rain, rivers poisoned beyond use by industrial wastes, cities choked by pollution from automobiles and industry, rural farmers hit by famines, and once-rich resource reserves wearing thin.

A few scientists began to speak out about the global interconnectedness of these problems, and they warned that we humans were quickly becoming victims of our own success—that we now had the ability to entirely despoil the Earth that sustains us.

In 1972, at the U.N. Conference on the Human Environment in Stockholm, Sweden, delegates from around the world came together to address these warnings. While the conference produced a series of recommendations for government action, environmental turmoil continued.

Twenty years later, leading up to the U.N. Earth Summit in Rio in 1992, the Royal Society of London and the U.S. National Academy of Sciences—two of the world's most prominent scientific bodies—issued a joint declaration calling for action. "The future of our planet is in the balance. Sustainable development can be achieved, but only if irreversible degradation of the environment can be halted in time. The next 30 years may be crucial."

The scientific warnings have continued to grow in severity and urgency, but progress on making change since the Stockholm conference has remained painstakingly slow. And new international challenges—terrorist attacks, military responses, and mounting tensions around the world—have threatened to sidetrack the building momentum to address chronic environmental problems. At the forthcoming Johannesburg World Summit, environmentalists will aim to refocus the world on some of the most critical threats to global security. That will mean seriously responding to environmental tragedies and rapidly building on hard-won gains of the past four decades, which are summarized in the following chronology.

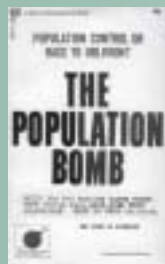
World leaders will meet August 26 for the World Summit in Johannesburg, South Africa, to address once again, the multitude of environmental threats destabilizing the planet. The question at the top of the agenda: what progress have countries made in the past 30 years to halt environmental hemorrhaging, and where will we go from here?

1960

1962 Marine biologist Rachel Carson publishes ***Silent Spring***, calling attention to the threat of toxic chemicals to people and the environment.



1967 The **Torrey Canyon** oil tanker hits ground and spills 117,000 tons of oil into the North Sea around Cornwall in the United Kingdom. The massive local pollution helps prompt legal changes to make ship owners liable for all spills.



1968 Paul Ehrlich publishes ***The Population Bomb***, describing the ecological threats of a rapidly growing population.

1968 Experts from around the world meet for the first time at the **U.N. Biosphere Conference** to discuss global environmental problems, including pollution, resource loss, and wetlands destruction.

For an expanded version of this timeline with links to past *WORLD WATCH* articles visit: www.worldwatch.org



U.K. NATIONAL ARCHIVES

1970

1970 The first **Earth Day** is held in the United States. Millions of people gather around the country to demonstrate against environmental abuses, sparking the creation of landmark environmental laws including the Endangered Species Act and the Safe Drinking Water Act.

1971 2,200 scientists, gathered for a conference in Menton, France, present a message to the U.N. stressing **the need for environmental action**: "Solutions to the actual problems of pollution, hunger, overpopulation, and war may be more simple to find than the formula for the common effort through which the search for the solutions must occur, but we must make a beginning."

1972 Economist Barbara Ward and microbiologist René Dubos publish **Only One Earth** for the Stockholm Conference. The book warns that human actions are undermining the Earth's ability to support us.

1972 Participants from 114 countries come to **Stockholm, Sweden** for the **U.N. Conference on the Human Environment**. Only one environment minister attends, as most countries do not yet have environmental agencies. The delegates adopt a set of 109 specific recommendations for government action and push for the creation of the U.N. Environment Programme.

1972 The **Club of Rome**, a group of economists, scientists, and business leaders from 25 countries, publishes **The Limits to Growth**, which predicts that the Earth's limits will be reached in 100 years at current rates of population growth, resource depletion, and pollution generation.

1972 Researchers report that three-quarters of the **acid rain** falling in Sweden is caused by pollution originating in other countries.

1973 Women living in Himalayan villages in Northern India begin the **Chipko movement** to protect trees from clearing by commercial logging, which has begun to cause severe deforestation, soil erosion, and flooding in the region.

1973 Arab country members of the **Organization of Petroleum Exporting Countries (OPEC)** reduce oil exports to Europe and initiate an oil embargo against the United States for its support of Israel in a war with Egypt and Syria. Ineffective policies to reduce oil dependence leave industrial countries vulnerable to Iran's 1979 revolution and subsequent reduction in oil production, sparking a second energy crisis.

1973 The **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** restricts trade in roughly 5,000 animal species and 25,000 plant species that are near or threatened with extinction. While the treaty has a broad mandate, inadequate enforcement in the following years allows a billion dollar black market in wildlife trade to flourish.



U.S. DEPARTMENT OF THE INTERIOR



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AP/WIDE WORLD PHOTOS

1973 The **Convention for the Prevention of Pollution from Ships** (MARPOL) restricts the release of pollutants from ocean-going vessels. It regulates dumping and accidental spills of oil, garbage, plastics, and sewage.

1974 Chemists Sherwood Rowland and Mario Molina find that **chloro-fluorocarbons (CFCs) can destroy ozone** molecules and may threaten to erode the Earth's protective ozone layer.

1976 The **U.N. Conference on Human Settlements** in Vancouver, British Columbia, Canada, drafts 65 recommendations for countries about how best to provide shelter. Conference participants agree that adequate shelter is a basic human right.

1977 Indigenous protestors in the Philippines force the World Bank to withdraw its financial backing for the construction of four large dams along the **Chico River**. The effort to block the projects energizes a global movement to protect rivers and resist new dam building.

1979 The reactor core at the **Three Mile Island** nuclear power plant in Pennsylvania partially melts down and releases radiation into the surrounding communities.

1979 The **Convention on Long-Range Transboundary Air Pollution** helps combat acid rain and regulate pollution traveling across national borders. A number of protocols have been added to this "framework" treaty, which regulate emissions of nitrogen oxides, sulfur, heavy metals, persistent organic pollutants, and several other pollutants.



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CHARLES ISAACS,
PHILADELPHIA INQUIRER

1980

1981 The **AIDS virus** is detected in clinical studies. Within the following two decades the virus has rapidly spread throughout the world and has killed millions of people and undermined development efforts in many countries.

1982 Mexico and other developing and Eastern bloc countries come close to defaulting on \$250 billion in international loans, sparking a **debt crisis**. Lenders extend additional loans to these countries to prevent default, setting the stage for future debt disasters.

1982 The **Law of the Sea** provides a comprehensive framework for ocean use and contains provisions on ocean conservation, pollution prevention, and protecting and restoring species populations.

1982 The UN Environment Programme organizes a special **Stockholm +10 conference** in Nairobi. The attendees agree to a declaration expressing "serious concern about the present state of the environment," and establish an independent commission to craft a "global agenda for change," paving the way for the release of *Our Common Future* in 1987.



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1983 The U.S. Environmental Protection Agency and the U.S. National Academy of Sciences publish reports finding that the **build-up of carbon dioxide and other “greenhouse gases”** in the Earth’s atmosphere will lead to **global warming**.

1984 An estimated 10,000 people are killed and many more are injured when **Union Carbide’s pesticide plant in Bhopal, India** leaks 40 tons of Methyl Isocyanate gas and sends a cloud of poison into the surrounding city of 1 million.



PABLO BARTHOLOMEW/GETTY IMAGES

1985 Scientists discover a **“hole” in the Earth’s ozone layer**, as data from a British Antarctic Survey show that January ozone levels dropped 10 percent below those of the previous year.

1986 One of the four reactors at the Soviet Union’s **Chernobyl** nuclear power plant explodes after a botched “safety test” and completely melts down. The explosion sends radioactive particles as far away as Western Europe, exposing hundreds of thousands of people to high levels of radiation.



AP/WIDE WORLD PHOTOS

1987 The World Commission on Environment and Development publishes **Our Common Future** (The Brundtland Report), which concludes that preserving the environment, addressing global inequities, and fighting poverty could fuel, not hinder, economic growth by promoting sustainable development: “Attempts to maintain social and ecological stability through old approaches to development and environmental protection will increase instability.”

1987 The **Montreal Protocol**, which has been strengthened since its inception, now requires industrial countries to phase out production of a number of ozone-depleting chemicals by 1996, and developing countries by 2010.

1987 The **Basel Convention** controls movement of hazardous wastes across borders and now outlaws exports of wastes from developed to developing countries for final disposal.

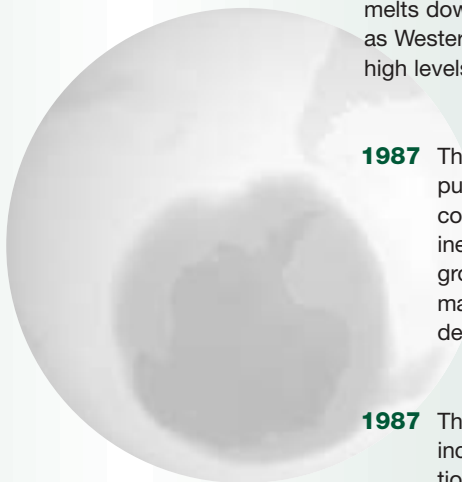
1988 Biologist E. O. Wilson publishes **Biodiversity**, a collection of reports from the National Forum on BioDiversity in the United States. The book details how humans are rapidly undermining the Earth’s ability to support its diversity of species.

1988 Brazilian labor and environmental leader **Chico Mendes is murdered** by rural cattle ranchers. Representing 70,000 rubber tappers, Mendes had advocated using Brazil’s forests sustainably as extractive reserves rather than clearing them for timber and grazing. The killing brings international attention to the widespread liquidation of tropical rainforests around the world.



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1989 An inexperienced crewman runs the **Exxon Valdez** oil tanker onto a reef in Alaska’s Prince William Sound, dumping 76,000 tons of crude oil. The spill, the largest ever in the United States, covers more than 5,100 kilometers of pristine coastline with oil and kills more than 250,000 birds.



NASA/GREG SHIRAH, GSFC SCIENTIFIC VISUALIZATION STUDIO, BASED ON DATA FROM THE TOMS SCIENTIFIC TEAM



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1990

1991 The Iraqi army, retreating from its occupation of Kuwait, destroys tankers, oil terminals, and oil wells, setting many on fire. The fighting and sabotage leak approximately 1.25 million tons of oil, **the worst oil spill in history.**

1992 Bringing together 1,575 scientists from 69 countries, the Union of Concerned Scientists issues its **World Scientists' Warning to Humanity**, which states that "Human beings and the natural world are on a collision course."

1992 The **Convention on Biological Diversity** mandates that countries formulate strategies to protect biodiversity and that industrial countries help implement these strategies in developing countries.

1992 Most countries and 117 heads of state participate in the groundbreaking U.N. Conference on Environment and Development, in Rio de Janeiro, Brazil (**The Earth Summit**). Participants adopt Agenda 21, a voluminous blueprint for action that calls for improving the quality of life on Earth by using natural resources more efficiently, protecting global commons, better managing human settlements, and reducing pollutants and chemical waste.

1992 The **Convention on Climate Change** sets nonbinding CO₂ reduction goals for industrial countries (to 1990 levels by 2000). The final treaty calls for avoiding human alteration of the climate, but falls far short of expectations, largely due to lack of support from the United States.

1994 The World Conservation Union (IUCN) publishes a revised **Red List of endangered and threatened species**, creating a world standard for gauging threats to biodiversity. Current versions list 11,000 threatened or extinct species out of about 1.75 million documented species. (The *Red List* estimates that the total number of species on Earth is about 13 to 14 million.)

1994 183 countries send delegates to the **Conference on Population and Development** in Cairo, Egypt, where they set up a decades-long plan to stabilize and reduce population growth—a plan that emphasizes the importance of women's education and access to reproductive health care.

1995 Writer and activist **Ken Saro-Wiwa is hanged** in Nigeria for leading the Ogoni people's protests against environmental destruction of their lands by Royal Dutch/Shell, Chevron, and other international oil companies.

1995 The **Intergovernmental Panel on Climate Change (IPCC)**, a group of hundreds of prominent climate scientists assembled by the U.N. in 1988, releases a report concluding that "the balance of evidence suggests that there is a discernible human influence on global climate."



P. GLEIZES, PETER ARNOLD/STILL PICTURES



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1995 Representatives from 180 countries meet at the **Conference on Women** in Beijing, China, to draft an agenda to improve the lives of women and girls. The resolution includes calls for taking action to reduce soil erosion, deforestation, and other forms of environmental degradation which often leave women and their families impoverished.

1996 Theo Colborn, John Myers, and Dianne Dumanoski publish ***Our Stolen Future***, which warns of reproductive threats to animals—including humans—due to the release of billions of pounds of synthetic chemicals into the environment, many of which mimic and disrupt natural hormones.

1997 **Forest fires** around the world burn more than 5 million hectares of forests and other lands. More tropical forests are burned in 1997 than in any other year in recorded history.

1997 The **Kyoto Protocol** strengthens the 1992 Climate Change Convention by mandating reductions of 6 to 8 percent from 1990 emission levels by 2008 to 2012 for industrial countries. But the protocol's controversial emissions-trading scheme and debates over the role of developing countries cloud its future.

1998 The **ozone hole** over Antarctica grows to 25 million square kilometers (the previous record, set in 1993, was 3 million square kilometers).

1999 Massive **protests in Seattle** help shut down international trade negotiations and spotlight the environmental and social shortcomings of the World Trade Organization.



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EARTHJUSTICE LEGAL DEFENSE FUND



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2000 **2000** The **Biosafety Protocol** implements a more precautionary approach to trading genetically altered crops and organisms, and requires exporters to receive prior consent from destination countries before shipping genetically altered crops.

2000 The **Treaty on Persistent Organic Pollutants** requires the complete phaseout of nine persistent, highly toxic pesticides and limits the use of several other chemicals, including dioxins, furans, and PCBs.

2001 U.S. President George W. Bush announces that the **United States will not ratify the Kyoto Protocol**, saying that the country cannot afford to reduce CO₂ emissions.

2001 The \$3 billion **Human Genome Project** reports that the human gene count is only about 30,000—about the same as that of a weed or a mouse—not 100,000 as expected. News of the finding adds to the concerns about the wisdom of current efforts at genetic manipulation, including inserting genes into food crops and re-engineering animals or humans. (See the upcoming July/August issue of *WORLD WATCH*, which will discuss the environmental ramifications of human genetic engineering.)

2001 The **IPCC** releases a new report citing “new and stronger evidence that most of the observed warming of the last 50 years is attributable to human activities.” The new study projects that at current rates, **temperatures will increase by 1.4 to 5.8 degrees C by 2100.**



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