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earth 2000 day™

The Consumer Clearinghouse for the Environmental Decade

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Inside

Countdown 2000

Nine years ago, leading environmentalists created a set of ambitious "green" goals for healing our planet. With the deadline of Earth Day 2000 looming, it's becoming increasingly clear that we won't meet those goals.

Sadly, despite bright spots of environmental innovation—including zero-emission cars, expanded recycling programs, a decline in nuclear power in the United States—our planet is a less habitable place than it was in 1990.

Due to governmental indifference and corporate greed, as many as 1.4 billion urban residents breathe unhealthy air. Only a fraction of the Earth's original forests remain standing, and even fewer are protected from future destruction. 60% of the world's most important fish stocks are in danger of being overfished.

As we count down to Earth Day 2000, we face a critical milestone: either we stand by and watch the environment degrade before our eyes, or we recommit ourselves to fighting to save our planet.

You can bet that those of us who care about the environment won't be giving up anytime soon.

This Earth Day, environmentalists will press timber companies to stop logging old-growth forests, corporate polluters to reduce their use of toxic chemicals, governments to expand support for renewable energy programs and recycling, and countless other reforms to improve life for ourselves and for future generations.

Throughout the coming year, Earth Day 2000 will also continue with our mission: to help you make choices in your everyday life that protect the environment.

The 1990s might not have been the "green" decade that many of us had envisioned nine years ago. But with your help, Earth Day 2000 will be a milestone of which we can all be proud.

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What's happening on
FOOD PRODUCTION

➔ Each year, American food marketers throw out about 43 billion kilograms of food — 27% of all food available for consumption in the U.S.— because it is cosmetically "unacceptable."

➔ The Food and Agriculture Organization of the U.N. says 60% of the world's most important fish stocks are in "urgent need of management" to rehabilitate them or keep them from being overfished, according to the World Resources Institute.

earth 2000 day

Earth Day 2000 is a non-profit, non-partisan organization that seeks to sustain and strengthen the spirit of Earth Day during the Environmental Decade of the 1990s by helping people make choices in their everyday lives that protect the environment. Our aim: a cleaner and healthier planet to celebrate on the 30th anniversary of Earth Day in the year 2000. Members receive the newsletter six times a year. For membership information, call us at **Earth Day 2000**.

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Correspondence: We are interested in your questions, comments and suggestions for future topics to be covered in **Earth Day 2000**. Please address all correspondence, as well as address changes, to: **Earth Day 2000**, 11965 Venice Blvd., Suite 408, Los Angeles, CA 90066. Or call (310) 397-5270 or e-mail <Earthday2000@juno.com>. On the Web, visit <www.earthdayresources.org>.

Meet basic human needs

GOAL—*Encourage dietary shifts to healthier foods that are lower on the food chain.*

PROGRESS—Despite recent bursts of interest in vegetarianism in the U.S., there is no indication that the planet is moving towards a healthier or less resource-intensive diet. And, as the Earth's population continues to rise (see below), our environment is being asked to support more mouths than ever.

Despite the fact that producing a single pound of beef requires 2,464 gallons of water (compared to 29 gallons of water for a pound of tomatoes or 139 gallons for a pound of bread), the world is dedicating more resources than ever to livestock production. From 1990 to 1997, per capita meat production grew 11%, from 32.5 kilograms to 36.1 kilograms.

According to the Worldwatch Institute, during the 1990s, the Chinese have diverted at least two-thirds of the country's grain to feed livestock in order to satisfy people's growing appetite for pork, poultry and eggs.

In Egypt, corn grown for animal feed has taken crop land from wheat, rice, sorghum and millet—all staple grains.

Meanwhile, Japan, with a population of just over 125 million people, consumed 10 million tons of seafood in 1996. If China's 1.2 billion people followed Japan's lead, they would eat 100 million tons of seafood—slightly more than the entire oceanic fish catch, according to the Worldwatch Institute's "State of the World."

GOAL—*Provide family planning information and contraceptives to every woman in the world who wants them and stabilize the world population at no more than 8 billion people.*

PROGRESS—The world's population continues to climb, with some experts estimating the earth will be packed with 9.4 billion people by 2050. As of Feb. 14, 1999, the head count totalled nearly 6 billion.

But even as the total number of people on Earth grows, the rate of growth is slowing—thanks to the concerted education efforts of governments and independent family planning organizations.

Thailand's family planning efforts have slowed population growth from 3% a year in 1960 to 1% a year in 1997, the same growth rate as the United States. In Mexico, family planning programs helped lower the national child bearing rate from seven children per woman to three.

We're still far from stabilizing the world's population. The Worldwatch Institute reports that United Nations member countries are far behind schedule for their goal of making family planning information universally available by 2015.

After 1994's International Conference on Population and Development in Cairo, Egypt, the U.N. announced a $17 billion per year plan to encourage family planning. As of 1995, only $2 billion had actually been committed to the international effort.

Protect the planet's atmosphere

GOAL—*Improve urban air quality in the world's major cities by reducing all automobile pollutants by at least 50% by 1995. Improve future health through investments in urban planning, public transportation and alternative fuel vehicles.*

PROGRESS—Slowly but surely, improvements in vehicle and gasoline technologies are cleaning up auto emissions in the U.S. According to the EPA, emissions of carbon monoxide are down by 37%, sulfur dioxide by 26%, and ozone and nitrogen dioxide by 12%.

More mass transit vehicles are on the road in the U.S.—including more buses, trolleys, trains and light rail—but we haven't yet significantly reduced our reliance on the automobile, according to the American Public Transit System.

Meanwhile, California remains a clean car pioneer, pushing gasoline manufacturers and automakers to formulate cleaner gasoline and to build increasingly cleaner cars and trucks. With one-third of the state's smog attributed to pollution from cars and trucks, California officials are working toward a goal of 10% of all new cars sold in the state having *zero* emissions by 2003.

As of two years ago, about 40% of new cars sold in California were already qualifying as low-emission vehicles, emitting 50% less nitrogen dioxide than cars in the rest of the country, according to the California Air Resources Board.

Unfortunately, most of the rest of the world has done little to reduce vehicle air pollution. According to the World Resources Institute, motor vehicles worldwide emit well over 900 million metric tons of carbon dioxide each year—an incredible 15% of *all* fossil fuel-related carbon dioxide emissions.

Without outside pressure, automakers have little motivation to roll out cleaner technologies. Russia is just now introducing catalytic converters, a pioneering anti-pollution device. General Motors has said it doesn't plan to install catalytic converters in cars it sells in China.

Unfortunately, one zero-emission mode of transportation—the bicycle—has been in a slump. According to Worldwatch, global bicycle production decreased by 7% between 1995 and 1996.

What does all this mean for air quality in our cities? The World Health Organization estimates that as many as 1.4 billion urban residents around the globe are now breathing unhealthy air.

Electric Transit Vehicle Institute; NREL/PIX

Chattanooga, Tennessee has the largest fleet of electric buses in the world.

Ensure healthy water

GOAL—*Reduce per capita residential water use by 30%*

PROGRESS—While information on residential water use is difficult to obtain, the use of water for public supply purposes—includingall non-agricultural and non-industrial uses—has remained steady at about 154 gallons per person per day.

According to the American Waterworks Association, water use in a typical, single-family home varies considerably. Without conservation, a typical home might use 20% of that water for washing clothes, 18% showering and 20% flushing toilets. Simply switching to low-flow toilets, showerheads and faucets, the average home could reduce its water use by 30%.

When communities make an effort to conserve water, they usually succeed. In Goleta, California, residents reduced water usage by a remarkable 50% thanks to an aggressive, community-wide effort during a serious drought. Unfortunately, too few communities are making serious efforts to reduce water consumption.

And, as populations grow, there's less and less water to go around. Around the globe, water consumption rose six-fold between 1990 and 1995—more than double the rate of population growth, according to the World Resources Institute. A 1997 U.N. assessment of fresh water resources found that one-third of the world's population lives in countries experiencing moderate to high water stress.

Promote international cooperation

GOAL—*By 1996, reduce world military expenditures by 50%, to approximately $500 billion per year.*

PROGRESS—Military expenditures have decreased since 1990, but not as radically as outlined in these goals.

According to the best estimates available, global military spending dropped to approximately $700 billion by 1996. However, this number probably underestimates actual spending, because many countries perennially under-report military spending.

Regardless, the U.S. continues to be the biggest military spender on Earth, contributing over 35% to the globe's military expenditures in 1997.

While total spending is down, the fact remains that the military continues to contaminate air, land and water with nuclear waste and other toxic chemicals.

GOAL—*By 1992, convert the United Nations Environmental Programme into an international regulatory agency with the authority to safeguard the atmosphere, the oceans and other global commons from transboundary environmental threats.*

PROGRESS—There has been no progress towards establishing an international regulatory agency.

Instead, coming out of the 1992 Earth Summit in Rio de Janeiro, the United Nations Development Programme created the Global Environment Facility (GEF). Endowed with $2 billion, the GEF supports countries' efforts to combat key global environmental problems like global warming, loss of biodiversity, and pollution of international waters.

Yet, over the last decade, new trade agreements like the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trades (GATT) have undermined international environmental protections. Under both NAFTA and GATT, businesses can challenge national environmental policies as being barriers to trade. In one well-known example, the U.S.-based Ethyl Corporation, the company that put lead in leaded gasoline, invoked NAFTA to reverse a Canadian ban on a certain gasoline additive. The Canadian government had previously declared the additive a health hazard.

Enhance and protect biological diversity

GOAL—*Reforest 130 million hectares (52 million acres) per year by 2000.*

PROGRESS—The Food and Agricultural Organization estimates that only 20 million hectares *total* were reforested between 1980 and 1995, leaving us far short of meeting this goal by next year.

Not only is the rate of reforestation too slow, but the quality of these efforts has also been poor.

Meanwhile, logging in our old-growth forests continues. Experts disagree over exactly how fast forests are disappearing, but some analyses indicate that the destruction slowed slightly from 1990 to 1995, dropping from 15.5 million hectares annually to 13.7 million hectares. Unfortunately, this still means that 109 hectares of trees—the equivalent of roughly 43 football fields— are destroyed every minute.

Further confusing the matter, in an attempt to temper public criticism of its logging practices, the timber industry is now creating tree plantations specifically for harvesting wood. Unfortunately, these plantations do nothing to quell the world's appetite for wood products or to replace natural forest ecosystems.

Forest Council

Natural forest ecosystems provide habitat for diverse plant and animal species.

The World Resources Institute now estimates that just one-fifth of the Earth's original forests remain in "large, relatively natural ecosystems." That's bad news for the planet, which relies on such ecosystems for plant and animal species diversity. As reforestation efforts stall, environmentalists are focusing on protecting these remaining tracts of forest.

Create a safe, sustainable energy system

GOAL—*Increase renewable energy generation to 20% of total energy production by the year 2000.*

PROGRESS—While great strides are being made in renewable energy technologies, the U.S. still has yet to embrace renewable energy on a large scale.

Depending on whether you include hydroelectric and geothermal power (which have their own negative impacts) in the calculation, we rely on renewable energy sources for only 7% to 12% of our power.

The potential for renewable energy in the U.S. is great. According to the Worldwatch Institute, the Department of Energy estimates that harnessing wind in North Dakota, South Dakota and Texas could satisfy the entire country's electricity needs.

In fact, wind power has become the world's fastest growing energy source, increasing from 1,193 megawatts of capacity in 1990 to 9,600 megawatts of capacity in 1998, according to the Worldwatch Institute. Wind turbines currently in operation generate enough electricity for 3.5 million suburban homes. Unfortunately, wind power still provides less than 1% of the world's energy, with Germany, Denmark and Spain leading the world in wind energy production.

Solar power is the second fastest growing energy source worldwide. In Japan, government incentives have spurred strong demand for solar homes.

Unfortunately, solar power has yet to pick up momentum in the U.S. From 1990 to 1995, solar collector shipments, measured in thousands of square feet, dropped from 11,409 to 7,666. On the bright side, in 1997, President Clinton announced a U.S. campaign to install solar systems in one million homes by 2010.

A major hurdle blocking progress on renewable energy in the U.S. has been the lack of government support. Between 1973 and 1995, the U.S. government spent only 10% of its energy supply research and development budget on renewable energy. Clearly, that number will have to be increased if renewable energy is to gain a foothold in the United States.

Craig Miller Productions/DOE; NREL/PIX

Workers install solar panels on the roof of the Olympic aquatic center in Atlanta.

GOAL—*Commission no new nuclear power plants.*

PROGRESS—No nuclear power plants have been commissioned in the U.S. since the Three Mile Island accident in 1979. Worldwide, the feverish growth of nuclear power during the 1980s slowed, but did not stop, in the 1990s.

From 1990-1995, the number of operating reactors worldwide grew by 14%. This compares to 76% growth between 1980 and 1990. In North America, Western Europe and Japan, the growth of nuclear power has reached a standstill.

Unfortunately, the nuclear industry is using the threat of global warming to pitch nuclear power, which does not emit the carbon dioxide that's responsible for global warming. Environmentalists are fighting to ensure that one polluting power source (coal) is not replaced with another.

What's happening on RENEWABLE ENERGY

➔ Compared to old-fashioned incandescent lightbulbs, the 980 million compact fluorescent lightbulbs in use today save the same amount of electricity as is produced by about 100 average coal-fired power plants, according to the Worldwatch Institute. Incredibly, the 40 million halogen lamps in the U.S. consume more electricity than the compact fluorescents are saving.

➔ McDonalds Corporation plans to connect 40% of its restaurants in Sweden to renewable energy sources by the end of 1999.

Reduce waste and toxic pollution

GOAL—*Reduce solid waste by 75% by the year 2000 by establishing effective recycling and composting programs, enacting international design standards that ensure ease of recycling at the end of every product's lifetime, and banning all packaging that is not recyclable.*

PROGRESS—According to the Statistical Abstract put out by the U.S. Department of Commerce, solid waste generation grew by 5.5% between 1990-1995, so it will be impossible to meet this goal by the year 2000.

Per capita waste generation has actually gone down, slightly, from 4.5 pounds per day to 4.3 pounds per day. Waste recovery and recycling grew almost 66% during this time, with 27% of all waste now recovered, compared to just 17% in 1990.

While it's apparent that Americans' efforts to recycle are making a difference, recycling does have its limits. For example, between 1975 and 1995 the volume of recovered paper has more than doubled. The rate of recovery around the world varies between 38% and 41%, with Germany reaching a rate of over 65%.

However, these gains in recycling have been overwhelmed by a dramatic increase in worldwide consumption of paper and paperboard, according to the Worldwatch Institute.

Composting has also made significant gains in recent years. The number of municipal solid waste composting facilities have increased from 7 to 21 between 1989 and 1993. Between 1988 and 1992, the number of yard waste composting facilities increased from 651 to 2,891.

Some progress is also being made in product design. In the United States, Green Seal, the national eco-labeling organization, has certified approximately 300 environmentally preferable products since its founding. The Global EcoLabelling Network, founded in 1994 to support similar work around the globe, has 21 members including Spain, the United States, Norway and Taiwan. However, there remains no international standard for product recycling.

David Humber, NREL/PIX

Recycling plastics from waste carpets like these helps to keep the material out of landfills.

One standout success is Germany. In 1996, 80% of all packaging in Germany was recycled, primarily as a result of a 1991 law that phased in recycling for packaging materials. German industry uses a green dot on products to indicate that collection and recycling costs are included in the cost of the product.

GOAL—*Clean up all existing toxic, hazardous and nuclear waste sites to acceptable levels of safety.*

PROGRESS—Of the 1,300 Superfund sites considered to pose the highest risk to human health, EPA has implemented cleanup activities at 95% and completed clean-up construction at 27% of these sites. More than 141,000 cleanups of underground storage tanks have been completed since 1990.

What's happening on WASTE REDUCTION

➔ As a result of a lawsuit brought by 39 environmental and peace organizations, the U.S. Department of Energy has agreed to provide $6.25 million in assistance to communities affected by the DoE's program to clean up contamination from nuclear weapons production.

➔ A Yale School of Forestry and Environmental Studies study documents how the New York metro area could save about $100 per ton of solid waste through aggressive waste reduction and recycling efforts.

➔ Middlebury College in Vermont reports annual savings of $25,000 through composting of food scraps.

Global Goals for the Green Decade

Proclaimed on Earth Day 1990, these goals address the most critical environmental issues facing global society in the last decade of the 20th century. Our quality of life, and quite possibly our survival, depend on attaining them. (The ♟ symbol indicates goals that are discussed in this year's Countdown 2000 report)

Protect the planet's atmosphere

Ban all emissions of CFCs and other major ozone-depleting chemicals by 1994 and halt all production of such chemicals before 2000.

Combat acid rain by reducing sulfur dioxide emissions by 90% and nitrogen oxides by 75% by the year 2000.

Curtail carbon dioxide production from the combustion of fossil fuels by 20% by the year 2000. By 2020, worldwide carbon emissions from fossil fuels should be reduced to two billion tons per year (down from 5.66 billion tons in 1988).

♟ Improve urban air quality in the world's major cities by reducing all automobile pollutants by ay least 50% by 1995. Improve future health through investments in urban planning, public transportation and alternative fuel vehicles.

Ensure healthy water

Outlaw all dumping of untreated industrial and medical wastes in surface streams, lakes and oceans.

Design all future sewage treatment facilities to segregate human sewage from industrial discharges, returning the former to the land and recycling the latter.

♟ Reduce per capita residential water use by 30%.

Meet basic human needs

Promote low input sustainable agriculture, with crops grown as close as possible to markets. Reduce global pesticide use by 75%. Emphasize low-tillage crops to reduce soil erosion.

♟ Encourage dietary shifts to healthier foods that are lower on the food chain.

♟ Provide family planning information and contraceptives to every woman in the world who wants them and stabilize the world population at no more than 8 billion people.

Promote international cooperation

♟ By 1996, reduce world military expenditures by 50%, to approximately $500 billion per year.

♟ By 1992, convert the United Nations Environmental Programme into an international regulatory agency with the necessary authority to safeguard the atmosphere, the oceans and other global commons from transboundary environmental threats.

Enhance and protect biological diversity

Triple the world's parkland and ecological preserves.

Ban all logging in ancient forests and provide the greatest possible protection for the world's remaining rainforests.

♟ Reforest 130 hectares (52 million acres) by the year 2000.

Restructure international lending policies to relieve the current pressure put on many developing countries to destroy global environmental treasures to service their debt. Link all future development assistance, including aid to Eastern Europe, to criteria ensuring sustainable development.

♟ Establish an International Fund for the Conservation of Biological Diversity, following the model developed by the International Union for the Conservation of Nature (IUCN).

Create a safe, sustainable energy system

Reduce per capita residential consumption by 30%, industrial energy use by 40% by the year 2000.

♟ Increase renewable energy generation to 20% of the total energy generated by 2000.

Increase the global research and development budget for hydrogen and other solar fuels 50-fold over the next 10 years.

♟ Commission no new nuclear power plants.

Reduce waste and toxic pollution

♟ Reduce solid waste by 75% by the year 2000 by establishing effective recycling and composting programs, enacting international design standards that ensure ease of recycling at the end of every product's lifetime, and banning all packaging that is not recyclable.

Eliminate 80% of hazardous waste production by the year 2000 through comprehensive source reduction programs.

♟ Clean up all existing toxic, hazardous and nuclear waste sites to acceptable levels of safety.

Environmental resources

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www.earthdayresources.org
Provides advice and materials to educators, activists and others interested in grassroots environmental programming.

Council on Environmental Quality
Washington, DC 20503
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