

What

Now?

Our feverish planet badly needs a cure.

Climate change is caused by a lot of things, and it will take a lot of people to fix it. There's a role for big thinkers, power players, those with deep pockets—and the rest of us

BY JEFFREY KLUGER

□ GLOBAL WARMING

IT WAS PROBABLY ALWAYS TOO MUCH TO believe that human beings would be responsible stewards of the planet. We may be the smartest of all the animals, endowed with exponentially greater powers of insight and abstraction, but we're animals all the same. That means that we can also be shortsighted and brutish, hungry for food, resources, land—and heedless of the mess we leave behind trying to get them.

And make a mess we have. If droughts and wildfires, floods and crop failures, collapsing climate-sensitive species and the images of drowning polar bears didn't quiet most of the remaining global-warming doubters, the hurricane-driven destruction of New Orleans did. Dismissing a scientist's temperature chart is one thing. Dismissing the death of a major American city is something else entirely. What's more, the heat is only continuing to rise. This past year was the hottest on record in the U.S. The deceptively normal average temperature this winter masked record-breaking highs in December and record-breaking lows in February. That's the sign not of a planet keeping an even strain but of one thrashing through the alternating chills and night sweats of a serious illness.

The U.N.'s Intergovernmental Panel on Climate Change issued a report on the state of planetary warming in February that was surprising only in its utter lack of hedging. "Warming of the climate system is unequivocal," the report stated. What's more, there is "very high confidence" that human activities since 1750 have played a significant role by overloading the atmosphere with carbon dioxide hence retaining solar heat that would otherwise radiate away. The report concludes that while the long-term solution is to reduce the levels of CO₂ in the atmosphere, for now we're going to have to dig in and prepare, building better levees, moving to higher ground, abandoning vulnerable floodplains altogether. When former Vice President Al Gore made his triumphant return to Capitol Hill on March 21 to testify before Congress on climate change, he issued an uncompromising warning: "We do not have time to play around with this."

Some lingering critics still found wiggle room in the U.N. panel's findings. "I think there is a healthy debate ongoing, even though the scientists who are in favor of doing something on greenhouse gases are in the majority," says Republican Congressman James Sensenbrenner of Wisconsin.

But when your last good position is to debate the difference between certain and extra certain, you're playing a losing hand. "The science," says Christine Todd Whitman, former administrator of the Environmental Protection Agency (epa), "now is getting to the point where it's pretty hard to deny." Indeed it is. Atmospheric levels of CO₂ were 379 parts per million (p.p.m.) in 2005, higher than at any time in the past 650,000 years. Of the 12 warmest years on record, 11 occurred between 1995 and 2006.

So if the diagnosis is in, what's the cure? A crisis of this magnitude clearly calls for action that is both bottom-up and top-down. Though there is some debate about how much difference individuals can make, there is little question that the most powerful players—government and industry—have to take the lead.

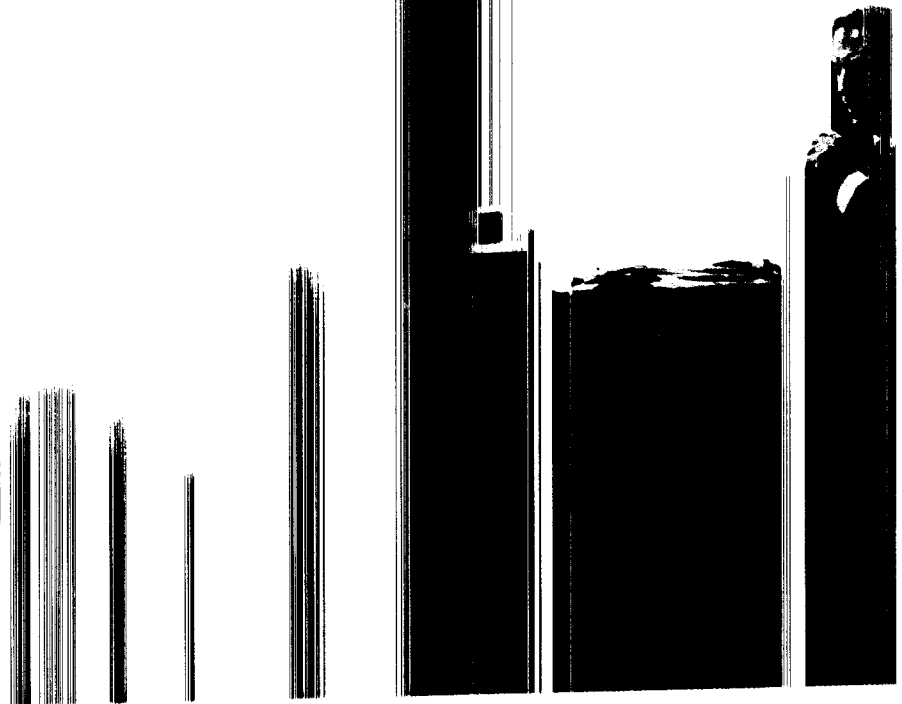
Still, individuals too can move the carbon needle, but how much and how fast? Different green strategies, after all, yield different results. (See "51 Things We Can Do," page 69.) You can choose a hybrid vehicle, but simply tuning up your car and properly inflating the tires will help too. Buying

carbon offsets can reduce the impact of your cross-continental travel, provided you can ensure where your money's really going. Planting trees is great, but in some parts of the world, the light-absorbing color of the leaves causes them to retain heat and paradoxically increases warming.

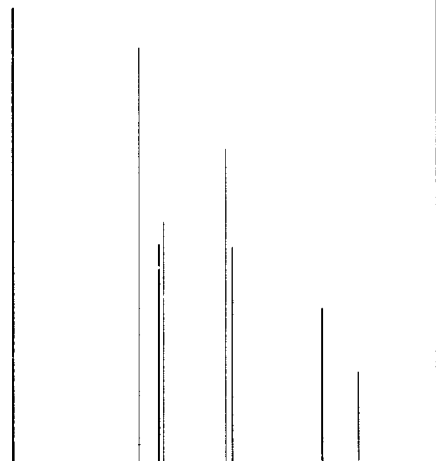
Even the most effective individual action, however, is not enough. Cleaning up the wreckage left by our 250-year industrial bacchanal will require fundamental changes in a society hooked on its fossil fuels. Beneath the grass-roots action, larger tectonic plates are shifting. Science is attacking the problem more aggressively than ever. So is industry. So are architects and lawmakers and urban planners. The world is awakened to the problem in a way it never has been before. Says Carol Browner, onetime administrator of the EPA: "It's a sea change from where we were on this issue." Here are the ways that sea is shifting the most:

The Scientists' Solutions

IF THE EARTH IS CHOKING ON GREENHOUSE gases, it's not hard to see why. Global carbon dioxide output last year approached a stag-



Mitigation. The first line of attack in battling global warming, mitigation. Wind, solar and nuclear energy are mitigation strategies for generating



gering 32 billion tons, with about 25% of that coming from the U.S. Turning off the carbon spigot is the first step, and many of the solutions are familiar: windmills, solar panels, nuclear plants. All three technologies are part of the energy mix, although each has its issues, including noise from windmills and radioactive waste from nukes.

Biofuels, however, are the real growth science, particularly after President George W. Bush, in his State of the Union address, called for the U.S. to quintuple its production of biofuels, primarily ethanol. That was good news to American corn farmers, who produce the crop from which the overwhelming share of domestic ethanol is made. But the manufacture of corn ethanol is still inefficient: the process burns up almost as much energy as it produces.

A better answer is sugarcane ethanol, which yields eight times the energy it takes to make and provides 40% of all the fuel sold in Brazil. But such ethanol causes environmental problems of its own, as forests are cleared for cane fields. Better still would be to process ethanol from agricultural waste like wood chips or the humble summer grass

called switchgrass. The cellulosic ethanol they produce packs more energy than corn ethanol, but it also takes more energy to manufacture. "If you make ethanol by burning coal, you defeat the purpose," says Sarah Hessenflow Harper, an analyst for the advocacy group Environmental Defense.

Until we can dial down the carbon, a more immediate strategy might be to find somewhere to put it all—to sequester it underground. In the same way we store radioactive waste from nuclear reactors, so too could we collect the gaseous CO₂ from power plants.

The earth is full of safe, stable places to store gases we don't want, and scientists know precisely where they are. The natural gas that heats homes, fires stoves and runs factories is found in deep, saline-rich limestone and sandstone cavities, where spongelike pores store gas and help keep it from leaking away. When the energy industry pumps a deposit clean, the chambers stand empty. Not only are the shape and capacity of the cavities mapped, but also in many cases equipment is still on hand that could easily be repurposed from extraction to injection.

The U.S. Department of Energy is fund-

ing seven research partnerships to test sequestration technologies. This summer, one of those projects will inject a modest 2,000 metric tons of CO₂ into the sandstone subsurface beneath a spread of tomato fields near Thornton, Calif., where it would stay, in effect, forever.

Would that be safe? Carbon dioxide can be lethal, a fact grimly illustrated in 1986 when a giant surge of the stuff bubbled up from Lake Nyos in Cameroon, asphyxiating 1,700 people as they slept. Nonetheless, investigators involved in the Thornton project insist there is little cause for worry. "The fields held oil and gas for millennia," says Larry Myer, an earth scientist with Lawrence Berkeley National Laboratory in Berkeley, Calif., and the project's director, "so geologically we know they're going to hold CO₂."

Even if researchers master the mechanics of sequestration, they must still develop a way to separate CO₂ from power-plant exhaust so that there will be something to stash in the cavities in the first place. There are two promising methods. One is to gasify coal before it's burned, reducing it to a high-pressure synthetic gas that can be stripped of its car-

FROM LEFT: DAVID BURNETT—CONTACT FOR TIME; STEVE COLE—GETTY

is the business of preventing excess carbon dioxide from being released. power. Biofuels and hybrids are mitigators for cars and trucks

□ GLOBALWARMING

bon, leaving mostly hydrogen behind. The alternative is to pulverize coal as power-plant operators do now but then rely on new hardware to separate the CO₂ after burning. Both methods are at least 20 years away from being fully developed, predicts Ernest Moniz, co-director of the M.I.T. Laboratory for Energy and the Environment and a former Under Secretary of the Department of Energy. "We're very early in the process," he says.

Building a Better Skyscraper

IF YOU WANT TO SEE WHAT THE FUTURE OF architecture looks like, take a look at the new federal building in San Francisco, but don't look too long. If you're like a lot of folks, you won't much care for it. The glinting, 18-story steel tower jangles badly against the gentle skyline of San Francisco, but it's beautiful on the inside. There's the absence of conventional heating and air conditioning in 70% of the floor space. There's the natural light that fills the workspace during much of the day. There are the windows that actually open and close, and the awninglike fins that filter out heat and glare.

It's easy to overlook how important a building like this one could be. While the power and auto industries get the bulk of the blame for the planet's carbon crisis, the business of operating office buildings and homes is responsible for 38% of U.S. CO₂ emissions. In the case of offices, mid-20th century technology worked against us, as the development of low-temperature fluorescent lights and high-powered air conditioning made it possible to design sealed structures that you could drop into any climate. "It gave architects the power to design anything, then hand it over to engineers and say, 'Here, you heat and cool it,'" says Gail Brager of the Center for the Built Environment at the University of California, Berkeley.

The new federal building, by contrast, sits lightly on its site and does so using technology that is available. Computer-operated floor vents open and close automatically in response to temperature sensors; interior walls and cubicle partitions are kept to a minimum to increase circulation; automated panels that filter out glare also help air move around the building, creating what the designers call a circulation engine. "Buildings can use passive as well as active energy," says architect Thom Mayne of the firm Morphosis, which designed the building.

Certainly, if you're going to design a green building, it's smart to do it in San Francisco, where the generally mild weather

makes it easier to let your surroundings set your temperature. But what about a place like New York City, with its 100°F summers and 10° winters? Bank of America is currently tackling that challenge, with a 945-ft. tower in the heart of Manhattan that will use both wind energy and recirculated heat to generate some of its own power. Higher ceilings and insulating glass will reduce temperature changes and maximize available sunlight. The basement will even be equipped with a thermal-control system that will manufacture ice in the evenings,

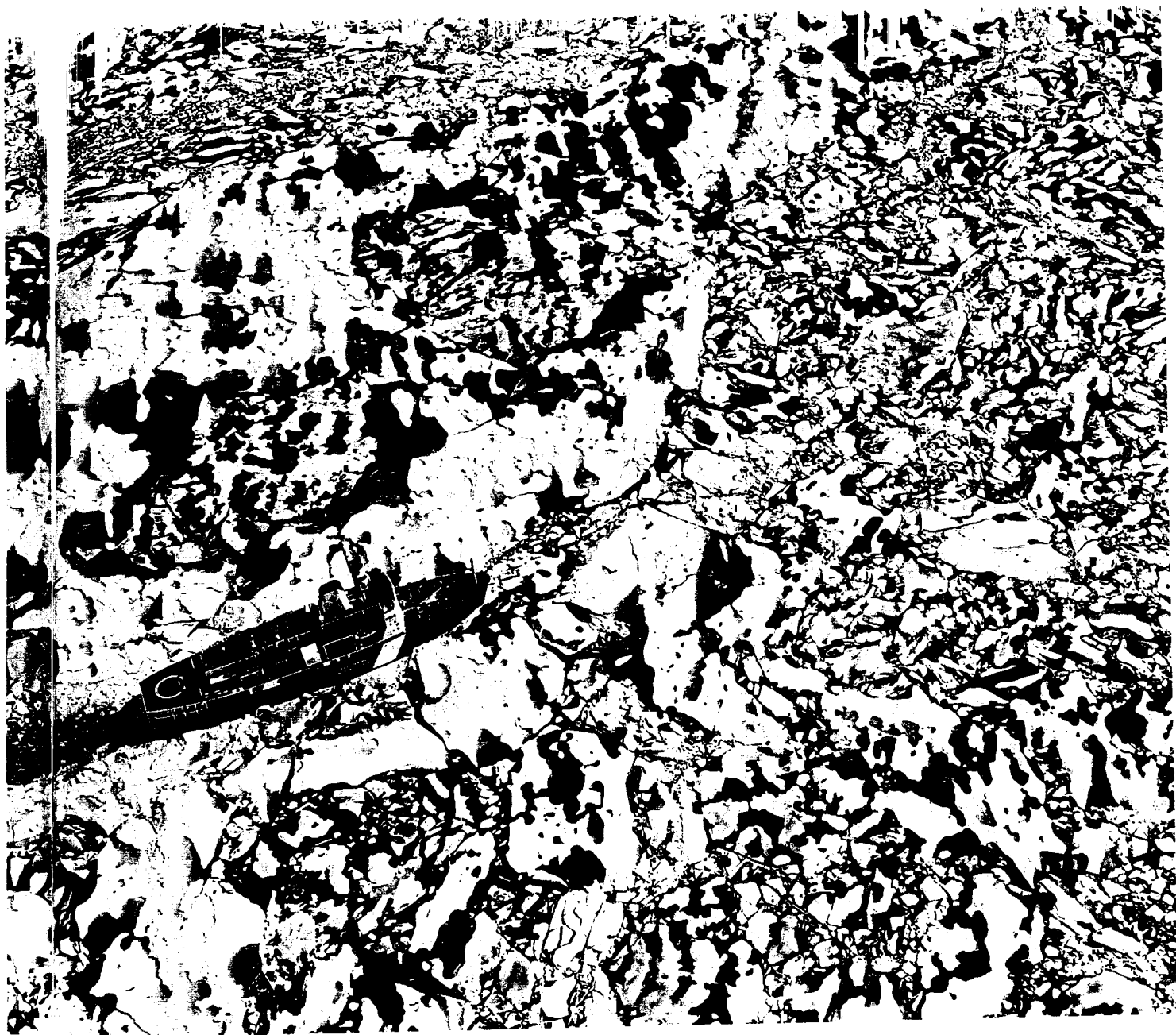
when energy demands are lowest, and use it to cool the building during the day, when power plants are running at peak capacity.

The Pearl River Tower, under construction in Guangzhou, China, is aiming for a net energy footprint of zero by relying on such features as on-site wind turbines and recovery and recycling of condensed water. In Paris, a new tower will rely on wind turbines to provide its heating and cooling for the equivalent of five months of the year. And if you're a corporation planning a skyscraper, don't assume you can't afford to go green.

REPORT ADRIAN-J. POLANSKI



Adaptation. Warming will get worse before it gets better, and for now we vulnerable, so better levees and coastal defense are part of the adaptive



The new buildings typically cost about 5% more to construct than conventional ones but quickly exceed that outlay in energy savings. "I think what we're doing now will be commonplace in five years," Mayne says.

The Green Company

WHEN A BUSINESS WITH MORE THAN 7,000 stores, 1.8 million employees and \$345 billion in sales changes its ways, it's hard not to notice. Wal-Mart has made itself the darling of greens with its pledge to install solar panels on many of its stores, switch to hybrid

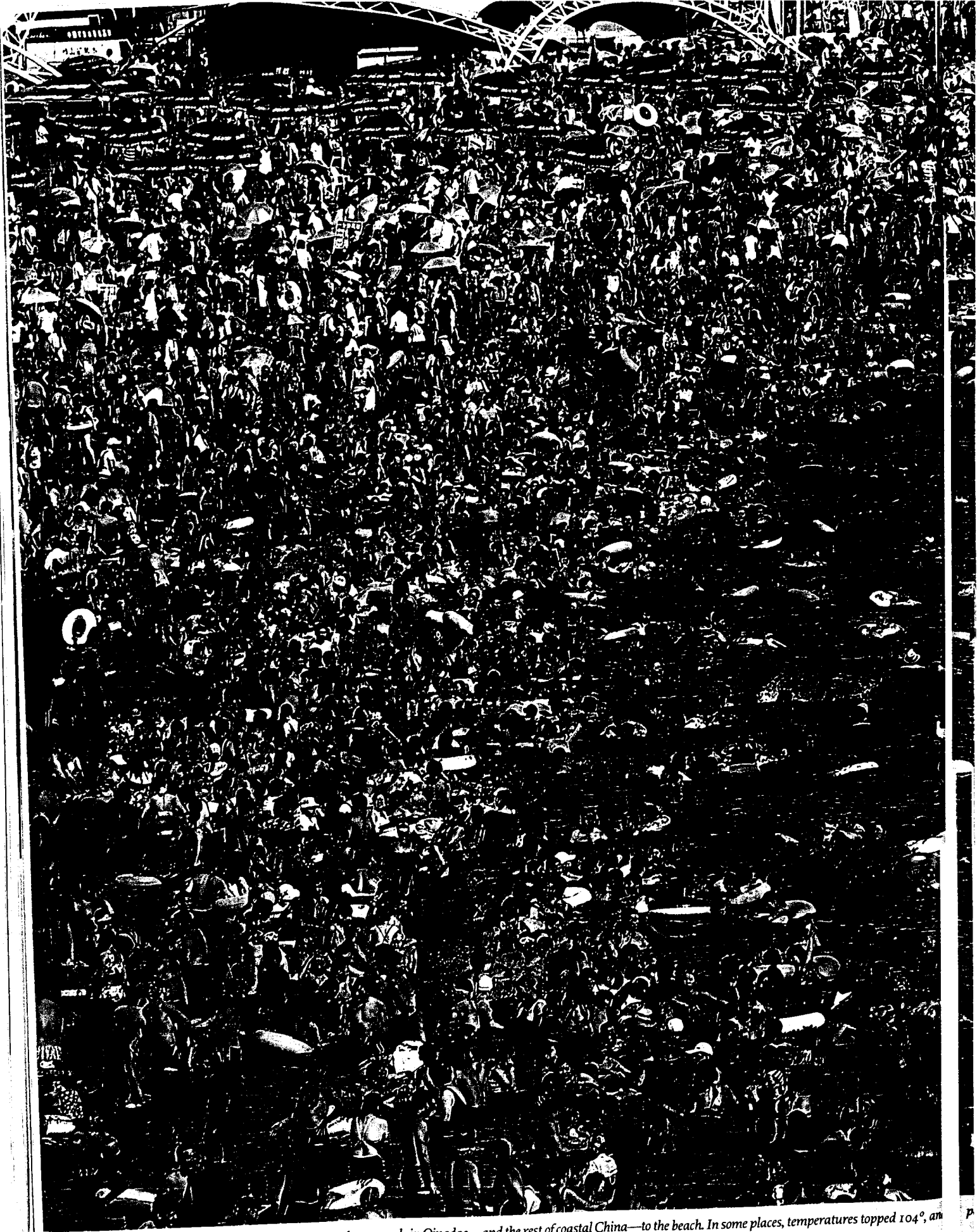
vehicles, conserve water and even buy wild-caught salmon. More important, its mandates are having an incalculable ripple effect through its 60,000 suppliers, which are being asked to join Wal-Mart's effort to reduce packaging, waste and energy use. And when Wal-Mart asks, there's little question what the answer will be.

But Wal-Mart is not alone. In January the U.S. Climate Action Partnership, a group that includes some of the biggest corporate players and energy users in the world—Alcoa, BP America, Duke Energy, General

Early thaw An icebreaker had it easy last year as the Arctic Ocean began its annual melt prematurely. Scientists were onboard to study the change

Electric, Lehman Brothers, Caterpillar and PG&E—asked the Federal Government to act aggressively on climate change, not least by imposing legal limits on the amount of industrial carbon dioxide emissions. The corporations know there's a virtue in going green, but they're also looking for some regulatory certainty before they make massive investments. What's more,

need to adapt to survive. Floodplains and coastal cities are especially strategy. Some low-lying areas may have to be abandoned altogether



Seeking relief The dry, blistering summer of 2006 drove people in Qingdao—and the rest of coastal China—to the beach. In some places, temperatures topped 104°, and

GLOBALWARMING

there's money to be made in the enviro game.

Take General Electric. Its Ecomagination initiative centers on a line of 45 green products, including wind turbines and next-generation jet engines that go easy on the earth but land nicely on the balance sheet. Chairman and CEO Jeffrey Immelt set a goal of generating more than \$20 billion in revenue from Ecomagination by 2010, and by 2006 the company had hit the \$12 billion mark.

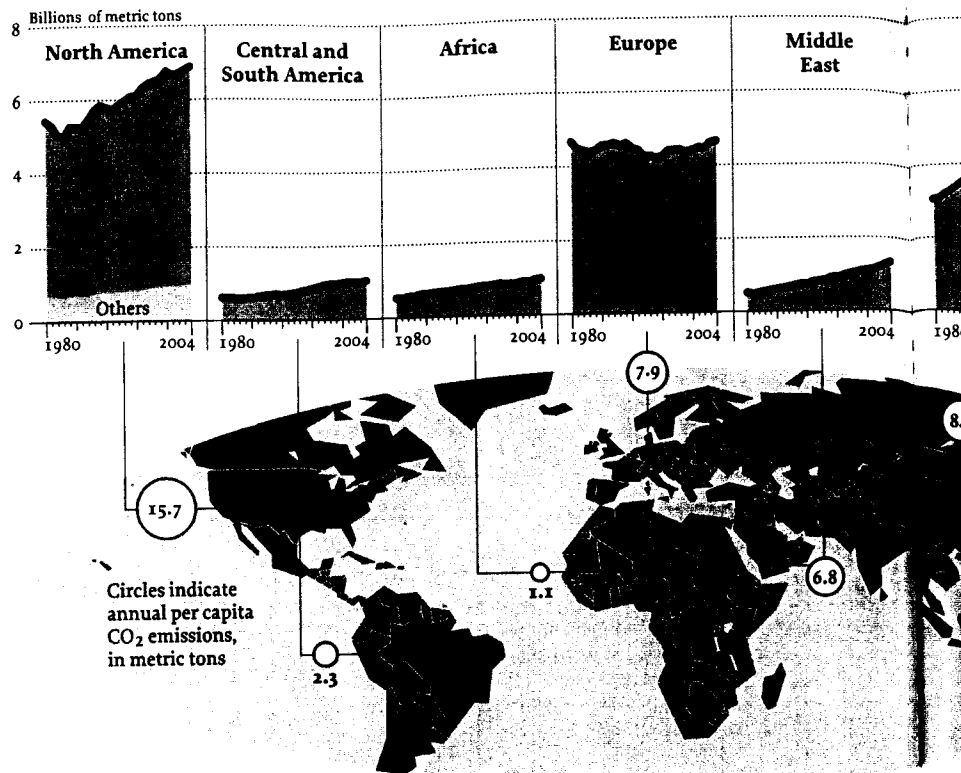
DuPont, which suffered twin hits to both revenue and reputation in the late 1980s and early 1990s, when it had to phase out its production of ozone-destroying chlorofluorocarbons, has made a similar environmental pledge. It sold its Dacron, Lycra and Nylon division—all fossil-fuel-based fabrics—and is concentrating on bio-based materials like Sorona polymer made from starch found in the kernels of corn. DuPont hopes to more than double its revenue from nondepletable resources, to \$8 billion by 2015. The company has also cut its greenhouse-gas emissions 72% since 1990 and is aiming for more. That puts DuPont in position to respond nimbly if Washington eventually acts to cap carbon. "We learned that we have to be ahead of legislation," says Linda Fisher, DuPont's chief sustainability officer, a title of growing significance in corporate America. "That is truer today than it was 20 years ago."

Not surprisingly, some companies talk a green game but don't really play one. Ford Motor Co. made a big show of performing a \$2 billion environmental overhaul of its River Rouge factory in Dearborn, Mich., but still turns out suvs like the elephantine Expedition, which gets a puny 14 m.p.g. in city driving. Toyota, famous for its hybrid Prius, has nonetheless joined the U.S. Big Three in lobbying Washington against stricter fuel standards.

This kind of environmental posing—greenwashing is the term of art—will not be a viable business strategy in a world transformed by climate change. The smart money is betting on the need for real innovation—clean technology that lowers costs or improves output. Venture capital is increasingly flowing to green start-ups: \$474 million in the first three quarters of 2006 in Silicon Valley alone. That's sparking the interest of everyday investors, who see green technology as—dare they wish it?—the next Internet. Says Ray Lane, a partner at the KPCB venture-capital firm: "If you consider the sheer scale of the problem, I think this is an order of magnitude bigger."

A World of Trouble

Total carbon dioxide emissions from the burning of fossil fuels, by region



SOURCES OF CO₂ EMISSIONS IN THE U.S.



Change on the Hill

JUBILANT DEMOCRATS CROWD ABOUT big changes to come when they won majorities in the House and Senate last November, and the arena in which they can make the greatest change—at least domestically—is the environment. Part of the reason is the people who will wield the new power.

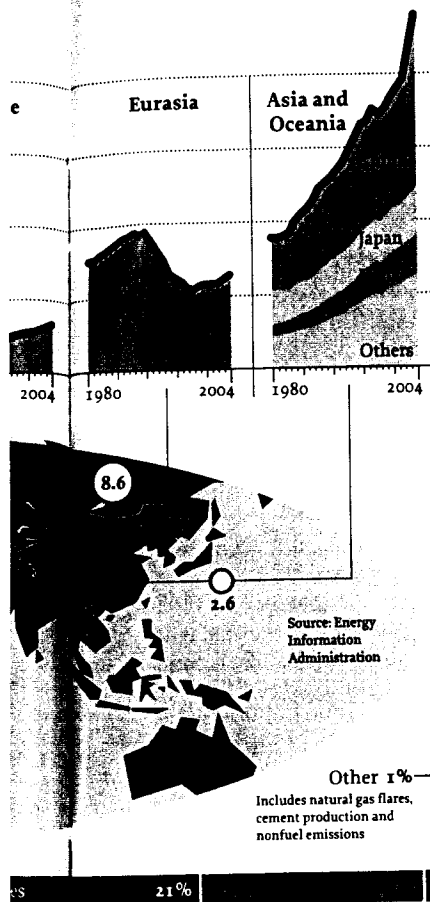
The Jurassic James Inhofe, the Oklahoma Republican who has referred to global warming as the "greatest hoax ever perpetrated on the American people," has been replaced as chair of the Senate Committee on Environment and Public Works. In his four years in the post, Inhofe held a total of five hearings on climate change, and the star witness was a science-fiction fabulist: Michael Crichton, a critic of warming theory. Now holding the gavel is California's Barbara Boxer, who has had five hearings on climate change in less than three months. While more hearings are a certainty, she must also help field a flock of

green bills being offered by newly empowered Democratic members.

Michigan Democrat John Dingell will be a key player in the debate about lowering carbon dioxide emissions—not just on cars, but economy-wide. The new chairman of the House Committee on Energy and Commerce, Dingell comes from a state congenitally opposed to any measure that could pinch the auto industry. Democrats hope to spin that in their favor, arguing that any climate-change legislation that gets through his committee will have the legitimacy of having cleared a high bar.

The true measure of success for the party will be whether Congress finally passes a law to limit greenhouse emissions. That effort began in earnest in 2003, when Senators John McCain and Joe Lieberman sponsored a bill that would set limits on industrial greenhouse gases and let companies that do better than required sell pollution credits to those that fail to meet targets. One credit

Greenwashing. The practice of making environmental promises favoring corporations such as automakers that tout new hybrids but still peddle



Smokestack nation China's booming economy is underwriting coal-fired power plants at the startling rate of one per week. In coal-rich Shanxi province, a miner carries a sack home as Deng, Mao and Jiang look down from the mine gate

worth of extra pollution from a dirty company is offset by one credit worth of extra cleanliness from a more environmentally conscious company, and the clean company is paid for its effort too. This is just the kind of strategy that was implemented in 1990 to curb sulfur dioxide—the leading cause of acid rain—and has resulted in a 35% reduction of the pollutant since.

McCain and Lieberman's bill was soundly defeated that year and in 2005 suffered an even worse Senate smackdown, 60 to 38. With a new Congress in place, McCain and Lieberman will try again. This time they will face competition from Senators Jeff Bingaman and Arlen Specter, whose version would set higher caps and more gradual reductions. "The McCain-Lieberman proposal was very credible," Bingaman says. "[But] this draft has more prospect of actually being adopted." Yet another cap-and-trade bill will probably come out of Boxer's committee, and more

bills still will be considered in the House of Representatives.

What all the measures have in common is that they will ultimately have to find their way to hostile territory—Bush's desk. Still, Bush 2007 is not Bush 2004, and the embattled President may decide that vetoing a piece of broadly popular legislation is not a fight worth picking now, especially since corporations see value in it. Kristin Hellmer, a spokeswoman for the White House Council on Environmental Quality, will not rule out the President's signing onto cap-and-trade or any other green bill. "It's a bit premature to have that conversation," she says.

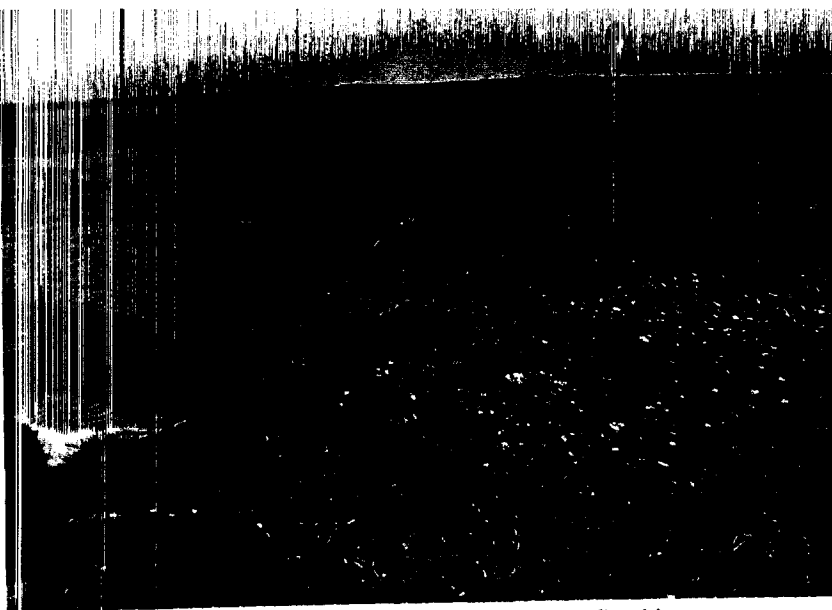
States and cities aren't waiting for Congress to act. California Governor Arnold Schwarzenegger committed the state to a 25% reduction in greenhouse gases by 2020; he was promptly sued by carmakers that would have to increase fuel efficiency to sell there. If California prevails, the size of its market could turn its regulations into

a de facto national standard. While no other states have passed limits as strict as California's, about one-third of the U.S. population lives in areas where there are automotive-carbon limits in place or under consideration, with curbs in place in 11 states so far.

States are also joining hands to curb emissions from power plants—the coal burned in Pennsylvania, after all, doesn't pause at the New Jersey state line. In 2003 then Governor George Pataki of New York launched the Regional Greenhouse Gas Initiative, a confederation of northeastern and mid-Atlantic states that has created its own cap-and-trade program, with the goal of reducing emissions 10% below the current level by 2019. Nine states are part of the group, with Maryland set to join in June. In February five Western

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For more carbon-cutting ideas, and an interactive map of an eco-friendly home, visit time.com

hype over substance, a disparaging term usually applied to gas-guzzling suvs and lobby against increased-mileage requirements



Paradox A kangaroo lies dead, victim of a five-year drought in Australia. Rising temperatures are creating havoc with the earth's weather, bringing too much rain to some, not enough to others



Seeking shelter The streets of Jakarta vanished underwater after torrential rain displaced 190,000 people in February. Bigger storms make the world's floodplains even more vulnerable

states embraced a similarly ambitious goal. At the local level, Mayor Greg Nickels of Seattle, who was incensed after the Senate walked away from the international Kyoto global-warming accords, began what has become a nationwide movement to bring U.S. cities into compliance. As of last month, 431 mayors representing more than 61 million Americans had signed on, imposing higher parking taxes, buying hybrid vehicles for the municipal fleet, helping local businesses audit their energy use and even converting traffic lights from incandescents to LEDs, which are 90% more efficient. Says Nickels: "I think this sends a message that there is intelligent life in America."

The Twin Elephants

NO MATTER HOW AGGRESSIVELY THE U.S. tackles its carbon problem, the global outlook hinges on the coal-fired economies of the world's two looming giants: China and India. Between 1990 and 2004, energy consumption rose 37% in India and 53% in China. Beijing is building new coal-fired power plants at the startling rate of one every week. While the most technologically sophisticated coal plants operate at almost 45% efficiency, China's top out at just 33%.

But China and India are hardly energy hogs—not if you consider the amount of emissions that any single person living there generates. Americans' per capita emission of carbon dioxide is about 21.75

tons. In China it's just 4.03; in India it's an even smaller 1.12. Yet that is going to change. Up to 50% of the Indian population lives almost entirely off the grid, and the government is determined to bring them aboard. The Chinese economy has been growing at the rate of 10% a year, and Beijing is not inclined to slow down. China is expected to pass the U.S. in total greenhouse emissions before 2010.

Not all is bleak. The U.S.-based Natural Resources Defense Council is trying to help the Chinese clean up, working with their businesses to audit energy consumption and developing a fund to bankroll the installation of more efficient equipment in factories. Barbara Finamore of the China Clean Energy Program estimates that this could eliminate the need for 3,000 new power plants over the next few decades. China also imposes higher taxes on large cars than on small ones; subsidizes wind, solar and other renewables; and has passed a law that aims to make 15% of the country's power come from renewables by 2020.

India is further behind China in developing renewable-energy sources, but the need for power is spurring innovation. India has an aggressive solar and wind industry, with one company, Suzlon, generating \$1.5 billion in wind-turbine revenue in 2006. But India, with its less-developed economy, cannot as easily afford the cost of going green—or at least greener. "The Indian government has not taken the problem seriously," says Steve Sawyer, a policy adviser for Greenpeace International.

It sometimes seems that the same can be said for the entire world. It's not surprising that faced with a problem of this magnitude, people will yield to the impulse to lay blame. Voters blame politicians. Politicians blame industry. Industry blames an overweening government. Prius owners blame Hummer drivers. But never mind who caused the problem, its very enormity means that all of the finger pointers will have a role in cleaning it up. It took generations to foul the planet as badly as we have, and it will surely take generations to reverse things. The difference is, we had the leisure of beginning our long industrial climb whenever we wanted to. We don't have the leisure of waiting to clean up after it. —WITH REPORTING BY ARYN BAKER/PUNE, DAVID BJERKLIE, ADAM GRAHAM-SILVERMAN AND CAROLYN SAYRE/NEW YORK, DAN CRAY/LOS ANGELES AND BRYAN WALSH/TOKYO

River walk A boy in southwest China, right, strolls where he shouldn't be able to, on the Jialingjiang riverbed. More than 17 million in the region lacked drinking water last summer because of drought

CLOCKWISE FROM TOP LEFT: GREENPEACE—REUTERS; CHINA PHOTOS—GETTY; JURNAS/ANTO SURANNO—EPA

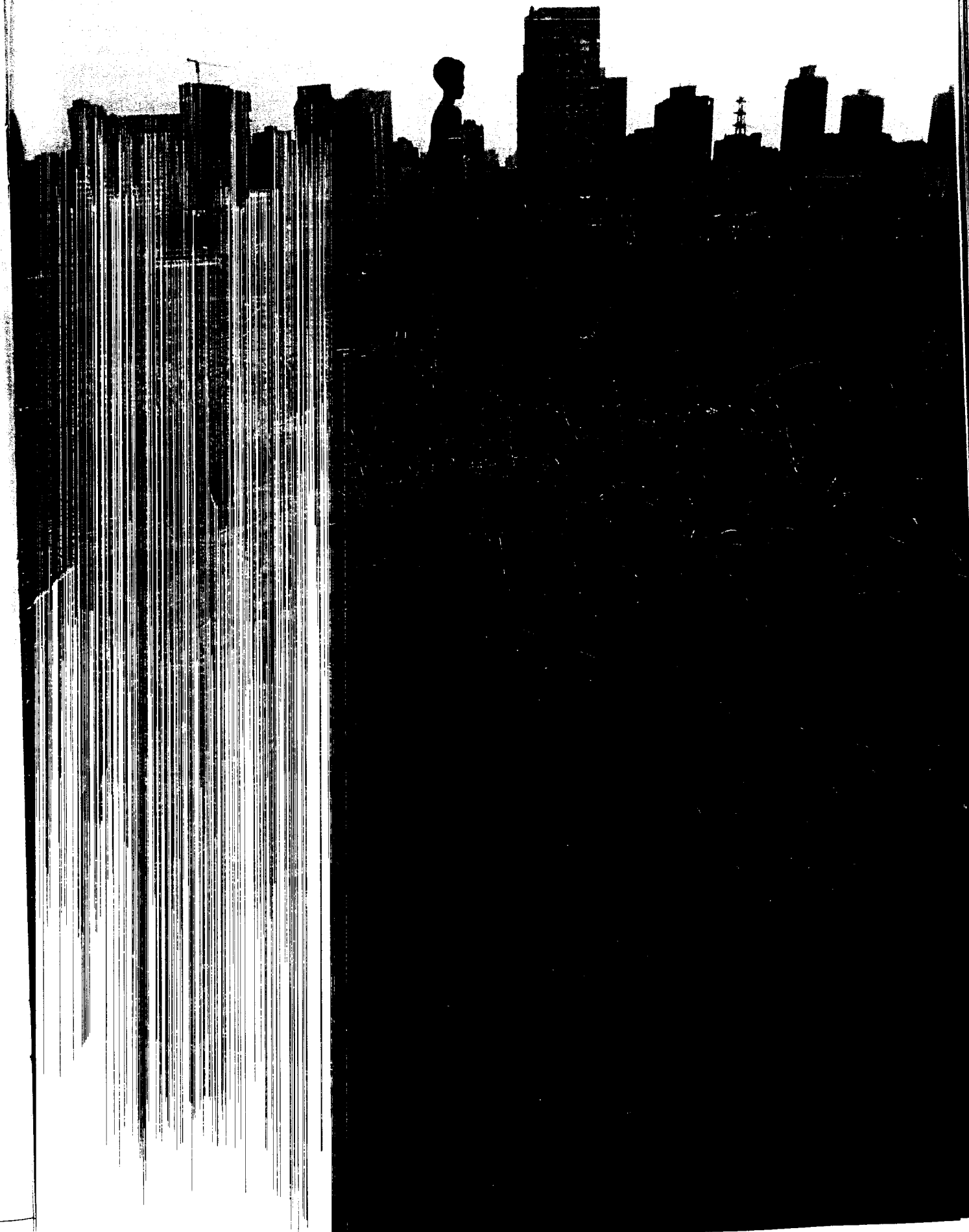
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Innovators

Hot Problem, Cool Solutions. A President, a banker and an eclectic group of researchers tackle earth's vexing issue



Olafur Grimsson
Iceland's President is turning the landscape into a lab for climate-change research

POLITICIAN About halfway between Iceland's capital city of Reykjavik and the small town of Hveragerdi, the smell of sulfur hangs in the air. White plumes of steam billow from deep under the earth into the blue sky, and moss covers the lava-strewn ground. It's a dramatic scene, and if Icelandic President Olafur Grimsson has his way, it will be the stage for the next big advance against global warming.

Over the next two years, a

team of scientists will try to inject carbon dioxide-charged water into the basalt beneath the ground through boreholes drilled by a nearby geothermal energy plant. The CO₂ will, in theory, react with the porous rock and form a stable mineral that could remain in the rock for millions of years. If they're right, Iceland could not only render itself carbon neutral but also give the world a means of protection from the effects of CO₂ emissions until they can be reduced.

"Many people ask me, 'Will this project succeed?'" Grimsson says. "I don't know, but I doubt all these prominent scientists would be spending their time on it if they didn't believe there was a reasonable chance of it succeeding."

This ambitious experiment in carbon sequestration landed in

Iceland after scientists from Columbia University approached Grimsson. (The University of Iceland, the University of Toulouse and Reykjavik Energy are the other partners.) Grimsson traces his interest in climate change to the 1980s, when he met a fellow legislator who saw trouble on the horizon: Al Gore. Back home, Grimsson, 63, has witnessed Iceland's conversion from a coal-dependent economy to a nation that gets most of its heat from clean, renewable geothermal resources. "My job as a young boy was to get the coal for the house for my grandmother," he says, recalling Reykjavik's soot-black skies. "If Iceland could achieve such a radical change in one generation, enormous changes can succeed all over the world."

Grimsson "wants to make Iceland an example of what can be done," says Sigurdur Gisla-son, a research professor at the University of Iceland. "We have enormous amounts of clean energy and a small society. You can do experiments here that you can't do anywhere else."

Basalt sequestration is one of several efforts to boost Iceland's role in climate-change science, including research into soil carbon sequestration and hydrogen-powered transportation. And Grimsson isn't above doing some firsthand testing. "I probably shouldn't tell you this, but I was the first person to exceed the speed limit in a hydrogen-powered car," he says. "I wanted to test its capability. Why not?"

—BY KRISTA MAHR

Peter Liu

Eco-entrepreneurs can seek funding at New Resource Bank, where the bankers are as green as the money

BANKER Thanks to Peter Liu, those who want to do right by the environment have a bank that will help them. Liu is financing environmentally savvy, resource-efficient ventures at the nation's first commercial bank aimed at green businesses, New Resource Bank in San Francisco. "Sustainability has become a major market force," says Liu, 41, the bank's founder and vice chairman. New Resource operates as a

cisco's new bank appeals first to customers who have already earned their green credentials. "We want to be working with people who have similar ideals," says Michelle Kaufmann, an architect known for her stylish prefab homes made from environmentally sound materials.

Just six months old and with nearly \$60 million in assets so far, the community bank is already attracting like-minded depositors in states as far away as New York, Massachusetts, Virginia and Texas, and Liu has plans to expand throughout the U.S.

The bank has the deep pockets to fund expansion. Its initial \$24.75 million stock offering was vastly oversubscribed. No wonder: funding green startups has become as popular in Silicon



Eco-nomics Liu's bank targets green businesses

full-service community bank, and anyone is welcome to walk through its recycled-glass doors. But the deposits are used to finance loans for environmentally conscious projects, including alternative energy, clean tech, organic farming and sustainable home and office construction. A special lending program enables green builders to get lower interest rates, while home owners can finance solar-power installations for about the same cost as their monthly electricity bill.

Not surprisingly, San Fran-

Valley as luxury SUVs, so New Resource has inside investors like Bob Hambrecht, managing director of WR Hambrecht & Co.; Daniel Yohannes, U.S. Bank's former vice chairman; and the founders of Sybase and Lotus Development.

And after all, nothing is as green as money. —**BY LAURA LOCKE**



Robert Socolow and Stephen Pacala

These Princeton profs have a plan for limiting carbon emissions one step at a time with current technology

STRATEGISTS While the solution to global warming seems dauntingly complex, physicist Robert Socolow and ecologist Stephen Pacala have come up with a remarkably straightforward way of approaching it. To stabilize the world's carbon emissions, they propose not chasing a single magic bullet but harnessing seven different categories of reduction, using available technology. Their goal is to draw a road map for reducing CO₂ emissions that is both realistic and effective.

Each of the strategies they have identified could prevent a total of 25 billion tons of emissions by 2056. (We're now

5 Things



Can one person slow global warming? Sure! You—along with scientists, businesses and governments—can create paths to cut carbon emissions. Here is our guide to some of the planet's best ideas, with an assessment of their impact and feel-good factor. For more, visit time.com

Photo-Illustrations for TIME by Ann Cutting

