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Picking up the pieces

ENVIRONMENTAL DISASTER IN CHINA BRINGS AN OPPORTUNITY FOR REFORM

The December explosion at Jilin Petrochemical plant dumped 100 tons of carcinogenic benzene into the Songhua River and shut down the water supply for four million people. It also exposed a critical flaw in China's antipollution policies: It makes economic sense for companies to break environmental laws.

"Because penalties are low and there's no strict liability for cleanup or compensation to victims, others are left to pick up the tab," said Dr. Daniel Dudek, chief economist at Environmental Defense. Now we're working to close that gap.

Even as Beijing passes landmark environmental laws, including a recent decree transforming our pilot acid rain reduction program into national policy, senior officials often find themselves thwarted on the ground. China's State Environmental Protection Agency (SEPA) has just 250 staff, compared to U.S. EPA's 18,000. Permits for new fac-

ories are controlled by local officials, who win promotions by pushing growth and often own shares in the factories they oversee. Penalties for even the worst transgressions rarely exceed \$25,000.

As we begin our second decade of work in China, our experts are address-

If China can put its new laws into practice, it will change the world.

ing those weak links. We're training staff in SEPA and 62 local jurisdictions how to set penalties steep enough to outweigh any financial benefits companies gain by not complying with the law. Dudek also is co-chairing an environmental task force that meets with China's premier each year. After the

*Please see
Cover Story, p. 2*



With 300,000 premature deaths from air pollution each year, China can't afford to delay cleaning up the environment. Pollution contributed to a record number of protests in 2005.

Environmental groups unite on global warming



As I write this, America's national environmental organizations are joining forces in an unprecedented way to engage the public on global warming. Each of us will

draw on our distinctive strengths.

Environmental Defense brings expertise in market-based strategies and links to business and political leaders across party lines; our partners will contribute their grassroots networks, their legal acumen, their deep knowledge of local ecologies. Together, we'll undertake a national campaign to galvanize the public to push past the tipping point to action.

Our partnership will reach well beyond our usual constituencies to include mayors and legislators,

farmers and ranchers, minority and youth groups, labor, investors, national security experts, health professionals and the faith community—many of whom are already taking important action on global warming pollution.

All of us agree that the rapid changes we are causing in our atmos-

Millions of supporters will rouse America.

phere are altering the planet in potentially devastating ways. We know, for instance, that over the past 30 years Arctic sea ice has shrunk by 400,000 square miles, an area the size of California and Texas combined.

We also agree that our window of opportunity for avoiding disaster is closing fast. Without far-reaching

action this decade, we will lock ourselves into a future of immeasurable dangers.

The overwhelming majority of Americans agree that global warming is a problem. And most believe that its cause is man-made. What is missing is a sense of urgency and personal commitment to take action.

As we confront the world's gravest environmental threat, many of the transformative solutions will emerge from America, the country with the deepest reservoir of scientists, engineers and bold investors.

Together, the environmental community with its millions of members and allies will rouse America to lead again.

Putting teeth into China's environmental laws

Continued from p. 1

benzene spill, the task force quickly developed an emergency response plan for SEPA, including reporting requirements for all companies using toxic chemicals, disclosure of hazardous releases, corporate liability for cleanup and much higher penalties for breaking the law.

These efforts are bearing fruit. Despite local attempts to cover up the Songhua spill, the Beijing leadership



Renewing the commitment: Premier Wen thanks Dudek for his contributions to cutting pollution.

quickly notified the public and invited Russian scientists to help with water testing. The State Council ordered public reporting of accidents within four hours. And SEPA has begun regularly inspecting chemical facilities near water supplies.

We also are building public participation. The acid rain rules we helped develop were the first to have public comment under China's Environmental Impact Assessment law, and we were the only environmental group to participate in that review.

If China can put its new laws into practice, it will change the world. Having already set some of the world's strictest fuel economy standards, China now has called for a doubling of renewable energy production and conservation, which could spur advances worldwide.

A more intimate sign of China's environmental commitment came during the Chinese New Year, when Dudek was invited by Premier Wen Jiabao to a dinner

for foreigners who have made vital contributions to the nation. Dudek spoke with the premier about markets and environmental protection. In turn, Wen Jiabao offered a New Year's toast to Dudek. "China," he said, "is dedicated to building an environmentally friendly society."



Solutions

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Editor:

I read with interest your article entitled "Behind the label: Organic wine comes of age" in the July-August Solutions. It is worth noting that more than 80% of pesticides used on all California winegrapes in 2003 were sulfur products—the majority of which is sulfur dust, a relatively safe, organically approved material. Pitting "organic" against "conventional" practices ignores Integrated Pest Management and other sustainable winegrowing practices employed by a majority of winegrape growers in California.

It is also worth noting that California wineries and vineyards have made a significant commitment to promote, adopt, measure and report sustainable winegrowing practices. The first California Wine Community Sustainability Report, released in fall 2004 and available for download at www.sustainablewinegrowing.org, documents statewide self-assessment results and sets goals to increase the use of sustainable practices.

Allison Jordan
Wine Institute, San Francisco, CA



©Ima Logan/istockphoto

Editor:

I was so glad to read in Solutions (January-February 2006) that the mayor has a plan for cleaning up Houston's environment. When we get a strong norther (cold front) from the northeast we get Houston's pollution. My sinuses can always tell.

Elma D. Holden, Corpus Christi, TX

WE WANT TO HEAR FROM YOU

See address at left.

Washington watch



What it takes to win in Washington A PAIR OF VICTORIES HIGHLIGHTS THE POWER OF PARTNERSHIPS TO SWAY CONGRESS

Two recent victories in Congress show how our approach of forging unexpected alliances gets results. Coalitions that rarely see eye to eye were behind these recent achievements, one setting the stage to improve farm policies and the other preventing backsliding on oceans protection.

HELPING FARMERS HELP THE ENVIRONMENT

Current multi-billion-dollar farm subsidies lead to environmental harm and don't help many farmers. When Senator Saxby Chambliss (R-GA) proposed extending these subsidies four years beyond their 2007 expiration, Environmental Defense joined forces with the Cato Institute, the Heritage Foundation and other fiscal watchdogs. Together, we convinced the White House and Republican

leaders, including Speaker Dennis Hastert (R-IL) and House Agriculture Chair Bob Goodlatte (R-VA), to block the extension.

"More than 90% of America's farmers receive little or nothing from the current subsidy program because of the crops they grow," says our farm policy expert Scott Faber. "This victory gives us the opportunity to reform the nation's farm programs in 2007 to help more farmers and the environment."

REVIVING FISHERIES

When a Senate committee introduced legislation that would have undermined our efforts to protect the oceans and reduce overfishing, we swung into action. With only two weeks' notice before the vote, we brought fishermen from New England, the Gulf of Mexico and the West Coast to con-

vince Senators Trent Lott (R-MS), Olympia Snowe (R-ME), Ted Stevens (R-AK) and others to drop the harmful provisions. "The fact that we came knocking with fishermen by our side got us in the door," says our ocean policy expert Amanda Leland.

"The senators were working off an old playbook that said innovative tools like catch shares are controversial," Leland adds, "but the support of fishermen speaks for itself." Now, when the Senate takes up the nation's fishery management law this year, our reform programs will be on the table.



NRCS

Two out of three farmers who seek funds for conservation projects like this streamside buffer are turned away.

Hope for America's endangered species capital

FAR FROM THE TOURIST HOTELS AND PARASOL-DRINK BARS, A SPECTACULAR ECOSYSTEM IS AT RISK IN HAWAII

With nothing but ocean for thousands of miles, the volcanic islands of Hawai'i are—or once were—a self-contained ecosystem. To tourists, and even some residents, Hawai'i still seems remarkably unspoiled. Ecological disasters aren't supposed to happen here. The forests are too lush and the sea too blue.

Yet the islands' natural splendor masks a brutal, often desperate battle against extinction. Facing an onslaught of habitat loss and competition from non-native species, fragile plants and animals are fast disappearing. Since Captain Cook arrived in 1778, more than one-third of the state's native birds have vanished—and 60% of those that remain are imperiled.

"Hawai'i is such a beautiful place that it's hard to think anything is wrong," says our ecologist Dr. Tim Male. "The situation today is as close to an ecological disaster as one is likely to find anywhere."

The fragility of Hawai'i's ecosystem lends urgency to our work with ranchers, state agencies and Native Hawaiian

groups to protect this special place.

On the Big Island, for instance, we partnered with the 2,000-acre Umikoa Ranch to help restore habitat for the endangered nene ("NAY-nay"), or Hawaiian goose, which once thrived on the islands' volcanic slopes and lowland lava flows. The population plummeted due to overhunting and predation by mongooses, introduced on sugar plantations in the 1880s to control rats.

When named Hawai'i's state bird in 1957, the nene faced grim prospects for survival. Fewer than 40 were left. A captive-breeding program brought nene numbers back into the hundreds, but efforts to reintroduce them into the wild faltered.

Under the Safe Harbor program, pioneered by Environmental Defense and adopted as policy by the federal government, Umikoa Ranch has agreed to create and maintain wetlands and restore degraded pasturelands. This will benefit the nene and the endangered koloa, or Hawaiian duck. Safe Harbor assures Umikoa that its conservation efforts will not result in new land use restrictions.



Hawai'i harbors one-fourth of the nation's rare and endangered birds and plants.

"Our main goal is the integration of conservation and agriculture," says ranch manager David Matsuura. "We believe the Endangered Species Act is an asset to landowners," he adds. "But as a private company, we had to make sure we were protected. Safe Harbor gives us that protection." By practicing sustainable forestry, Matsuura hopes eventually to provide Native Hawaiians with high-value koa lumber for traditional outrigger canoes.

The nene is moving toward recovery. Today, there are more than 1,100 wild nene on Kaua'i, Moloka'i, Maui and the Big Island. There's also new hope for the endangered Hawaiian monk seal, thanks to our coalition with fishermen and Native Hawaiian leaders and public comments from more than 20,000 of our members. We helped convince the state to establish a 1,000-square-mile marine refuge in state waters around the Northwestern Hawaiian Islands, which shelters most of the area's ancient corals.

TROUBLE ON THE MAINLAND

The hopes for such species will come to an end, however, if powerful forces in Washington succeed in dismantling the

In the race to protect Hawaiian wildlife

Like many ecologists with experience in Hawai'i, Dr. Tim Male is accustomed to hard work and heartbreak. He helped the state develop a successful conservation plan for the endangered stilt. He also witnessed the last desperate efforts to save the po'ouli, a shy honeycreeper that lived on the slopes of the Haleakala Volcano.

The species, one of dozens derived from a single flock of finches blown off course millions of years ago, was not discovered until 1973, when it was already in a death spiral. The last known po'ouli died in 2004. "For the po'ouli, it was too little, too late," says Male. "For others, there's still hope. The survival of much of Hawai'i's unique wildlife is in our hands."



John Rae

Endangered Species Act. An effort led by Representative Richard Pombo (R-CA) would undermine 30 years of progress in protecting species. “If you drastically alter the Act, you take away just the kinds of incentives that inspired Hawaiian landowners to cooperate to help rare wildlife,” says Male. Environmental Defense is building a broad coalition to prevent this from happening.

Our work to double conservation

funding in the 2007 Farm Bill will also help Hawai‘i’s landowners. With less than one-quarter of Hawai‘i’s native forests still standing, agricultural funding could be used to restore forests and improve water quality for endangered species and coral reefs.

In a sense, our comprehensive approach mirrors the Native Hawaiian custom of protecting the entire ecosystem. Traditionally, Hawaiians have tend-

ed parcels called ahupua‘a, slices of land that reach from a mountaintop down through forests and fields to teeming coral reefs.

“Hawaiians have an expression,” says our scientist Dr. Stephanie Fried: “‘The land is a chief; man is its servant.’ We should take that message to heart.” Indeed, the lessons from Hawai‘i could be applied to other imperiled ecosystems across America as well.

Postcards from the edge: A threatened paradise

Hawai‘i’s wild places have an Alice in Wonderland quality: The vast majority of the islands’ native plants and animals are found nowhere else.

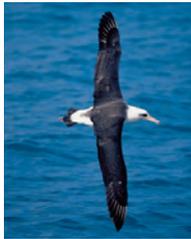
But the very qualities that make Hawai‘i’s flora and fauna unique also make them vulnerable to extinction. Having evolved in splendid isolation, they lack many of the defenses of their mainland relatives. For example, a

number of now extinct geese, ibises and rails became flightless and the native nettle lost its prickles.

An unparalleled level of commitment is required from government and individuals to protect species threatened by habitat loss and competition from non-native invaders. Here are a few of the species Environmental Defense is working to protect:

Laysan albatross

With a 7-foot wing span, this albatross can fly thousands of miles non-stop. Once nearly eliminated from the main islands, the ancient mariner has returned. Nesting colonies are expanding because of intensive conservation efforts.



Lana‘i sandalwood

Nearly wiped out by the 19th century export trade, fewer than 300 trees survive today.



Hawaiian monk seal



One of only two mammals native to the

islands (the other is the hoary bat), the seal now has a better chance of survival, thanks to the reserve we helped win around the Northwest Hawaiian Islands.

Happy-face spider The face-like markings on the back of this rare spider have inspired composers and poets. Its markings may be a way to avoid being eaten by birds. But they offer little protection against the loss of its forest home.



Mauna Loa silversword This flower blooms once in its 20-year lifetime. It survives in wet forest on lava flows on the Big Island. Only 500 individuals remain.



Background: Ann Cecil/Lonely Planet; inset, clockwise from top left: K. Schater/VIREO; Greg Vaughn/Pacific Stock; Litschwager/Middleton; (2 photos); Victoria McCormick/Animals-Animals

Regional update

Strong medicine for Long Island Sound

When Dutch explorer Adrian Block sailed into Long Island Sound in 1614, he discovered an unbelievably rich ecosystem teeming with birds, fish and wildlife. Today, 20 million people live around these shores, exacting a heavy toll.

Though still rich in marine life, the Sound's waters have been degraded by nitrogen pollution, which has decimated the local scallop and lobster industries. Nitrogen is essential to plant growth, but in excess it triggers algae blooms that block sunlight and strip waters of oxygen, creating a "dead zone."

Nitrogen originates from many sources, including smokestacks, tailpipes and farm runoff. But roughly half the Sound's nitrogen pollution comes from sewage treatment plants on New York City's East River.

Nitrogen was decimating the lobster industry

by 2017. Environmental Defense helped broker the deal.

"Nitrogen pollution is the greatest single threat to our coastal waters," says our general counsel Jim Tripp, who also chairs New York City's Water Board.

Two-thirds of U.S. coastal bays and rivers are degraded by nitrogen pollution, including the Chesapeake Bay, the Gulf of Mexico and San Francisco Bay. Adds Tripp: "New York's nitrogen removal plan is the strongest of any city. It should be a model for the whole country."



Tom Edwards/Animals Animals

Nitrogen pollution plagues all major U.S. bays and estuaries. The cleanup package we brokered for New York City is the strongest in the nation.

In a landmark agreement, the city has agreed to cut nearly 60% of the nitrogen pollution from these plants



Gerard Scurry/Peter Arnold

Right whales got their name from whalers who sought their highly valued blubber. Now they face a new threat.

Sounding an alarm on Navy's sonar testing

The U.S. Navy has proposed locating a 660-square-mile sonar testing range off North Carolina's coast. Before the Navy moves ahead, Environmental Defense is working to ensure that whales and fish are not sacrificed by the plan.

The area south of Cape Lookout lies in the migratory pathway of the Atlantic right whale, of which only about 300 remain. It also includes habitat for valuable commercial fish species. In January 2005, following Navy sonar exercises, dozens of whales were stranded and died along the Outer Banks.

The Navy's initial environmental impact statement for the site omitted any mention of the deaths and downplayed growing scientific evidence that sonar interferes with the ability of whales to navigate.

Our marine ecologist Dr. Michelle Duval filed

extensive comments, noting that the Navy's statement also lacked up-to-date maps of the coral reefs and fish spawning areas the range would endanger. Duval faulted the Navy for doing a poor job of consulting with federal and state agencies.

Sonar interferes with the ability of whales to navigate.

The Navy says it welcomes information and wants to do the right thing. "We'll hold them to that promise," says Duval.

Meanwhile, a federal judge halted the Navy's plans to build an airfield by the largest migratory waterfowl refuge on the East Coast, pending a more thorough environmental review.

California vows to stop exporting air pollution

ENVIRONMENTAL DEFENSE HELPS SPUR NEW POLICY TO PROTECT WESTERN SKIES



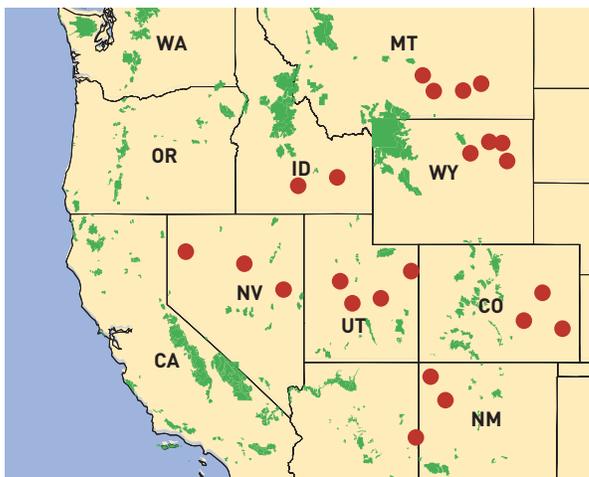
Michael Newman/PhotoEdit

Los Angeles gets the bright nights. The Grand Canyon gets the morning after.

Environmental Defense has helped bring a dirty secret to light in California: Though the state is known for its tough clean-air standards, much of its electric power comes from a fleet of coal plants beyond its borders that are so highly polluting they wouldn't be allowed to operate in the nation's largest state.

In the first-ever analysis of investments in out-of-state coal, compiled with our western allies, we demonstrated that 20% of California's electricity comes from distant coal plants. Growing demand has

Proposed power plants in the West: A blueprint for pollution



■ National parks and wilderness areas
● Planned coal-fired power plants

put nearly two dozen new coal plants on the drawing board, stretching from Montana to New Mexico.

Many rural communities and national parks—areas near clusters of these plants—suffer when the air pollution stays behind while the electricity flows to the Golden State. Air quality in Yellowstone, the

Grand Canyon and New Mexico's rural San Juan County, for example, would fail California's smog standards. California's use of these coal plants also contributes vast amounts of global warming pollution—as much as 11 million cars.

Our analysis, released in December with the Center for Energy Efficiency and Renewable Technologies and Western Resource Advocates, drew front-page headlines across the West. *The Salt Lake Tribune* read “Raw deal: Utah gets California pollution.”

“Local activists spread the word,” says our Rocky Mountain attorney Vickie Patton. “They used our findings to speak passionately about pollution in their own communities.”

CALIFORNIA AT A CROSSROADS

Our study also caught the attention of California officials at a critical moment, because the state is moving aggressively to cut its own greenhouse gas emissions. “It surprised me a little bit,” California's environment director Alan Lloyd said about learning of the

state's reliance on coal.

To spur action, we sent letters signed by two dozen western environmental organizations to California's energy regulators, and we met with top Schwarzenegger administration officials. “We emphasized that this is a massive source of backdoor global warming pollution the state cannot ignore,” says our California climate director Karen Douglas.

In February, the California Public Utilities Commission voted to develop regulations requiring new out-of-state power sources to meet the global warming standards the state is developing. The move could unleash clean technologies across the region. “Investors won't sink



William Manning/Corbis

A coal plant built today will spew out pollution for the next 60 years.

capital into plants that can't meet the standards of the region's biggest customer,” says Patton.

The West needn't be consigned to a polluted future. Our study demonstrates that fully tapping renewable resources and efficiency measures in the region would eliminate the need for all 22 plants slated for construction in the next few years—and save consumers billions.

Environmental Defense is pressing western officials to invest in alternatives. “This is not about some distant problem,” says our Rocky Mountain scientist Dr. Jana Milford. “Our communities are at stake.”

Under pressure, World Bank ends funding for corrupt regime

Karel Prinsloo/AP Photos



Chad is using its “Future Generations Fund” to buy weapons.

Our economist Korinna Horta wasn’t exactly surprised when the central African nation of Chad announced recently it would use money from a World Bank oil project to purchase arms. She had long been warning the Bank that something like this could happen.

The international pressure Horta

and others brought to bear on this project spurred the Bank to take unprecedented action. It suspended all funding for Chad. Citibank froze Chad’s London oil account, because the country had violated its loan agreement designed to protect people and the environment.

Horta helped win those protections in order to save Chad from the “resource curse” that has plagued nations like Nigeria,

where oil development left a legacy of poisoned landscapes and armed conflict. In 2000, she and her colleagues won strict loan conditions to ensure that the nation’s poor would benefit from Chad’s \$4.2 billion oil project. Built by an ExxonMobil-led consortium, it is the largest investment in Africa. Chad is one of the world’s

poorest countries and its most corrupt, according to Transparency International.

When the oil minister announced that the government would divert funds for military use, we sprang into action. “The international spotlight we shone on this project spurred a decisive response,” explained Horta. The World Bank had never before cut off funding for violation of a loan agreement.

But cutting off Chad isn’t enough. Now we’re pressing the Bank to address the damage from past funding, such as pollution that takes a toll on the health of communities. “The World Bank and ExxonMobil can’t just wash their hands of the consequences,” says Horta.

Still, she sees cause for hope. “The Bank’s decision raises the bar for future investments and signals that issues of corruption must play a larger role in how the Bank allocates its \$20 billion aid budget.”

North Carolina farmers go whole hog

Not long ago, a partnership between hog farmers and environmentalists seemed “as unlikely as sprouts on a BBQ sandwich.” So says Chuck Stokes, a fifth-generation hog farmer in Ayden, NC, and cofounder of Frontline Farmers, a grassroots collective of hog farmers. Members of Frontline have been going hog wild testing new waste management technologies and working closely with Environmental Defense to implement them. They hope to find the most efficient methods to cut pollution—a sore point in North Carolina—and reduce methane, a potent greenhouse gas.

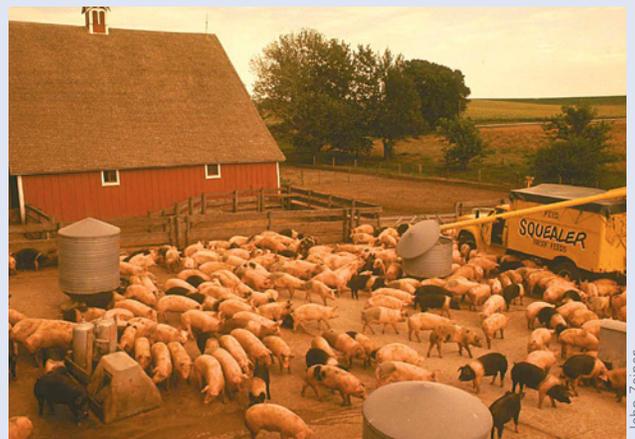
Environmental Defense scientist Dr. Joseph Rudek says the testing of alternative technologies is near completion: “We’re pragmatists; we are not opposed to hog farming, but we want it done with as minimal an impact on the environment and public health as possible.”

Such cooperation between farmers and environmentalists is breaking down barriers that long stood in the way of progress. Up to now, giant hog operations in the Tar Heel State have meant more pollution and more pressure on smaller family farms. But about a dozen hog farms around the state are now producing antibiotic- and hormone-free meat raised under more humane conditions. “We’ve had to find a niche,” says Dempsey Ange Jr., of Red Gate Farms, which raises 15,000 pigs a year antibiotic-free to sell pork by mail.

The web site nccoices.com helps consumers find these products at local farmers’ markets and elsewhere. Project coordinator Susan Jelinek Mellage is depending on Environ-

mental Defense to help farmers set up “an environmentally sound, pasture-based hog system.”

Mellage sees a national trend in improving animal welfare on the farm. “People across America are looking to alternative meats,” she says. “It’s on everybody’s radar.” And soon, perhaps, in everybody’s market.



John Zeiner

Is environmentally sound, pasture-based hog farming in North Carolina’s future?

After the storm, help for Caribbean habitat



Bill Bachman/PhotoEdit

With illegal development rampant, we're helping Mexican communities fight back in the Yucatan.

When Hurricane Wilma devastated the Cancun area, it was not just the tourism industry that suffered. Developers took advantage of the chaos in the wake of the Category 5 storm to illegally clear mangrove forests and other coastal lands that nourish Mexico's last pristine coral

reefs. The Mesoamerican Barrier Reef, the world's third largest, lies just offshore.

Environmental Defense mobilized to help local partners fight the destruction. We arranged regular air surveillance of the coast to photograph illegal development, and we helped the threatened communities work more closely with the Yucatan government and industry.

Giving local allies a more forceful voice is setting legal precedents already. With our assistance, the Mexican Center for Environmental Law recently proved that a massive tourist complex south of Cancun, the Mayan Palace Hotel, violated numerous environmental laws. In response, a federal court revoked authorization of the complex.

Rebuilding Gulf fisheries post-Katrina

The 2005 hurricane season was not kind to the fishermen along America's Gulf Coast. Among the hardest hit were those in the shrimp industry. Following the pummeling, the U.S. government declared the region from Florida to Texas a "fishery disaster." Six months later, the full extent of the damage to fisheries is still unknown.

Environmental Defense is working in the region and with Congress to ensure that hurricane relief for fishermen comes soon and takes the best form. The best approaches will help the fisheries come out even stronger in the end.

For example, market-based programs such as catch share systems could help the red snapper, reef fish and shrimp fisheries, so we're working with fishermen, regulators and Congress to broaden support for such programs. We also advocate voluntary buybacks of excess boats that undermine the fisheries' ecological and economic health.

"Out of this tragedy, we have an

opportunity to rebuild more sustainable Gulf fisheries," says our biologist Pam Baker. "Many fishermen were suffering before the hurricanes hit. Financial incentives and job retraining may help those who want to leave the fishery to get back on their feet."



Paul Saneva/AP Photos

Balancing act: Voluntary boat buybacks can help both fish and fishermen.



A. Ramey/PhotoEdit

Corporations use our Paper Calculator to reduce deforestation.

Calculating the benefits of recycling

Despite the boom in laptop computers and handheld e-mail devices, paper still rules the workplace. The average American uses about 10,000 sheets, or 700 pounds, of paper a year.

To cut the waste, Environmental Defense has updated the Paper Calculator, an online tool we developed to measure the pollution and natural resources impacts of various paper choices. Over the past decade, scores of companies, communities and schools have logged on—and many have cut back.

"The Paper Calculator is a valuable resource for Staples and our customers who are interested in understanding the environmental impacts of their paper purchasing decisions," says Mark Buckley, Staples' vice president for environmental affairs.

The updated calculator delivers comparisons in simple terms, such as the number of trees saved, tons of waste avoided and gallons of water conserved. For each of the 13 major grades of paper and paperboard, users can compare the environmental impacts of papers made with different levels of recycled content. See for yourself just how many trees you and your school, office or family can save by buying recycled. Visit papercalculator.org to learn more.

Reading the fine print

The Organic Trade Association (60 Wells Street, Greenfield, MA 01301; 413-774-7511; ota.com) describes itself as “North America’s only organization dedicated to representing the views of all segments of the organic industry.”

The similar-sounding Organic Consumers Association (6101 Cliff Estate Road, Little Marais, MN 55614; 218-226-4164; organicconsumers.org) lobbies for stricter interpretations of organic standards.

The bimonthly Green Guide (P.O. Box 567, Prince Street Station, New York, NY 10012; 212-598-4910; thegreenguide.com) is a 12-page newsletter with objective information on a variety of products, available as either a paper subscription or a downloadable PDF file. A year’s Internet subscription is \$15; in paper form, it’s \$20.

The pocket-sized Seafood Selector and the more detailed Contaminated Fish (Oceans Alive c/o Environmental Defense, 257 Park Ave. South, New York, NY 10010; 212-505-2100; oceansalive.org) rate edible seafood by species in terms of its health risks and the ecological impacts of how it is caught or farmed.

More to read

Greenwash: The Reality Behind Corporate Environmentalism, by Jed Greer and Kenny Bruno (Apex Press, \$20.95).

The Organic Food Guide: How to Shop Smarter and Eat Healthier, by Steve Meyerowitz (Globe Pequot, \$8.95).



Leftlane Productions/Corbis

Lost in the supermarket?

A cascade of labels

WITH YOUR FAMILY’S HEALTH AT STAKE, WHAT SHOULD YOU BELIEVE?

Reading labels is smart, but it won’t tell you everything you need to know about safe and healthy products. There are, for example, 300 “standard” foods (including such staples as ice cream, ketchup and peanut butter) that do not require an ingredient list unless non-standard colors or chemicals are added. Personal care products could contain any of 884 routinely used toxic ingredients—with no warning labels.

The good news is that nearly one in ten Americans use organic products regularly. With a few exceptions, these products are certified free of chemical additives and are made in an environmentally friendly way. The U.S. organic market, which grows about 25% annually, is projected to reach \$30.7 billion by 2007.

The bad news is that the marketplace is getting more confusing. In 20 years, the number of products for sale on the average supermarket shelf has grown from 8,000 to 24,000. Some of those products are certified organic, but even

more are misleadingly labeled to seem that way.

As you make your daily purchases, here are a few tips for negotiating the maze of product information.

• **Look for the USDA label.** The USDA Organic label is a guarantee that the product has met federal standards established by the U.S. Department of Agriculture. The rules have been debated exhaustively over the years and they remain a reliable gauge.

• **Know when it’s worth it.** A *Consumer Reports* investigation for the magazine’s February 2006 issue recommended seeking out organic products in the case of most fruits and vegetables as well as meats, poultry, eggs, dairy products and baby food. But it suggested buying some organic produce “only if price is no object”: Cauliflower, sweet corn, broccoli, mangos and sweet peas, which rarely have multiple pesticide residues.

Guest columnist Jim Motavalli is editor of *E/The Environmental Magazine* (for subscription information: 800-967-6572 or emagazine.com). Opinions are the author’s and not those of *Environmental Defense* staff.

• **What's in a word?** Terms like “earth-friendly,” “natural” and “healthy” are as unregulated as the Wild West. With no firm standards in place, they are used with impunity by copywriters or issued as labels by industry groups. And why not, when the word “natural” on a package can double sales? The actual product may be genetically engineered, employ factory-farming methods, include antibiotic feed additives, or use synthetic chemicals.

• **Organic by degrees.** There's more to organic labeling than just the presence of the USDA seal. If a product contains nothing but organic ingredients, it can display not only the seal but also a “100% organic” claim. If it contains at least 95% organic ingredients, it can wear the seal and describe itself as “organic.” If at least 70% of its ingredients are organic, it can display the claim “Made with organic ingredients,” but cannot carry the seal.

• **More word games.** Through the magic of “hydrosol,” many personal care products are labeled as “Made with organic ingredients,” though they are mostly water. What's hydrosol? It's recaptured steam, a byproduct of distilling organic plant matter (such as flowers) to produce oil. A product that is 70% hydrosol can say it is “Made with organic ingredients” even if its other ingredients are synthetic chemicals.

• **Organic seafood?** Some upscale markets charge a premium price for so-called organic fish, but USDA has no organic seafood standard and California has banned the designation until standards are developed. Environmental Defense scientist Dr. Becky Goldberg is the only non-governmental member of a USDA task force that is currently drafting organic standards for farmed seafood.

By Jim Motavalli

A gift to the future



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Hope for animal engineers of the prairie

The distinctive yip and leap of an endangered Utah prairie dog is not likely to set anyone's heart soaring. Many western ranchers, in fact, would just as soon be rid of the creatures, who occasionally steal cattle feed and damage haying equipment with their networks of tunnels and holes.

It turns out, however, that these tawny little engineers are about as critical to their ecosystems as any species could be. Not only are they lunch for many mammals and birds, including badgers, coyotes, bobcats and eagles, but they also sustain the health of native vegetation with continuous pruning, house myriad species in the extensive burrows that make up their “towns” and recycle nutrients through the ecosystem.

After decades of poisoning, shooting, habitat loss and disease, however, fewer than 10,000 Utah prairie dogs remain. Because their best remaining habitat is on private lands, Environmental Defense designed two ways to bring landowners to the aid of the species. First, we helped two ranchers, Allen Henrie and Mitchel Pace, create the nation's first Safe Harbors for



Room needed: Gardener, homebuilder, recycler seeks home on the range.

prairie dogs, allowing them to restore habitat without fear of new restrictions on their land.

Second, after five years of work by our staff, the U.S. Fish and Wildlife Service approved a “conservation bank” for the prairie dog within the 3.4 million acres managed by Utah's School and Institutional Trust Lands Administration (SITLA). In return for protecting 800 prime prairie dog acres permanently, SITLA earned credits to sell to developers eager to build elsewhere, in habitat restricted by the Endangered Species Act but of only marginal value to prairie dog survival. Its first sale, to Iron County, earned more than \$140,000 for Utah schools. If the conservation bank adds acres and improves habitat, it will help the prairie

dog, earn still more money for schools, increase options for developers and help reclaim an iconic American landscape.

“These projects are models,” says Environmental Defense ecologist Ted Toombs. “With additional Safe Harbor partners and conservation banks, we can move the Utah prairie dog significantly closer to recovery within five years.”

HH Huey George/Animals Animals

Disruptions of ocean life point to global warming



Tim Connor

Dramatic shifts are happening beneath the ocean's surface.

Global warming “is no longer just a prediction—it is actually happening,” begins our report, *Global Warming’s Increasingly Visible Impacts*. While public attention has focused on changes with the most obvious consequences for people, such as the trend toward more Category 4 and 5 hurricanes brought on by warmer ocean waters, scientists are discovering evidence of far-ranging impacts on ocean life. Here are two recent developments.

The case of the missing eels

Migration of American eels from their birthplace in the Sargasso Sea near Bermuda through the St. Lawrence Seaway to Lake Ontario has decreased

90% since the mid-1980s. New data suggest that the Gulf Stream—the mighty ocean current that sweeps past Bermuda to warm North America and Europe—is weakening and, in some cases, meandering off in new directions. The young eels, who ride the current northward before striking out across the continental

shelf to their new freshwater home, may be getting stranded.

Our marine scientist Dr. Jacob Kritzer has followed the decline of eel populations closely. Changes in ocean circulation resulting from further warming could affect not only marine life but the climate of much of Europe, which could become far colder without the Gulf Stream’s warming effect.

Starving fish and seabirds

Last year, warmer water north of Point Conception, CA, delayed the seasonal upwelling of nutrients that feed everything from seabirds to blue whales.

Among the species that were devastated were the bottom-dwelling rockfish that we had helped protect from overfishing by creating no-trawl zones off central California. The rockfish were safe from trawlers in the habitat we helped secure, but, with food scarce, most young rockfish died. Other wildlife also experienced ruinous crashes. On the Farallon Islands, 28 miles from San Francisco, starving Cassin’s auklets even abandoned their nests in the

middle of the breeding season to search for food. Scores of the starved seabirds washed ashore, and the abandoned new chicks died. Says Dr. Bill Sydeman, an auklet specialist at the Point Reyes Bird Observatory, “We just don’t know what the future holds.”

Scientists can’t say for sure these events were caused by global warming,

New data suggest the Gulf Stream is weakening.

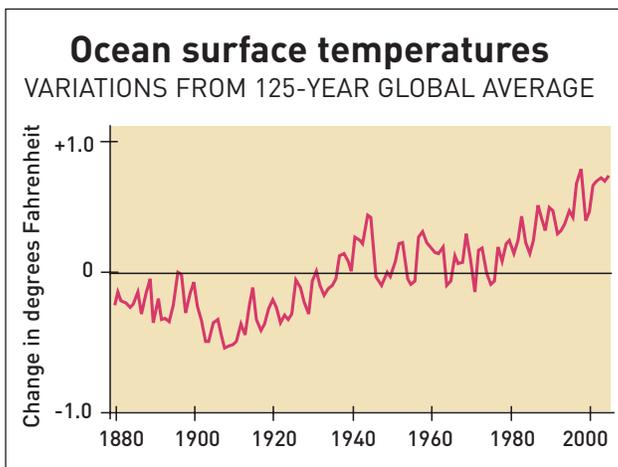
but clearly the oceans worldwide are warming—and changing. Canada’s fishery and oceans agency recently reported that 2004 spring and summer water temperatures off Alaska and British Columbia were the warmest in 50 years.

Says our chief scientist, Dr. Bill Chameides: “These and many other ecosystem changes around the world collectively provide a clear and consistent body of evidence of the immediate danger of global warming.”



R.L. Pitman/VIREO

Last year in California’s Farallon Islands, the reproductive success of Cassin’s auklets was zero.



NESDIS/NOAA

In the last three decades ocean temperatures have risen faster than at any time in the last 150 years.

What they’re saying about Environmental Defense

“Environmental Defense has been a consistently positive force, finding ways to bridge gaps between industry and the environmental side.”

—Franz Litz, New York State coordinator of climate change policy, speaking of our work on global warming