

Pete Seeger: How Can I Keep from Singing?

Spring 2008

# yes!

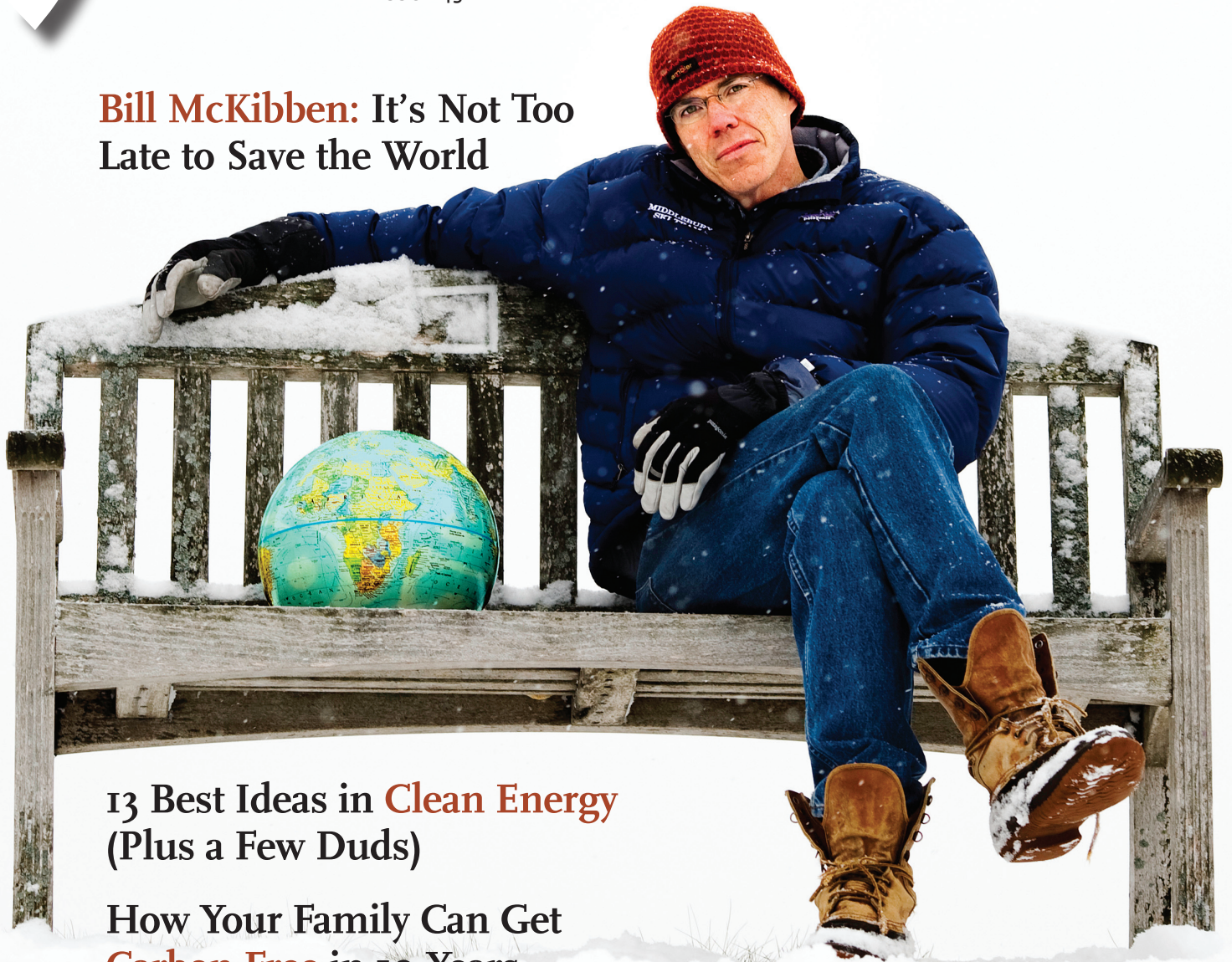
Building a Just and Sustainable World

ISSUE 45

Climate  
Solutions  
Special  
Issue

## Stop Global Warming Cold

**Bill McKibben:** It's Not Too  
Late to Save the World



13 Best Ideas in **Clean Energy**  
(Plus a Few Duds)

How Your Family Can Get  
**Carbon Free** in 10 Years

The Secret Life of **Plug-in Cars**

Surprise Victory for **Global Fairness**

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Author and  
climate activist  
Bill McKibben at  
home in Vermont





**“One way or another, the choice  
will be made by our generation,  
but it will affect life on earth for  
all generations to come.”**

LESTER BROWN, EARTH POLICY INSTITUTE

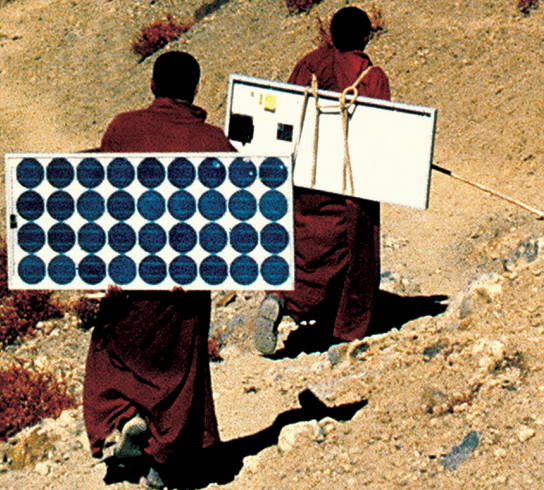


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## Welcome to a Different Planet

The depth of our crisis came home to me at a conference of environmental journalists last fall, where one climate scientist after another spoke about the dangers confronting migratory birds, water supplies, agriculture and food supplies, coastlines—every strand of the web of life. Their words were carefully chosen, but their voices revealed their alarm.

How bad could it get? In spite of increasingly sophisticated models, no one can predict exactly. But as the temperature rises, there is increasing disruption to the interconnected systems that keep our climate stable and within the narrow range that can support life. The shrinking of the polar ice cap and the opening of the Northwest Passage are among the clearest signs yet that the planet is warming faster than climate models predicted.

The good news is it's not too late to act. We have the technology and, in much of the world, we have the social stability to act. And we have precedents. When the United States mobilized for World War II, car factories turned to building tanks and trucks. Americans planted 20 million victory gardens, recycled rubber, and brought women into the workplace to build battleships.

We'll need to mobilize in the same way to combat the global threat of climate change—especially here in the United States where we are among the largest greenhouse gas polluters. Here is some of what it will take:

- We need to turn car factories into wind turbine factories, and hire young people and those displaced from the fading oil and coal industries to operate them, to install renewables, and to retrofit buildings.
- We need to shift taxpayer subsidies away from oil and coal production, to climate-friendly solar, wind, and other renewables.
- We need to stop all construction of new coal plants unless technologies that capture CO<sub>2</sub> and sequester it are proven effective.
- We'll need to switch from most liquid fuels to electricity generated using clean

renewables. (There are sustainable biofuels, but food-based biofuels are not among them.)

- Any new buildings, transportation, and factories should be climate neutral so we avoid locking ourselves into destructive climate impacts for years to come.
- We need to use more brains and fewer BTUs. We can get a long way to a climate-neutral economy just by being more efficient with the energy we use.
- Justice must be at the core of our work. Decades of excessive fossil fuel use enriched some people; those who missed out on that abundance will not forgo a path out of poverty while the wealthy continue to over-consume. To win this race against time, we'll need everyone, including the poor. That means the wealthier will have to cut their own energy use while helping to finance the efforts of the poor to leapfrog over the fossil-fuel age straight to green jobs and renewables.

Climate scientist James Hansen famously said we have 10 years to reverse climate disrupting trends, or we will be living on a very different planet.

The reality is that we will be living on a different planet either way. If we continue as we are, it will be a planet of extreme weather, rising sea levels, large refugee populations, and violent conflicts over remaining land and resources. If we make the needed changes, it can be a planet of widely shared, renewable energy technologies. We might find that a less materialistic, more locally based way of life taps a whole new level of creativity as people seek out the smartest, most sustainable, and most beautiful ways to make or grow what we need. And our grandchildren will thank us for leaving them a world where they too have a shot at a good life.

**Sarah van Gelder**  
Executive Editor

Tsewang Norbu lives in the Himalayan village of Digger. He was selected by his community to be trained at the Barefoot College of Tilonia, India, in the installation and repair of solar photovoltaic units. All solar units were brought to the village across the 18,400-foot Khardungla Pass by yak and on villagers' backs.



[www.YesMagazine.org/barefoot](http://www.YesMagazine.org/barefoot)  
Photo essay by Barefoot Photographers



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### THE MISSION OF YES!

is to support you and other people worldwide in building a just, sustainable, and compassionate world. In each issue we focus on a different theme through these lenses ...

#### NEW VISIONS

Solving today's big problems will take more than a quick fix. These authors offer clarity about the roots of our problems and visions of a better way.

#### WORLD & COMMUNITY

New models that foster justice and real prosperity, and sustain the Earth's living systems. How can we bring these models to life and put them to work?

#### THE POWER OF ONE

Stories of people who find their courage, open their hearts, and discover what it means to be human in today's world.

#### BREAKING OPEN

Humor, story-telling, and the arts—taking you into unexpected spaces where business-as-usual breaks open into new possibilities.



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Bill McKibben near his home in Vermont. Photographed by Channing Johnson for YES! Magazine

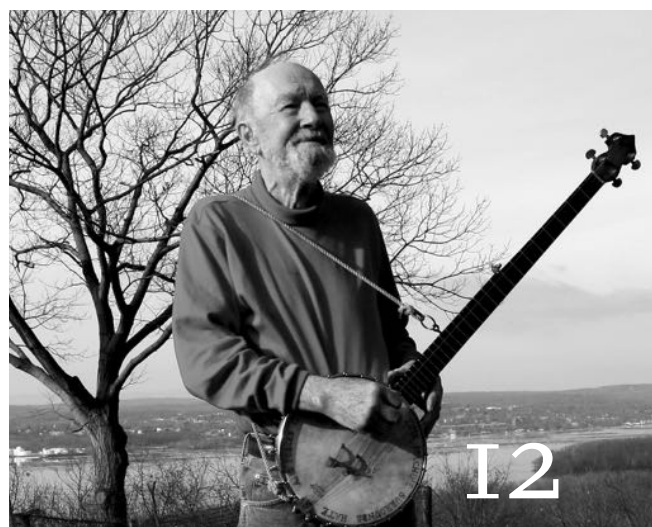
## OTHER FEATURES

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### Pete Seeger: How Can I Keep From Singing?

It's not fame he's been after during his decades of singing. "Fame is a snare and a delusion," he says. He marched for civil rights from Selma to Montgomery, played music on the banks of his beloved Hudson River, and was celebrated at Carnegie Hall. He's been working for change all his life, and he's seen some of his fondest hopes come to pass.

*Sarah van Gelder interviews Pete Seeger*



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# READERS FORUM

**Tell us.** Send your response to an article, stories about making the world a better place, and ideas for connecting with readers to 284 Madrona Way NE, Suite 116, Bainbridge Island, WA 98110 or to [editors@yesmagazine.org](mailto:editors@yesmagazine.org).



## WANT THIS ISSUE?

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or call 800/937-4451

### Hip Hop Creating Change

I loved the “Liberate Your Space” issue and recommended it to folks who want to respond to the Democratic National Convention when it comes to Denver. I connected particularly with “Hip Hop: Voice of the Voiceless.” I’ve discovered the most amazing hip hop hybrid band here—the Flobots. They have incredible political lyrics that, like *YES!*, highlight the change we need to make, and reassure us that we have power to create that change.

SARAH GILL  
Denver, CO

### Our Common Skies

Your article “Protecting Our Commons” in the corporations issue (Fall 2007) discusses water, forests, even cyberspace, but not air. Corporate smokestacks foul the atmosphere,

and we all end up breathing their pollution. Corporations externalize their costs while humans and other creatures directly internalize their emissions. I would have liked to see more about what communities are doing to address air quality problems caused by industry.

MAXINE CENTALA  
Concerned Citizens for Clean Air,  
Seal Rock, OR

### The Power of Peace

Sometimes we need to analyze a painful situation, such as the effectiveness of the anti-war movement. If political candidates knew the peace movement could deliver votes, I think they would be stronger in their opposition to the war. In thinking about peace, it is important to keep a balance between living the revolution we believe in and acting to

change government policy. Both can feed each other, but alone I don’t think they work.

ROBIN WILSON  
West Virginia Citizen  
Action Group, Charleston, WV

### Help Save Paper

I love your magazine, but I’m concerned about the numerous subscription insert cards. If people want to subscribe to a magazine these days, it’s just a click away, and no trees are harmed.

CAT THOMPSON  
[EmotionalTechnologies.com](http://EmotionalTechnologies.com)

*We prefer doing business online, since it saves paper, time, and money. But we’d miss many readers if we didn’t use any paper, and insert cards require less paper than direct mail. You can help by passing those cards on to friends. You can also renew online at [www.yesmagazine.org](http://www.yesmagazine.org) and give us your email address at check-out for future “paper-free” renewals. You’ll save paper (and*

*get our best rates) by renewing early and for two to three years at a time.*

Rod Arakaki  
YES! Business Manager

### Saving Public Parks

I just read the editor’s column in the “Liberate Your Space” issue. You so understand what we are doing! Instead of saying *no* to a road, we have been saying *yes* to our park and our community. Our next revolutionary act is bulb planting. So far over 300 bulbs have been planted in the park. It will be a glorious spring.

DEBBI LESTER  
Erickson Neighbors  
Bainbridge Island, WA

### CORRECTIONS

The correct name for the photo credit on page 33 of Issue 44 is Silvia Leindecke

On page 42 of Issue 44, the correct spelling of the Pirate Cat Radio DJ’s name is Renessa Lopez.

On page 58 (“In Review”) of Issue 43, there will be seven books in the Gaia Girls series, not four.

### YES! CLIMATE CHANGE ADVISERS

We would like to thank the following individuals for providing technical assistance with the climate change special issue: **Marcia B. Baker, Ph.D.**, University of Washington, **Yoram Bauman, Ph.D.**, University of Washington, **Eric de Place**, Sightline Institute, **Simon Donner, Ph.D.**, University of British Columbia, **Blair Henry, J.D.**, Northwest Council on Climate Change, **Michael Lazarus**, Stockholm Environment Institute, **Phil Mitchell**, Greater Seattle Climate Dialogues, **Chad Monfreda**, Arizona State University, **Julie Vano**, University of Washington, **Clark Williams-Derry**, Sightline Institute, **David Zaks**, University of Wisconsin-Madison. *YES!* takes sole responsibility for errors and inaccuracies.





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**Your Own Climate Solutions**

Our December online newsletter asked readers this question: "What carbon-reducing steps have you taken that give you the most pleasure?" Here are some of your answers:

Going vegetarian has given me lots of pleasure. Next step? I dream of a large windmill to produce at least some of our electricity.

**KIM BORGEN**  
Røyken, Norway

I bought a hybrid and stopped traveling by air. Instead I use video conferencing equipment.

**JIM KAIN**

I am putting up a cool greenhouse this spring to extend the growing season. I hope to grow most of our food and spread some around to friends and needy members of the community.

**GARY L. CLARK**  
Northeast Clark County, WA

I installed an on-demand water heater and insulated my floor. Now I'm looking at radiant heating to replace my aging furnace and rotting ducts. I also ride my bike and walk often and use my car as little as possible.

**BARBARA GILDAY**  
Bellingham, WA

I hosted an eco-awareness fest that drew 1,300 attendees, then met with staffers of both my U.S. Senators to discuss global warming.

**BOBBIE RICHARDSON**  
Melbourne, FL

More answers at [www.YesMagazine.org/climatecomments](http://www.YesMagazine.org/climatecomments)

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**YES! ONLINE**

**PETE SEEGER:** Video and photos from our exclusive interview with legendary singer/songwriter Pete Seeger



**PHOTO ESSAYS:** Gary Braasch's breathtaking images of climate change :: Barefoot Solar Engineers go global :: Burning Man exposed :: A "finishing school" for activists



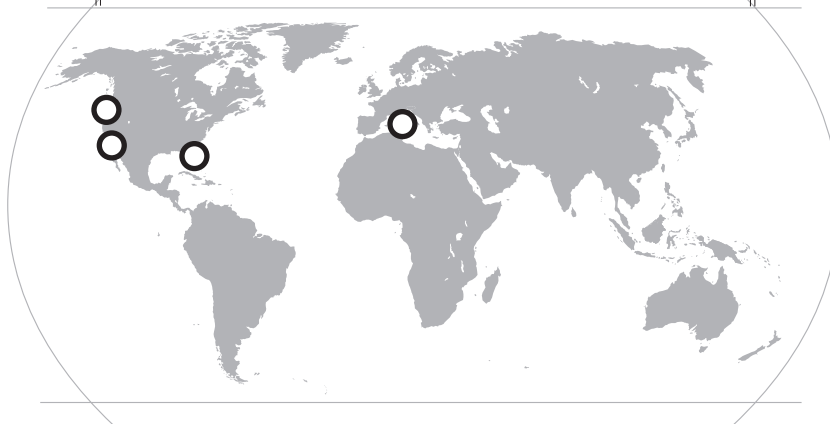
**FILM:** *The Story of all the Stuff* in our lives...

**ALSO:** Reader cartoon captions ... Music that inspires us ... Film picks ... Yes! But How advice on sustainable living



# Signs of Life

SMALL STORIES ABOUT BIG CHANGE



## VOTING

### Activists Defend Voter Rights

👍 Voting rights advocates have been working to overturn laws across the country that could disenfranchise voters and lead to unfair results in 2008 elections. Relying on technicalities and cumbersome administrative processes to verify voters, the disputed laws have the potential to deny the vote to hundreds of thousands of Americans.

As a key swing state, Florida has been one of the main battlegrounds. On December 18, voter advocates won a federal court decision blocking a Florida “no-match, no-vote” law. The decision added 16,000 qualified voters to the voting rolls, including thousands of minorities.

The law would have required voters to be verified against driver’s license registration lists or social security records, relying on an error-fraught administrative process. Under the law, voters could be struck from the rolls because of name changes, such as from a “maiden” to married name; name misspellings; or even the inclusion of a middle initial.

Republicans allege such laws are necessary to prevent voter fraud, but research shows that

voters are highly unlikely to cast fraudulent ballots. “The Bush Justice Department initiated a special ballot integrity initiative to try to find out whether people were committing voter fraud, pretending to be someone else when they voted, voting when they were ineligible,” says former Justice Department official Dave Becker. “And over the course of about four years, they discovered only two dozen instances.”

More often, partisan officials have used voter verification laws to discourage voters, often minorities, from casting ballots for the opposing party. A 2004 study by two Rice University social scientists demonstrates that, since the 1960s, the Republican Party, in particular, has strategically discouraged voting in minority precincts that tend to favor Democrats.

Over the past two years, Project Vote and the Advancement Project have led successful legal campaigns to stop other laws in Ohio, Pennsylvania, and Maryland that discouraged voting and voter registration.

U.S. Rep. John Conyers has introduced a bill in the House to prevent “voter caging,” the purging of voters from the rolls based on faulty mailing addresses. A companion bill was introduced in the Senate in November.



The Supreme Court is hearing a challenge to an Indiana law that requires citizens to present picture IDs when voting. The law disproportionately strikes from the voting rolls low-income, senior, and minority voters who may be unable to afford fees for IDs or access state ID registration offices.

Edward Hailes is a senior attorney with the Advancement Project.

## U.S. MILITARY

### Protesters Block Base Construction

👍 In December, 80,000 people took to the streets of historic Vicenza, Italy—the latest demonstration in a year-long campaign against a planned U.S. military base in this UNESCO



# “Too often, where we need water we find guns instead.”

**U.N. SECRETARY GENERAL BAN KI-MOON, URGING THE WORLD TO PUT THE LOOMING CRISIS OVER WATER SHORTAGES AT THE TOP OF THE GLOBAL AGENDA THIS YEAR.**



In Vicenza, Italy, a protester wraps herself in the peace flag outside a historic theater, part of protests earlier last year demanding that the United States stop plans for the Dal Molin military base.



GIULIANO KOREN, FLICKR.COM/KLAB

World Heritage Site. Protesters have so far successfully blocked construction.


The base has been approved by the Italian government and the Vicenza City Council, which has refused requests to hold a public referendum. Polls show a majority of citizens oppose the project.

The Vicenza residents aren't alone in their resistance to


hosting U.S. military bases. In the last year, Ecuador refused to extend the lease agreement of an American air base; Polish and Czech citizens voiced major opposition to their governments' plans to host missile defense bases; and protesters rallied against bases in Bahrain, Guam, and Okinawa.

In 2007, the Department of Defense reported 823 bases located outside U.S. borders.

## ALSO ...

 **Suicides among U.S. veterans** are far outpacing combat casualties. A recent CBS news study found that more than 6,256 veterans committed suicide in 2005 alone, compared to an estimated 846 soldiers killed in combat that same year. The study also found that veterans aged 20–24 are four times more likely to commit suicide than their non-military peers.


In a separate study, the Homeless Research Institute found that veterans make up more than a quarter of the nation's homeless population.

 **Residents of Potrero, California** in December voted to recall five planning officials who backed a plan by Blackwater Worldwide, a private military contractor, to build a training facility in their town. The planned facility includes an armory, firing ranges, and combat simulators. Many residents say they object to Blackwater's role in the Iraq war. Despite the vote, company officials say they are still pursuing the project, whose approval rests with the County Board of Supervisors.

—Brooke Jarvis

## MEDIA

### FCC Defies Citizen Input

 Federal Communications Commission Chairman Kevin Martin pushed through a decision to allow big media companies to hold combined ownership of newspapers, TV, and radio stations in the nation's largest cities—concentrating corporate control over news outlets serving millions of Americans.

The FCC's decision defied tens of thousands of public comments voiced at six hearings held over the past year and submitted in writing.

Senators and representatives from both parties also weighed in, urging the FCC not to weaken the rules.

At the final hearing held

in Seattle on November 9, an overflow crowd of more than 1,100 people from Washington, Oregon, Idaho, Montana, and California kept the commissioners in their seats for nine hours of testimony. All but a handful of those testifying expressed opposition to weakened media ownership limits.

The FCC had scheduled the hearing with just one week's advance notice. Despite the unusually compressed timeline, an ad hoc coalition led by Reclaim the Media got the word out and held workshops in Washington and Oregon to help citizens prepare two-minute comments for the hearing.

Citizens and media activists are now looking to Congress to overrule the FCC.

Jonathan Lawson is executive director of Reclaim the Media.

**Interested?** Hear Sarah van Gelder and Fran Korten's FCC testimony at [www.yesmagazine.org/fcc](http://www.yesmagazine.org/fcc)



BEACHBLOGGER.NET

U.S. Rep. Bob Filner (D-CA) joined Potrero residents in a protest against a planned Blackwater facility. Potrero is a small community 45 miles east of San Diego.





### ENVIRONMENT

#### Kenyans Revive Ailing Lake

👍 Approximately 90 miles from Nairobi, a Kenyan lake that suffered environmental collapse in the 1990s is showing signs of recovery.

For three decades, local residents razed forests surrounding the lake to expand farmland, a response to desperate poverty, food shortages, and a growing population. As trees disappeared, rainfall decreased, causing the lake to shrink. Fish, birds, and frogs died off, victims of agricultural pollution. The lake's flamingo population, a main tourist draw for the region, dropped from more than a million to less than 10,000. And as the flamingos disappeared, so did the tourists, dealing a drastic blow to the local economy.

But for the past two years, the residents of Lake Nakuru have begun fixing their environmental mistakes. They planted more than 3,000 trees in 2007 alone, and flamingos have been returning en masse to Lake Nakuru.

#### ALSO ...

👍 **Central Asia's Aral Sea is showing considerable revitalization** after hundreds of millions of dollars in environmental clean-up efforts. Once



CHRISTOPHER HERWIG, HERWIGPHOTO.COM

called the worst human-caused environmental disaster of the 20th century, the sea had shrunk to nearly a quarter of its original size since the 1960s, destroying the fishing industry and causing widespread health problems for the local population. While the South Aral continues to be neglected, recovery efforts sponsored by the World Bank and the Kazakh government have helped the North Aral return to 40 percent of its original size.

—Margit Christenson

Straddling the border between Kazakhstan in the north and Uzbekistan in the south, the Aral Sea was the fourth-largest lake in the world until Soviet-era irrigation diverted water, destroying it.



[www.YesMagazine.org/aralsea](http://www.YesMagazine.org/aralsea)  
Photo essay of the Aral Sea from Christopher Herwig

### HUMAN RIGHTS

#### Lawyers Challenge Bush Actions

👍 American lawyers are taking a stand against the “possible criminal actions” of the Bush administration. American Lawyers Defending the Constitution, a partnership headed by The American Freedom Campaign, has issued a statement calling on Congress to investigate the Bush administration’s use of torture practices, illegal spying, and indefinite incarceration, as well as the administration’s obstruction of congressional oversight of the executive branch. The statement has been signed by more than 1,000 lawyers and law students.

—Margit Christenson

#### Bolivia Adopts New Constitution

👍 Bolivians will soon vote on a new constitution that fully recognizes the indigenous sovereignty of the 36 nations within Bolivia.

The innovative document also requires basic services to be delivered on a not-for-profit basis and bans GMOs, giving priority to small organic farmers and protecting natural resources.

Under its provisions, the state must support the con-

**“It seems like every day there is another house that gets foreclosed ... We wanted to make sure that the residents who grew up here could afford to buy here.”**



**JOHN BARROS**, EXECUTIVE DIRECTOR OF THE DUDLEY STREET NEIGHBORHOOD INITIATIVE. THE INITIATIVE HAS LARGELY AVOIDED FORECLOSURES AND MORTGAGE DEFAULTS BY HOLDING NEIGHBORHOOD LAND IN TRUST AND SELLING AFFORDABLE HOMES TO LOW-INCOME FAMILIES.



cept of *vivir bien*, described by Bolivia's Foreign Minister David Choquehuanca as “living well, which is not about living better—that is the language of development which has caused great imbalance. Living well is about living in harmony with others and with nature.”

Conservative elites in the eastern half of the country have refused to recognize the new constitution and may boycott the popular referendum, which is required for the document to become law.

Juliette Beck is an independent journalist living in Cochabamba, Bolivia.

## Farmworkers Fight for Wage Increase



The Coalition of Immokalee Workers (CIW) is continuing its campaign to pressure Burger King to increase wages for workers. On November 30, 2007, hundreds of protesters from around the country marched nine miles in support of the CIW campaign, and in January, four U.S. senators visited Immokalee and signed a letter urging Burger King to consent to the increase.

In April 2007, CIW successfully struck a deal with McDonald's, which agreed to pay a penny more per pound of tomatoes. But Burger King thwarted the deal, threatening to discontinue its purchases from Florida produce suppliers rather than

pay about \$250,000 more per year. The Florida Tomato Growers Exchange has followed suit, claiming that the increase violates antitrust laws and threatening a fine of \$100,000 for any grower that agrees to the pay increase.

At current rates, the farmworkers must each pick more than two tons of tomatoes every day in order to earn minimum wage. The mostly Latino workers have some of the lowest living standards in the nation—with 10 or more people often living in a run-down trailer.

The small price increase

would double farmworker pay scales, which haven't risen in decades.

Hannah Sassaman is a program director with Prometheus Radio Project.

Interested? [www.ciw-online.org](http://www.ciw-online.org)

### ALSO ...



**Uruguay is the first Latin American nation** to legalize same-sex civil unions. After living together for five years, couples will be eligible for civil union status, which confers the rights of married partners to inheritance, pensions, and child custody.

Latin America is also home to several state and municipal

governments, including those of Buenos Aires and Mexico City, that already recognize same-sex unions.



**Despite high rates of racial segregation and stereotyping**, the majority of black, Latino, and Asian Americans believe they should work together in order to build stronger communities, according to a New America Media poll. Respondents overwhelmingly agreed that the U.S. would improve if more people of color were in positions of authority.



JOHNNY BARBER, ONEBRIGHTPEARL.COM

Coalition of Immokalee Workers and their supporters in Miami protest Burger King's refusal to pay farms one penny more per pound for tomatoes.





### Daniel Levin Waterboard Whistleblower

IN 2004, WHILE DRAFTING a memo outlining the Bush administration's position on torture, Daniel Levin, then acting assistant attorney general, was so concerned by the practice of waterboarding that he underwent the procedure himself. The interrogation technique, designed to simulate drowning, involves pouring water over a detainee's towel-covered face. Levin's experience cemented his view: the technique was indeed torture.

Levin's subsequent memo clarified the definition of torture to include suffering "even if it does not involve severe physical pain." Levin was working on a second memo setting stricter controls on interrogation practices, when he was forced out of the Justice Department, an event coinciding with Alberto Gonzalez's appointment as attorney general in 2005.

His work, however, made an impact. In December 2007, the House of Representatives passed a bill forbidding such interrogation methods as waterboarding.



EARTH ISLAND INSTITUTE

### Erica Fernandez Taking On Natural Gas Giants

IN HER CAMPAIGN TO STOP the building of a liquefied natural gas plant, 16-year-old Erica Fernandez learned a valuable lesson: "A united community is more powerful than money."

Fernandez was born and raised in Mexico until age 10. When she learned of BHP Billiton's plan to build an LNG facility near her hometown in Oxnard, California, Fernandez began educating herself about what it would mean for her community. She learned that the plant would likely pollute coastal towns and send a pipeline through low-income neighborhoods. While many community members felt the plant was inevitable, Fernandez resolved to halt the project. She organized protests, community meetings, and letter-writing campaigns until the governor agreed to reject the LNG project. Fernandez received a 2007 Brower Youth award, which honors environmental and social justice actions.



Video on Erica's project  
[www.YesMagazine.org/erica](http://www.YesMagazine.org/erica)



### Cheryl Honey Weaving Together Communities

FIFTEEN YEARS AGO, Cheryl Honey was an unemployed mother struggling to raise her four children. After turning to social services for help, she realized that she "wasn't broken and didn't need to be fixed"—she just lacked the support network she needed.

Honey got her neighbors together to find out how they might share skills, resources, and friendship. That network has since grown into the non-profit Family Support Network International. FSN makes connections between volunteer "Good Neighbors" and those in need of the resources they can offer. Neighbors volunteer to provide rides and childcare, fix toilets and cars, organize community events, and offer havens from domestic abuse and homelessness.

Honey also trains "Community Weavers" who can replicate her model in their own neighborhoods. For Honey, the way to create supportive communities is to "weave a safety net by connecting people together."



### Hal Taussig CEO Lives the Simple Life

WITH 83 YEARS BEHIND him and an empty bank account, Hal Taussig seems an unlikely CEO. Taussig heads Untours, Inc., the cultural immersion tourism business he founded in 1992. Company profits and Taussig's \$6,000 annual salary are donated to the Untours Foundation, which provides loans to projects like low-income housing, fair trade enterprises, and farmland purchases for landless Brazilian families.

Taussig's lifestyle transformed in the 1980s when he wrote a \$20,000 check—everything in his bank account at the time—for a real estate deal. The exhilaration he felt at being free of money made a lasting impression, and Taussig has maintained a habit of giving away all of his money. Since 1999, Taussig has handed out more than \$5 million.

"I think it's false to define capitalism as selfish. Charity and taxes are not going to make a better world or a more just world, but businesses can take a lead in doing that."

COMMENTARY :: *Call for a Beloved Community*

## THE FIERCE URGENCY OF NOW

We are living in a time of great peril and possibility. In 1957, with the Montgomery bus boycott, we embarked on a journey that enlarged the soul of America. We found the courage to question what kind of people we were and the wisdom to change ourselves into a people offering new hope in the world. The struggles of African Americans for full citizenship and dignity inspired more than a half century of progressive movements in the United States and around the world.

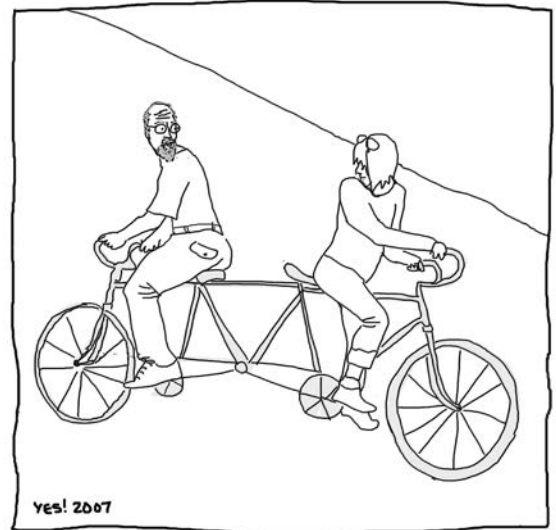
Today we no longer inspire hope in those who have been despised, displaced, and devalued. Instead, we inspire fear, terror, and division. More than 40 years ago, Dr. Martin Luther King, Jr. warned that unless we engaged in a great revolution of values and overcame racism, materialism and militarism, we would be *"dragged down the long, dark, and shameful corridors of time reserved for those who possess power without compassion, might without morality, and strength without sight."*

Now, we face a constitutional crisis brought on by the acts of a president who has placed himself above the law, is conducting an illegal war, subverting the Constitution, and willfully ignoring a planetary crisis that threatens the future of life on earth. We are losing faith in our capacity to create the world anew.

Few of our ancestors were among those who founded this nation more than 200 years ago and who established the political, economic and social patterns that have brought us to this present crisis. But none of us can step back from the responsibility of becoming part of the solution. Because of the struggles of working people in factories and on farms, African Americans, women, Chicanos, Native Americans and immigrants, gay people, youth, and the disabled, all of us have a new "burden and responsibility." All of us have the opportunity to engage in the process of creating a new, more human, more socially conscious, and ecologically responsible nation.

This year, as we celebrate the birthday of Dr. Martin Luther King, Jr. and commemorate the last year of his life, we encourage you to consider his deepest call to the generations to come:

*"Now let us rededicate ourselves to the long and bitter, but beautiful, struggle for a new world. This is the calling of the sons of God, and our brothers wait eagerly for our response. Shall we say the odds are too great? Shall we tell them the struggle is too hard? Will our message be that the forces of American life militate against their arrival as full men, and we send our deepest regrets? Or will there be another message—of longing, of hope, of solidarity with their yearnings, of commitment to their cause, whatever the cost?"*



*Democrats and Republicans finally working in tandem on progressive transportation policy.*

CHUCK FISHER

*I'll see you when we get there.*

JACK FOSTER



[www.YesMagazine.org/cartoon](http://www.YesMagazine.org/cartoon) for more reader captions

*The choice is ours."*

As we celebrate his life, let us find the courage to confront the questions:

**On peace and war:** How do we restore relationships of respect and integrity within the community of nations?

**On sustainable living:** How do we live more simply so that others may simply live?

**On immigration:** How can we protect our brothers and sisters from other lands?

**On healthy communities:** How do we create and restore ways of living that encourage the imagination and productive capacities of our young people?

**On justice:** How do we guarantee that all have the basic human right to education, sustenance, and respect?

Dr. King had faith that if we confronted the questions of our time, honestly, together we would create an America we could all be proud to call our own:

*"If we will but make the right choice, we will be able to speed up the day, all over America and all over the world, when justice will roll down like waters, and righteousness like a mighty stream."* ⑦

Initiating signers of this call for Beloved Communities: **Grace Lee Boggs**, Boggs Center to Nurture Community Leadership; **Rachel Harding**, Veterans of Hope; **Shea Howell**, Detroit Summer; **Rev. Nelson Johnson**, Beloved Community Center of Greensboro, N. C.; **John Maguire**, Institute for Democratic Renewal/Project Change; **Kathy Wan Povi Sanchez**, Tewa Women United; **Shirley Strong**, Institute for Democratic Renewal/Project Change.  
Interested? [www.belovedcommunitiesnet.org](http://www.belovedcommunitiesnet.org)





Pete's famous  
banjo reads:  
"This machine  
surrounds hate  
and forces it to  
surrender."

MICHAEL BOWMAN FOR YES! MAGAZINE  
DESOLATEPLACES.COM



**PETE SEEGER** on a life of music and  
the power of millions of small changes

# How Can I Keep from Singing?

## Interview with Sarah van Gelder

Pete Seeger has been a presence in my life since the time I was growing up in the Hudson Valley of New York. My family was among the scores who went to see him perform at a run-down little park on the Hudson with his sloop, the Clearwater, docked nearby. His songs of his love for a polluted, neglected waterway rekindled in people a yearning for connection to the great river.

Later, I heard him sing at rallies against the Vietnam War, and I knew then that there were adults who shared my passion for peace and justice.

More recently, Pete Seeger has been sending post cards to *YES!* with ideas for stories we might cover, and he made a donation that he said should be used to send a copy of *YES!* to each of the foreign embassies located in the United States.

Finally, in December, I had a chance to talk to him in person. We met at the home he built himself on a ridge overlooking his beloved Hudson River. He introduced us to his wife, Toshi Seeger, told stories, sang us songs, and showed us his electric pickup truck, powered by the solar panels on his roof. Here is part of our conversation:

**Sarah:** When did you first realize that music, especially the music of ordinary people, would define your life?

**Pete:** I didn't know it would define my life. My mother gave me a ukulele at age eight, and I sang the popular tunes of the day.

[Sings] *He's just a sentimental gentleman from Georgia ...*

The other songs my family liked to

sing were rounds.

*Joy and temperance and repose ...*

I think my mother's father taught it to her. He was a conservative New Englander. My father's family were radical New Englanders—Unitarians and abolitionists from way back. But my mother's father came from Tories.

**Sarah:** How did you go from pop music to folk music?

**Pete:** I was 16 when I came to New York. I had graduated to a tenor banjo in the school jazz band, and it was kind of boring—just chords, chords, chords. Then my father took me to a mountain music and dance festival in Asheville, North Carolina, and there I saw relatively uneducated people playing great music by ear.



MICHAEL BOWMAN FOR YES! MAGAZINE

Sarah van Gelder with Pete Seeger at his home in Beacon, New York, overlooking the Hudson River.

I'll never forget Mrs. Samantha Baumgarner, sitting back in her rocking chair with a banjo—oh, she'd painted the head of her banjo with brightly colored butterflies and flowers, and she was singing funny songs, tragic songs, violent songs, "Pretty Polly," about murdering your true love.

**Sarah:** You did some traveling with Woody Guthrie later on, didn't you?

**Pete:** He taught me how to hitchhike and how to ride freight trains. You don't get on a freight when it's in the station—the railroad bulls will kick you off. You go about 100 yards or maybe 200 yards outside to where the train is just picking up speed and you can trot alongside it. You throw your banjo in an empty car, and then you throw your- >>



## Pete Seeger: How Can I Keep From Singing?

**Learning how to do something in your hometown is the most important thing. ... If there's a world here in a hundred years, it's going to be saved by tens of millions of little things.**

» self in. And you then might go 200 or 300 miles before you stop.

Then I would knock on back doors and say, "Can I do a little work for a meal?" Or I'd sing in a saloon for a few quarters.

In six months I saw the country like I never would have seen it otherwise. I was curious to learn how workers were doing. I went out to Butte, Montana, which was a copper mining town then, and went a thousand feet down where it was hot, hot, and they were sweating, down there, working away.

They had a good union, though, and I knocked on the door and said, "I know some union songs, would you like to hear them?" And they paid me all of five dollars, which was a lot of money then, to sing some of the coal miners' songs I knew from the East.

After World War II, we started a little organization we called People's Songs. It was a very small organization; our publication had a circulation of about 2,000, and we finally went broke in 1949. The Cold War was too much for us. The ruling class knew just how to split the labor movement.

I dropped out of the communist movement about the same time as I moved up here to Beacon. I was never enthusiastic about being somebody who was supposed to be silent about being a member of something. On the other hand, I was still curious about what was happening to communist countries. I went to the Soviet Union three times, in 1964, and in 1967, I think, and again in 1981. I concentrated on singing songs of the civil rights movement, rather than the labor movement, because that's what really turned my life around: seeing what Dr. King did, without using force and violence, whereas the communists said the world would not be changed without a great revolution. I think that was the big mistake.

**Sarah:** Did you witness for yourself what Dr. King was doing?

**Pete:** Toshi and I were on the march from Selma to Montgomery for three days. And I sang in Selma and Montgomery from time to time, and one time in Birmingham and in Mississippi another time.

It was only through the years that I realized what an absolutely extraordinarily thoughtful person King was. He insisted, from the beginning, in winning the bus boycott without violence.

Some of the middle-class African Americans would say, "Dr. King, accept a compromise. More people are going to be hurt and killed." These were doctors and lawyers who didn't want to lose their business. And the young people would say, "They bombed us. Why don't we bomb them back?" And King would bring them together to talk and listen to each other, and it might take a whole day or sometimes two days or even three days. But finally, they'd say, "Okay, this is what we'll say and this is what we'll do. Because we know we have to work together or we're not going to win."

**Sarah:** Besides the labor and civil rights movements, you were also involved in the anti-war movement.

**Pete:** There are still battles among people who are not quite sure what kind of actions can be effective. I tend to agree with Paul Hawken that it's going to be many small things.

I think of Tommy Sands, an Irish song leader, who got song leaders from the North and the South singing together for a whole evening. They had people there who'd been killing each other—Protestants and Catholics—and at the end of the evening, they tentatively started talking to each other.

**Sarah:** When you sing, "Bring Them Home," you say "one of the great things about America is that we can speak our minds." And you said that at a time when you had been blacklisted for many, many years. Can you talk about what it means to you to be a patriot?

**Pete:** Well, Toshi and I are both deeply proud that we were able to be part of the anti-Vietnam War movement. And I say this is one of the great victories for the American people.

Now here's another story you might like. In Albany, a woman named Ruth Pelham, about 25 or 30 years ago, found she liked to make up songs for kids, and the kids in her neighborhood liked to hear her sing.

She saved up enough money to get a suitcase of instruments and a little van. She'd go to one neighborhood on Monday, another neighborhood on Tuesday, and so on, six days a week.

And it got to be a favorite thing in Albany to go to the music mobile.

And she's a good songwriter:

*We're gonna look to the people for courage in the hard times coming ahead.*

*We're gonna sing and shout, we're gonna work it out, in the hard times coming ahead.*

*With people's courage, with people's courage, with people's courage we can make it!*

Second verse:

*We're gonna look to the people for laughter in the hard times coming ahead...*

And people just add verses:

*We've gotta look to the people'schutzpah!...*

Albany is a different town than it used to be because of it. A few years ago, the mayor of Albany had a big gathering, and there were hundreds of people there with her, singing together.

Oh, I haven't even told you about



MICHAEL BOWMAN FOR YES! MAGAZINE

Pete and Toshi Seeger's home overlooks the Hudson River. The sloop he launched, the *Clearwater*, takes more than 10,000 children and adults on board each year to learn about the history and ecology of the Hudson.

our local group! It's called the Beacon Sloop Club. When the *Clearwater* first stopped here, we had a little party. A thousand people, mostly young people, came. Toshi made stone soup. You know the story of stone soup? I'd never heard of it before, but I got it published in the local paper, and Toshi fed a thousand people out of one big iron pot.

One woman brought down a chicken, and said "I was going to feed it to my family, but they're all here." Another brought down a roast beef—"my family's here, you might as well take it!"

And then, when the festival was over, everybody said, "Now I've got to get back to my family, my church, my business, my veterans' organization," whatever it was.

And the next year when *Clearwater* started again, we had to start from scratch organizing the festival. At which point a teenager said, "Why don't we have a sloop club here, so we have people who know how to put on a festival."

I groaned. Another organization, minutes, elections. I called a meeting but only three people showed up.

Toshi said, "Don't call it a meeting. Call it a potluck supper." Then 30 people came. We have had a meeting the first Friday of the month for 36 years. When we have a holiday song-fest, almost 200 squeeze in, and we're practically part of the establishment. It's funny.

Before the *Clearwater* started clean-

ing up the river, land was very cheap. This land was only \$100 an acre when we bought it. Now my neighbor is trying to sell one acre for \$100,000. That's what's happening in the Hudson Valley. The real estate people say, "We filled up Long Island. We filled up New Jersey. Now we will fill up the Hudson Valley."

**Sarah:** [laughing] So you never thought you were helping the real estate industry when you cleaned up the Hudson?

**Pete:** I was complaining to a politician in Beacon, "We've grown too fast, we're doubling every 20 years. We can't do this forever. He says "Pete! If you don't grow you die." And, I didn't know what to say, except at one o'clock in the morning I sat up in bed. "If it's true that if you don't grow you die, doesn't it follow that the quicker we grow the sooner we die?"

That doesn't mean that we know how to solve the problem. But the first step in solving a problem is admitting there is a problem to be solved.

**Sarah:** One of your most famous songs is "Turn! Turn! Turn! (To everything there is a season)." What kind of time do you think we're in right now?

**Pete:** We are in a crisis time. I don't give us a chance of—well, you never can tell. There might be a little tribe

somewhere in the world on some isolated island, but I see human beings wiping each other off the face of the earth. We've invented such weapons—not just nuclear weapons but chemical weapons and all sorts of things.

I've been saying for years, it may be that climate change is a wake-up call for the whole human race. It's going to be a multi-trillion dollar disaster for the rich countries, and a human disaster for the poor countries. Where's Bangladesh going to put 45 million people? And Calcutta, and other cities? It's going to be a disaster like nobody's ever seen—and I hope people like Bush and people from the oil industry are still living so that they can see what a mistake they made.

**Sarah:** What's your secret to getting children singing, getting people even at Carnegie Hall singing together, getting people to fall in love with their river and take care of it? Are there some things we can learn about why people choose to get involved?

**Pete:** Well, it's been my belief that learning how to do something in your hometown is the most important thing. It's not just me who thinks this. Margaret Mead said, "Never doubt that a small group of people can change the world, indeed it is the only thing that ever has." And the great biologist René Dubos said, "Think globally, act locally." And E.F. Schumacher said "Small is beautiful." And now Paul Hawken. All these people are saying the same thing.

If there's a world here in a hundred years, it's going to be saved by tens of millions of little things. The powers-that-be can break up any big thing they want. They can corrupt it or co-opt it from the inside, or they can attack it from the outside. But what are they going to do about 10 million little things? They break up two of them, and three more like them spring up! 🎥



Watch a video excerpt of this interview



Photographer Michael Bowman's photo essay of Pete Seeger at home

[www.YesMagazine.org/pete](http://www.YesMagazine.org/pete)



Amount of its roads budget that Copenhagen devotes to services and infrastructure for cyclists: **1/3**<sup>1</sup>

Amount of money that a community gains for every mile biked instead of driven: **50 cents**<sup>2</sup>

Benefit to Norwegian society for each physically inactive citizen who chooses to bike or walk to work: **\$4,500 - \$5,900**<sup>3</sup>

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Number of jobs created by spending \$1 billion on defense: **8,555**

Number of jobs created by spending \$1 billion on health care: **10,779**

Number of jobs created by spending \$1 billion on education: **17,687**

Number of jobs created by spending \$1 billion on mass transit: **19,795**<sup>4</sup>

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Percentage of American high-schoolers who report extreme daytime sleepiness: **59**

Percentage of high school seniors that average at least eight hours of sleep a night: **5**<sup>5</sup>

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Distance from which a blue whale's heartbeat can be detected: **2 miles**

Number of pounds a blue whale calf can gain in an hour: **8**<sup>6</sup>

---

Percentage of people in the U.S. who said they were satisfied with the state of their nation in 2002: **41**

Percentage of people in the U.S. who said they were satisfied with the state of their nation in 2007: **25**

Percentage of people in Latin America who said they were satisfied with the state of their nation in 2002: **7**

Percentage of people in Latin America who said they were satisfied with the state of their nation in 2007: **34**<sup>7</sup>

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Percentage of major media stories about the 2008 presidential elections that focused on political, financial, and tactical aspects of the campaign: **63**

Percentage that focused on the personal backgrounds of candidates: **17**

Percentage that focused on the ideas and policy proposals of candidates: **15**

Percentage that focused on records and past public performance of candidates: **1**<sup>8</sup>

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Pounds of carrots an average American consumed annually in 1985, the year before the invention of the peeled "baby carrot": **9.63**

Per capita carrot consumption, in pounds, at its peak in 1998: **18.16**<sup>9</sup>

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Amount by which U.S. rice production was subsidized in 2003: **\$1,279,000,000**

Percentage below production costs at which U.S. rice was exported to Honduras in 2003: **40**

Percentage by which U.S. rice prices in Central America will further drop under CAFTA quotas: **20**

Percentage of Honduran rice farmers who have lost their jobs due to U.S. rice dumping: **92**<sup>10</sup>

**Complete citations at [www.yesmagazine.org/ptc](http://www.yesmagazine.org/ptc)**

**1.** "Livable Copenhagen: The Design of a Bicycle City," 2007. **2.** Victoria Transport Policy Institute, "Quantifying the Benefits of Non-Motorized Transportation for Achieving Mobility Management Objectives," November 30, 2004. **3.** Institute of Transport Economics, "Walking- and cycling track networks in Norwegian cities: Cost-benefit analyses including health effects and external costs of road traffic," 2002. **4.** Dept. of Economics and Political Economy Research Institute, University of Massachusetts, Amherst, "The U.S. Employment Effects of Military and Domestic Spending Priorities," October 2007. **5.** National Sleep Foundation, "2006 Sleep in America Poll Summary of Findings," 2006. **6.** [www.worldwildlife.org](http://www.worldwildlife.org) **7.** Pew Global Attitudes Project, "A Rising Tide Lifts Mood in the Developing World," July 24, 2007. **8.** Project for Excellence in Journalism, Joan Shorenstein Center on the Press, Politics and Public Policy, "The Invisible Primary—Invisible No Longer," October 29, 2007. **9.** USDA, "Factors Affecting Carrot Consumption in the United States," March 2007. **10.** Oxfam International, "A Raw Deal for Rice under DR-CAFTA," November 16, 2004.

# CLIMATE SOLUTIONS

Climate change used to be something that would happen far off in the future. Now the science says we have just 10 years to change course or things will get scary. What do we do? What will actually make a difference? It turns out we have the means. The question is: Do we have the will?

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**Bill McKibben Steps Up.** *Some just talk about the weather. McKibben shows what we can do about it.*

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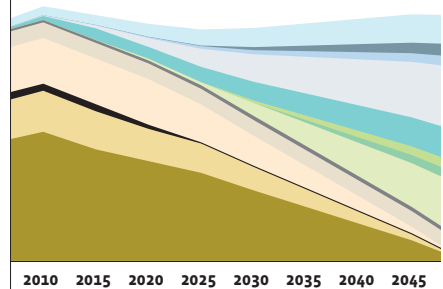


**We're in it Together.** *Rich and poor countries met in Bali and decided to give global fairness a chance.*

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## 2 Degrees from Disaster

*Here's what it means to avert the worst case—by the numbers.*



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## What's Possible in a Post-Carbon World ...

**Buildings.** *Carbon-neutral homes and elegant towers.*

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**Electricity.** *Sun or coal, wind or nukes? You get to vote.*

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**Transportation.** *Feet, bikes, buses, and an all-electric fleet.*

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**Food & Forests.** *Changes from the ground up.*

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## How the Jones Family Gets Carbon Free in 10 Years

*Heating, cooling. Getting to work. How you can have it all, minus the carbon.*



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**Climate First Responders.** *The people out in front changing the political climate on, well, climate.*

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**The Greatest Danger.** *If you're not terrified, you're not paying attention. But don't get stuck there.*





# First, Step Up

**Bill McKibben**

AT ANY GIVEN MOMENT we face as a society an enormous number of problems: there's the mortgage crisis, the health care crisis, the endless war in Iraq, and on and on. Maybe we'll solve some of them, and doubtless new ones will spring up to take their places. But there's only one thing we're doing that will be easily visible from the moon. That something is global warming. Quite literally it's the biggest problem humans have ever faced, and while there are ways to at least start to deal with it, all of them rest on acknowledging just how large the challenge really is.

What exactly do I mean by large? Last fall the scientists who study sea ice in the Arctic reported that it was melting even faster than they'd predicted. We blew by the old record for ice loss in mid-August, and by the time the long polar night finally descended, the fabled Northwest Passage was open for navigation for the first time in recorded history. That is to say, from outer space the Earth already looks very different: less white, more blue.

What do I mean by large? On the glaciers of Greenland, 10 percent more ice melted last summer than any year for which we have records. This is bad news because, unlike sea ice, Greenland's vast frozen mass sits above rock, and when it melts, the oceans rise—potentially a lot. James Hansen, America's foremost climatologist, testified in court last year that we might see sea level increase as much as six meters—nearly 20 feet—in the course of this century. With





Bill McKibben has been sounding the alarm on climate change since his 1989 book, *The End of Nature*. He lives in Ripton, Vermont, where he teaches, writes, and works to counter climate change.

that, the view from space looks very different indeed (not to mention the view from the office buildings of any coastal city on earth).

What do I mean by large? Already higher heat is causing drought in arid areas the world over. In Australia things have gotten so bad that agricultural output is falling fast in the continent's biggest river basin, and the nation's prime minister is urging his people to pray for rain. Aussie native Rupert Murdoch is so rattled he's announced plans to make his NewsCorp empire (think Fox News) carbon neutral. Australian voters ousted their old government last fall, largely because of concerns over climate.

What do I mean by large? If we'd tried we couldn't have figured out a more thorough way to make life miserable for the world's poor, who now must deal with the loss of the one thing they could always take for granted—the planet's basic physical stability. We've never figured out as efficient a method for obliterating other species. We've never figured out another way to so fully degrade the future for everyone who comes after us.

Or rather, we have figured out one other change that rises to this scale. That change is called all-out thermonuclear war, and so far, at least, we've decided not to have one. But we haven't called off global warming. Just the opposite: in the 20 years that we've known about this problem, we've steadily burned more coal and gas and oil, and hence steadily poured more carbon dioxide into the atmosphere. Instead of a few huge explosions, we've got billions of little ones every minute, as pistons fire inside engines and boilers burn coal.

Having put off real change, we've made our job steadily harder. But there are signs that we're finally ready to get to work. Congress is for the first time seriously considering legislation that would actually limit U.S. emissions. The bills won't be signed by President Bush, and they don't do everything that needs doing—but they're a start. »





**We need a movement. We need a political swell larger than the civil rights movement—as passionate and as willing to sacrifice. Without it, we’re not going to best the fossil fuel companies and the automakers and the rest of the vested interests that are keeping us from change.**

» And the international community meeting in Bali in December overcame U.S. resistance and began the steps toward an international treaty that will be ready in 2009. The talks are going slowly, largely because of American intransigence, but George Bush won’t be president forever, so there’s at least a chance we’ll re-engage with the rest of the world.

If we do, there are steps we can take. Because the problem is so big, and coming at us so fast, those steps will need to be large. And even so, they won’t be enough to stop global warming—at best they will slow it down and give us some margin. But here’s the deal:

We need to conserve energy. That’s the cheapest way to reduce carbon. Screw in the energy-saving lightbulbs, but that’s just the start. You have to blow in the new insulation—blow it in so thick that you can heat your home with a birthday candle. You have to plug in the new appliances—not the flat-screen TV, which uses way more power than the old set, but the new water-saving front-loading washer. And once you’ve got it plugged in, turn the dial so that you’re using cold water. The dryer? You don’t need a dryer—that’s the sun’s job.

We need to generate the power we use cleanly. Wind is the fastest growing source of electricity generation around the world—but it needs to grow much faster still. Solar panels are increasingly common—especially in Japan and Germany, which are richer in political will than they are in sunshine. Much of the technology is now available; we need innovation in financing and subsidizing more than we do in generating technology.

We need to change our habits—really, we need to change our sense of what we want from the world. Do we want enormous homes and enormous cars, all to ourselves? If we do, then we can’t deal with global warming. Do we want to keep eating food that travels 1,500 miles to reach our lips? Or can we take the bus or ride a bike to the farmers’ market? Does that sound romantic to you? Farmers’ markets are the fastest growing part of the American food economy; their heaviest users may be urban-dwelling immigrants, recently enough arrived from the rest of the world that they can remember what actual food tastes like. Which leads to the next necessity:

We need to stop insisting that we’ve figured out the best way on Earth to live. For one thing, if it’s wrecking the Earth then it’s probably not all that great. But even by measures of life satisfaction and happiness, the Europeans have us beat—and they manage it on half the energy use per capita. We need to be pointing the Indians and the Chinese hard in the direction of London, not Los Angeles; Barcelona, not Boston.

#### **Building a Movement**

Most of all, we need a movement. We need a political swell larger than the civil rights movement—as passionate and as willing to sacrifice. Without it, we’re not going to best the fossil fuel companies and the automakers and the rest of the vested interests that are keeping us from change.

Some of us have spent the last couple of years trying to build that movement, and we’ve had some success. With no money and no organization, seven of us launched StepItUp in

January 2007. Before the year was out, we’d helped organize 2,000 demonstrations in all 50 states—and helped take our once-radical demand for an 80 percent reduction in U.S. carbon emissions by mid-century into the halls of power.

We haven’t won yet—but we’re way beyond what we could have expected when we began. Last November, House Speaker Nancy Pelosi stood at a podium in front of 7,000 college students gathered from around the country at the University of Maryland and led them in a chant: “80 percent by 2050.” I’m as cynical as the next guy, but it feels like our democracy is starting to work.

It will need to work much better, though. We’ll need to see a whole new level of commitment—to nonviolent protest, to electioneering, to endless lobbying. We’ll have to be committed to an environmentalism much broader and more diverse than we’ve known—younger, browner, and insistent that the people left out of the last economy won’t be left out of the new one. And we’ll need to see it not just here but around the world. Because they don’t call it global warming for nothing. If we’re going to have a fighting chance, we’ll need every nation pitching in—which means, in turn, that we’ll have to understand where we all stand right now.

#### **What about China and India?**

Here’s the political reality check, just as sobering as the data about sea ice and drought: China last year passed the United States as the biggest emitter of carbon on Earth. Now, that doesn’t mean the Chinese are as much to blame as we are—per capita, we pour four times more CO<sub>2</sub> into the

»

# Pandora's Icebox

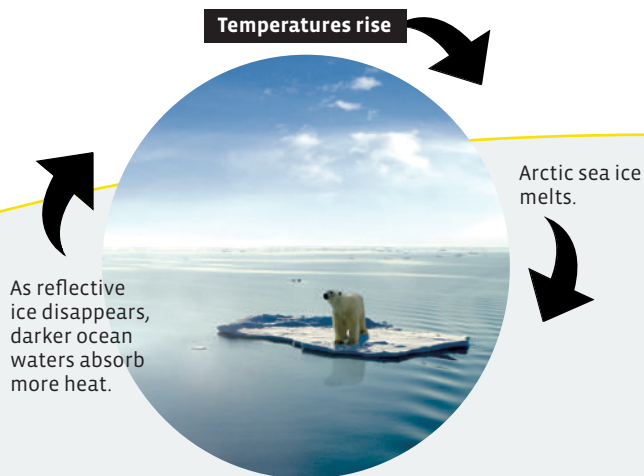
## Climate's Vicious Cycles

Madeline Ostrander

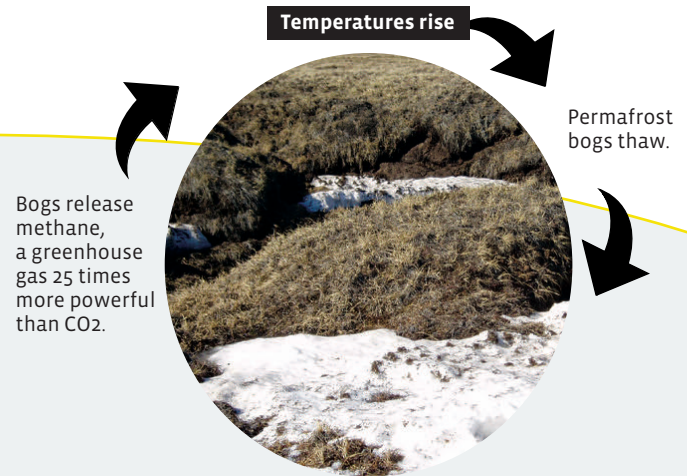
AS EARLY AS 1892, Swedish chemist Svante Arrhenius devised a basic formula to explain geologic changes in climate: add carbon dioxide, things heat up. Simple.

But scientists have since learned that a little atmospheric temperature rise can unlock vicious feedback loops that speed global warming. Some of these feedbacks are already taking effect. Others may be triggered by further warming. If global temperatures continue to rise, some of these feedbacks could spiral beyond our ability to reverse them. Here are four examples.

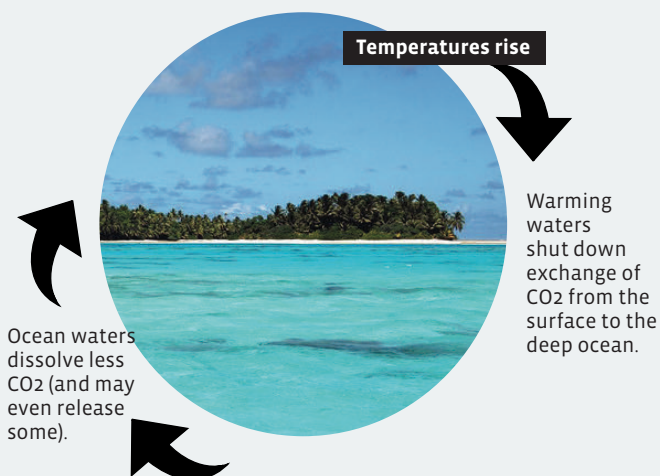
### VANISHING ARCTIC ICE



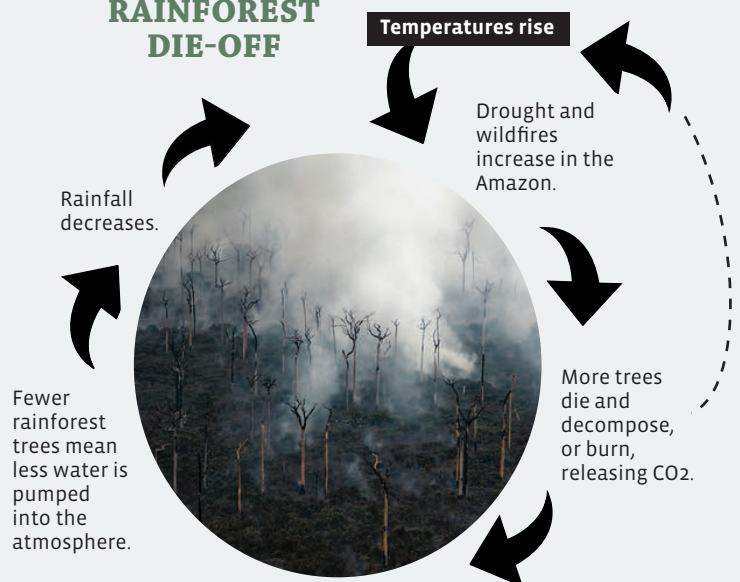
### MELTING PERMAFROST



### CLOGGING THE OCEAN SINK



### AMAZON RAINFOREST DIE-OFF



Sources: available at [www.yesmagazine.org/feedbackloop](http://www.yesmagazine.org/feedbackloop);  
photos from istock

YES! MAGAZINE GRAPHIC 2008





» atmosphere. And we've been doing it for a hundred years, which means it will be decades before they match us as a source of the problem. But they—and the Indians, and the rest of the developing world behind them—are growing so fast that there's no way to head off this crisis without their participation. And yet they don't want to participate, because they're using all that cheap coal not to pimp out an already lavish lifestyle, but to pull people straight out of deep poverty.

Which means that if we want them not to burn their coal, we're going to need to help them—we're going to need to supply the windmills, efficient boilers, and so on that let them build decent lives without building coal-fired power plants.

Which means, in turn, we're going to need to be generous, on a scale that passes even the Marshall Plan that helped rebuild post-World War II Europe. And it's not clear if we're capable of that any more—so far our politicians have preferred to scapegoat China, not come to its aid.

I said at the start that this was not just another problem on a list of problems. It's a whole new lens through which we look at the world. When we peer through it, foreign policy looks entirely different: the threats to our security can be met only by shipping China technology, not by shipping missiles to China's enemies.

When we peer through the climate lens, our economic life looks completely changed: we need to forget the endless expansion now adding to the cloud of carbon and concentrate on the kind of durability that will let us last out the troubles headed our way.

### Another Way to be Human

Our individual lives look very different through these glasses too. Less individual, for one thing. The kind of extreme independence that derived from cheap fossil fuel—the fact that we need our neighbors for nothing at all—can't last. Either we build real community, of the kind that lets us

embrace mass transit and local food and co-housing and you name it, or we will go down clinging to the wreckage of our privatized society.

Which leaves us with the one piece of undeniably good news: we were built for community. Everything we know about human beings, from the state of our immune systems to the state of our psyches, testifies to our desire for real connection of just the kind that an advanced consumer society makes so difficult. We need that kind of community to slow down

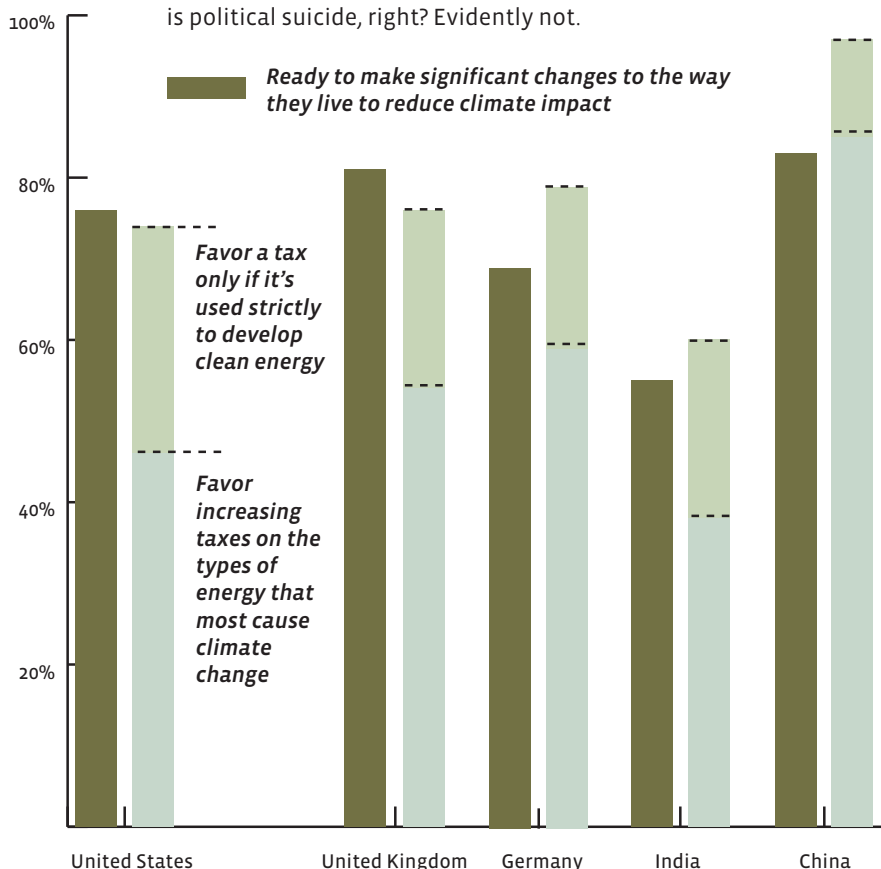
the environmental changes coming at us, and we need that kind of community to survive the changes we can't prevent. And we need that kind of community because it's what makes us fully human.

This is our final exam and so far we're failing. But we don't have to put our pencils down quite yet. We'll see. **Y**

**Bill McKibben** is the author of *The End of Nature*, *Wandering Home*, and *Deep Economy*, and a founder of SteptUp, which has recently joined forces with 1sky.

## Who's Willing to Step Up?

Asking people to make sacrifices to stop Global Warming is political suicide, right? Evidently not.



Source: BBC World Service Poll based on interviews with 22,182 people in 21 countries in May, June, and July 2007.

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# Pandora's Icebox

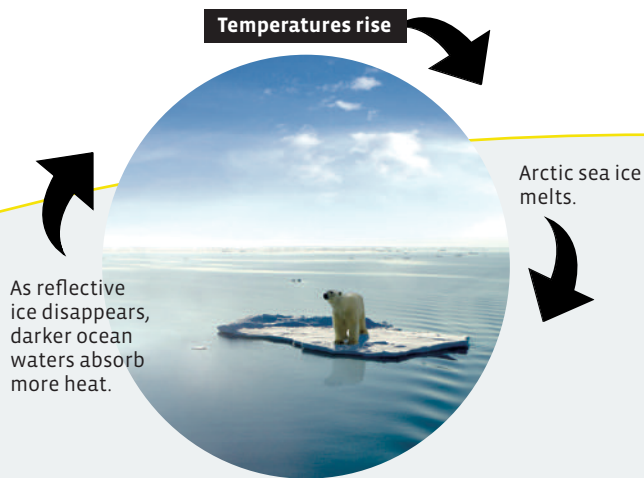
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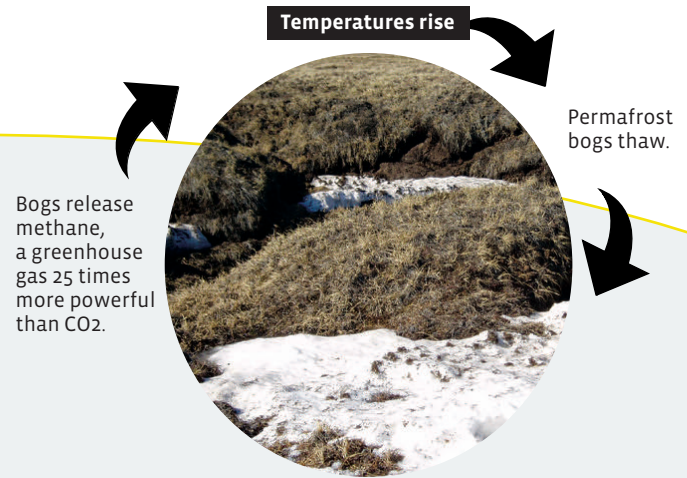
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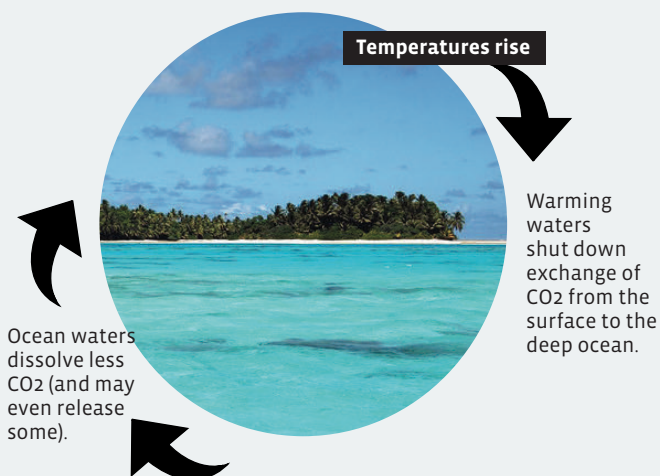
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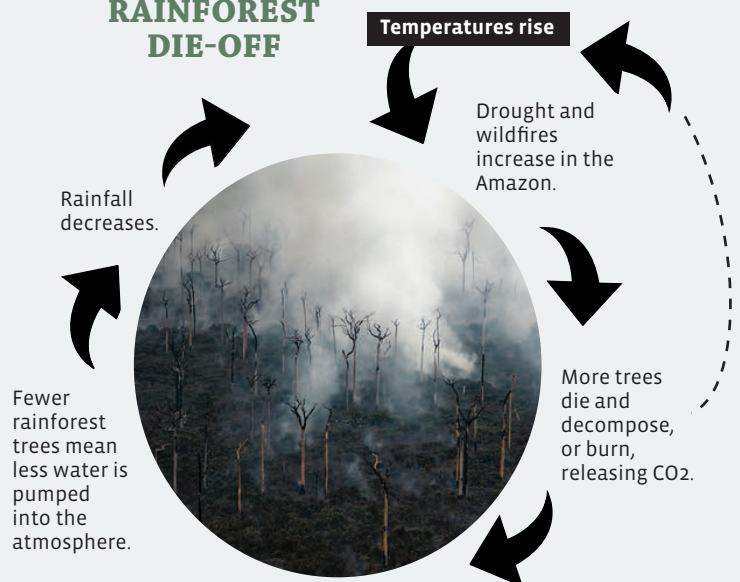
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Sources: available at [www.yesmagazine.org/feedbackloop](http://www.yesmagazine.org/feedbackloop);  
photos from istock

YES! MAGAZINE GRAPHIC 2008





# Global Fairness

ED WRAY / AP

Climate negotiations in Bali moved  
the world just a bit back from the brink

An environmental  
activist (in polar  
bear suit) at Kuta  
Beach after the end  
of the U.N. Climate  
Change Conference  
in Bali.

## Tom Athanasiou

The international climate negotiations that took place in Bali, Indonesia, in December brought us to a new and more difficult level in the climate game that we'll be playing for the rest of our lives.

We knew going into Bali that if the old routine continued we'd be in trouble. The skeptics had been discredited; the Intergovernmental Panel on Climate Change (IPCC) had delivered clear and unequivocal warnings; Al Gore and the IPCC had won the Nobel Prize. So it's with great relief that I can say that although Bali wasn't the breakthrough that we need, the game has indeed changed. The critical next two years of negotiations have begun in earnest.

The most important change was the new stance taken by the countries of the global

South, the Group of 77, or G77.

Their earlier focus had been on unity. But unity has allowed the G77's most retrograde members (the Saudis come to mind) to override the interests of weaker parties (like the Alliance of Small Island States). That's why it's so important that China, South Africa, and Brazil stepped forward from self-defeating unity to signal a new willingness to make binding commitments to limit emissions.

This was a real breakthrough, not least because the attached condition—measurable, reportable, and verifiable assistance from the industrialized to the developing countries—was widely understood as being both just and inevitable.

And that takes us to the second major development at Bali. The once radical idea that rich >>



» countries have responsibilities to the poor has now emerged as a near-consensus position. Today, to be serious, you have to admit that wealthy countries became wealthy by following a fossil-fuel intensive development path that led directly to today's climate crisis. And if we truly expect today's developing countries to take a different path, we'll have to provide the means by which those countries can leapfrog over fossil-fuel dependence and directly into an efficiency- and renewables-based economy.

There's a huge challenge here. Just as rich-world politics are finally acknowledging the need for sharp domestic emissions reductions, the international community is moving ahead to an even more difficult truth. The rich cannot simply act within their own borders. They are also responsible for financing parallel reductions and the large-scale efforts to adapt to now inevitable climate change impacts in the developing world.

What does this mean in practice? Technology transfer, for one thing, and this time it has to mean the best of the new technologies, not the worst of the old. And large-scale funding for adaptation and poverty alleviation, because without it there's little chance of finding the global solidarity that we'll need to manage the transition. And a whole lot more.

Fortunately, Bali saw the long-overdue encounter between the climate movement and the global justice movement finally take place in earnest, and neither movement will ever be the same. Even mainline climate activists talk often now about equity, even though they fear its implications, which, frankly, they're right to do: Climate justice has the potential to raise the stakes dangerously high, so high that both our politicians and our populations could easily balk. Which is all the more reason to marvel, for today few people within the climate movement can imagine a future without justice.

Nor will the greens be the only ones transformed by this encounter. The global justice movement, which has largely built its climate politics around opposition to carbon offsets and market mechanisms, is now coming to see that such opposition is not enough. If false

solutions are a terrible danger, so too is the illusion that by exposing that danger we have done all we need to do.

### Our One Chance to Get it Right

To be sure, there are serious shortcomings in the final Bali Action Plan. It did not lay out national obligations for emissions reductions, nor even a global target. But the truth is that Bali was never going to lay out the details, or even a comprehensive framework. And it did manage to open the way forward.

When we get down to cases, we'll have no choice but to face the details of an extremely daunting reality. The climate threat demands emergency action. The truth here is more than inconvenient: it's shocking and even terrifying. We're going to have to get this right, and soon.

There'll be no way to do this without both trust and technology, globally and on a grand scale. Which means we'll need breakthroughs in international financing to provide the means by which poor countries can continue to

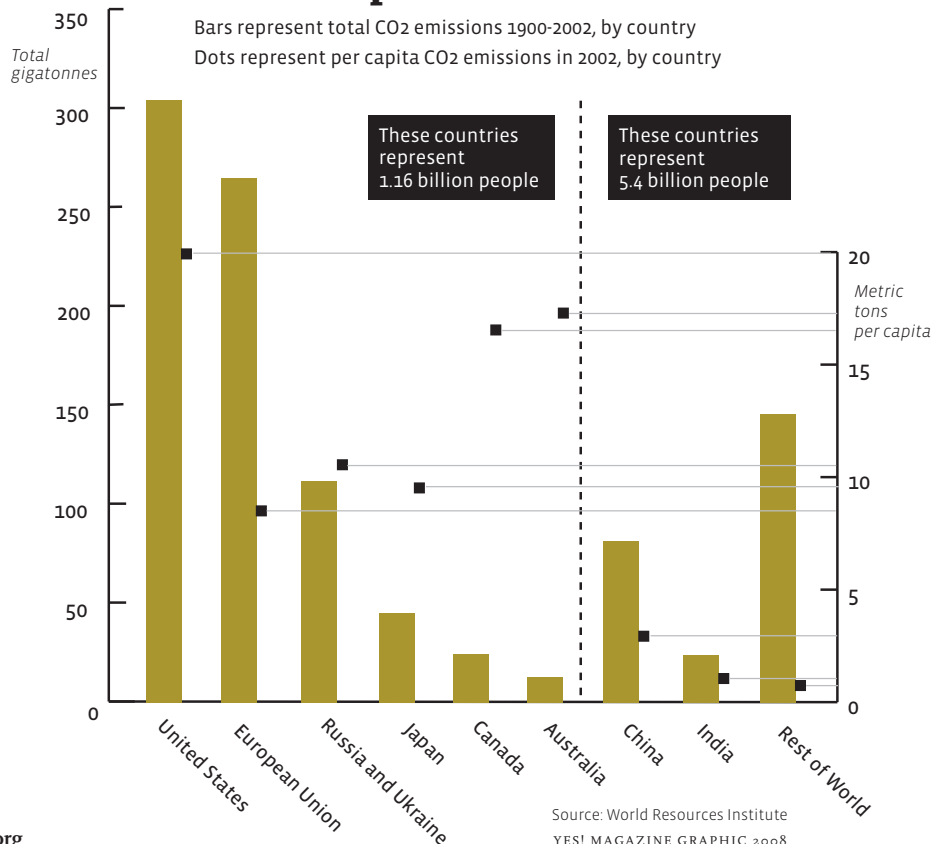
develop without pushing us all over the edge into catastrophe. And such breakthroughs will depend upon negotiating "burden sharing" agreements that take proper account of not only the North/South divide, but also the rich/poor divide within both northern and southern countries.

And, as if this wasn't enough, we'll also need to bring the rules and priorities of the WTO, World Bank, IMF, and others quickly into line with the imperatives of the climate regime.

All of which is to say that we'll need to put justice at the center of the climate agenda, right along with environmental adequacy in the face of an astonishingly severe threat. For without justice there will not be cooperation or solidarity. And without global solidarity, we will fail. **V**

**Tom Athanasiou** is the author of *Divided Planet: The Ecology of Rich and Poor*, and co-author (with Paul Baer) of *Dead Heat: Global Justice and Global Warming*. He is the executive director of EcoEquity and a core member of the Greenhouse Development Rights team; see [www.ecoequity.org/GDRs](http://www.ecoequity.org/GDRs).

## Who's Responsible? 100 Years of CO<sub>2</sub>





## ECUADOR

### Protecting Diverse Forests and People

Rafael Correa won the Ecuadorian presidency on the strength of his promises to deliver much-needed social programs to his country's largely impoverished population. He also pledged to protect Ecuador's natural heritage of biodiversity. Add to this political mix a lot of foreign debt and a billion or more barrels of oil located under a UNESCO bioserve in the Ecuadorian Amazon, and it's clear why some observers saw the nation as caught in a classic stalemate between development and environment.

Now, though, the ITT oil fields—located within Yasuní National Park, one of the world's most biodiverse places and home to a number of indigenous communities—have become an experiment in the possibility of having it both ways.

In May 2007, Correa proposed a unique solution: if the international community will agree to pay or excuse debt worth \$350 million annually for 10 years (half the anticipated value of the oil) to help fund sustainable development in Ecuador, then the oil, the forests, and the indigenous groups threatened by the encroachment of oil companies will all be left alone.

It's a proposal that many are taking seriously. In addition to the danger posed to biodiversity and indigenous rights, development of the ITT fields would be a climate change disaster, generating an estimated 436 million tons of CO<sub>2</sub> and destroying a huge swath of tropical rainforest crucial to sequestering carbon and regulating weather patterns.

Though the Bali climate agreement endorsed the importance of forest preservation, it failed to safeguard against the transformation of forests into internationally traded and managed "carbon sinks" that would exclude indigenous people and traditional livelihoods from their borders. Ecuador's example may point toward a way to protect forests without compromising a future that values equity and human rights.

—Brooke Jarvis

## CHINA

### On Climate, Hu's Leading Whom?

Last summer, Chinese President Hu Jintao toured the country in short sleeves to show that his countrymen could turn their air conditioners down. In China, conservation is "in."

Fashions do change. Global warming denial is out of vogue. Unfortunately, though, the climate change do-nothing set is sporting a new line: "Why should we bother fighting climate change when China's emissions are increasing?"

It's true that China's galloping economy means that the country's total emissions are on the rise—they are now the world's number-one emitter. But China has also unveiled aggressive emissions reduction policies. Indeed, it may be the United States that will need to play catch-up with China, not the other way around.

China boasts one of the most fuel-efficient vehicle fleets in the world, with estimated averages of 37 miles per gallon already, in 2008. The U.S. will reach 35 mpg—by 2020.

China pumped \$10 billion into clean energy in 2007 (twice the amount invested by the U.S. in 2006) and is on track to meet and exceed targets to obtain 15 percent of its energy from renewables by 2020, and 30 percent by 2050.

Already leading in solar hot water and small hydropower technology, China will likely become the world leader in solar and wind power manufacturing in the next three years. Unless the United States gets busy and starts setting higher standards for a climate friendly economy, the world may look to China as the global trend setter.

—Anna Fahey, Sightline Institute

**Rooftop solar hot water tanks in the Yunnan capital city of Kunming. China is poised to overtake Europe, Japan, and North America in the manufacture of solar panels and wind turbines, and it already dominates the markets for solar hot water and small hydropower.**

EVEN ROGERS PAY





# We are 2 degrees

A 2-degree rise in temperature is the most the Earth can tolerate without dangerous climate change, scientists tell us. The International Panel on Climate Change says that as temperature rises, these effects will kick in:

## Today

- Increasing illness and death from heat waves, floods, drought
- Hundreds of millions of people lack drinking water • Weather changes shift species' ranges
- Increased wildfires



GARY BRAASCH

## 1°C

- Grain production decreasing in low latitudes • 30 percent of species at increased extinction risk • Increasing malnutrition, waterborne disease, and infectious disease
- Change in range of mosquitos and other disease vectors

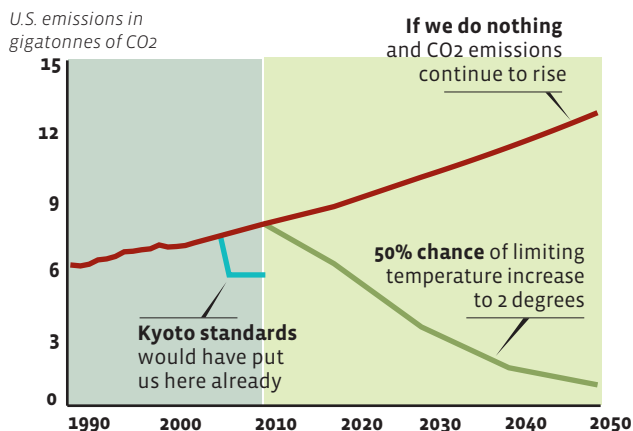


[www.YesMagazine.org/earthunderfire](http://www.YesMagazine.org/earthunderfire)

Photo essay from Gary Braasch's book *Earth Under Fire*. At left, rising sea levels threaten the tiny Pacific Island nation of Tuvalu, inhabited by Polynesians for 3,000 years. Tuvalu residents now face a drowning country.

## Here's What We Can Do

### Act Quickly



Source: Blair Henry, *Climate Change: Playing to Win*

The green line is the familiar goal: 80 percent CO<sub>2</sub> reduction by 2050. If we get there, we're climate cool, right? Actually, if we follow that course, we have a 50% chance—a coin toss—of staying within the 2 degrees the IPCC says is the critical range. The sooner we start and the faster we decrease CO<sub>2</sub> emissions, the better our odds.

### Protect Biological Sinks



BRASIL2 / I-S

One of the biggest threats to the Earth's ability to soak up CO<sub>2</sub> is deforestation, especially loss of rainforests. Think deforestation is caused by poor practices in the developing world?

**Indonesia** and **Malaysia** are slashing rainforest to make palm oil plantations. But they export most of their palm oil to the European Union, China, Russia, and the U.S.—traditionally for food, but increasingly for biodiesel. **Brazil** is also carving cattle pasture and sugar cane fields out of the rainforest. It's the world's No. 1 exporter of beef, feeding the EU, Hong Kong, and the U.S., and aims to double production of sugar cane ethanol, to sell to the U.S. and other countries.

What's the key to stopping deforestation? Getting the developed world to leave resources where they are, for use by locals.



# from disaster.

2°C

## THRESHOLD OF DANGEROUS CLIMATE CHANGE

- 15% of ecosystems affected, changing biological sinks to carbon sources • Coastal flooding • Corals bleached • Ecosystems disrupted by weakening of "ocean conveyor" system

3°C

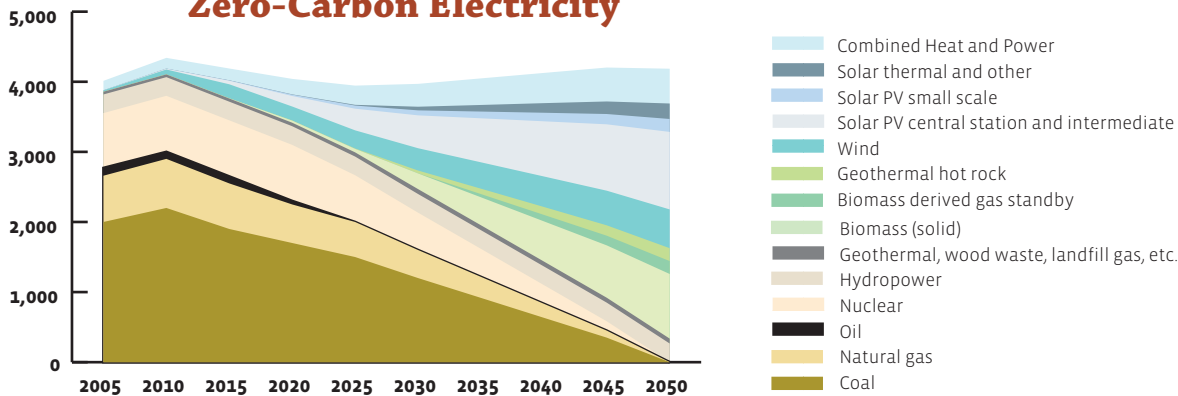
- 30% of coastal wetlands lost • Wide-spread death of coral reefs • Grain production decreasing • Substantial burden on worldwide health services

4°C

- Significant extinctions worldwide • All grain production decreases • 40% of ecosystems affected; "sink to source" changes accelerate

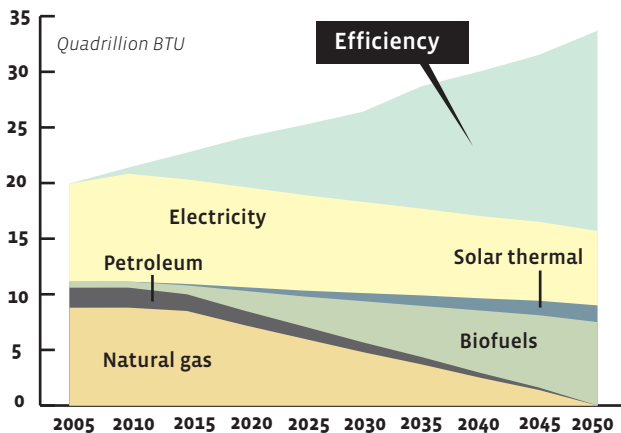
Quadrillion BTU

## Zero-Carbon Electricity



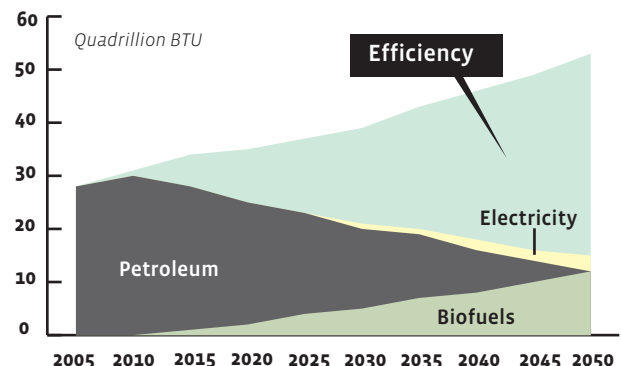
Arjun Makhijani has been thinking about cleaner, more efficient energy for more than 35 years. When he heard that we need to go fossil-carbon free by 2050, he doubted it was possible. Research changed his mind, and his book, *Carbon-Free and Nuclear-Free: A Roadmap for U.S. Energy Policy*, tells exactly how it can be done. Here's how Makhijani sees the energy supply changing for buildings, transportation and electricity. Makhijani's plan relies in part on biofuel from algae. Guy Dauncey, whose work follows in this issue, says we can go carbon neutral with clean electricity. There's no single path, other than the path that starts right now.

## Zero-Carbon Buildings



Source: Institute for Energy and Environmental Research

## Zero-Carbon Transportation



# Welcome to the **Post-Carbon** **World**

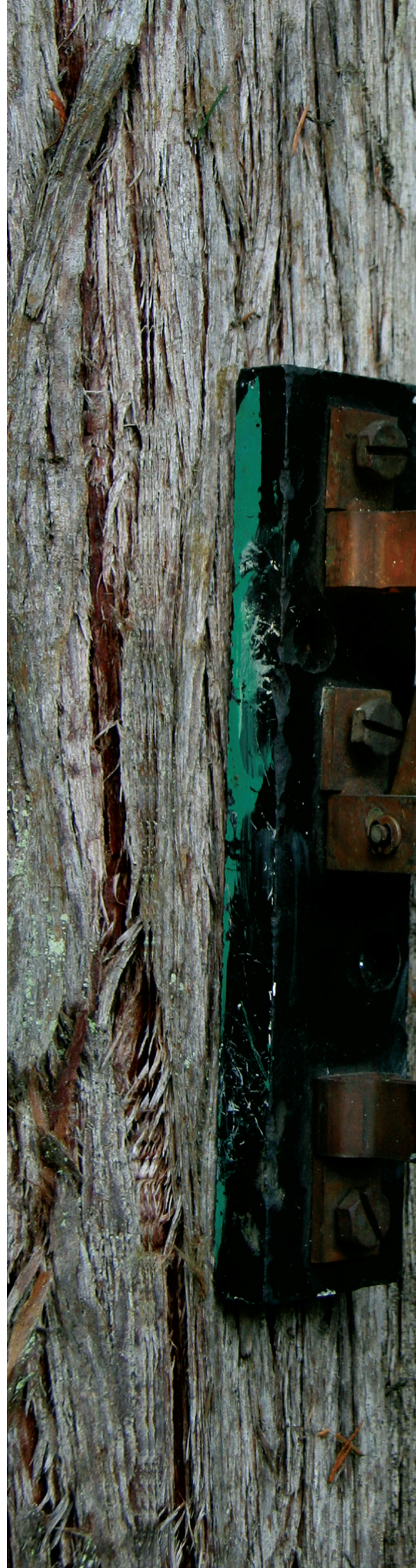
*It doesn't have to be the end of the world. **BUILDINGS, ELECTRICITY** production, **TRANSPORTATION, and FOOD & FORESTRY** contribute the bulk of the greenhouse gases. But climate-friendly options are ready. Author Guy Dauncey takes us out of this world as we begin to imagine some down-to-earth solutions.*

## **Guy Dauncey**

**Apollo to Earth:** Houston, we're reporting a major carbon overload in the atmosphere. You're going to suffer serious overheating if you don't get it under control.

**Earth to Apollo:** We hear you. We spotted it 20 years ago, but the White House tells us not to worry and keeps cutting our budget. Any bright ideas?

**Apollo to Earth:** Hello, Houston? We have an interesting development here. We're getting clear visual signals, and they're not from Earth. Can you give us five minutes? ... You're not going to believe this, but it's true: we're not alone. We're being fed material from something called the Intergalactic







Between Panic and Denial is a place where forward-thinking people have been working for many years—Real Solutions for a sustainable world.

ZACH KYLE AND PAUL DUNN FOR YES! MAGAZINE

Archives. They say that the warming crisis is quite normal on planets that have a large store of fossilized energy. They recommend a rapid switch to simple energy, starting with the sun, wind, earth, and ocean. They're also telling us not to wait too long!

**Earth to Apollo:** You're creating quite a stir down here, Apollo. But that aside, how long do we have? There's talk of an 80 percent reduction in carbon emissions by 2050—will that cut it?

**Apollo to Earth:** 'Fraid not, Houston. They're saying 25 years, max, and similar planets that failed to make the switch suffered a 15 percent loss rate—total civilizational and ecological meltdown. Not a pretty picture. Ten million years for partial ecological recovery. You really don't want to go there, sir.

**Earth to Apollo:** Any advice that might help us?

**Apollo to Earth:** Yes. It seems that the planets that went down panicked. The Archives show that advanced intelligences get energized by vision, not fear. It's like football, sir—you win by determination and passion, not by reducing failure. The planets that failed forgot how to work together. Inspiration stopped, and the breakthroughs dried up. As the panic took over, people started hoarding and stopped believing in the future. Once that happened it was effectively all over, even though it took a couple of hundred years.

**Earth to Apollo:** You've got us rattled here, Apollo. Do they show any turnarounds? Any planets that were going down, that somehow made it?

**Apollo to Earth:** Yes—many. The Archives show that successful planets transformed their carbon crises into positive evolutionary leaps. They stopped blaming and started appreciating the intellectual capital that fossil fuels had given them, enabling them to develop solar and geothermal power. They stopped being fearful and defensive, and worked together to achieve a rapid transition. By re-igniting the creative impulse, they made the switch to new technologies and lifestyles far more easily.

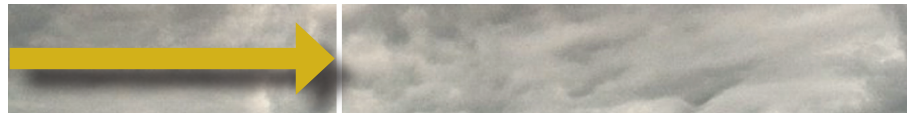
**Earth to Apollo:** Thanks, Apollo. Seems we've got our work cut out down here. Over and out!



**Guy Dauncey** is a speaker, organizer, consultant, and author with Patrick Mazza of *Stormy Weather: 101 Solutions to Global Climate Change*, New Society Publishers.



The U.S. emits the equivalent of **7.26 gigatonnes** of CO<sub>2</sub> annually.



Our buildings contribute **2.49 gigatonnes** of that.

## WHAT WE CAN DO ABOUT BUILDINGS

**B**UILDINGS USE A LOT OF ENERGY, so it's no surprise they're responsible for 30–40 percent of CO<sub>2</sub> emissions. The challenge involves two tasks—creating new buildings that are carbon neutral, and retrofitting all existing buildings to eliminate their carbon footprint.

The first task is easier. In Germany, Passivhaus homes consume 95 percent less energy for heating and cooling by using super insulation, solar gain, and efficient heat recovery. There are 6,000 homes in Europe built to Passivhaus specifications. Building codes should require that all new houses are built to this standard.

There is no shortage of innovation. In Guangzhou, China, the 69-story high Pearl River Tower will generate more energy than it consumes, using wind turbines inside two floors of the building, solar photovoltaics (PV), and solar heated water. In Malmö, Sweden, the Turning Torso tower, in addition to being powered by local wind and solar energy, recycles organic wastes into biogas that can be used for cooking and to power the city's buses. In the Chinese city of Rizhao, 99 percent of buildings in the city center use solar hot water. In Spain, all new buildings and renovations are required to get 30–70 percent of their hot water from solar panels.

The Architecture 2030 initiative is pressing to have all new buildings and major renovations in the United States be 100 percent carbon neutral by 2030—a goal that has been unanimously approved by the U.S. Conference of Mayors.

Britain is moving faster—it is requiring that new buildings all be carbon neutral by 2016. The U.S.-based LEED (Leader-



Pearl River Tower in Guangzhou, China will generate more energy than it consumes.



KARL ERICSSON

Turning Torso Tower in Sweden uses local wind and solar energy, and recycles organic wastes into biogas.





TIM HALEY  
TIMHALEYPHOTOGRAPHY.COM

The San Francisco Federal Building, completed in 2007, harvests sun and breezes to replace electric lighting and air conditioning. Stainless steel panels retain accumulated solar heat as a thermal blanket over the building's facade. When that air warms, it floats upward, coaxing cooler air through the building via windows that open automatically when instructed by sensors. The result is carbon-free air conditioning.

ship in Energy and Environmental Design) standard for green buildings needs to move in the same direction.

The challenge is much tougher for existing buildings. Most building owners could achieve a 20 to 50 percent reduction in energy use by investing in new windows, super-insulation, heat-recovery systems, and efficient appliances and boilers. Solar PV and solar hot water can be added, and carbon-neutral heat can be obtained from heat exchange with the air, earth, water, and sewage. There are furnaces that burn biofuels, and Sweden's district heating systems circulate hot water for 50 miles without significant heat loss. Super-insulation, combined with shade trees and white-painted roofs, can also reduce air conditioning load.

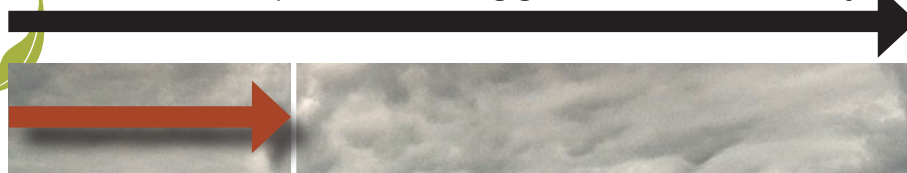
To encourage rapid renovation, we need tax credits, self-

financing mechanisms, and rules like the Residential Energy Conservation Ordinance, which requires owners in San Francisco and Berkeley to upgrade a building before it's sold. Germany is paying for a complete retrofit of all older apartment buildings. London has launched a Green Homes Concierge Service to help home-owners upgrade. Since 1993, the small Austrian town of Güssing (population 4,000) has reduced its CO<sub>2</sub> emissions by an incredible 93 percent, by switching, among other things, to biofuel district heat for its buildings. It's just a matter of vision and determination.

—Guy Dauncey

 [www.YesMagazine.org/coolbuildings](http://www.YesMagazine.org/coolbuildings)  
for links and other resources

The U.S. emits the equivalent of **7.26 gigatonnes** of CO<sub>2</sub> annually.



Our electricity production contributes  
**2.43 gigatonnes** of that.

## WHAT WE CAN DO ABOUT ELECTRICITY

Our story of energy begins when humans discovered the secret of fire. We burned wood and brush to protect ourselves from predators, cook food, and, later, to survive the ice age. In 12th-century Europe, with the forests fast disappearing, we started burning the strange black stones we called coal. Later, we used coal to produce steam, launching the Industrial Revolution.

It is astonishing how far we have come. To anyone from the 18th century, our world today would be unbelievable. We burned the black stones, and their fossilized relations, oil and gas, and for those who have had abundant access to these resources, it has been good. But today the over-use of these fossil fuels is threatening life on Earth.

Now we are poised to move into our next era. We are coming to terms with the havoc we are creating by burning millions of years of the planet's stored sunlight in the blink of a geologic eye. And we are realizing that it is time to lay down these fossil fuels, while understanding that we could never have developed a solar photovoltaic (PV) cell, electric car, or super-efficient LED light bulb without the energy gift of those ancient life-forms. The sunlight they stored over millions of years has enabled us to build the intellectual capital necessary to meet our needs using current renewable energy from the sun, wind, earth, and oceans.

Solar energy, for example, offers an abundance of energy. Trans-Mediterranean Renewable Energy Cooperation has calculated that each year, a square kilometer of hot desert receives solar energy equivalent to 1.5 million barrels of oil. Worldwide, this is several hundred times more energy than we need. Similarly, analysts who have evaluated the solar resources in the southwest United States found that concentrating solar power could provide nearly 7,000 gigawatts of capacity, seven times more than the current total U.S. electric capacity. (Concentrating solar power uses parabolic mirrors to

focus solar energy to heat a gas or liquid.)

We can also gather solar electricity directly using photovoltaics as many people are already doing in Germany, Japan, and California. We can gather energy from the wind—North Dakota alone has enough wind energy for 33 percent of current U.S. demand for electricity. We can gather energy from the waves and tides, and from underground, where the potential store of geothermal energy in granite, six to 10 kilometers down, could power all U.S. needs for 20,000 years.

The numbers do add up, especially when you look at the full global potential of each technology. The challenge is to ramp up fast enough to make the transition in time. The numbers improve considerably when you consider that we could improve efficiencies throughout our economy by two to 10 times, using today's technologies, and that the transition to electricity instead of liquid fuel for transport reduces the energy needed considerably.

Why, then, is there talk of nuclear power when it carries such dangers, and of as-yet unproven "clean" coal, with carbon capture and sequestration? The answer is probably financial—investors find it hard to walk away from their investments. They continue to side with the coal and oil industries that pay for their jet planes and mansions, even though they are fueling a climate catastrophe.

We need non-corrupted governments to cap the oil wells; lock up the coal mines; require super-efficiency in buildings, cars, and appliances; and redirect investments into renewable energy—as Sweden's government is doing with its commitment to end the country's dependency on oil by 2020. It is all doable: we just need the courage and belief to do it.

—Guy Dauncey



[www.YesMagazine.org/cleanelectricity](http://www.YesMagazine.org/cleanelectricity)  
for links and other resources





ROD DEL POZO, DELPOZOPHOTO.COM

Lummi Island Wild Co-op in Washington state launched the world's first solar-powered fishing vessel last year and is converting the rest of the reefnet salmon fleet this year. Reefnetting dates back more than 2,000 years; it uses little machinery and minimizes by-catch. The boats use the solar panels to operate seven heavy winches that position the stationary reefnet boat into the tide and haul in the nets. They use no other power sources on the boats.  
[www.lummiislandwild.com](http://www.lummiislandwild.com)

## Instead of More Coal Plants ...

What's the potential for carbon-free electricity production? Three countries—the U.S., India, and China—have plans in the next decade to build up to 850 new coal-fired plants, with an average capacity of 386 Megawatts. Together these plants would burn about 900 million tons of coal each year, producing about 2.5 billion tons of CO<sub>2</sub>. How many coal plants could we replace if we turned to carbon-free renewables instead?



	Realizable Potential (in Terawatt hours)	Power Plants Replaced
<b>Wind</b>	4,890 (by 2040)	1,746
<b>Solar Thermal</b>	16,000 (by 2040)	5,714
<b>Solar Photovoltaic</b>	5,000 (by 2030)	1,786
<b>Geothermal</b>	138,000 (by 2020)	49,286

Source: citations at [www.yesmagazine.org/cleanelectricity](http://www.yesmagazine.org/cleanelectricity); photos from istock  
 YES! MAGAZINE GRAPHIC 2008

## Let the Sun Shine In (and some wind, too)

### Thin Solar Cells

A company in Palo Alto, California, will begin manufacturing wafer-thin solar-electric photovoltaic cells by "printing" them onto aluminum foil, which insiders say will cut the cost of solar-cells in half. (Photovoltaics convert sunlight directly into electricity.) Nanosolar's aim is solar panels that cost 99 cents per watt—a number that has been the holy grail of solar cell manufacturers for 40 years. The company is one of several in Japan, Europe, China, and the U.S. racing to develop thin film solar. Nanosolar is owned by Martin Roschisen, an Internet millionaire, with support from the founders of Google and other Silicon Valley entrepreneurs.

### Offshore Wind Power

Offshore wind turbines could power the nine coastal states from Massachusetts to North Carolina, according to a new assessment of off-shore wind potential. Another study published earlier in 2007 shows that connecting dispersed wind farms into a single grid in the Midwestern U.S. can create a source of reliable, base-load (steady, rather than intermittent) power, even without storage.

### Storing Wind Underground

A Dallas Center, Iowa, plant will store wind energy by pumping air underground, where it will be compressed for energy storage and later released to boost the efficiency of a natural gas turbine. A 3,000 megawatt wind farm in west Texas, being developed by TXU Corp. and Shell Wind Energy, will use a similar storage technique. The Electric Power Research Institute says there may be subterranean features under more than 85 percent of U.S. soil that could hold compressed air, making storage of large quantities of wind or solar power possible.

Adapted from: Rachels Newsletter, The Guardian, and Business Week.

### Random Rays of Hope

- Production of photovoltaics jumped 50 percent in 2007 over 2006. At the end of the year, cumulative global production stood at 12,400 megawatts, enough to power 2.4 million U.S. homes.
- After almost tripling its PV production in 2006, China is believed to have more than doubled output in 2007. China is planning a 100-megawatt solar PV farm in Dunhuang City in Gansu Province, which would have five times the capacity of the largest PV power plant in the world today.
- The average price for a PV module, excluding installation and other system costs, has dropped from almost \$100 per watt in 1975 to about \$4 per watt.

Excerpted from "Solar Cell Production Jumps 50 Percent in 2007" by Jonathan G. Dorn, Earth Policy Institute.

Policies



Technologies



# 13 Best Energy Ideas

(Plus a Few Duds)

Sarah van Gelder

Investments in energy projects will total \$16 trillion in the next two decades. That investment—along with spending for long-lived buildings, transportation, manufacturing, and public works—could lock us into climate chaos. Or it could set us on the path toward a sustainable future. How can we make sure that this new infrastructure is climate friendly? For starters, it will have to be both highly efficient and powered by renewable energy—the sun, wind, earth, or ocean. A combination of the right policies and the right technologies can get us there. Here are our picks for the best (and a few of the worst) ideas:



## Put a Price on Carbon

**What:** Carbon pollution costs the polluter nothing; all the rest of us pay the price. Carbon taxes and “cap & trade” mechanisms make it expensive to be a carbon polluter (see page 43 for how to do cap-and-trade right). Carbon taxes can be matched by reductions in income taxes to offset the higher prices consumers pay for energy and energy-intensive products.

**Why:** Making carbon emissions expensive encourages a switch to less carbon-intensive energy.

**Examples:** Sweden taxes CO<sub>2</sub> emissions, carbon-based fuels, and domestic flights, and cut taxes for labor and green fuels.



## Ban the Bulb

**What:** Ban incandescent bulbs.

**Why:** Changing a 100-watt bulb to a compact fluorescent (CF) bulb cuts the equivalent

of burning about 100 lbs. of coal.

**Examples:** Australia is banning the sale of incandescent bulbs as of 2010, and Canada, as of 2012. Brazil has replaced half its bulbs with CFs. New York is replacing traffic lights with ultra-efficient LEDs.



## Make Fuels from Waste

**What:** Transform landfill methane, animal manure, or straw and other agricultural wastes into fuel.

**Why:** These produce energy without competing with food production. Methane capture reduces emissions of a greenhouse gas 25 times more potent than CO<sub>2</sub>.

**Cautions:** Genetically modified microbes designed to break down cell walls in order to convert agricultural waste into a fuel are possible sources of life-destroying super bugs. Also, in some cases, agricultural waste may be more valuable as organic fertilizer, displacing artificial nitrogen fertilizers that emit nitrous oxide, a powerful greenhouse gas.



## Nuclear Guarantees

**What:** Using taxpayer money to subsidize nuclear power.

**Why:** Investors know that nuclear power isn't economical without subsidies to cover waste disposal and catastrophic insurance. Nuclear power is expensive, a potential target for terrorism, and a source of nuclear weapons materials.



## Coal Plants

**What:** Allow new coal plants only after sequestration technology is proven and required, and only if mountain-top removal is ended. Meanwhile, clean up and increase efficiency of old coal plants—or shut them down.

**Why:** Coal-fired plants account for 70% of greenhouse gas emissions from electricity production. Technology to safely capture CO<sub>2</sub> from the coal stack remains unproven.

**Examples:** Germany has cut coal use by over a third since 1990 through increased efficiency and by substituting wind power.



## Food-Based Biofuels

**What:** Ethanol, palm oil, soy oil, and other food crops yield little net energy, drive up food costs, use up scarce fresh water, and harm the environment.

**Also:** A new study shows that just under half the biofuels studied cause more environmental disruption than fossil fuel burning.





## Plug In Cars, Scooters, Bikes, and Trains

**Why:** Plug-in hybrids and electric cars are efficient and—when powered by renewables—climate friendly. (See page 37.)



## Net Metering, Feed-In Tariffs

**What:** Require utilities to buy renewable energy produced by households or independent energy producers at a price set in advance.

**Why:** A known market with a set price provides certainty that spurs investment. A decentralized clean energy system results, which taps the entrepreneurship of many diverse players.

**Example:** As a result of Germany's Renewable Energy Act of 1999, which includes a feed-in policy, renewable energy jobs are up to 200,000, renewable energy is at 12% of total energy production, and annual installation of solar PV systems exceeds those in all other countries combined.



## Localize Economies

**What:** Make, service, buy, and sell locally whenever possible.

**Why:** Cuts the climate costs of long-range transport. Local economies support long-term jobs, living within ecological means, diverse cultural expression, resilience, and decentralized power.

**Also:** Use scarce energy for essential transport, not for shipping Florida oranges to California.



## Build Smart Grids

**What:** It's like the Internet, only for electricity. Smart grids can transport electricity from many, decentralized sources—including wind, solar, and other sources whose output varies over time—to where the demand is, in real time.

**Why:** Smart grids facilitate transition to renewable energy and vehicle-to-grid storage schemes (see page 37).



## Shift the subsidy

**What:** Shift government subsidies from climate-trashing fossil fuels to climate-friendly renewables and energy efficiency. Each year, U.S. taxpayers subsidize the oil and gas industry to the tune of \$39 billion and the coal industry by \$8 billion.

**Why:** You get what you subsidize.

**Examples:** Belgium, France, and Japan have phased out subsidies for coal. China, Indonesia, and Nigeria have cut subsidies.



## Grow Trees

**What:** Preserve forests as part of ecosystems. Plant trees in cities and suburbs—especially fruit and nut trees.

**Why:** Trees sequester carbon, underpin diverse life-supporting ecosystems, reduce the heat in population centers, feed people, and provide vital resources.

**Examples:** Ecuador is seeking international help to preserve virgin forests, home of indigenous peoples. (See page 25.)

**Caution:** Forests should be managed to enhance local ecosystems, indigenous control, and water and soil conservation.



## Tax Credits for Renewables

**What:** Tax credits for those who install climate-friendly technology.

**Why:** A tax credit makes renewables affordable and builds the market to achieve economies of scale.

**Examples:** A tax credit of up to \$2,000, available under the U.S. Energy Policy Act of 2005, helped to achieve a growth rate

of 83% in PV installations in 2007, according to the Earth Policy Institute.



## Profits for Efficiency

**What:** Build incentives for conservation by de-coupling utility profits from sales.

**Why:** If utilities can profit through selling efficiency, they will do so.

**Examples:** California, Oregon.



## Get Efficient

**What:** Efficiency upgrades for appliances, cars, electronics, industry, buildings. Recycling. Waste reduction. This is the low-hanging fruit.

**Why:** These are the cheapest and least challenging to the American Way of Life, and can cut associated carbon emissions by half or more. Long-term jobs for efficiency retrofits strengthen the economy.

**Examples:** Germany and Japan require some cars, appliances, and office equipment to be recyclable.



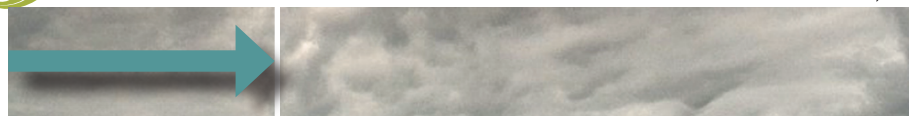
## Livable Communities

**What:** Compact communities where people can walk, bike, or take the bus.

**Why:** This is the most efficient way to live. It builds community and improves quality of life, especially for youth and elderly. And it can have major carbon benefits.

**Examples:** Most of Europe, where quality of life is high and emissions are half those of the United States.

The U.S. emits the equivalent of **7.26 gigatonnes** of CO<sub>2</sub> annually.



Our transportation contributes  
**2.01 gigatonnes** of that.

## WHAT WE CAN DO ABOUT TRANSPORTATION

TEN YEARS AGO, many people thought the transportation fuel of the future would be hydrogen. Then came the hopes of biofuels. Today, both dreams have gone, fallen to the reality of their full life-cycle energy equations and unsustainable sources.

There will still be a role for hydrogen, and for biofuel where it can be harvested sustainably from sewage, algae, seaweed and prairie grass. The emerging winner, however, is electricity. The electric vehicle, far from being dead, is being reborn as both pure electric (EV) by Tesla, G-Wiz, and Modec and as a Plug-in Hybrid Electric Vehicle (PHEV).

Our exploration of post-carbon travel should start with our legs, however. Our ancestors walked all around the planet, so let us reclaim the right to walk in safety and beauty on our Earth. Let us redesign our communities and suburbs with winding lanes that lead to woodlands and village stores. If 5 percent of our post-carbon travel is by foot, that's a 5 percent reduction in our need for liquid fuel.

Next comes the bicycle. In Copenhagen, Denmark, 33 percent of commuters bike to work. In Davis, California, where they have been building bike routes since the 1960s, 17 percent of commuters do the same. In Paris, the government has placed 20,000 Vélib' ("vélo liberté," or "bicycle freedom") bikes on the city's streets for anyone to use for a small charge. If your muscles ache, a quick electric conversion will make your bike fly up the hills. In snow-clad winters, cyclists ride with studded tires. If 10 percent of our trips are by bike, that's a cumulative 15 percent reduction.

Then there's transit. Boulder, Colorado, has redesigned its service to make the buses smaller and more frequent—increasing ridership five-fold. Hasselt, Belgium, has made its buses free, paid for by city taxes—increasing ridership

10-fold. In transit-friendly cities, buses have GPS and electronic timetables, so you know exactly when they'll come. We need to make a huge public investment in transit, bus rapid transit (like light rail transit, but on regular roads) and luxury commuter coaches with laptop plug-ins and frappuccinos. If 20 percent of our trips are thus, that's a cumulative 35 percent reduction, but since hybrid buses still need liquid fuel, we'll call it 30 percent.

Add teleworking and teleconferencing for 5 percent, trains and high speed trains for 5 percent, and ridesharing for 5 percent, and we've reduced our liquid fuel need by 45 percent. Now turn to cars. Since 80 percent of the car trips we take are within battery range of an EV or PHEV, this can further reduce our need for liquid fuel. If we use modern lightweight materials, trimming a vehicle's weight by as much as 80 percent, demand falls to around 5 percent, which could be covered by biofuels from wastes or algae.

To reduce the need for long-distance trucking, we must rebuild our local economies to meet most of our needs, and use hydrogen-enhanced hybrid biofueled trucks for what's left. For ocean shipping, the answer may be wind-powered SkySails and hydrogen harvested on mid-ocean platforms from the sun, wind and waves. For flying, maybe slow biofueled helium dirigibles, but otherwise, no easy answers.

A hundred years ago, most people were either walking, or riding a horse. The carbon age has provided us with a stepping stone between the past and the future. It is time to step off it, and into the future.

—Guy Dauncey



[www.YesMagazine.org/coolcars](http://www.YesMagazine.org/coolcars)  
for links and other resources





IAN PAGE-ECHOLS, V8MEDIA.COM

# The Secret Lives of Plug-ins

Of the original 1,115 EV1's produced in 1997, only 40 or so still exist. These were disabled by General Motors and given to universities and museums with the stipulation that they not be driven as electric vehicles.

*Passionate and eclectic alliances are fueling hybrid passion, and, well ... it's electric*

## Sherry Boschert

Marc Geller of San Francisco has driven gasoline-free in electric cars for six years and more than 65,000 miles. A sales rep for a solar installer, he often travels hundreds of miles in a day without using a drop of oil.

Felix Kramer of Redwood City, California drives a Toyota Prius he had converted to a plug-in hybrid—one that, unlike standard hybrids, plugs into a regular 110-volt wall socket for recharging overnight. Kramer typically gets more than 100 miles per gallon in daily driving.

Both men say that driving on electricity has not inconvenienced them. It's been easier, in fact, because they seldom or never have to stop at a gas station.

The hard part was getting the cars.

Geller and thousands of other drivers were clamoring to buy the more than 5,000 leased electric cars, trucks

and SUVs that California clean-air regulators forced automakers to produce between 1996 and 2003. As told in the 2006 documentary *Who Killed the Electric Car?*, once the state's Zero Emission Vehicle Regulation in 2003 no longer mandated electric cars, the car companies reclaimed the leased cars and crushed them for scrap. Geller co-founded the nonprofit Plug In America ([www.PlugInAmerica.org](http://www.PlugInAmerica.org)) and helped lead a grassroots protest movement that saved more than 1,000 of the vehicles, one of which he drives today.

Kramer wanted a car that used electricity, but he didn't want to stop every 120-250 miles to recharge, as electric cars must. Plug-in hybrids go 10-60 miles on electricity but also have a gasoline tank and engine, so that they operate like conventional hybrids for long distance driving. Kramer founded the nonprofit California Cars Initiative ([www.CalCars.org](http://www.CalCars.org)), which generated a

wildfire of demand for plug-in hybrids.

Why are they so driven to plug in their cars? And why the surge of activity around plug-in vehicles in the past year?

People concerned about climate change like the idea of moving away from gasoline-powered cars and trucks, which produce 33 percent of U.S. greenhouse gas emissions. Groups like the Rainforest Action Network and Global Exchange have formed an unusual alliance with conservative organizations that see liberation from foreign oil as a necessary step in improving national security. Former CIA Director and defense hawk James Woolsey (whose own home is partly solar-powered) calls the campaign for plug-in cars an alliance of hawks, tree huggers, do-gooders, religious evangelicals, and farmers (whose biofuels could be the backup fuel to electricity in plug-in hybrids).

Many environmentalists had to overcome an initial fear that driving on electricity would be dirtier than driving on gasoline, since more than half of U.S. electricity comes from coal, a notorious polluter. That fear turned out to be unfounded. Dozens of studies have shown that all-electric vehicles >>

» are cleaner than conventional cars, hybrids, or futuristic hydrogen fuel-cell vehicles even if you count pollution from power plants as well as from tailpipes (called well-to-wheels emissions).

The Natural Resources Defense Council teamed up in 2007 with the Electric Power Research Institute to release the most detailed and sophisticated study of electric drive ever done. Plug-in hybrids can decrease greenhouse gas emissions by 7 percent to 46 percent between 2010 and 2050 compared with gas cars and conventional hybrids, depending on such variables as number of hybrids on the road and carbon emissions from the grid. The more it runs on electricity, the cleaner the car. (See [www.epri-reports.org](http://www.epri-reports.org).) In fact, driving an all-electric vehicle cuts greenhouse gas emissions up to 65 percent, according to my review of more than 40 studies on well-to-wheels emissions.

And as more clean, renewable power gets added to the electrical grid—something that has to happen to have any hope of mitigating climate change—plug-in vehicles will get even cleaner.

That's just the start of the benefits of plugging in. The Federal Energy Regulatory Commission and utilities across the United States are studying plug-in cars equipped to feed some of the electricity stored in car batteries back to buildings or to the grid if needed. The most exciting application of this vehicle-to-building (V2B) or vehicle-to-grid (V2G) technology is to store intermittent renewable energy like wind or solar power.

The sun doesn't always shine, and the wind doesn't always blow, making it hard for society to rely on these ubiquitous forms of renewable power. The wind tends to blow mostly at night, when few people are awake to use wind power. Nighttime also happens to be the time when plug-in cars tend to be recharged. Wind power

could be stored in the batteries, either for driving or for use by other parts of society through V2B and V2G.

The Sacramento, California, Municipal Utility District estimated, for example, that plug-in cars with V2G capability in just 39 percent of local households could store enough wind power on summer nights to feed the grid 1,500 MWh of electricity—about half the demand for a peak hour of summer cooling. Wireless communication systems would leave enough charge in the car for driving. Utilities might even pay drivers up front for the power, leading Federal Energy Regulatory Commissioner Jon Wellinghoff to dub plug-in cars “cash-back hybrids.”

Drivers, utilities, environmentalists, and national security hawks all see something to like in plug-in vehicles. Consumers might make a profit of \$400-\$2,500 per year by buying less gasoline and having V2G contracts, Wellinghoff estimates. Utilities are interested in V2G because it can help “level” demand for electricity, shifting some demand to nights and reducing peak strain on power plants during the day. Environmentalists like the ideas of increasing renewable power use (the U.S. Department of Energy estimated that V2G cars could more than double our access to wind power) and of reducing reliance on conventional peak-



AMANDA KOVATTANA  
AMANDAKOVATTANA.BLOGSPOT.COM

**Sherry Boschert offers Sierra Club convention-goers a test ride in an electric car. She was competing with automakers who had paid convention organizers \$3,000 per car for the right to offer rides in their green cars.**

demand power plants, which tend to be the dirtiest. National security hawks cheer the move away from petroleum and the fact that every building with solar panels and every plug-in car with V2G constitutes “distributed” energy that is less vulnerable to terrorist attack than a centralized power plant.

Today, advocates like Geller and Kramer are encouraged by the growing momentum for plug-in cars like the ones they drive every day, and frustrated at the same time. New plug-ins probably won't be available from major automakers until 2009, but a number of small companies hope to offer conversions of hybrids to plug-in hybrids starting in 2008. Meanwhile, consumers needn't sit quietly and wait, says Geller—they can help ensure that plug-ins hit the road and avoid political detours.

The more people who call the car companies at the phone numbers listed at [www.PlugInAmerica.org](http://www.PlugInAmerica.org) and say they don't want gasoline-dependent cars, the sooner we'll see plug-ins, he suggests. “Tell them, ‘I won't buy another new car unless it has a plug on it. No plug? No deal,’” says Geller. “Then we'll get these cars.”

**Sherry Boschert** is author of *Plug-in Hybrids: The Cars That Will Recharge America* (New Society Publishers) and is on the board of Plug In America.

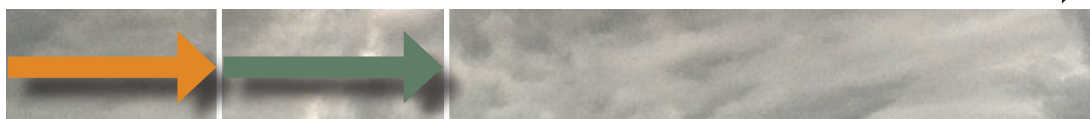


[www.YesMagazine.org/electriccar](http://www.YesMagazine.org/electriccar)

to see the trailer for *Who Killed The Electric Car?*



Total global emissions are the equivalent of **31.6 gigatonnes** of CO<sub>2</sub> annually.



The world's agricultural meat industry contributes **5.7 gigatonnes** of that, and **6.3 gigatonnes** comes from forest destruction.

## WHAT WE CAN DO ABOUT **FOOD & FORESTS**

**T**HE FARM INDUSTRIES that put beef, pork, and dairy on our dinner tables account for 18 percent of global greenhouse emissions—a larger share than all the world's transportation.

Animal agriculture unleashes some of the most baneful greenhouse gases—methane from cows' stomachs (25 times stronger than CO<sub>2</sub>) and nitrous oxide from animal manure and the use of nitrogen fertilizer (298 times more potent than CO<sub>2</sub>). And too often, both cows and animal feed are raised on slashed and burned rainforest land, releasing more CO<sub>2</sub>.

The solution lies on our dinner plates. We need to eat less meat and dairy, turning instead to the tastes, pleasures, and health benefits of vegetarian food. If locally grown and organic, so much the better, since organic farming stores carbon in the soil, and eating locally grown reduces the carbon emissions from shipping. Research shows that organic farming can produce as much food as industrialized farming in the developed world and increase yields two to three-fold in developing countries (because many of their existing farming methods are less productive to begin with).

The destruction of the world's tropical rainforests releases 17 percent of the world's carbon emissions. We must go out of our way to protect the forests in the Amazon, Congo, and Indonesia by buying threatened forests, placing them in trust for indigenous inhabitants, and paying for policing against illegal loggers.

Gaviotas, a social experiment in the barren savannah lands of eastern Colombia, provides one inspiring model. The visionary *Gavioteros* have created a thriving carbon-neutral community complete with hospital, solar water treatment plant, and wind turbines. By planting trees, they have begun changing local rainfall cycles and restoring ancient rainforest—all in what was an almost uninhabitable landscape, proving that anything is possible.

Another miracle goes by the name terra preta—rich,

black charcoal soil that stores huge quantities of carbon while making the land more fertile (see page 42).

As we enter the post-carbon world, we must learn how to reharmonize farming and forestry with nature's carbon cycles.

—Guy Dauncey

**Interested?** Read about journalist Alan Weisman's journey to remote Gaviotas at [www.yesmagazine.org/gaviotas](http://www.yesmagazine.org/gaviotas)

 [www.YesMagazine.org/foodandforests](http://www.YesMagazine.org/foodandforests)  
for links and other resources



DAGMAR NELSON, MILKAWAY.SMUGMUG.COM

Eighteen percent of the climate change problem is associated with raising, feeding, and transporting meat. Cutting back on meat consumption is a way to immediately reduce climate impact.



# Appalachia

## *Down a Greener Road Slowly—but Surely*

**Madeline Ostrander**

More than a decade ago, when farmers, loggers, and entrepreneurs from Ohio, Kentucky, Virginia, Tennessee, and West Virginia set out to re-energize flagging local economies, they weren't thinking about climate change. They were creating jobs and building communities. But as they rediscovered local living, they set in motion a regional economy that can last in a low-carbon world. They formed the Central Appalachian Network (CAN) to reinvest in their region's ecology and people.

Central Appalachia is rich in ecological capital: hardwood forests, rivers, and productive farmland. For more than a century, Appalachian wealth has been overused and undervalued—with timber, coal, and tobacco shipped to distant markets, leaving behind local communities wrestling with poverty and ecological devastation.

In 1997, CAN partners opened the region's first "kitchen incubator" in Athens, Ohio, a shared kitchen space

approved by the health department and available to local farmers and chefs for new business ventures that use regional food. A second kitchen incubator launched a few years later in Tennessee, in a renovated former primary school. These two facilities hatched hundreds of businesses and generated millions of dollars in organic, local sales.

CAN's strategies have yielded powerful results. In Virginia and Tennessee, former tobacco growers turned to organic vegetables. Soils at organic farms, according to Rodale Institute research, capture carbon (bound up in compost and organic matter) and keep it out of the atmosphere. And the vegetables now make shorter trips that use less fuel. These growers now sell thousands of cases of local organic fruits and vegetables and free-range eggs every week. The high quality "seconds" from these farms reach low-income families through a partnership with a food bank.

Several CAN groups have brought

climate-friendly sustainable forest practices to 14,000 acres of timberland, letting trees grow older and managing soil to store more carbon. CAN partners have also raised \$3 million of ginseng under forest shade. New flooring businesses have sprouted, using sustainable wood dried in solar and wood-waste kilns.

They created an art and farmers' market where several hundred West Virginia artisans now sell pottery, wood, and food. West Virginia stores, eager to cash in on new business opportunities, began featuring their local wares.

CAN partners now operate loan funds that support environmentally and socially responsible businesses. To date, CAN has invested more than \$14 million in local businesses whose products range from solar hot water heaters to arctic char, a freshwater fish that can be raised in reclaimed mine pits.

More than 1,000 farms and small businesses now provide 750 grocers,





HHFF



ROANOKE TIMES

Jason Rutledge's Healing Harvest Forest Foundation is one of the regional initiatives promoting responsible forestry in the Appalachians. He uses horse-powered forestry and ecosystem science "to address human needs for forest products while creating a nurturing coexistence between the forest and the human community."

supermarkets, and other retail venues with sustainable food, wood, and other products. The vast majority of these products are selling regionally within a 400-mile radius, reducing shipping by 75 percent or more. The essential infrastructure for regional, sustainable economies is emerging, including produce packinghouses and regional distribution networks.

It's not just "foodies" and "hippie farmers," but working families, low-income seniors, farmers, and entrepreneurs who together are creating everyday products for ordinary folks.

At a farmers' market, a patron offered this reflection on the region's burgeoning green economy: "I used to think 'living green' was just about what I had to give up, but now I feel like my life is much richer because of it."

**Anthony Flaccavento**, executive director of Appalachian Sustainable Development—a member organization of CAN—contributed substantially to the content and ideas in this piece.

## Putting the Trees Before the Horse

Healing Harvest Forest Foundation combines old and new. Its forestry practitioners rely on horse-drawn carts, which may seem quaint, but their logging techniques are inspired by some of the best ideas in forest science. Workhorses can selectively take out trees more gently than machines, leaving young understory poplars and oaks intact so they can mature into the next timber giants. Healing Harvest trains apprentices to cut the "worst first." Trees prone to insect infestation—with cracks, dead limbs, and scars—become saw logs and pallet lumber. Occasionally, practitioners harvest high-grade logs from "worst first" trees for furniture and flooring. The strategy promotes "all ages" forests, with 50-year-old trees next to saplings, creating a diverse ecosystem that supports wildlife and healthy soils.

"When practicing restorative forestry ... we believe we are creating a 'carbon positive' method," says Healing Harvest president Jason Rutledge. "We grow the healthiest trees to as large as possible, increasing carbon storage."

**Interested?** [www.healingharvestforestfoundation.org](http://www.healingharvestforestfoundation.org)



[www.YesMagazine.org/Rutledge](http://www.YesMagazine.org/Rutledge)

Jason Rutledge's vision of a sustainable Appalachia

## Terra Preta, a Solution Buried in the Dirt

**Brooke Jarvis**

WITH SO MANY NUTRIENTS caught up in the life cycles of lush forest plants, most soil in the Amazon Basin is nutrient-poor clay. But throughout the region, pockets of fertile, dark soil (“terra preta” in Portuguese) can be found.

Terra preta is the product of slash-and-char agriculture practiced centuries ago by indigenous farmers who baked wood to charcoal and worked it into the soil. Centuries later, the soil they created remains the region’s most fertile farmland: productivity is higher, far less fertilizer and fallow time are required, and soils support a larger variety of more nutritious crops.

But the real reason that terra preta is big news today is that these dark soils represent the possibility of natural, long-term carbon sequestration, a way to return some of the carbon once stored in fossil fuels back to the ground.

Carbon in charcoal does not reoxidize to become CO<sub>2</sub>, as does the carbon stored in plants when they decompose. Nearly half of the carbon content of biomass that is charred



and returned to the soil can remain stable for hundreds and even thousands of years—keeping carbon out of the atmosphere far longer than other, more cyclical biological sinks like no-till farming or planting trees.

The challenge with agrichar (as modern bio-charcoal is called) is to avoid the negative side effects that plague many biofuels. Producing biomass for agrichar doesn’t have to come at the cost of deforestation or increased industrial farming. Instead, the millions of tons of agricultural waste discarded every year—plus municipal and yard waste, manure, and even, potentially, sewage—can be used, much of their carbon sequestered for centuries rather than returning quickly to the atmosphere as CO<sub>2</sub>.

In addition to reducing the amount of carbon circulating into the atmosphere, agrichar also creates some handy by-products: bio-oil and gases that can be used to generate heat and electricity.

## The Amazing Power of Green Slime

**Margit Christenson**

SOYBEANS AND CORN HAVE long dominated the biofuels arena, leaving unassuming, unicellular algae overlooked as a viable energy crop. Far more efficient than their agricultural counterparts, algae are also a biological sink, consuming the carbon dioxide we spew into the atmosphere. The more CO<sub>2</sub> algae consume, the more they reproduce and grow into a rich source for biofuels, forming a beautiful, green, and gooey cycle.

The vitality of algae relies on carbon dioxide. CO<sub>2</sub> emissions from industrial plants can be pumped through algal screens, reducing emissions into the atmosphere by 40 to 80 percent and feeding one of the most efficient biofuel sources known to scientists. The captured CO<sub>2</sub> emissions are released when the algae biofuel is burned, but because the CO<sub>2</sub> waste is recycled, it replaces a fossil fuel.



The oil in algae can be converted into biodiesel and its carbohydrate components into ethanol. Both burn cleaner than coal or petroleum, and neither relies on deforestation and land depletion like most biofuels. While an acre of oil-palm trees, now the world’s largest source of biodiesel, produces approximately 650 gallons of oil, algae has the potential to produce more than 10,000 gallons of oil per acre.

Start-up costs are high to mass-produce algae, a plant that’s fussy about temperature and levels of CO<sub>2</sub>. But the payoff could be vast.

Michael Briggs of the University of New Hampshire Biodiesel Group hypothesizes in his 2004 report that one-eighth of the Sonoran Desert in the southwestern United States, if dedicated to algae farming, could supply the transportation fuel needs of the United States.



# Claim Your Piece of the Sky —It's Going Fast



DAVIS AYER

## Peter Barnes

**T**he atmosphere is different from private property—all living beings share it, which makes it a commons. But that doesn't stop corporations from trying to privatize it by persuading Congress to grant them free pollution rights in the future, becoming, in effect, landlords of our common sky.

Who *should* own the sky? Polluting corporations? The government? Or all of us as co-owners? How we answer this question will determine the kind of carbon capping system we have.

### The Right Price for Carbon

From a climate perspective, we want carbon prices to be as high as possible: the higher the carbon price, the less dirty coal we'll burn, and the more we'll invest in clean alternatives like wind and solar power.

At present, the price of emitting carbon is zero. The right price of carbon is the price that maintains climate stability. Capping carbon (without allowing offsets) will move us toward that price.

A carbon cap functions through the issuance of permits, the number of which is reduced each year. As the number of carbon permits falls, their price rises, and this spurs investment in clean alternatives.

Carbon permits can be traded, giving businesses flexibility in reducing emissions. To simplify the capping process, carbon would be capped where it enters the economy, not where it enters the atmosphere. This could be easily administered because only a few hundred companies bring fossil fuels into the U.S. or "produce" it here. Imports of products from countries with low carbon prices

## How Carbon Capping Works

If done right, a descending economy-wide carbon cap is the single best tool to fight climate change.

If done wrong, a cap won't reduce emissions sufficiently and will transfer hundreds of billions of dollars from families to corporate polluters.

### The right way

- Cover all carbon as it enters the economy
- Sell permits rather than giving them away free
- Allow no offsets
- Rebate permit revenue to individuals in the form of dividends

### The wrong way

- Exempt sectors or industries
- Give polluters free permits
- Put the burden of higher energy costs on families

would face border fees, which would financially protect climate-friendly manufacturers and workers.

This falling carbon cap is the best way to guarantee a pre-determined decrease in carbon emissions by a pre-determined date. That's because it's an absolute limit on emissions, rather than just an incentive or a regulation.

The idea of pollutant cap and trade got its first major test with the Clean Air Act of 1990, which cut sulfur-dioxide emissions and is widely considered a success.

In 2005, the European Union was less successful when it applied the sulfur model to carbon. Big companies used their political clout to get free permits, which led to huge windfalls for them, and higher prices for everyone else, and no reduction in carbon emissions.

Europe's experience shows that capping carbon can generate large private windfalls or equally large public revenues, depending on how it is set up.

### How to Cap Carbon

Carbon capping comes in three varieties: In cap-and-giveaway, permits are given free to historic polluters, leading to high windfalls for these companies. In cap-and-auction, permits are sold to polluters, and the government collects the revenue. In cap-and-dividend, permits are also sold, but the income doesn't go to the government—it goes to all of us equally. This would be similar to the Alaska Permanent Fund, which draws from an investment fund built with state oil income to pay all Alaskans equal yearly dividends.

The cap-and-dividend system reduces carbon emissions while protecting household incomes. The system works by auctioning permits and returning the revenue to all residents equally. Since everyone gets the same amount back, you gain if you conserve and lose if you guzzle. The winners are thus everyone who conserves fossil fuel—plus our children who inherit a stable climate. **Y**

**Peter Barnes** is a writer, senior fellow at the Tomales Bay Institute, and former president of Working Assets Long Distance. This article was excerpted from *Climate Solutions: A Citizen's Guide* (Chelsea Green, 2008).



# Beyond Lightbulbs

## The Jones Household Goes Carbon Free in 10 Years



**START  
HERE**

### YEAR 1

#### A Big Difference from Small Changes

The family starts off with easy changes: They wash clothes in cold water and air dry them in the summer, replace incandescent bulbs with compact fluorescents (CFLs), turn off their computer when not in use. That's an instant, virtually free savings of 6,200 pounds of CO<sub>2</sub>. They make one simple transportation change: One of the adults commutes by bus three days a week—enough to see whether it can be done, but keeping the second car just in case. That's worth another 2,200 pounds. They're down to 51,600 pounds and it hasn't cost them anything but the price of the CFLs and a clothesline. They're actually saving money.



### YEAR 2

#### Home Improvement

They stop donating so much heat to the outdoors: attic and basement insulation, sealing and insulating heat ducts, and patching the large air leaks typical of standard construction saves them a whopping 7,100 pounds. These savings aren't free up front, but the savings in heating and cooling bills will repay the cost over time. Besides, Mrs. Jones is handy with home repair, and does a lot of this work herself. Down to 44,500 per year.



### YEAR 3

#### House and Car

The bus commute's gone well, so Mr. Jones now buses to work all the time. They've worked on consolidating trips outside work, and find they can do without the second car altogether. That's 5,900 pounds gone. They finish weatherproofing their house: beefing up wall insulation, weatherizing doors and windows, and upgrading to high performance windows. Another 1,800 pounds disappear. They're at 36,800.



### YEAR 4

#### Shed Carbon on Vacation

Instead of flying for their annual vacation, the Joneses take the train: a leisurely way to save 7,200 pounds every year. (If they took the bus, they'd save even more.) They're at 29,600 pounds per year—half-way there a year early.



### YEAR 5

#### Car Upgrade

Time to replace the car. Thanks to consumer demand, electric cars have become widely available, and they buy one. Even charging on dirty power, they save 9,000 pounds. Household total is now 20,600.

60,000 lbs  
– 8,400 lbs  
51,600 lbs

51,600 lbs  
– 7,100 lbs  
44,500 lbs

44,500 lbs  
– 7,700 lbs  
36,800 lbs

36,800 lbs  
– 7,200 lbs  
29,600 lbs

29,600 lbs  
– 9,000 lbs  
20,600 lbs



Brooke Jarvis and Doug Pibel

Meet the Joneses. They're your average U.S. energy consumers. They haven't yet upgraded to energy-efficient appliances, their house needs better insulation, and they keep the place as cool in the summer and warm in the winter as most Americans do. The two adults commute 30 miles each per day, in separate cars with average fuel efficiency, and every year they each drive an additional 4,500 miles running errands and taking their child to soccer games and violin practice. The family takes one vacation trip per year, flying to visit grandparents 1,350 miles away. How much CO<sub>2</sub> do their house and cars produce? We figure it at 60,000 pounds, or 10 tons for each family member.

Lately, though, the Joneses have been reading about climate change, and they're getting worried. Ecological crisis has never felt so urgent before. Even little Joey Jones is talking greenhouse gases—he learned at school that scientists are predicting a worldwide climate catastrophe that will change the rest of his life, unless we stop the worst effects by making big changes in the next ten years. The Joneses decide: change is necessary, and they're ready to do their part. But how much can they really do? A lot, it turns out.

In 10 years, without sacrificing their way of life, the Jones family eliminates the CO<sub>2</sub> emissions that their home and transportation used to create—the bulk of their carbon footprint.

Count Your Carbon

Want to keep up with the Joneses? Here are the numbers we used. Use them to find—then shrink—your own carbon footprint.

	<i>CO<sub>2</sub> output, in pounds</i>
Gallon of gas	19.36
Gallon of fuel oil or diesel	22.38
Kilowatt hour of electricity (national average)	1.43
Therm of natural gas	11.71
Gallon of propane	12.67
<i>Per passenger:</i>	
Airplane mile	1.28
Train mile	0.42
Long-distance bus mile	0.18
Local mass transit mile	0.50
Electric bike mile	0.02

The Rest of the Story

The Joneses only changed their housing and transport habits. How can you go further?

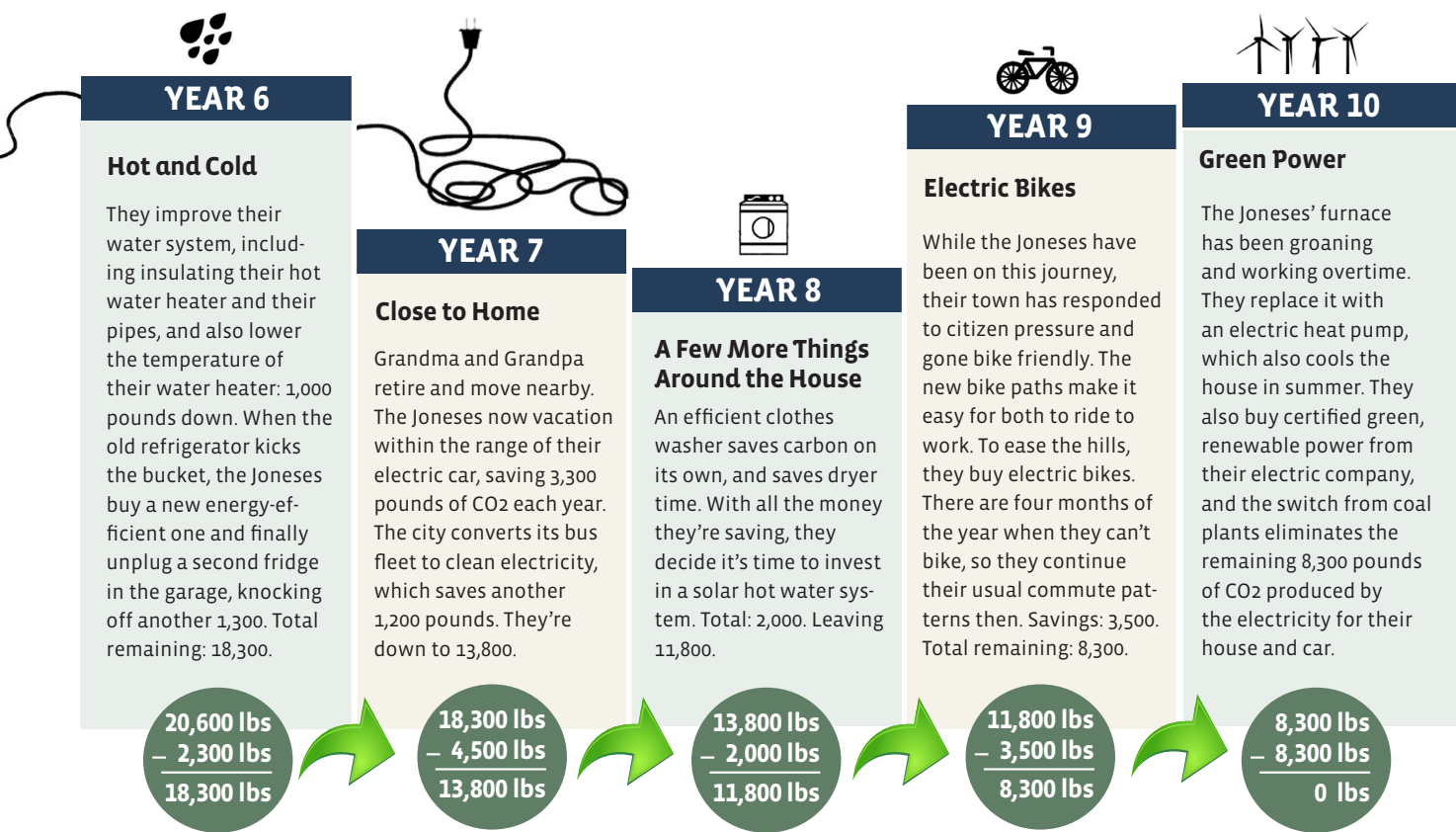
**Eat meatless.** For every day of the week you skip meat, you'll save 215 lbs. per year.

**Buy local.** Most food eaten in the U.S. has traveled 1,500 miles to your plate.

**Be a low-impact consumer.** Choose local products, reduce the stuff you buy, and save embedded energy by buying used.

**Reduce waste.** Stop junk mail, reduce packaging, and reduce the 2,020 lbs. each American's waste produces annually.

**Avoid the McMansion.** A smaller house saves a lot of carbon: on average, 11.4 lbs. of CO<sub>2</sub> per square foot per year.



Sources: Rocky Mountain Institute, Bureau of Transportation Statistics, Environmental Protection Agency, Department of Energy, University of Chicago. Illustration by Kayann Legg / I-S



## YES! BUT HOW?

IF YOU'RE SEARCHING FOR PRACTICAL WAYS TO LIVE SUSTAINABLY, JUST ASK US.

Send questions to YES! But How?, 284 Madrona Way NE, Suite 116, Bainbridge Island, WA 98110 or to [editors@yesmagazine.org](mailto:editors@yesmagazine.org)

### GREEN BURIALS

***I want to be the one to prepare for my death, so my kids don't have to. But when I went to the local funeral parlor, they said that my only option was to be pumped full of chemicals and buried in concrete. I want my death to be as environmentally responsible as my life. What can I do?***

You're not the only one unhappy with the current norm for funerals in the U.S. Once marked by family services and simple burials, death has become largely controlled by the \$20 billion-a-year mortuary industry.

You can still make the process greener and more human. One easy way is to forego embalming, the replacement of blood with a solution of formaldehyde—a carcinogen that may soon be banned by the EU. No federal laws require embalming, and the few state laws that do are only in the event of interstate transport or contagious disease. In fact, many religious traditions, including Islam and Judaism, oppose the practice. You have the right to say no.

Some people choose cremation to save space and resources, but the amount of air pollution it creates—including CO<sub>2</sub>, dioxin, heavy metals, and furans—is a reason to consider burial. In both cases,

though, much of the negative impact is introduced by caskets, many of which are made of unsustainable or toxic materials and designed not to biodegrade. Some 30 million board feet of hardwoods get buried every year, along with thousands of tons of steel and concrete. Simple, biodegradable (and inexpensive) coffins made of sustainable wood, wicker, or cardboard are growing more popular. Families can make one themselves or browse through dozens of vendors online. A shroud or favorite blanket is another option.

It's also possible to choose an environmentally and community friendly burial ground. Conventional cemeteries often require concrete grave liners, making it difficult for bodies to return to the soil, and many also rely on huge quantities of chemical fertilizers to keep their grass preternaturally green. They also offer very limited use—rows of headstones rarely invite picnics. But more and more green cemeteries, memorial nature preserves, and other alternative burial grounds now offer gravesites within natural preserves or community parks. Rather than vaults or granite markers, memorials take the form of trees, flowers, or engraved local stones. And, because graves are protected by law, their presence can help to conserve community green spaces.

### Our Issue 45 researchers

After YES!, **Brooke Jarvis** will be using all that Yes! But How? expertise to help shrink the waste stream of Hawai'i's Kalaupapa National Historic Park. **Margit Christenson's** foray into yogurt culture was a success, and she would like to thank the YES! readers and staff who offered helpful hints through the process.



Brooke Jarvis



Margit Christenson

In some places, home burial is an option for those who own land in rural areas—check your state's regulations. You'll need to draw a map of where your family cemetery will be and file it with the deed, making sure it is at least 150 feet from water and outside of any utility easements. Be sure to get a death certificate.

For providers, regulations, and other information check out the Green Burial Council in the U.S. ([greenburialcouncil.org](http://greenburialcouncil.org)), the Natural Death Centre in the UK ([naturaldeath.org.uk](http://naturaldeath.org.uk)) or books like Lisa Carlson's *Caring for the Dead: Your Final Act of Love*. —B.J.

### PLASTIC BAGS

***I've been recycling my plastic produce bags by washing them***

***and using them over and over again for newly purchased produce. But lately I've read about possible health risks of toxic chemicals leaching from plastics, and I'm having second thoughts. Can re-used plastic bags contaminate my produce?***

Plastics can and do leach toxins, especially as they age, but the amount of toxins being released is a disputed issue. Grocery and produce bags tend to be made of number 2 or 4 plastic, which are typically considered safe plastics. They don't contain chemicals that act as endocrine disruptors, which can lead to cancer and reproductive problems. But time, heat, and chemicals can cause even the "safe" plastics to break down and release toxins. And the older the plastic,





## YES! PICKS ::

### Rain Barrels

As municipal water gets scarce, an easy way to ease the burden on your city's supply is to collect rainwater, storing it until dry times when you can use it to water your garden or scrub your floors. You'll also help decrease water pollution, since you'll lessen the runoff that washes pollutants down storm drains and into rivers. Plus, your plants—not huge fans of chlorine or fluoride—will prefer rainwater.

Rain barrels, which store the water your gutters collect, are available at your local garden store or from online vendors. Better yet, make your own from materials you can buy for under \$20 at the hardware store—a spigot, some piping, and a few straight and elbow aluminum gutter attachments to help your downspout line up with the barrel. For the barrel, use a large trashcan or recycle a 55-gallon drum, available at army surplus stores, bottling or distribution plants, car washes, or on the Internet.

Make sure the lid lets water in but keeps debris and mosquitoes out by cutting a hole and covering it with an old screen, colander, or other filter. The lid should be able to be opened for cleaning or sealed to keep kids from falling in. You can use a watering can to dip water out of the barrel or install a gravity-fed spigot that will enable you to attach a hose. Finally, an overflow pipe or hose will let any excess water escape—just make sure it faces well away from your home's foundation. You'll also need to shorten and most likely redirect the downspout using the attachments you bought. Place your barrel on firm foundation underneath, then sit back and watch it fill. —B.J.



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on Page 57

the more toxins are migrating to your lettuce. Reusing your plastic bags is admirable, as there are far too many of the things clogging the landfills, streets, and oceans of the world. If you do wash your bags, do it only when necessary, make sure you use cold water, and avoid using any soap or cleaning products on them.

You may also want to reevaluate the purpose of plastics in storing your produce. Plastic bags weren't introduced as grocery store staples until 1977, but in 30 short years we've been conditioned to wrap each type of fruit or vegetable in a plastic bag when

circling the produce section. You can skip the bag entirely if you're buying an eggplant, a head of cabbage, or a couple of apples—they come in their own, all-natural wrappers. Paper, wax paper, or cloth are fine alternatives for some of the messier produce out there. It's a quick job to sew up some cotton or cheesecloth sacks to replace your plastic ones, and reusablebags.com sells organic cotton produce bags with drawstring closures. These cloth alternatives are helpful in delaying decay by soaking excess moisture off leafy greens, and they'll stand up against one wash cycle after another. —M.C.



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# Leading the Way

As U.S. leaders take half-measures or worse, youth, evangelicals, mayors, and others step into the void



SHADIA FAYNE WOOD

At Power Shift 2007 in November, young people put politicians on notice. They want action, not more rhetoric, on an issue that will define their lives.

## Youth Feel the Power

*They have the most to lose,  
but they've got the energy to win*

**Shadia Fayne Wood**

"MAMA, WHAT'S THAT?" a little girl urgently asked her mother. I was visiting the National Museum of Natural History one morning in Washington, D.C., when I overheard this conversation.

"It's a polar bear, honey," her mother said after looking at a giant photograph of a polar bear clinging to the remains of an iceberg in the midst of the vast ocean.

"Why is everything melting, mama?" Looking at her daughter, the mother seemed to ponder the question,

and then just turned away as her little girl gaped up at the photo.

I was floored. This, in a nutshell, is how youth are left to deal with a problem that we had little part in creating.

I wanted to kneel down beside this child and tell her that I'm sorry. I'm sorry that we now have to fight for our future. I'm sorry that children her age are already dying from the impacts of climate change and from the extraction, processing, and use of dirty energy in New Orleans, in Iraq, in Detroit, on Native American reservations, and the list goes on. I wanted to explain why, because that is at least what is owed to us.

And I wanted to tell her that she's not alone. There's a whole world of youth mobilizing around this issue, and we are only getting stronger.

The Youth Climate Movement began for me at the World Summit on Sustainable Development in 2002. I was 15



years old, in South Africa helping draft the Youth Caucus Energy Policy. It was not the first time I had learned about climate change, but it was the first time the impacts felt real to me. I listened to youth that had their own personal stories of the impacts of climate change in their lives. I watched political leaders negotiate my future in a haphazard way. This scared me to my core, and it became clear to me that something needed to be done.

During the next years, I worked with those same youth, and many others, to develop the Energy Action Coalition, which unites a diversity of youth-led organizations to create just climate solutions on campuses, in communities, and nationally.

That same coalition went on to create the Campus Climate Challenge, a campaign on over 700 campuses and high schools in support of just climate solutions.

It was many of the same youth who were among the group that envisioned and brought to life Power Shift 2007, the first national youth summit aimed at solving the climate crisis.

Youth are motivated. We have the raw passion, the edge, and now—through skill shares, youth-led conferences, panel discussions, and the largest youth convergence on climate change in history—we have the skills and the knowledge to make our vision a reality.

As youth, we are literally fighting for our lives. We are from communities already feeling the impact of climate change, and we are from the generation that has the most to lose.

We are scared of the destabilization in our climate, but we also see this as an opportunity to shift our society and to be allies to the people who are especially affected by climate change—communities of color, indigenous communities, and low-income communities.

Youth are tired of living in a broken system built on the back of racism. And we are ready for this opportunity to change the systems to actually serve the people—all people.

In November, 6,000 of us gathered in Washington, D.C., for Power Shift 2007. What was it like?

Power Shift 2007 was a transformation we could feel in our stomachs. We talked late into the night, questioning what we knew and speaking truth to what we are building. We participated in the largest lobby day on global warming, demanding that any climate legislation include 5 million new green jobs, a moratorium on coal-fired power plants, and a reduction in fossil fuel emissions of 80 percent by 2050 and 40 percent by 2020. This is not the ideal; this is what is necessary. We danced on the front lawn of the Capitol of the United States of America. We poured in from all over the country and from different parts of the world to be part of it. Power Shift 2007 was excitement palpable enough to wear.

Whether we are gathering in the thousands, hundreds, or by the handful, we are realizing our potential as climate

activists. We experience our power, and we feel the love for one another. The movement is alive and breathing the smoggy air all around us.

The momentum is building. My generation outnumbers the baby-boomers by 3 million, and we are the largest age group in the United States. We are in every congressional district, and polls show that youth are coming out to vote in larger numbers than ever before.

And we are organizing. Here in the United States, if our representatives are not doing their job to push for bold and just climate solutions for all peoples then they should start browsing the job ads to get ready for November 2008.

We must each carry this burning fire within us as we work in our local communities, remembering to tend it and take care of ourselves so that it does not burn out. Our movement stays strong when we are strong. So, share your dinners, your fears, and your hopes. Love those around you, so we can truly have a power shift.

**Shadia Fayne Wood**, 20, is editor of [itsgettinghotinhere.org](http://itsgettinghotinhere.org), *Dispatches from the Global Youth Climate Movement*, and an organizer and photo-journalist.

## Evangelicals & Climate Scientists

### *Genesis of an unlikely alliance*

**Calvin B. Dewitt**

TWENTY-EIGHT SENIOR EVANGELICAL LEADERS and world-renowned climate scientists took a leap of faith when they met at Melhana, a secluded Georgia plantation, in December 2006.

Years of politically charged dissent over evolution had distanced the mostly pro-Bush, socially conservative evangelicals from scientists—and the case for preventing global warming. But the Melhana group had reasons to believe that understanding between the two sides was possible. Reverend Richard Cizik, a leader with the National Association of Evangelicals and organizer of the Melhana meeting, had converted from a climate skeptic to a believer four years previously at a Christian environmental forum. As he heard evidence of shrinking ice caps and increasing hurricane intensity, he had an experience “not unlike my earlier conversion to Christ,” he says. Cizik has since fought staunch opposition within the evangelical movement to speak out for action on climate change.

The tension between the climate scientists and evangelicals dissolved at Melhana. “We quickly came to realize that we shared exactly the same reverence and the same con- ➤



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Rev. Rich Cizik and Majora Carter of Sustainable South Bronx discuss environmental stewardship and why Christians should care at the 2007 Q gathering.

» cern about what is happening to the creation,” said James McCarthy, Harvard scientist and president-elect of the American Association for the Advancement of Science.

Together the group drafted an “Urgent Call to Action,” stating, “We believe that the protection of life on Earth ... requires a new moral awakening to a compelling demand, clearly articulated in Scripture and supported by science ... We pledge to work together at every level to lead our nation toward a responsible care for creation.”

In the year since Melhana, evangelicals have continued to seek urgent action on global warming. The Evangelical Climate Initiative has run a series of ads defining the issue as a moral imperative, and Reverend Jim Ball, representing more than 100 evangelical leaders, testified in July before the Senate Environment and Public Works Committee, calling for a “vigorous response” to climate change, including cap-and-trade, a carbon tax, and policies that protect the poor. In August 2007, Cizik led another group of evangelicals and scientists through Alaska to witness firsthand glacial melting and the devastation of an island village off the Alaska coast.

The climate of discussion is changing within the evangelical community, giving renewed hope for Earth—a hope that is widely shared by other faiths and communities.

**Calvin B. Dewitt** is an ecologist, professor, cofounder of the Evangelical Environmental Network and the Au Sable Institute, and author of *Earth-Wise: A Biblical Response to Environmental Issues*.

## Mayors Stand Up

*Cities lead where feds fear to tread*

**Madeline Ostrander**

IN THE VACUUM LEFT BY FEDERAL INACTION on climate change, social movements have launched in unexpected places—including city hall.

In 2005, Seattle Mayor Greg Nickels rallied mayors across the country to commit to Kyoto standards in their cities. “We hoped against hope that we would sign up 141 cities, one for every country that had signed onto Kyoto,” Nickels says. But he unleashed a groundswell. Three years later, nearly 800 mayors, representing 1 in 4 Americans, have signed the Mayors Climate Protection Agreement.

Some of the cities most actively pursuing climate protection lie in red states. For instance, in Texas in 2006, a bipartisan coalition of roughly 30 cities and towns fought off eight proposed coal-fired power plants—a win driven by the fiery energy of Laura Miller, then mayor of Dallas, who spent three months haranguing on coal in larger cities and in towns so tiny they held public hearings in barns. Two hundred miles away in Austin, Mayor Will Wynn has put in place some of the country’s most ambitious climate goals: all city operations and new single-family home construction must be carbon-neutral in less than 15 years, not through offsets but by relying on solar, wind, and biomass.

Other cities on the Nickels climate team have longstanding green reputations. Mayor Richard Daley declared his goal to make Chicago “The Greenest City in America” in 2002, after years of promoting city gardens, green buildings, and urban renewal. Chicago’s climate program now targets city infrastructure, with plans to meet 20 percent of municipal electricity demand through renewables within the next five years. Chicago also claims the highest installed photovoltaic energy production of any city outside California.

Likewise, Portland, long known for promoting transit, bicycles, and livability, is one of the first cities to propose a carbon tax, targeting builders that fail to meet stringent energy efficiency targets on new construction.

Other cities have taken more modest steps toward Kyoto goals: public education, tree planting, handing out compact fluorescents. But their collective action makes the case that more is possible.

At a November congressional field hearing, the mayors of Miami, Seattle, New York, and Trenton excoriated the federal government for failing to regulate greenhouse gases. The hearing concluded a two-day U.S. Conference of Mayors meeting on climate in Seattle, during which New York City Mayor Michael Bloomberg called on Congress to fund more clean energy research, raise gas mileage





POP!TECH INSTITUTE

Van Jones of the Ella Baker Center for Human Rights discusses the Green Collar Revolution at Pop!Tech 2007.

standards, and institute a carbon tax. “I believe it’s time for both ends of Pennsylvania Avenue to come together around a national strategy on climate change and to lead the way on an international strategy,” he said. “And I believe that until they do, it’s our job as mayors to point the way forward.”

**Madeline Ostrander** served as a program manager and then consultant for the U.S. Conference of Mayors Environment Program prior to joining the YES! magazine staff as associate editor.

## Green Jobs For All

*People left out of the fossil fuel economy stand tall in the green economy*

**Ian Kim**

GLOBAL PROBLEMS DEMAND world-class leadership from every sector. Fortunately, the right kind of leadership and organization is emerging to meet the challenges of climate change.

These new leaders are addressing questions too often overlooked in mainstream debate: Can we build solutions that involve and include everyone, especially those most vulnerable to the impacts of climate change? How do we provide all people with equal protection from climate disasters, as well as equal access to environmental solutions and opportunities?

In November, at the Energy Action Coalition’s Power Shift conference, more than 6,000 bright-eyed students and youth from all over the country converged on Washington, D.C., to demand bold solutions for the climate crisis. Simultaneously, thousands more self-organized in small and large groups for the national “Step It Up” day of action to call for change.

And in December, the president signed a tepid Energy Bill. While the package left many environmental activists disappointed—and rightly so—there was at least one provision tucked into the Energy Bill that should give everyone something to cheer about: The Green Jobs Act of 2007.

For the first time in history, a U.S. law addresses both the climate crisis and the poverty crisis by investing in green-collar job training. The Green Jobs Act authorizes \$125 million annually for greening the nation’s workforce, enough for training up to 30,000 people every year for jobs in emerging “green” sectors like the solar and wind industries, green building construction, biofuel production and more. Even more unprecedented, it allocates \$25 million for “green pathways out of poverty,” providing targeted resources for low-income individuals who have the greatest need for training and career pathways in the clean energy economy.

Many grassroots and advocacy groups worked hard all year to achieve this victory, including the Apollo Alliance, the Workforce Alliance, the Center for American Progress, the Energy Action Coalition, the Ella Baker Center for Human Rights, and Green For All. The Act’s provisions were inspired by the local successes of grassroots organizations like Sustainable South Bronx, People’s Grocery, the »



» Green Worker Cooperatives, and Solar Richmond.

It is especially important to note the growing number of “eco-equity” champions within Congress: House Speaker Nancy Pelosi, Representatives George Miller, John Tierney and Hilda Solis, and Senators Hillary Clinton and Bernie Sanders all helped push, pull, and carry this victory across the finish line.

To be sure, we still have a long way to go. These victories are just the beginning—small down-payments on the massive, necessary investments we must make to curb global warming.

But what you can see here is the start of a dream team of solutioneers—a coalition of some of the nation’s best environmentalists, labor union leaders, social justice activists, and business entrepreneurs, all working together and cultivating strong relationships with the right lawmakers.

We need solutions at every level, from people in every sector, if we are to save ourselves from the climate crisis. Indeed, efforts are doomed if they get stuck in elite subcultures instead of including broad, vibrantly diverse coalitions.

What’s exciting is that it appears the right elements are beginning to come together, with the potential to turn this climate crisis—one of the biggest challenges in human history—into a moment for deep, radical social change in this country.

**Ian Kim** is the director of the Green Collar Jobs Campaign at the Ella Baker Center for Human Rights.

## Communities in Transition

*Less carbon—more skills and connection*

**Doug Pibel**

ROB HOPKINS WAS TEACHING permaculture in Kinsale, Ireland, when he encountered the concept of peak oil. Hopkins and his students were shocked at the looming prospect of a world without cheap energy, and at the absence of plans to deal with the repercussions. Rather than wait for someone else to act—government or otherwise—they figured out how to address the problem, one community at a time.

Hopkins says, “The idea emerged that the future with less oil could be preferable. But we need to rediscover what was actually good about life before cheap oil.”

Their work led to the Transition Towns movement,







which claims 26 communities as members in the United Kingdom, with 400 more worldwide expressing interest in becoming transition communities—people taking charge of preparing their communities to make a graceful entry into a low-energy world.

The essence of the Transition Town concept is building resilience at the community level. As Hopkins points out, it is only in the last half-century that oil has become the central force in all aspects of our lives, moving people, moving food, and removing both the sense of community and the skills for local mutual support.

During World War II, Hopkins says, Victory Gardens were an important part of the food supply. At the time, growing food in the back yard was not a great challenge—most people were at most a generation away from some sort of home food production. Those who were not had ready access to the knowledge of neighbors or elders.

In the years since World War II, we've so absorbed the notion that food should come from trucks that a Victory Garden would be beyond the capability of most. Similarly, cheap clothing shipped across the world has made sewing a quaint thing of the past. Skills that were commonplace less than 100 years ago have disappeared. What we've lost, says Hopkins, is resilience.

The Transition Towns movement aims to rebuild that, from the ground up. One key to the success of the movement has been that it invites people on a journey of change, starting where they are right now, rather than using fear or guilt as motivators. The news about peak oil and climate change is still poorly understood by many; helping people adjust to what seems very bad news is part of the transition town program.

Equally important is an emphasis on solutions and positive possibilities. Hopkins offered a 10-week "Skilling Up for Powerdown" course in Transition Town Totnes, where he now lives. The course took participants from an introduction to peak oil and climate change through all aspects of transition life—food, housing, energy, money, and personal preparation. Transition Town Totnes has an active program of planting nut trees in private and municipal spaces, an exercise in making carbon-consuming trees a food source.

Citizens of Transition Town Westcliff, in the United Kingdom, are exploring how to prepare for a carbon-constrained world. The town is creating an Energy Descent Action Plan. From top to bottom: community gardens, sustainable transportation, and a cardboard classroom.

PHOTOS BY FRED ROBINSON, DEBBIE BURNETT,  
AND GRAHAM BURNETT

They've introduced the Totnes pound, a local currency that has seen 10 thousand one-pound notes go into circulation in the last year.

Transition Town initiatives are purely grassroots. That is a matter of necessity, since even local governments are behind the curve on the issue. It is also a matter of preference. If a low-carbon future means reliance on community resources, no one knows those better than the locals.

The Transition Towns movement responds to the challenges of peak oil, climate change, and sustainability. Not a happy combination. But, says Hopkins, "It feels to me that one of the reasons the Transition Towns movement has grown so fast is that it is positive in a time where it is hard to find positivity, solutions-based in a time when the problems are so glaringly obvious, and fun, in a time where we're not supposed to have time for that any more."

**Doug Pibel** is YES! Managing Editor.

## Unions, Churches, & Schools

### *The power to make a green transition*

#### **Doug Pibel**

TWO NEW GROUPS in the state of Washington are melding an awareness of the urgency of climate change with the organizing tools of the Industrial Areas Foundation to produce jobs that employ young people and can't be moved overseas.

Founded in Chicago in 1940 by Saul Alinsky, the Industrial Areas Foundation (IAF) fosters social change by organizing among natural allies in trade unions, churches, education, nonprofits, and other voluntary associations. The IAF is founded on a belief in deep democracy, and it draws its members and leaders from all strata of society.

The Spokane Alliance, an IAF affiliate started in 2002, took on as an early project a demand that the Bonneville Power Administration (BPA) stop hiring out-of-area workers for public-works projects. When 750 Spokane Alliance members showed up at a hearing to negotiate with the BPA, the result was a commitment to local hires, with 80 percent of the work on a half-billion dollar repair job done by locals.

In a world where buildings produce more than

»



» 30 to 40 percent of CO<sub>2</sub>, the future is in making buildings cleaner. The building trades that belong to the Spokane Alliance are training young people in the skills that will transform existing buildings and build new ones to operate on tiny carbon budgets. Negotiations with the Spokane School Board around a \$161 million bond for energy efficiency in school buildings resulted in training 63 apprentices during building retrofits. An offshoot of the Spokane Alliance, Sustainable Works NW, is working on four retrofit projects, with more in the pipeline.

Soph Davenport is a young sheet-metal worker from the Puget-Sound based Sound Alliance. "In college, I did some token stuff about the environment," Davenport says, "but I had no sense of being able to do anything about climate change. Now I'm doing something that really makes a difference."

"That sense of purpose is critical for the many young people who will not be going to college," says Tom Cruver, of the Bethel Education Association. In his 37 years of teaching, Cruver has seen a steady decline in programs to prepare young people for the trades. He's joined with the Sound Alliance to push for developing a skill center in the Bethel School District, near Tacoma, Washington, to bring back the classes that give direction to kids not headed for college.

During the next 30 years, 75 percent of buildings will be replaced nationally, according to Dick Harmon, IAF Northwest lead organizer. With green building techniques, new buildings can reduce energy use by more than half, Harmon says. The IAF plans to be there, putting its empowered citizens to work in "good green jobs that can't be outsourced."

Stopping climate change is not a job for the elite. "You have to have the middle class and the working poor to build political power to do anything about climate change," Harmon says. The Spokane and Sound Alliances and their citizen leaders are making those groups leaders in confronting climate change. **Y**



#### Climate Solutions Resource Guide

The information and links you need to find out more.  
[www.YesMagazine.org/resourceguide45](http://www.YesMagazine.org/resourceguide45)

#### Climate Solutions Discussion Guide

Get a group together and have a conversation.  
[www.YesMagazine.org/discuss45](http://www.YesMagazine.org/discuss45)





*If you're really paying attention, it's hard to escape a sense of outrage, fear, despair. Author, deep-ecologist, and Buddhist scholar Joanna Macy says: Don't even try.*

# The Greatest Danger



BRIAN HAMILTON, SIRBRIAN.COM

## Joanna Macy

How do we live with the fact that we are destroying our world? What do we make of the loss of glaciers, the melting Arctic, island nations swamped by the sea, widening deserts, and drying farmlands?

Because of social taboos, despair at the state of our world and fear for our future are rarely acknowledged. The suppression of despair, like that of any deep recurring response, contributes to the numbing of the psyche. Expressions of anguish or outrage are muted, deadened as if a nerve had been cut. This refusal to feel impoverishes our emotional and sensory life. Flowers are dimmer and less fragrant, our loves less ecstatic. We create diversions for ourselves as individuals and as nations, in the fights we pick, the aims we pursue, and the stuff we buy.

Of all the dangers we face, from climate chaos to permanent war, none is so great as this deadening of our response. For psychic numbing impedes our capacity to process and respond to information. The energy expended in pushing down despair is diverted from more crucial uses, depleting the resilience and imagination needed for fresh visions and strategies.

Zen poet Thich Nhat Hanh was asked, "what do we most need to do to save our world?" His answer was this: "What we most need to do is to hear within us the sounds of the Earth crying."

## Cracking the Shell

How do we confront what we scarcely dare to think? How do we face our grief, fear, and rage without "going to pieces?"

It is good to realize that falling apart is not such a bad thing. Indeed, it is as essential to transformation as the





» cracking of outgrown shells. Anxieties and doubts can be healthy and creative, not only for the person, but for the society, because they permit new and original approaches to reality.

What disintegrates in periods of rapid transformation is not the self, but its defenses and assumptions. Self-protection restricts vision and movement like a suit of armor, making it harder to adapt. Going to pieces, however uncomfortable, can open us up to new perceptions, new data, and new responses.

In our culture, despair is feared and resisted because it represents a loss of control. We're ashamed of it and dodge it by demanding instant solutions to problems. We seek the quick fix. This

isolation. On the contrary, in letting go of old defenses, we find truer community. And in community, we learn to trust our inner responses to our world—and find our power.

You are not alone! We are part of a vast, global movement: the epochal transition from empire to Earth community. This is the Great Turning. And the excitement, the alarm, even the overwhelm we feel, are all part of our waking up to this collective adventure.

As in any true adventure, there is risk and uncertainty. Our corporate economy is destroying both itself and the natural world. Its effect on living systems is what David Korten calls the Great Unraveling. It is happening at the same

During a recent visit to Kentucky, I learned what is happening to the landscape and culture of Appalachia: how coal companies use dynamite to pulverize everything above the underground seams of coal; how bulldozers and dragline machines 20-stories high push away the “overburden” of woodlands and top soil, filling the valleys. I saw how activists there are held steady by sheer intention. Though the nation seems oblivious to this tragedy, these men and women persist in the vision that Appalachia can, in part, be saved and that future generations may know slopes of sweet gum, sassafras, magnolia, the stirrings of bobcat and coon, and, in the hollows, the music of fiddle

**Speaking the truth of our anguish for the world brings down the walls between us, drawing us into deep solidarity. That solidarity is all the more real for the uncertainty we face.**

cultural habit obscures our perceptions and fosters a dangerous innocence of the real world.

Acknowledging despair, on the other hand, involves nothing more mysterious than telling the truth about what we see and know and feel is happening to our world. When corporate-controlled media keep the public in the dark, and power-holders manipulate events to create a climate of fear and obedience, truth-telling is like oxygen. It enlivens and returns us to health and vigor.

#### **Belonging to All Life**

Sharing what is in our heartmind brings a welcome shift in identity, as we recognize that the anger, grief, and fear we feel for our world are not reducible to concerns for our individual welfare or even survival. Our concerns are far larger than our own private needs and wants. Pain for the world—the outrage and the sorrow—breaks us open to a larger sense of who we are. It is a doorway to the realization of our mutual belonging in the web of life.

Many of us fear that confrontation with despair will bring loneliness and

time as the Great Turning, and we cannot know which way the story will end.


Let's drop the notion that we can manage our planet for our own comfort and profit—or even that we can now be its ultimate redeemers. It is a delusion. Let's accept, in its place, the radical uncertainty of our time, even the uncertainty of survival.

In primal societies, adolescents go through rites of passage, where confronting their own mortality is a gateway to maturity. In analogous ways, climate change calls us to recognize our own mortality as a species. With the gift of uncertainty, we can grow up and accept the rights and responsibility of planetary adulthood. Then we know fully that we belong, inextricably, to the web of life, and we can serve it, and let its strength flow through us.

Uncertainty, when accepted, sheds a bright light on the power of intention. Intention is what you can count on: not the outcome, but the motivation you bring, the vision you hold, the compass setting you choose to follow. Our intention and resolve can save us from getting lost in grief.

and fresh flowing streams. They seem to know—and, when we let down our guard, we too know—that we are living parts of the living body of Earth.

This is the gift of the Great Turning. When we open our eyes to what is happening, even when it breaks our hearts, we discover our true size; for our heart, when it breaks open, can hold the whole universe. We discover how speaking the truth of our anguish for the world brings down the walls between us, drawing us into deep solidarity. That solidarity, with our neighbors and all that lives, is all the more real for the uncertainty we face.

When we stop distracting ourselves by trying to figure the chances of success or failure, our minds and hearts are liberated into the present moment. This moment then becomes alive, charged with possibilities, as we realize how lucky we are to be alive now, to take part in this planetary adventure. 



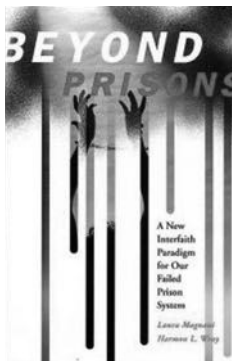
**Joanna Macy** is a scholar of Buddhism, general systems theory and deep ecology, whose latest book is *World as Lover, World as Self*. She lives in Berkeley, CA. [www.joannamacy.net](http://www.joannamacy.net)





GIOVANNI BANFI / I-S

REVIEWED BY CAROL ESTES



**Beyond Prisons: A New  
Interfaith Paradigm for Our  
Failed Prison System**

LAURA MAGNANI  
& HARMON L. WRAY

Fortress Press, 2007, 204 pages, \$13

To those who live behind bars, the American system for punishing lawbreakers is known as “the criminal injustice system.” They’ve got it right. Our prison system is a failure. Prisons damage people far more often than they help. About half of released felons re-offend and return to prison—up to 80 percent of them in some states. And we lock up American black men at a rate eight times higher than that of South Africa at the height of apartheid.

Our solution to the problems caused by prisons has always been a simple one: more prisons. For two and a half centuries, Americans have been unable to imagine that a lawbreaker’s “debt to society” could be paid in any currency other than time spent in a cage.

It is this failure of moral imagination that Laura Magnani, assistant regional director for justice for the American Friends Service Committee (AFSC) in Oakland, California, and Harmon Wray, director of the Vanderbilt Program in Faith and Criminal Justice, set out to remedy with *Beyond Prisons*.

“Punishment, by its very nature, causes harm,” the authors write. “We cannot punish our way to a healthy society.”

How then do we go about the task of repairing our retribution-based criminal justice system?

We don’t, they say. We throw it out and start over.

We own up to the parts of our history that we’d rather forget and the inequities they left in their wake; from slavery, to the convict-leasing system, to Jim Crow laws; from our displacement of Native Americans to our treatment of lesbian, gay, and transgendered people. We address “the extreme power imbalances” that have allowed one class and one race to remain at the top, while other races and classes suffer.

We examine the role that fear plays. “Much of the repression done by the criminal justice system is done in the name of safety,” Magnani and Wray point out, just as “national security” is often our rationalization for curtailing civil liberties.

In the end, the authors call for a new morality based on truth telling, acknowledgment, and reparations—and belief in the power of good to overcome evil.

It is ironic that the gentle, silence-loving Quakers were, in large part, the creators of the penitentiary system they now condemn.

In the mid-18th century, they worked hard to replace the harsh colonial justice system—a mixture of public humiliation, whipping, fees, restitution, and for more serious crimes, branding, mutilation, and hanging—with what they believed would be a more humane and effective system. Beginning in 1790, lawbreakers would be sentenced to a monastic existence of unremitting silence in single cells and silent labor—the proto-penitentiary.

In one sense, the Quakers’ reform >>

## IN REVIEW ::

### FROM BEYOND PRISONS ::

"The only way to end crime is to address its real causes, among which are poverty, mental illness, despair, and broken relationships. The concrete alternatives are head start programs, family support systems, nutrition programs, improved education, employment opportunities, housing programs, and adequate family incomes. Together these alternatives would constitute a radical justice."

» efforts were spectacularly successful: they resulted in a penitentiary system that has lasted 220 years. At the same time, their vision of humane penitence and atonement quickly became a nightmare: the regimen of isolation and silence drove inmates insane.

Magnani and Wray acknowledge the Quakers' role in creating the failed penitentiary system, along with their more recent role in promoting mandatory sentences, which were intended to eliminate racism in sentencing but, distorted during the legislative process, ended up taking away judges' discretion and making imprisonment automatic.

Why, then, should a reader listen to the Quakers again?

Because the Quakers' two and a half centuries of experience with prisons, particularly their failures, are the source of this book's great strength. It reflects an institutional memory of how humane visions can be distorted by fear, self-interest, and bureaucracy, and how policies intended to make life better for prisoners can end up making it worse. These are painful lessons, but crucial for those who work for change.

Sometimes the book is too careful and too politically correct, and sometimes it sounds like a committee-written internal document of the American Friends' Service Committee—which, in part, it is. But against the backdrop of these faults, the radical humanity of its message shines.

So what do we do with violent law-breakers if we don't put them in prison? How do we turn gang members, car thieves, murderers, and rapists into good neighbors?

We could copy programs that are working elsewhere. Most Americans

would be surprised to know that other countries have already answered these questions, and that many of their answers are working. That's why Canada incarcerates its citizens at one seventh the rate that we do, and Denmark at less than one tenth.

But Magnani and Wray did not aspire to create a handbook on programs that work. The problem they address reaches deeper. Before we can create a justice system that represents the "peace-building justice paradigm" they envision, we must overcome our fears of each other and our cultural ignorance of the causes and motivations of criminal behavior. "Street crime," they point out, "is typically an act of desperation, insanity, drug-induced behavior, or sometimes all three." The only way to end it is to address its real causes: "poverty, mental illness, drug addiction, and broken relationships."

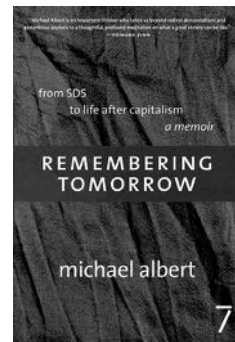
If we cannot first learn to see each other differently, they warn, the best parts of any new system will be swallowed up by the existing punitive justice machinery.

We created this retributive justice system, Magnani and Wray remind us, so we can create a different system. Forgiveness can be public policy. Equality and justice are possible. If we can imagine a world without prisons, they suggest, we can create it.

I believe them.

Carol Estes is a lobbyist on criminal justice issues for the Friends Committee on Washington Public Policy, though not a Quaker herself. She also runs an all-volunteer prison education program called University Behind Bars that offers college courses to prisoners at no cost to them or the state.

Find the authors' 12-step program for re-inventing criminal justice at [www.YesMagazine.org/beyondprisons](http://www.YesMagazine.org/beyondprisons)



### Remembering Tomorrow: From SDS to Life After Capitalism

MICHAEL ALBERT

Seven Stories Press, 2007, 445 pages, \$22.95

REVIEWED BY JEN ANGEL

Michael Albert's new memoir, *Remembering Tomorrow* offers rare insight into the formation and maintenance of social change movements and institutions. At the same time, it offers a glimpse into the life of an anti-capitalist and a leader in the field of participatory economics.

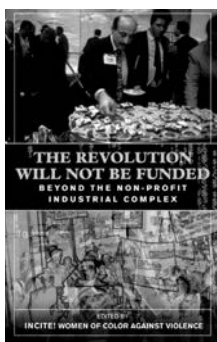
Albert's fascinating tale includes the founding of South End Press in 1977 and later of *Z Magazine*, Z Media Institute, and Znet. Not only does he describe the ideas behind these projects, Albert tackles the big organizational questions: power imbalance within collectives, founder's syndrome, division of labor, sustainability, race, fundraising, and dealing with the guilt of progressives with money.

Many progressive projects that appear to be sustainable are actually verging on collapse. Albert admits this was the case with projects he initiated, and he describes attempts to come back from the brink—only some of which were successful.

Albert concludes with thoughts on media and politics that reveal, as does the rest of the book, a man who deeply reflects on how to make the world a better place. Whether or not you agree with his conclusions, Albert's thoughtfulness is a benefit to everyone who studies and works for social change.

Jen Angel is a YES! contributing editor.





## The Revolution Will Not be Funded: Beyond the Non-Profit Industrial Complex

### INCITE! WOMEN OF COLOR AGAINST VIOLENCE

South End Press, 2007, 239 pages, \$18

REVIEWED BY JAMES TRIMARCO

Fifty years ago, the Civil Rights movement claimed millions of supporters and achieved major victories in legislation and everyday life. America's social problems have not disappeared, so where are those powerful people's movements today?

For the authors of *The Revolution Will Not Be Funded*, that question calls for a reexamination of the non-profit model of social action.

The book is edited by the members of INCITE! Women of Color Against Violence, a group known for drawing links between war, police brutality, and domestic abuse. It includes essays by academics and activists from a wide variety of backgrounds, most of whom do not flatly condemn grant funding. Instead, they target what they see as excessive dependency on grant money and the idea that foundation-funded non-profits in themselves can comprise a social movement.

The authors begin with a challenging, sometimes disturbing critique of foundations. These groups, they argue, are unaccountable, undemocratic, more interested in temporary fixes than in addressing the roots of social problems, and a drain on tax revenues to boot. While policy analyst Christine Ahn acknowledges that foundations

have at times also "challenged the excesses of government and corporate power," she believes they are in need of reform.

Even more problematic for these authors is the overly professionalized approach funders demand in their non-profit clients. Portland-based organizer Amara Pérez describes her experience with foundations that preferred narrow projects to broad engagements and encouraged competition against similar groups rather than cooperation.

"The ongoing work to maintain and prospect foundation money ... was more taxing and exhausting than confronting any institution to fight for a policy change," she writes.

Like other contributors, Pérez chose to reduce her organization's budget and raise money through her membership in order to stay focused on what she saw as a broader, more collaborative, and more radical vision of social justice work.

While a few of the authors call for organizations to avoid foundations altogether, most favor a continued but more autonomous relationship. Chilean community organizer Paula X. Rojas offers the example of Brazil's Movement of Unemployed Landless Workers, which partners with nonprofit groups for their skills but grants them no decision-making power. This movement, whose members operate without formal hierarchy and without pay, has nonetheless organized 1.5 million people and secured land for more than 350,000 families.

Do U.S. social movements depend too much on foundation funding? For readers inclined to wrestle with such questions, this collection makes a provocative read. It offers thoughtful ideas on how alternative strategies could be constructed and reminds us that political work is sometimes most effective when it is organized—and funded—from the bottom up.

James Trimarco is a writer whose work has appeared in *Vanity Fair* and *The Brooklyn Rail*, and a volunteer with community art space ABC No Rio.

## YES! PICKS ::

### Musical inspiration while putting out this issue



#### So Much More

Fresh energy for indie-folk from **Brett Dennen**. Humor and sincere wonderment keep him far from more cynical singer-songwriters who can get preachy under the weight of social responsibility.



#### Give Us Your Poor

Appleseed Records offers an eclectic collaboration of homeless musicians and celebrity musicians: **Bruce Springsteen, Natalie Merchant, Bonnie Raitt, Keb' Mo', Jewel, Pete Seeger, Madeleine Peyroux, Buffalo Tom, Sweet Honey in the Rock**, and spoken word contributions by actors **Tim Robbins** and **Danny Glover**.



#### War and Peace

**Butch Hancock's** first solo work in nine years is, no surprise, a political stamping of his feet. "That Great Election Day" is a favorite of Amy Goodman.



Have a listen at  
[www.YesMagazine.org/music](http://www.YesMagazine.org/music)

## IN REVIEW ::

### YES! PICKS ::

#### Maddening and motivating independent films

##### Argentina: Turning Around

(38 minutes) Moving Images Video, 2007

*Turning Around* undertakes the all-too-often neglected task of reexamining social change once the headlines have faded. An inspiring follow-up to the 2002 film *Argentina: Hope in Hard Times*, *Turning Around* captures the insight of workers, movement leaders, academics, and journalists who lived and led Argentina's struggle to rebuild after the 2001-02 financial crisis. *Turning Around* shows the informal experiments—born out of necessity—that evolve into thriving new people-centric models of business, agriculture, education, and community building, capturing Argentina's story of hope, struggle, and transformation.

**Tanya Dawkins** is founder/director of Global-Local Links Project and a YES! board member.



[www.YesMagazine.org/turningaround](http://www.YesMagazine.org/turningaround)  
to see the film trailer

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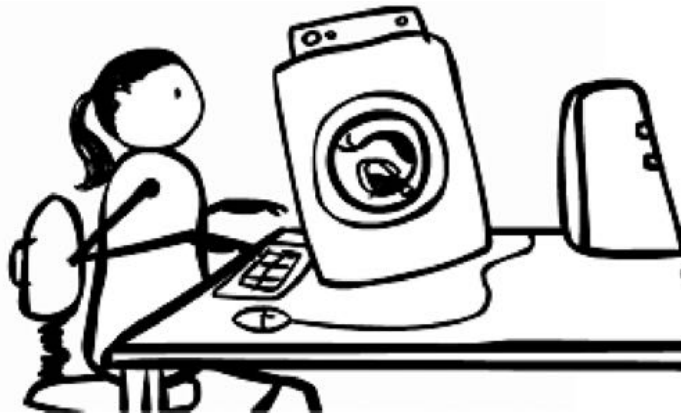
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### FILM ::

**The Story of Stuff** with Annie Leonard. Documentary, 2007, 20 minutes, Free Range Studios, Christopher Herrera, Tides Foundation, Funders Workgroup for Sustainable Production and Consumption.



REVIEWED BY CECILE ANDREWS

Everyone is concerned about global warming, but no one seems willing to say the fatal words: We must start consuming less. Our consumerism uses up resources, pollutes the planet, poisons humans, destroys species, keeps people in poverty, and contributes to global warming—all without making anyone happier.

An anti-consumerism diatribe is not something people want to hear, though, so you need something short and sweet that grabs and holds people's attention.

That's what we have in *The Story of Stuff* with Annie Leonard. In just 20 minutes, her little film lays out the problems in our consumption of "stuff" and shows how everything is linked: environmental problems with social justice issues with declining happiness. Plus she shows how corporations have undermined the government in its role of protecting the common good. We might think everyone understands these ideas, but not

so; this film can help with that.

In particular, this short and punchy film, produced by Free Range Studios, is a perfect tool to reach young people. It's a way to get their attention because young people can watch it on the Internet and send the link on to their friends. It has cartoons and an energetic and compelling presentation.

You could also use it to start good conversations at all sorts of gatherings whether at church, or school, or work. The web site gives tips for hosting a screening and provides a lot more information on consumerism at [www.storyofstuff.com](http://www.storyofstuff.com).

This film activates people to change. It's not so dismal that you feel despairing—as Annie says, "It's not like gravity that we just gotta live with. People created it, and we're people too. So let's create something new." You're left feeling, "Let's get started!"

**Cecile Andrews** is author of *Slow Is Beautiful* and *The Circle of Simplicity*. [www.cecileandrews.com](http://www.cecileandrews.com)



[www.YesMagazine.org/storyofstuff](http://www.YesMagazine.org/storyofstuff)  
to watch the movie





*Fran*

Fran Korten, Publisher

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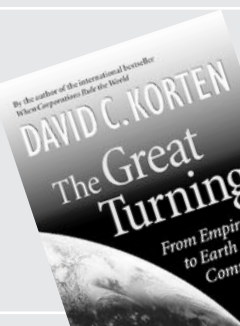
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## WHO WE ARE ::

YES! Magazine is published by the Positive Futures Network, an independent, nonprofit organization supporting people's active engagement in creating a just, sustainable, and compassionate world. The work of the Positive Futures Network is to give visibility and momentum to signs of an emerging society in which life, not money, is what counts; in which everyone matters; and in which vibrant, inclusive communities offer prosperity, security, and meaningful ways of life.

## NEWS AND NOTES ::

### See you in Seattle!

April 12–13, Seattle hosts its first-ever Green Festival. Based on Green Festival experiences in San Francisco, Washington, D.C., and Chicago, organizers expect more than 30,000 will attend. The Festivals, organized by Global Exchange and Co-op America, feature hundreds of green-economy businesses and nonprofits, speeches, music, and food.

YES! Media and Outreach Manager Susan Gleason is a member of the Host Committee helping to plan the event. YES! is sponsoring speakers—including Native American elder and activist Billy Frank, Jr. and our Board Chair, David Korten. Editor Sarah van Gelder will moderate a climate action panel of authors from this issue of YES!, and will interview Suquamish Tribal Chairman Leonard Forsman. At the YES! booth you can find staff and volunteers eager to say hello. Visit [www.greenfestivals.org](http://www.greenfestivals.org) for details.

### Sustainability in Washington schools

In July 2007 Washington State passed a pioneering standard for teacher education that requires K-12 teacher

candidates to be able to prepare their students to “be responsible citizens for an environmentally sustainable, globally interconnected, and diverse society.”

YES! Education Outreach Manager Kay Hubbard will join Washington State educators, led by Woodring College of Education at Western Washington University, in discussing how best to respond to the new mandate. We expect that work done here will help educators in other states find ways to integrate issues of sustainability and justice into their programs.

### Want more YES?!

Do you wish you could get YES! magazine more often than quarterly? Sign up for our regular e-newsletters. They're beautiful and they're free, with many online-only features you won't find in the magazine. You can sign up by going to [www.yesmagazine.org/newsletters](http://www.yesmagazine.org/newsletters).

### YES! welcomes new staff

When you phone YES! you may find you're speaking with one of our three new staff members. Joan Miller is our new Development Director. Joan moved to the Northwest from Maryland, after working for nine years as Development Associate for the Izaak Walton League, a national environmental group. Gretchen Wolf, a Northwest native and outdoor enthusiast, is our new Office Manager, replacing Melissa Anderson who is now our Circulation Coordinator. Paula Riehle, a Bainbridge resident and mother of four, is our new Circulation Assistant. She helps Sally Wilson and Sharon Booth process all your subscription orders and renewals. We are delighted to welcome each of these talented women to the YES! community.

## YES! PICKS ::

### Things To Do, Places To Go



[www.YesMagazine.org/events](http://www.YesMagazine.org/events)

For an expanded listing of upcoming events

### “The Dream ... Reborn”

April 4–6. *Memphis, TN.* Join Van Jones, the Ella Baker Center for Human Rights, and allies for a weekend event recognizing forty years since Martin Luther King, Jr.'s assassination. Event organizers are coordinating their efforts with the local April Fourth Foundation in Memphis. The event will celebrate MLK's life, while also presenting positive solutions from today's generation of visionary leaders. Special emphasis will be placed on ecological solutions that can heal the Earth while bringing jobs, justice, wealth, and health to vulnerable people. In the aftermath of Katrina, in the face of global warming and global war, King would have worked for a peaceful, green economy—strong enough to lift people out of poverty and restore hope. [www.ellabakercenter.org](http://www.ellabakercenter.org)

### Slow Food Nation

May 1–4. *San Francisco, CA.* Through national and international speakers, a marketplace of the best sustainable foods, taste workshops, a film festival, special installations on salmon, honey and corn, a sustainable fish barge, a demonstration school garden, and world food stands, this major “slow food” event will illuminate the relationship of food to the environment, public health, social justice, and culture. [www.slowfoodnation.org](http://www.slowfoodnation.org)

### Grow Deep: Business Leaders Building Strong Communities

June 5–7. *Boston, MA.* The Business Alliance for Local Living Economies (BALLE) organizes independent businesses across North America to green and strengthen their local economies. This sixth annual conference will bring together sustainable business, government, and community leaders, including Bill McKibben, Vandana Shiva, Judy Wicks, and Majora Carter. [www.livingeconomies.org](http://www.livingeconomies.org)

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HAS THE PROMISE OF THE STORIES WE'VE PUBLISHED TURNED INTO REALITY?

## Enlightened Banking

**11 years ago in YES! ...** we featured the founding of **ShoreTrust Bank**, a leading example of what has since become a trend in socially and environmentally responsible banking. A joint project of EcoTrust and ShoreBank Corporation, it promised to invest in projects that would help the economically depressed region of southwest Washington develop in a way that could sustain the area's small communities while preserving and restoring fragile coastal and forest ecosystems. But would it work?

### Today ...

ShoreTrust today has a different name and a lot more clients, but the same mission that it had eleven years ago. Now called **ShoreBank Enterprise Cascadia**, it's a certified nonprofit Community Development Financial Institution that in 2007 provided \$13.7 million in loans, 80 percent of them in rural communities.

"There are a lot of people who have poor credit, are low-income, or otherwise are uninteresting to



the commercial banking world—but they have ideas that can benefit their communities. Those are the people we serve," said chief operating and finance officer David Provost.

ShoreBank EC has made loans to small-scale organic farms, green building projects, land trusts, affordable housing projects, fair trade importers, and small businesses in underserved areas.

When the landlords of Tryon Life Community Farm in Portland decided to sell their land to a residential developer, the Farm's resident renters faced eviction. Their intentional farm community, inside Portland city limits and bordering hundreds of acres of protected forest, would be replaced by 23 upscale homes unless they could raise more than \$1.4 million to buy the land themselves. The task took months of fundraising and help from all sectors of the Portland community—plus a \$600,000 loan from ShoreBank.

"The Bank was phenomenal in putting in the energy to push the deal through in time," said Brenna Bell, president of the Farm's board of directors. "Other people would have just shaken their heads and said, 'You have no track record. You're hippies. No way.' And ShoreBank wasn't like that. They thought what we were doing was important."

—Brooke Jarvis

**Interested?** See our original story at [www.yesmagazine.org/shoretrust](http://www.yesmagazine.org/shoretrust). It's one of more than 1,700 YES! Magazine articles in our online archive.



TRYONFARM.ORG

Portland public school students at Tryon Life Community Farm