

## Resources for Citizens

*With the assistance of Kelly Levin, 2003 graduate of the Yale School of Forestry and Environmental Studies, and Heather Creech, International Institute for Sustainable Development.*

The immensity of global-scale challenges, their seeming remoteness from everyday life, and the inaccessibility of the policy processes that address them make it hard for individuals to think that they can make a difference. The good news is that Web-based resources, outstanding organizations, and other levers make it possible today as never before for citizens to affect the outcome of global challenges.<sup>□</sup>

For example, globalization can in fact be played in reverse. New York Times columnist Thomas Friedman has noted that globalization is shrinking the world, linking events here with those far away. The great and legitimate fear of many is that the process is homogenizing and hollowing out local economies, communities, and cultures. Yet today's technology is also empowering individuals to combine their forces in unprecedented ways and to link up with others seeking constructive change around the world. Positive local change can go global--spreading, seeking larger goals, and asserting itself until the world is changing.

The biggest threat to our environment is global climate disruption, and the greatest problem in that context is America's energy use and the policies that undergird it. So, in terms of bottom-up, citizen-driven action--the green JAZZ discussed in chapter 9--there is no riper target than the U.S. energy scene. And, indeed, the energy-climate problem provides the best example available of how citizen initiative and local action are beginning to address a global-scale problem. Most of the examples offered in chapters 3 and 9 of JAZZ in action have to do with energy and climate. We can imagine goals being set for renewable energy use and for reductions in greenhouse gas emissions by businesses and universities, by communities and states, then by groups of states and national associations and organizations of many types, all supported by worried insurers

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<sup>□</sup> Resources for Citizens is available online, with linkages to the Web-sites mentioned here, at [www.redskyatmorning.com](http://www.redskyatmorning.com).

and institutional investors, to the point that local actions are indeed going to scale and changing the world. This is not a distant vision: it is a process that has already begun in the United States.

We are not powerless to affect even the most remote and global challenges. This guide presents, briefly and incompletely, some of the things that citizens can do to promote and further the eight transitions--the eightfold way--sketched in chapters 8, 9, and 10. Even this limited agenda will strain the time and stretch the energies of most of us. There is much to be done--and much that we can do.

### **Areas for Citizen Action**

Before turning to the eight transitions, let's take up the various ways that individuals can make an impact on global environmental challenges:

As voters. The League of Conservation Voters ([www.lcv.org](http://www.lcv.org)) is devoted to evaluating the "greenness" of political candidates and to supporting those with strong environmental credentials. Their Environmental Scorecard evaluates the votes and positions of elected officials. In addition to the national level, League of Conservation Voters are springing up at the state level around the country and are increasingly becoming involved in state and local level elections. Voting itself is but the finale. More important, individuals can become involved in the political process--up to and including becoming candidates for elected posts. There is good news here: it is easier to become involved politically at local and state levels, and, as discussed in previous chapters, it is at these levels of government where the action is the most impressive today.

As investors. This door is opening dramatically. Numerous groups now provide information to investors on finding green companies and environmentally screened mutual funds. Individuals can also get involved in the decisions of pension funds and other institutional investors. On the cutting edge is a burgeoning movement of investors who are taking shareholder petitions and resolutions to annual meetings. (Resources for green investing are presented under Transition 7, below.)

As consumers. The first stop here is the information published and available online regarding the greening of household consumer purchases. In addition, consumers can support eco-labeling and product certification. Eco-labels range from those denoting

sustainable forest products to those identifying energy-saving technologies to those labeling sustainable food choices. Labeling schemes, such as fair trade labeling, have also been designed to promote sustainable development abroad. In addition to everyday household products, larger purchases present greater opportunities to affect global environmental challenges. Consumers can choose hybrids and other fuel-efficient vehicles, take green vacations and support ecotourism, build green homes and green yards, create green office environments, participate in consumer boycotts, and more. And, of course, we can opt for mass transit, bicycles, and other lifestyle changes. Many good books address lifestyle issues, among them, Union of Concerned Scientists, The Consumer's Guide to Effective Environmental Choices (New York: Three Rivers Press, 1999; [www.ucsusa.org/publication.cfm?publicationID=130](http://www.ucsusa.org/publication.cfm?publicationID=130)), Denis Hayes, The Official Earth Day Guide to Planet Repair (Washington, D.C.: Island Press, 2000), The Ecologist, ed., Go Mad! 365 Daily Ways to Save the Planet (London: Think Publishing, 2001), and Julia Butterfly Hill, One Makes the Difference (San Francisco: Harper Collins, 2002). (Additional resources on sustainable consumption are presented under Transition 5, below.)

As family members. Let's face it: the polls show that women are more concerned about environmental issues than men and young people more than their parents. Many businessmen have reported that they got educated on the environment by their families.

As association members. Americans are a nation of joiners--we are members of a wide variety of voluntary associations. And these groups can take action in response to global environmental challenges. How green is your high school, college, or university? Your church, synagogue, or other place of worship? Your gym or golf course? Your lodge or club? Most of us don't want to be pests, but the groups to which we belong can and should have energy and climate goals, reduce their use of toxic chemicals, participate in building markets for climate-friendly products and cutting-edge green technologies, and encourage their regional and national counterparts to sponsor larger efforts.

As workers. According to the Center for Small Business and the Environment ([www.geocities.com/aboutcsbe](http://www.geocities.com/aboutcsbe)), small businesses can be an ideal source of environmental solutions because they are local, nonbureaucratic, creative, flexible,

independent, and responsive to change. By contrast, large businesses wield tremendous power, and if employees of large companies can institute change, the ramifications will be large. In addition to business owners and managers, farmers and union workers can play a vital role in shaping global environmental change. Farmers can adopt sustainable farming techniques, shift to organic farming and shade-grown crops, and set aside land for wildlife and regeneration. The U.S. Farm Bill programs help guide farmers in green farming techniques. For information and inspiration on the greening of business, see [www.GreenBiz.com](http://www.GreenBiz.com) or subscribe to Tomorrow ([www.environmental-center.com/magazine/tomorrow/index](http://www.environmental-center.com/magazine/tomorrow/index)) and Green@work ([www.greenatworkmag.com](http://www.greenatworkmag.com)). See also Resources for Promoting Global Business Principles and Best Practices at [www.csrwire.com/directory](http://www.csrwire.com/directory). What can your office do to counter climate change? See Samantha Putt del Pino and Pankaj Bhatia, "Working 9 to 5 on Climate Change: An Office Guide," World Resources Institute, December 2002 ([http://pdf.wri.org/wri\\_co2guide.pdf](http://pdf.wri.org/wri_co2guide.pdf)), and SafeClimate for Business, [www.safeclimate.net](http://www.safeclimate.net). The Natural Step offers a framework for businesses to rethink their operations to become more sustainable, [www.naturalstep.org](http://www.naturalstep.org). The opportunities for an environmental career are also expanding. The Environmental Careers Organization publishes The Complete Guide to Environmental Careers in the Twenty-first Century (Washington, D.C.: Island Press, 1999) and has a useful Web-site, [www.eco.org](http://www.eco.org). See also the "Bytes of Note" columns by Thomas Parris in the April 1999 and May 2003 issues of Environment. (Additional resources on the greening of business are presented under Transitions 3 and 7, below.)

As advocates of governmental policies and funding. Although one can individually lobby elected officials on global environmental issues, the next best thing is to join, support, and participate in the many outstanding nongovernmental organizations (NGOs) that "work" the global-scale policy issues at local, state, national, and international levels. There is no substitute for doing this. Although most of us could not attend the meeting of the Conference of the Parties to the U.N. Framework Convention on Climate Change when it convened in New Delhi in 2002, these meetings are attended by groups like the Natural Resources Defense Council ([www.nrdc.org](http://www.nrdc.org)), Environmental Defense ([www.environmentaldefense.org/home.cfm](http://www.environmentaldefense.org/home.cfm)), World Resources

Institute ([www.wri.org](http://www.wri.org)), World Wildlife Fund ([www.worldwildlife.org](http://www.worldwildlife.org)), Greenpeace ([www.greenpeace.org](http://www.greenpeace.org)), the World Conservation Union (IUCN) ([www.iucn.org](http://www.iucn.org)), the Sierra Club ([www.sierraclub.org](http://www.sierraclub.org)), and many other NGOs. Excellent directories of environmental organizations are available (see, for example, 2003 Conservation Directory [Washington, D.C.: Island Press, 2003]; Jeff Standinger, The Environmental Guidebook [Menlo Park, Calif.: Environmental Frontiers, 2002]; and on-line directories listed below). Groups range from conservative to radical. An important, action-oriented coalition of environmental organizations is SaveOurEnvironment.org ([www.saveourevironment.org](http://www.saveourevironment.org)). For a coalition active on energy and climate, see Climate Action Network ([www.climatenetwork.org](http://www.climatenetwork.org)). Nontraditional environmental actors such as the National Religious Partnership for the Environment ([www.nrpe.org](http://www.nrpe.org)), Physicians for Social Responsibility ([www.psr.org](http://www.psr.org)), and the United Nations Association for the United States of America ([www.unausa.org](http://www.unausa.org)) should not be overlooked. (Additional resources on membership, advocacy, and other groups are presented under Transition 7, below.)

As conservationists and eco-developers. Individuals can also join, support, and engage in the activities of organizations that are working “on the ground” at sites around the world rather than pressuring legislators to draft policies that would achieve comparable goals. These “operational” organizations are diverse in nature--ranging from land trusts devoted to saving ecologically viable land from development and degradation (acting locally, such as the Trust for Public Land, [www.tpl.org](http://www.tpl.org), and Land Trust Alliance, <http://lta.org>, and internationally, such as the Nature Conservancy, <http://nature.org>), to organizations working on international biodiversity issues (such as World Wildlife Fund, [www.worldwildlife.org](http://www.worldwildlife.org), and Conservation International, [www.conservation.org/xp/CIWEB/home](http://www.conservation.org/xp/CIWEB/home)) to groups focusing on development projects that stress sustainable livelihoods and environmental regeneration (such as CARE, [www.care.org](http://www.care.org), and Oxfam, [www.oxfam.org.uk](http://www.oxfam.org.uk)). Many other U.S. and international groups support sustainable development initiatives in developing countries, among them the National Wildlife Federation ([www.nwf.org](http://www.nwf.org)) and World Conservation Union ([www.iucn.org](http://www.iucn.org)). The Marine Conservation Biology Institute works to establish marine sanctuaries ([www.mcbi.org](http://www.mcbi.org)).

As activists. You say you want a revolution? The eight transitions will not be made without activists. Two books may be of special interest on this subject: Todd Gitlin, Letters to a Young Activist (New York: Basic Books, 2003), and Randy Shaw, The Activist's Handbook: A Primer (Berkeley: University of California Press, 2001). See also the discussion of "global action networks" at [www.gan-net.net](http://www.gan-net.net). (See also Transition 7, below.)

As educators. We are all teachers--not only in our schools and other institutions of formal education but also in our families, among our friends and co-workers, and in our clubs and places of worship. We can spread the news--both good and bad--about the global environment and what can be done, and we can support educational programs in environmental studies and in science generally. It is unlikely that someone who rejects the science supporting evolution is going to place much stock in the science of global climate change. Excellent Web-based sources of general environmental news include Environmental News Network ([www.enn.com](http://www.enn.com)), Environmental News Service ([www.ens-news.com](http://www.ens-news.com)), Bonda Report ([www.bondareport.com](http://www.bondareport.com)), and Planet Ark ([www.planetark.org](http://www.planetark.org)). U.N. Wire ([www.unwire.org](http://www.unwire.org)) also provides excellent coverage of U.N.-related news, including that pertaining to the environment. Excellent access to international environmental information is provided by IISD Linkages ([www.iisd.ca/linkages](http://www.iisd.ca/linkages)) and EarthTrends (<http://earthtrends.wri.org>). UNEP's website ([www.unep.org](http://www.unep.org)) is extremely valuable, as is its magazine, Our Planet ([www.ourplanet.com](http://www.ourplanet.com)).

### **Eight Steps to Sustainability**

Using the methods of citizen engagement just reviewed, individuals can do many things to promote each of the eight transitions to sustainability. The organizations and Web-based resources presented here provide an abundance of information along with ideas for membership, financial support, and personal initiative. (People's politics differ. The resources presented were not selected with the idea that they would appeal to everyone. Also, the focus here is primarily U.S. Web-based resources, and the numerous and often excellent resources maintained by federal and state governments in general are not presented simply for reasons of length.) The materials here

supplement those cited in the Notes and recommended in For Further Reading: A Bookshelf.

### **Transition 1: A Stable or Smaller World Population**

The Resource Clock of the International Development Research Centre has tracked the increase of human population and decrease of arable land since 1987, when the first clock was installed in the front lobby of IDRC's Ottawa headquarters. The clock also runs on-line on the front page of IDRC's Web-site at [www.idrc.ca](http://www.idrc.ca).

People and the Planet, at [www.peopleandplanet.net](http://www.peopleandplanet.net), provides a global gateway to issues of family health as they relate to pressure on resources. The news service also covers feature articles and stories on population, environment, and development issues.

WEDO (Women's Environmental and Development Organization) is an international advocacy group that collaborates with policy-makers to empower women across the globe. Individuals can check out [www.wedo.org](http://www.wedo.org) to support their campaigns. Their Web-site is helpful in staying up-to-date with the challenges facing women's social and political empowerment today.

WomenWatch, a joint project between UNIFEM ([www.unifem.org](http://www.unifem.org)) and the Interagency Network on Women and Gender Equality ([www.un.org/womenwatch/ianwge](http://www.un.org/womenwatch/ianwge)), provides a wealth of information regarding the empowerment of women. Individuals can educate themselves about women-related events around the world, read relevant publications and data, and discover upcoming meetings on women's issues on the WomenWatch Web-site [www.un.org/womenwatch](http://www.un.org/womenwatch). Information on the Beijing Platform for Action, the international agenda for women's empowerment, can be found at [www.un.org/womenwatch/daw/beijing/platform/plat1.htm](http://www.un.org/womenwatch/daw/beijing/platform/plat1.htm).

Founded in 1975, CEDPA (Center for Development and Population Activities) provides services to millions of women through partnerships with 138 organizations in forty countries. CEDPA focuses on access to reproductive health and voluntary family planning and strengthens community organizations to support, educate, and empower women. Visit [www.cedpa.org](http://www.cedpa.org) for more information.

The Planned Parenthood Federation of America-International and Planned Parenthood Global Partners are the international arms of Planned Parenthood Federation of America, the largest voluntary reproductive health care organization in the world. Planned Parenthood provides access to family planning and safe abortion services and advocates for improvements in reproductive health care. In addition, Planned Parenthood has established contraceptive services and sex education programs throughout the world. Individuals can visit [www.plannedparenthood.org/global/about](http://www.plannedparenthood.org/global/about), sign up for newsletters, and receive action alerts on pressing issues related to reproductive health.

The Population Council ([www.popcouncil.org](http://www.popcouncil.org)) is an international, not-for-profit institution that conducts research on three fronts: biomedical, social science, and public health. The council's research has been extremely successful in educating people about challenges related to reproductive health and population growth.

Population Action International (PAI) is a membership group that works to strengthen awareness and support for population and family planning programs. It also does pathbreaking work on environment-population linkages and interactions. Individuals can get involved by becoming a member of their Action Network and can keep track of news and relevant information, participate in lobbying campaigns, and more ([www.populationaction.org](http://www.populationaction.org)).

The Population Reference Bureau is a membership organization that provides authoritative data and analyses on population trends and their implications, including publication of the annual World Population Data Sheet ([www.prb.org](http://www.prb.org)). For a directory of global population information, see [www.popnet.org](http://www.popnet.org), and for population health and environment links, visit [www.popplanet.org](http://www.popplanet.org).

The Center for Environment and Population, a research center, addresses the relations among population, resource consumption, and environmental impacts. It played a major role in producing the AAAS Atlas on Population and the Environment ([www.cepnet.org](http://www.cepnet.org)).

Two United Nations programs have proven themselves instrumental in tackling global population issues:

- UNFPA (United Nations Population Fund, see [www.unfpa.org](http://www.unfpa.org)), the largest international fund for reproductive health and population programs, assists in family planning and in formulating reproductive health policies. It is the lead U.N. organization for the implementation of the Programme of Action of the Cairo International Conference on Population and Development ([www.unfpa.org/icpd/summary.htm](http://www.unfpa.org/icpd/summary.htm)).
- UNIFEM (United Nations Development Fund for Women), the women's fund of the United Nations, works to strengthen women's organizations and networks, leverage political and financial support for women, and promote women's human rights, among other activities. Individuals can join national and local chapters of UNIFEM ([www.unifem.org](http://www.unifem.org)).

AWID (Association for Women's Rights in Development) is an international membership organization linking those working to promote women's empowerment, sustainable development, and women's human rights. Individuals can become members and participate in on-line discussions, receive newsletters, and create alliances with others working to further gender equality ([www.awid.org/index.pl](http://www.awid.org/index.pl)).

Other lobby groups include Pathfinder International ([www.pathfind.org](http://www.pathfind.org)) (which also provides family planning and reproductive health services internationally) and Population Connection ([www.populationconnection.org](http://www.populationconnection.org)). Population Connection (formerly Zero Population Growth) provides education kits and citizen lobby programs.

## **Transition 2: Free of Mass Poverty**

The annual [Human Development Report](http://hdr.undp.org) includes a Human Development Index, a Gender-related Index, a Gender Empowerment-Measure, and a Human Poverty Index (<http://hdr.undp.org>). It also reports on progress toward meeting the poverty-oriented Millennium Development Goals approved by the U.N. General Assembly. On-line volunteers and contributions are possible through the United Nations Development Programme's (UNDP) NetAid. Individuals can sign up for on-line volunteering opportunities and receive a monthly newsletter ([www.netaid.org](http://www.netaid.org)). Poverty-oriented U.N. organizations like UNDP badly need stronger U.S. citizen support to secure their funding by Congress.

Regarding the Millennium Development Goals, [www.developmentgoals.org](http://www.developmentgoals.org) tracks MDG progress and initiatives. In addition, the World Bank's PovertyNet provides resources and support for people working to understand and alleviate poverty worldwide ([www.worldbank.org/poverty](http://www.worldbank.org/poverty)).

An influential work on poverty and development, Development as Freedom (Oxford: Oxford University Press, 1999), by Nobel Prize-winning economist Amartya Sen, has developed a functioning-capability-freedom framework, which addresses the challenges posed by poverty and inequality in a new light. To join the Sen-Capability listserv and follow its applications to international development, see [www.iisd.org/economics/pov\\_sd/senlistserv.asp](http://www.iisd.org/economics/pov_sd/senlistserv.asp).

The establishment of just and equitable trade regimes is an important component in the economic development of countries. To stay informed of the trade debates at the World Trade Organization, one can sign up for the weekly electronic newsletter Bridges ([www.ictsd.org/weekly](http://www.ictsd.org/weekly)), published by the independent Geneva-based International Centre for Trade and Sustainable Development.

Many independent research organizations and think tanks focus on poverty alleviation, strengthening development assistance, the removal of perverse subsidies, the promotion of fair trade regimes, and the need for innovation in technology. Among these are the Center for Global Development ([www.cgdev.org](http://www.cgdev.org)), World Resources Institute ([www.wri.org](http://www.wri.org)), International Institute for Sustainable Development ([www.iisd.org](http://www.iisd.org)), International Institute for Environment and Development ([www.iied.org](http://www.iied.org)), International Forum on Globalization ([www.ifg.org](http://www.ifg.org)), Institute for Agriculture and Trade Policy ([www.iatp.org](http://www.iatp.org)), and Worldwatch Institute ([www.worldwatch.org](http://www.worldwatch.org)).

A number of other groups work on the ground to develop appropriate technologies. For example, EnterpriseWorks ([www.enterpriseworks.org](http://www.enterpriseworks.org)) provides an informational database of best practices for those wanting to support sustainable development projects in Africa, Asia, and Latin America. The organization also provides tools for micro-entrepreneurs to make business plans, improve crop yields, and increase profits in a sustainable manner.

Contributions to support the excellent work of UNICEF can be made through the U.S. Fund for UNICEF ([www.unicefusa.org](http://www.unicefusa.org)). Save the Children US

([www.savethechildren.org](http://www.savethechildren.org)) specifically addresses poverty in the South but also covers wider child poverty issues in rural America. Individuals can join their action network, community sponsorship programs, and other activities.

HORIZON International maintains a useful Web-site that presents peer-reviewed examples of successful sustainable development projects ([www.solutions-site.org](http://www.solutions-site.org)).

Oxfam International ([www.oxfam.org](http://www.oxfam.org)), another major international relief organization, provides not only grassroots support for poverty alleviation but also in-depth policy analyses and campaigns for fair trade, education for all, debt relief, and access to medicine. Individuals can join a campaign, contribute to emergency relief programs, and become a volunteer with their national Oxfam organization (located in the United States, Canada, United Kingdom, and several other countries).

Much of the grassroots fieldwork in developing countries is carried out by faith-based organizations, which have been successful in providing basic health, education, and support programs for entrepreneurship and community infrastructure. Individuals can inquire at local places of worship about how to best support their services by volunteering, contributing financially, or providing used equipment. Among many faith-based groups are Bread for the World ([www.bread.org](http://www.bread.org)), Catholic Relief Services ([www.catholicrelief.org](http://www.catholicrelief.org)), Christian Children's Fund ([www.christianchildrensfund.org](http://www.christianchildrensfund.org)), American Jewish World Service ([www.ajws.org](http://www.ajws.org)), Church World Service ([www.churchworldservice.org](http://www.churchworldservice.org)), and World Vision ([www.worldvision.org](http://www.worldvision.org)).

InterAction is the largest alliance of U.S.-based NGOs working on poverty alleviation around the world. Its more than 160 member organizations have programs in all developing countries ([www.interaction.org](http://www.interaction.org)). One of the most effective tools for fighting poverty is the provision of small loans to the poor. An important U.S.-based effort to ensure that microcredit is available to one hundred million of the world's poorest families is the Microcredit Summit Campaign ([www.microcreditsummit.org](http://www.microcreditsummit.org)), a project of the poverty advocacy group Results (<http://results.org>).

One World is a global network of organizations advocating sustainable human development ([www.oneworld.net](http://www.oneworld.net)).

### **Transition 3: Environmentally Benign Technologies**

The Global Network of Environment and Technology (GNET), at [www.gnet.org](http://www.gnet.org), contains information on government environmental technology assistance programs, innovative technologies, markets, and other information relevant to environmentally benign technologies. GNET's affiliates include Cool Companies (which focuses on energy-efficient technologies, [www.cool-companies.org](http://www.cool-companies.org)), TechKnow (which provides a database of environmental remediation technologies, [www.techknow.org](http://www.techknow.org)), and other companies working on the technology transition.

GreenBiz.com is another useful on-line resource providing information to the environmental technology community ([www.greenbiz.com/index.cfm](http://www.greenbiz.com/index.cfm)). Sustainable Alternatives Network ([www.sustainablealternatives.net](http://www.sustainablealternatives.net)) is available to business experts working in emerging markets. The network is unique in its focus on exchange of know-how, helping to secure the financing of cleaner technologies.

Inventors at the Rocky Mountain Institute ([www.rmi.org](http://www.rmi.org)) are developing "new design assignments" every day. The institute has been recognized for its innovative green building design and energy-efficient and climate-friendly technologies for the twenty-first century and beyond. See also the Web-sites described by Amory Lovins in his letter to Business Week, quoted in chapter 3.

Key multilateral groups include the United Nations Environment Programme's Production and Consumption Branch, which maintains the Cleaner Production Web-site ([www.unepie.org/pc/cp](http://www.unepie.org/pc/cp)), with training packages on strategies, policies, and processes for greener production techniques. Also see UNEP's MAESTRO database at [www.unep.or.jp/maestro2](http://www.unep.or.jp/maestro2).

The Greening of Industry Network facilitates discussion among civil society, government, and the private sector to speed progress on adopting sustainable industries. Individuals can join the network and help GIN carry out its mission ([www.greeningofindustry.org/join/membership.cfm](http://www.greeningofindustry.org/join/membership.cfm)).

Rather than focusing on end-of-pipe pollution abatement techniques, the National Pollution Prevention Roundtable ( [www.p2.org](http://www.p2.org) ), a membership organization, is devoted to source reduction.

An energy and climate audit for homes and businesses is described on these sites: Safe Climate for Individuals ([www.safeclimate.net/individual.php](http://www.safeclimate.net/individual.php)) and Safe Climate for Business ([www.safeclimate.net/business/index.php](http://www.safeclimate.net/business/index.php)).

At BuildingGreen.com, individuals can sign up for the “Environmental Building News,” providing updates on green building developments. Visitors to this site can browse through information on more than 1,700 green building products ([www.buildinggreen.com](http://www.buildinggreen.com)).

Opportunities for those seeking to adopt cutting-edge pest management approaches are presented on the USDA Regional Pest Management Centers Information System Web-site ([www.ipmcenters.org](http://www.ipmcenters.org)).

An excellent source of information on leading-edge environmental technologies and their commercial potential is Clean Edge ([www.cleandedge.com](http://www.cleandedge.com)), and the intriguing design ideas of Bill McDonough and Michael Braungart discussed in chapter 8 are presented at [www.mbdc.com](http://www.mbdc.com).

#### **Transition 4: Environmentally Honest Prices**

SubsidyWatch has a mailing list of news stories and journal articles monitoring perverse subsidies ([www.iisd.org/subsidywatch](http://www.iisd.org/subsidywatch)).

Green Scissors is a campaign led by Friends of the Earth ([www.foe.org](http://www.foe.org)), Taxpayers for Common Sense ([www.taxpayer.net](http://www.taxpayer.net)), and the U.S. Public Interest Research Group ([www.uspirg.org](http://www.uspirg.org)) that works to put a stop to environmentally degrading and wasteful spending. Their Web-site ([www.greenscissors.org](http://www.greenscissors.org)) allows individuals to sign up for their e-bulletin and receive updates on how to take action on their campaigns.

Many of the independent research institutes mentioned previously also focus on eliminating perverse subsidies and internalizing external environmental costs. Among those developing policy options are the Rocky Mountain Institute ([www.rmi.org](http://www.rmi.org)), the World Resources Institute ([www.wri.org](http://www.wri.org)), the International Institute for Sustainable Development ([www.iisd.org](http://www.iisd.org)), and the Wuppertal Institute ([www.wupperinst.org](http://www.wupperinst.org)). At the multilateral level, the OECD Environment Directorate ([www.oecd.org](http://www.oecd.org)) is another important player in this field.

The U.S. Society for Ecological Economics ([www.ussee.org](http://www.ussee.org)) addresses policy research, curriculum development, and citizen education. It is a member of the International Society for Ecological Economics ([www.ecologicaleconomics.org](http://www.ecologicaleconomics.org)) and is open not only to academics but also to grassroots organizations and concerned individuals.

Though it may be a personal challenge, it is possible, at least in some respects, to pay for the full cost of one's lifestyle. We can pay a part off the external environmental costs the next time we take a plane. A Climate Ticket will support "climate protection projects," which reduce greenhouse gas emissions elsewhere. Visit [www.climateticket.com/en/Kauf\\_en.php](http://www.climateticket.com/en/Kauf_en.php) for more information. One can also invest in green tags, which offset one's environmental damages, such as those sold by the Bonneville Environmental Foundation (see [www.greentagsusa.org/GreenTags/index.cfm](http://www.greentagsusa.org/GreenTags/index.cfm)).

### **Transition 5: Sustainable Consumption**

The Web-based resources to support this transition may be more plentiful than any other. To focus on greening consumer purchases, good places to begin include the Center for a New American Dream ([www.newdream.org](http://www.newdream.org)), a leading organization devoted to helping Americans consume responsibly. They provide extensive resources on lifestyle shifts including guides to how to buy green, parent in a consumer society, and more. The center also advocates for changes that support more sustainable consumption in government and business practices, and it has an Action Network. Co-op America's Responsible Shopper allows consumers to make the green choice for buying clothing, personal care products, housewares, and other items. Individuals can visit their Web-site ([www.responsibleshopper.org](http://www.responsibleshopper.org)), choose a product or company, and make a decision based on its environmental ratings. Co-op America also maintains Green Pages Online, [www.greenpages.org](http://www.greenpages.org). Another valuable point of departure is BuyGreen, a guide to green products and services, [www.buygreen.com](http://www.buygreen.com). The "Living Green" section of E-The Environmental Magazine is very useful ([www.emagazine.com](http://www.emagazine.com)). On eco-labeling and product certification programs, see "The Consumers Union Guide to Environmental Labels," [www.eco-labels.org](http://www.eco-labels.org), and the

Environmental Law Institute 2003 report “Harnessing Consumer Power,” available at [www.elistore.org/reports\\_detail.asp?ID=10841](http://www.elistore.org/reports_detail.asp?ID=10841). A growing number of useful sites address green certification and labeling. For example:

- fish: Marine Stewardship Council, [www.msc.org](http://www.msc.org), and Salmon Safe, [www.salmonsafe.org](http://www.salmonsafe.org);
- forest products: Forest Stewardship Council, [www.fscoax.org](http://www.fscoax.org);
- energy: Energy Star, [www.energystar.gov](http://www.energystar.gov); renewables, [www.green-e.org](http://www.green-e.org);
- buildings: U.S. Green Building Council, [www.usgbc.org](http://www.usgbc.org);
- tropical fruit: Rain Forest Alliance Certified, [www.rainforest-alliance.org/programs/cap/index.html](http://www.rainforest-alliance.org/programs/cap/index.html); and
- fair trade: TransFair, [www.transfairusa.org](http://www.transfairusa.org).

Consumers International ([www.consumersinternational.org/homepage.asp](http://www.consumersinternational.org/homepage.asp)) runs campaigns and programs on world trade, environmental issues, consumer education, and corporate social responsibility. It works closely with the United Nations Environmental Programme on consumption issues. The United Nations Environment Programme’s Production and Consumption Branch manages an extensive sustainable consumption program ([www.uneptie.org/pc/sustain](http://www.uneptie.org/pc/sustain)).

On a sustainable food supply, see [www.foodroutes.org](http://www.foodroutes.org) to learn where food comes from. The Find Good Food map will locate local farmers and food markets near you. The United States Department of Agriculture’s organic seal ([www.ams.usda.gov/nop/Consumers/Seal.html](http://www.ams.usda.gov/nop/Consumers/Seal.html)) has now been introduced. The Natural Resources Defense Council’s Web-site lists stores and mail-order suppliers that sell organic foods ([www.nrdc.org/health/farming/gorgdir.asp](http://www.nrdc.org/health/farming/gorgdir.asp)). In addition, its Web-site lists overharvested fish that should be avoided when making seafood choices ([www.nrdc.org/wildlife/fish/gwhichfi.asp](http://www.nrdc.org/wildlife/fish/gwhichfi.asp)). Information on shade-grown or certified coffee is available at the Environmental Defense site ([www.environmentaldefense.org/more/10526](http://www.environmentaldefense.org/more/10526)).

Useful sites to consult on eco-tourism include the International Ecotourism Society (TIES) ([www.ecotourism.org](http://www.ecotourism.org)) and Ecotravel.com Online Magazine ([www.ecotravel.com](http://www.ecotravel.com)).

On reducing energy consumption (and greenhouse gas emissions), the previously mentioned SafeClimate Web-sites provide useful guidance on emissions reductions. Travelers can check their car pollution at Environmental Defense's Tailpipe Tally, [www.environmentaldefense.org/go/more](http://www.environmentaldefense.org/go/more), and the greenhouse gas cost of the next plane trip can be calculated at <http://chooseclimate.org/flying>. A database for state incentives for renewable energy installation is at [www.dsireusa.org](http://www.dsireusa.org), and renewable energy dealers and home power ideas can be found at [www.homepower.com](http://www.homepower.com). The American Council for an Energy-Efficient Economy ([www.aceee.org](http://www.aceee.org)) offers a "Consumer Guide to Home Energy Savings" as well as a Web-site that provides an environmental guide to cars and trucks, [www.greenercars.com](http://www.greenercars.com). Information on solar energy can be found in Solar Today ([www.solartoday.org](http://www.solartoday.org)); the Web-site for the American Wind Energy Association is [www.awea.org](http://www.awea.org). See also [www.eere.energy.gov](http://www.eere.energy.gov).

There is much that can be done to conserve water at home. An interesting Web-site is [www.h2ouse.org](http://www.h2ouse.org). On reducing packaging wastes and impacts, see Daniel Imhoff, "Thinking Outside of the Box," Whole Earth (Winter 2002), 9, and the Web-sites provided there.

### **Transition 6: Knowledge and Learning**

The important work of environmental education in our schools and more broadly is supported by the National Environmental Education and Training Foundation, [www.neetf.org](http://www.neetf.org). EE-Link (<http://eelink.net>) is a gateway to a full range of environmental education programs, products, and services. See also Thomas Parris' "Bytes of Note" on K-12 education in the November 2002 issue of Environment.

The extraordinary efforts of the National Academies (Science, Engineering, and Medicine) to bring credible science into the policy process and public arena are reflected at [www.nas.edu](http://www.nas.edu) (click on "Environmental Issues" or visit other areas of the site). At the international level, environmental science has always featured prominently in the work of the International Council for Science, [www.icsu.org](http://www.icsu.org).

A group that has done innovative work on greening America's colleges and universities is Second Nature, [www.secondnature.org](http://www.secondnature.org). The National Council for Science and the Environment (<http://NCSEonline.org>) is the leading group seeking to support

stronger federal funding for environmental research and better links among environmental science, policy decisions, and public understanding. An excellent source of information on the science of sustainability is maintained by the Initiative on Science and Technology for Sustainability, <http://sustsci.harvard.edu>.

Almost all U.S. universities carry out significant scientific and policy research related to the environment; it is impossible to list them. There are also many independent research centers whose work is highly relevant to policy concerns. Several prominent organizations in the Northeast, for example, are the Woods Hole Marine Biological Laboratory (and its Ecosystems Center) ([www.mbl.edu](http://www.mbl.edu)), Woods Hole Oceanographic Institution ([www.whoi.edu](http://www.whoi.edu)), Woods Hole Research Center ([www.whrc.org](http://www.whrc.org)), Institute of Ecosystem Studies ([www.ecostudies.org](http://www.ecostudies.org)), Wildlife Conservation Society (<http://wcs.org>), and New York Botanical Garden ([www.nybg.org](http://www.nybg.org)), just to mention a few known to me.

Many of the leading organizations developing new knowledge and solutions for sustainability are members of one of the oldest and most respected environmental bodies, IUCN--the World Conservation Union ([www.iucn.org](http://www.iucn.org)). (IUCN maintains the "Red List," the global list of endangered species.)

Multilateral agencies and NGOs have recently come together and created partnerships with researchers around the world to undertake the Millennium Ecosystem Assessment ([www.millenniumassessment.org/en/index.htm](http://www.millenniumassessment.org/en/index.htm)). This massive scientific endeavor is devoted to assessing the condition of the world's ecosystems comprehensively--including the pressures we are placing on them, our dependency on their services, and the gaps in our knowledge. The assessment draws on the knowledge of local experts, natural and social scientists, government officials, business leaders, and academics.

The Web-site [www.actionbioscience.org](http://www.actionbioscience.org) contains science lessons designed for middle school, high school, and undergraduate students. Subjects range from biodiversity and biotechnology to evolution and the environment.

The World Resources Institute has, with some success, championed the greening of U.S. business schools (see <http://bell.wri.org> and [www.beyondgreypinstripes.org](http://www.beyondgreypinstripes.org)).

For descriptions of what some American universities are doing in the area of professional training for environmental management and leadership, see [www.yale.edu/environment](http://www.yale.edu/environment), [www.env.duke.edu](http://www.env.duke.edu), [www.snre.umich.edu](http://www.snre.umich.edu), [www.esm.ucsb.edu](http://www.esm.ucsb.edu), <http://environmentalsciences.berkeley.edu>, and [www.ksg.harvard.edu](http://www.ksg.harvard.edu).

### **Transition 7: Taking “Good Governance” Seriously**

As developed in chapter 9, the governance transition has two main aspects: transforming the way we do environmental governance at the international level (“GEOpolity”) and pushing bottom-up, voluntary initiatives to scale (green “JAZZ”).

The best way by far for individuals to help promote the transformation of today’s GEOpolity is to support and, wherever appropriate, join and contribute to those organizations that are working to make GEOpolity succeed. Although not always recognized, the United Nations is at the center of almost all of the main environmental treaties and intergovernmental environmental organizations. The success of global environmental governance is inseparably linked to the success of the United Nations. The principal private U.S. group supporting the United Nations overall is the United Nations Association of the United States of America ([www.unausa.org](http://www.unausa.org)). The Better World Campaign ([www.betterworldfund.org](http://www.betterworldfund.org)) has also become increasingly important in building public support and recognition for the United Nations.

The U.N. landscape is complicated, to say the least, but three parts of the United Nations deserve special attention and support. The United Nations Environment Programme ([www.unep.org](http://www.unep.org)) has been extraordinarily effective, given its size and niche in the United Nations structure. The principal environmental treaties have secretariats that are increasingly important, among them the U.N. Framework Convention on Climate Change ([www.unfccc.int](http://www.unfccc.int)), U.N. Convention on Biological Diversity ([www.biodiv.org](http://www.biodiv.org)), and U.N. Convention to Combat Desertification ([www.unccd.int/main.php](http://www.unccd.int/main.php)). The Commission on Sustainable Development, part of the U.N. Economic and Social Council ([www.un.org/esa/sustdev/csd/csd12/csd12.htm](http://www.un.org/esa/sustdev/csd/csd12/csd12.htm); [www.un.org/esa/coordination/ecosoc](http://www.un.org/esa/coordination/ecosoc)), generates much useful information, if little action.

The United Nations University ([www.ias.unu.edu](http://www.ias.unu.edu)) also deserves recognition for its thoughtful work in this field.

Environmental governance at the international level is managed through the myriad of conventions and protocols negotiated, signed, and ratified by countries. The best way to follow these international negotiations is to read the Earth Negotiations Bulletin ([www.iisd.ca/linkages/vol22/enb2221e.html](http://www.iisd.ca/linkages/vol22/enb2221e.html)). Considered the “Hansard” of international development, the ENB publishes daily reports and analysis when the parties and technical bodies meet to review progress on implementation.

Prominent among the many environmental NGOs based in North America working with (or against) governments and the United Nations to make GEOpolity succeed are Environmental Defense ([www.environmentaldefense.org](http://www.environmentaldefense.org)), Natural Resources Defense Council ([www.nrdc.org](http://www.nrdc.org)), World Resources Institute ([www.wri.org](http://www.wri.org)), Environmental Law Institute ([www.eli.org](http://www.eli.org)), International Union for the Conservation of Nature and Natural Resources ([www.iucn.org](http://www.iucn.org)), Earth Action ([www.earthaction.org](http://www.earthaction.org)), International Institute for Sustainable Development ([www.iisd.org](http://www.iisd.org)), Center for International Environmental Law ([www.ciel.org](http://www.ciel.org)), World Wildlife Fund ([www.worldwildlife.org](http://www.worldwildlife.org)), Sierra Club ([www.sierraclub.org](http://www.sierraclub.org)), Friends of the Earth ([www.foe.org](http://www.foe.org)), Greenpeace ([www.greenpeace.org](http://www.greenpeace.org)), and the National Wildlife Federation ([www.nfw.org](http://www.nfw.org)).

A good entry point for a wide range of environmental concerns is Earth Day Network ([www.earthday.org](http://www.earthday.org)). Led by Denis Hayes, the organizer of the first Earth Day in 1970, the network brings together five thousand groups around the world that address environmental and sustainability issues.

Some advocacy groups focus on particular issues, such as the Rainforest Alliance ([www.rainforest-alliance.org](http://www.rainforest-alliance.org)), Oceana ([www.oceana.org](http://www.oceana.org)), and Institute for Agriculture and Trade Policy ([www.iatp.org](http://www.iatp.org)).

Think tanks and policy research centers are growing stronger in this field. Many are based at universities; among those that are not are such diverse organizations as the Worldwatch Institute ([www.worldwatch.org](http://www.worldwatch.org)), World Business Council for Sustainable Development ([www.wbcsd.ch](http://www.wbcsd.ch)), International Forum on Globalization ([www.ifg.org](http://www.ifg.org)), American Enterprise Institute ([www.aei.org](http://www.aei.org)), Resources for the Future ([www.rff.org](http://www.rff.org)),

Woods Hole Research Center ([www.whrc.org](http://www.whrc.org)), Heinz Center ([www.heinzcenter.org](http://www.heinzcenter.org)), World Resources Institute ([www.wri.org](http://www.wri.org)), Union of Concerned Scientists ([www.ucsusa.org](http://www.ucsusa.org)), Tellus Institute ([www.tellus.org](http://www.tellus.org)), the Center for International Sustainable Development Law ([www.cisd.org](http://www.cisd.org)), International Institute for Environmental and Development ([www.iied.org](http://www.iied.org)), Carnegie Endowment for International Peace ([www.ceip.org](http://www.ceip.org)), and Earth Policy Institute ([www.earth-policy.org](http://www.earth-policy.org)). The World Wildlife Fund ([www.worldwildlife.org](http://www.worldwildlife.org)) and World Conservation Union ([www.iucn.org](http://www.iucn.org)) also address a wide range of GEOpolity issues.

A number of useful reports are prepared every year or two that offer different measures of progress toward sustainability. They provide benchmarks against which government officials, private corporations, and even the public should be measured. They include:

- the Environmental Sustainability Index (includes twenty indicators on environmental sustainability, [www.ciesin.columbia.edu/indicators/ESI](http://www.ciesin.columbia.edu/indicators/ESI));
- the Living Planet Index (includes indexes on animal species and ecosystem change, [www.panda.org/news\\_facts/publications/general/livingplanet/lpr02.cfm](http://www.panda.org/news_facts/publications/general/livingplanet/lpr02.cfm));
- the Ecological Footprint (estimates consumption of natural resources, [www.rprogress.org](http://www.rprogress.org)). See also [www.ecofoot.net](http://www.ecofoot.net);
- the Compass of Sustainability (provides a Sustainable Development Index, [www.iisd.org/cgsdi/compass.htm](http://www.iisd.org/cgsdi/compass.htm));
- the Dashboard of Sustainability (provides a Policy Performance Index, <http://iisd.ca/cgsdi/dashboard.htm>); and
- the Wellbeing Assessment/Barometer of Sustainability (measures human and ecosystem wellbeing together, [www.iucn.org/info\\_and\\_news/press/wonback.doc](http://www.iucn.org/info_and_news/press/wonback.doc)); see also Robert Prescott-Allen, *The Wellbeing of Nations* (Washington, D.C.: Island Press, 2001).

The JAZZ future is one in which individuals, NGOs, corporations, cities, states, and associations of all varieties are initiating voluntary actions around the world to “just do it,” not waiting on Washington and the international agreement process. Many of the ideas and initiatives presented previously when discussing the sustainable technology and the sustainable consumption transitions are part of the growing JAZZ world.

As mentioned in chapter 9, NGOs are the real maestros of green JAZZ. The Natural Resources Defense Council ([www.nrdc.org](http://www.nrdc.org)) is working at the state level to get action on climate disruption; the International Center for Local Environmental Initiatives ([www.iclei.org](http://www.iclei.org)) is doing the same at the city level; and groups like Clean Air-Cool Planet ([www.cleanair-coolplanet.org](http://www.cleanair-coolplanet.org)) are working for action at both state and local levels from a regional perspective. Environmental Defense ([www.environmentaldefense.org](http://www.environmentaldefense.org)), the Pew Climate Center ([www.pewclimate.org](http://www.pewclimate.org)), and World Resources Institute ([www.wri.org](http://www.wri.org)) are effective in partnerships with the private sector. Conservation International ([www.conservation.org/xp/CIWEB/home](http://www.conservation.org/xp/CIWEB/home)), the Nature Conservancy (<http://nature.org>), and the World Wildlife Fund ([www.worldwildlife.org](http://www.worldwildlife.org)) are cooperating with international agencies, developing country governments, and NGOs in protecting threatened natural areas. America's private foundation community has been active in supporting these NGO initiatives. See the Environmental Grantmaking Foundations directory at [www.environmentalgrants.com](http://www.environmentalgrants.com).

JAZZ depends very much on citizen access to information and to the Internet. WRI's Access Initiative ([www.accessinitiative.org](http://www.accessinitiative.org)) and its Digital Dividend project ([www.digitaldividend.org](http://www.digitaldividend.org)) address these two issues.

Voluntary climate initiatives by individuals, organizations, and businesses are encouraged and supported by several initiatives: SafeClimate for Business ([www.safeclimate.net](http://www.safeclimate.net)), Climate Neutral Network ([www.climateneutral.com](http://www.climateneutral.com)), the Pew Climate Center ([www.pewclimate.org](http://www.pewclimate.org)), and the Chicago Climate Exchange ([www.chicagoclimatex.com](http://www.chicagoclimatex.com)).

Other initiatives and groups advocating, encouraging, or supporting the greening of business include Environmental Defense ([www.environmentaldefense.org](http://www.environmentaldefense.org)), the Rainforest Action Network ([www.ran.org](http://www.ran.org)), Biogems Initiative ([www.savebiogems.org](http://www.savebiogems.org)), the Natural Religious Partnership for the Environment ([www.nrpe.org](http://www.nrpe.org)), the Global Reporting Initiative ([www.globalreporting.org](http://www.globalreporting.org)), the Coalition for Environmentally Responsible Economies ([www.ceres.org](http://www.ceres.org)), INFORM ([www.informinc.org](http://www.informinc.org)), the Greening of Industry Network ([www.greeningofindustry.org](http://www.greeningofindustry.org)), Sustainable Business.com (<http://sustainablebusiness.com>), Greenpeace ([www.greenpeace.org](http://www.greenpeace.org)), and Corporate Watch ([www.corpwatch.org](http://www.corpwatch.org)).

Many of the groups mentioned here support initiatives by local communities. Others working in this area include the Sustainable Communities Network ([www.sustainable.org](http://www.sustainable.org)), Institute for Local Self-Reliance ([www.ilsr.org](http://www.ilsr.org)), Local Government Commission ([www.lgc.org](http://www.lgc.org)), and E. F. Schumacher Society ([www.smallisbeautiful.org](http://www.smallisbeautiful.org)).

Investors are now an important part of the world of green JAZZ. Useful resources on environmentally responsible investing are available from the Investor Responsibility Research Center ([www.irrc.org](http://www.irrc.org)), Carbon Disclosure Project ([www.cdproject.net](http://www.cdproject.net)), Clean Yield Group ([www.cleanyield.com](http://www.cleanyield.com)), Socially Responsible Investing ([www.enn.com/sri](http://www.enn.com/sri)), Dow Jones Sustainability Indexes ([www.sustainability-indexes.com](http://www.sustainability-indexes.com)), Social Investment Forum ([www.socialinvest.org](http://www.socialinvest.org)), and the Social Venture Network ([www.svn.org](http://www.svn.org)).

Republicans interested in promoting good environmental governance can explore REP America ([www.repamerica.org](http://www.repamerica.org)). Those more Democratically inclined at present can look into MoveOn.org ([www.moveon.org](http://www.moveon.org)) and the Campaign for America's Future ([www.ourfuture.org](http://www.ourfuture.org)). For social and political criticism that includes environmental issues, see The Ecologist ([www.theecologist.org](http://www.theecologist.org)), the Turning Point Project ([www.turnpoint.org](http://www.turnpoint.org)), Earth Island Journal ([www.earthisland.org](http://www.earthisland.org)), Mother Jones ([www.motherjones.com](http://www.motherjones.com)), The American Prospect ([www.prospect.org](http://www.prospect.org)), TomPaine.com ([www.tompaine.com](http://www.tompaine.com)), and Grist ([www.gristmagazine.com](http://www.gristmagazine.com)).

### **Transition 8: Transition in Culture and Consciousness**

Among the good places to turn to think about new values and revitalizing old ones are the National Religious Partnership for the Environment ([www.nrpe.org](http://www.nrpe.org)) and Earth Charter Commission ([www.earthcharter.org](http://www.earthcharter.org)). The Tellus Institute ([www.tellus.org](http://www.tellus.org)) has also been thinking deeply about the values we need for the twenty-first century, and the Harvard Divinity School has sponsored a ten-volume set of books on "religions of the world and ecology," published by Harvard University Press. Each volume addresses a different world religion. Apart from nature itself, inspiration for this transition is best found in novels, song, and poetry and in books like Thomas Berry's Great Work: Our Way into the Future (New York: Random House, 1999), which has a wonderful annotated bibliography.

But nature itself is best. My wife and I were fishing last summer behind the barrier islands northeast of Charleston, South Carolina. It was hot and humid as always in the summertime there, and the calm water was perfectly flat and glassy. Several porpoises surfaced around our boat, breaking the stillness. Nearby, two black skimmers began weaving back and forth, cutting the water's surface with their beaks. A hundred yards away, a brown pelican watched from atop a post that marked a channel. Oystercatchers gathered on the oyster banks exposed by the tide. A great blue heron stood motionless peering into the shallow waters near the marsh grass. Mullet were jumping not far from the great blue. It was hard to leave, but the tide was going out, and soon there would be mudflats where we were. We didn't catch any fish that day, but it didn't matter, not much anyhow.