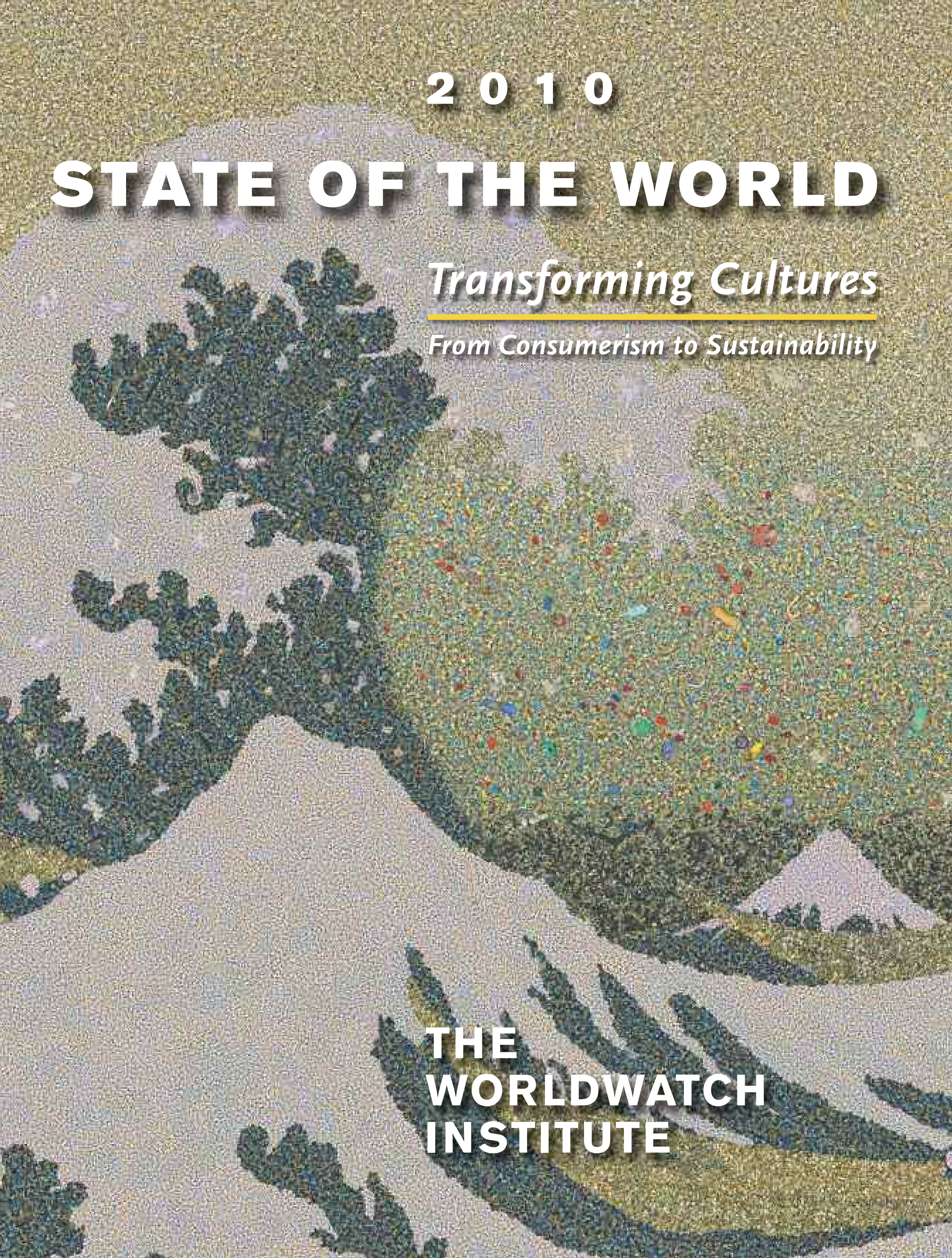
2010

STATE OF THE WORLD

Transforming Cultures

From Consumerism to Sustainability



THE WORLDWATCH INSTITUTE

SCIENCE/ENVIRONMENT

2010 STATE OF THE WORLD

Transforming Cultures

From Consumerism to Sustainability

Advance Praise for *State of the World 2010*:

"If we continue to think of ourselves mostly as consumers, it's going to be very hard to bring our environmental troubles under control. But it's also going to be very hard to live the rounded and joyful lives that could be ours. This is a subversive volume in all the best ways!"

—***Bill McKibben, author of*** **Deep Economy** ***and*** **The End of Nature**

"Worldwatch has taken on an ambitious agenda in this volume. No generation in history has achieved a cultural transformation as sweeping as the one called for here...it is hard not to be impressed with the book's boldness."

—***Muhammad Yunus, founder of the Grameen Bank***

"This year's *State of the World* report is a cultural mindbomb exploding with devastating force. I hope it wakes a few people up."

—***Kalle Lasn, Editor of*** **Adbusters magazine**

Like a tsunami, consumerism has engulfed human cultures and Earth's ecosystems. Left unaddressed, we risk global disaster. But if we channel this wave, intentionally transforming our cultures to center on sustainability, we will not only prevent catastrophe but may usher in an era of sustainability—one that allows all people to thrive while protecting, even restoring, Earth.

In this year's *State of the World* report, 50+ renowned researchers and practitioners describe how we can harness the world's leading institutions—education, the media, business, governments, traditions, and social movements—to reorient cultures toward sustainability.

full image

extreme close-up

Several million pounds of plastic enter the world's oceans every hour, portrayed on the cover by the 2.4 million bits of plastic that make up *Gyre*, Chris Jordan's 8- by 11-foot reincarnation of the famous 1820s woodblock print, *The Great Wave Off Kanagawa*, by the Japanese artist Katsushika Hokusai.

For discussion questions, additional essays, video presentations, and event calendar, visit **blogs.worldwatch.org/transformingcultures**.

Cover image: *Gyre* by Chris Jordan
Cover design: Lyle Rosbotham

W. W. NORTON
NEW YORK • LONDON

WORLDWATCH INSTITUTE
www.worldwatch.org

Visit the TRANSFORMING CULTURES Blog

Relocalizing Business

Michael H. Shuman

To see what a "culture of sustainability" might really look like, pay a visit to Bellingham, Washington, recently named by the Natural Resources Defense Council as the #1 "Smarter" small city in the United States. This coastal town two hours north of Seattle has pioneered an economic development strategy that is radically different from the traditional preoccupation with attracting and retaining global businesses. Thanks to the leadership of a nonprofit called Sustainable Connections, Bellingham has focused on nurturing its local businesses and organizing them into a powerful collaborative network to rebuild the community economy from the ground up.[1]

Here is some of what Sustainable Connections has accomplished in less than a decade. Its Local First campaign—now widely copied around the United States and Canada—uses festivals, store signs, posters, advertisements, and coupon books to motivate residents to buy local. An independent survey by Applied Research Northwest found that 69 percent of Bellingham consumers are now paying attention to the local character of businesses, 58 percent have begun localizing their purchasing habits, and business proprietors regard Local First as one of the most compelling reasons they are thriving. Sustainable Connection's energy program has mobilized 1 in 10 residents to buy local "green power"—the second highest percentage in the United States. The number of farmers in surrounding Whatcom County marketing directly to consumers increased 44 percent between 2002 and 2007, twice the state-wide rate. The value of direct sales—a key strategy for boosting farmers' income—has increased 125 percent over the same period, quintuple the state rate.[2]

Bellingham is among a growing number of communities worldwide that see their future sustainability and prosperity grounded in local businesses. The Business Alliance for Local Living Economies (BALLE) has more than 70 member communities in North America. Another 50 or so communities are affiliated with the American Independent Business Alliance. Internationally, more than a thousand communities are beginning to undertake similar work through organizations like Transition Towns and Post-Carbon Futures.[3]

As these organizations see it, local business has two meanings. One is ownership. In a locally owned business, more than half the

Michael Shuman is director of research and public policy for the Business Alliance for Local Living Economies.

owners live where the firm operates. By this definition, local ownership actually characterizes the vast majority of sole proprietorships, partnerships, nonprofits, cooperatives, and public-private partnerships operating in the world. Even most privately held corporations are local. Really, the only kind of business clearly not local is a publicly traded company. The other meaning of local is the proximity of its stakeholders, like suppliers and consumers. Because locally owned businesses tend to give priority to using local labor, land, and capital and producing goods and services for local markets, these two concepts are inherently intertwined.

In an era of globalization, it is easy to forget that local businesses actually have been the economic norm for most of human history and, contrary to public perceptions, continue to account for most of the world's economy today. One distinguishing feature of very poor countries is that a large percentage of the population is engaged in subsistence agriculture—that is, local farming. As countries develop, farm families migrate to the cities for industrial jobs. But vast numbers remain jobless or underemployed and effectively wind up as microentrepreneurs in the informal sector. Even in an advanced industrial economy like the United States, roughly half the economy in terms of jobs and output comes from self-employed individuals or from small or medium-sized enterprises, nearly all of which are locally owned.[4]

So localization is neither new nor uncommon. But awareness of its potential power in promoting sustainability and prosperity is.

Localization and Sustainability

For a generation, "sustainability" has been defined as meeting this generation's needs without compromising the ability of future generations to meet their own needs. There is a growing appreciation, however, that this definition can be improved with a more nuanced understanding of place: a community should meet its current needs, present or future, without compromising the ability to meet the needs of future generations living in other communities, present or future. This new definition highlights the importance of every community maximizing its level of self-reliance, presumably through a diverse assortment of businesses behaving in a sustainable fashion. Localization, of course, does not guarantee sustainable behavior, but it increases its likelihood in at least four ways.[5]

First, an economy highly dependent on non-local businesses must continually make sustainability compromises to prevent its most important firms from exiting. For example, the state of Maryland is highly dependent on a poultry industry (dominated by two companies, Tyson and Perdue) that continually threatens to move to more "business-friendly" jurisdictions like Arkansas and Mississippi. Despite its impressive performance in other categories of sustainability like smart growth, the state has found it politically impossible to regulate the poultry industry's practice of dumping more than a billion pounds of manure into the Chesapeake Bay, the largest estuary in North America. Were the Maryland economy made up of locally owned businesses, officials could raise environmental standards with confidence that its enterprises would adapt rather than flee.[6]

The absence of local ownership means that non-local corporations can dictate the terms of sustainability in the communities in which they operate. Their ability to leave a community in a heartbeat means they can more easily leave environmental problems behind. The expansion strategy of Walmart, the largest chain retailer in the world, has included closing older stores (and resisting resale to competitors) while opening new superstores only a few miles away. As a result, some 350 empty Walmarts across the United States are causing serious environmental problems from runoff, flooding, and urban blight.[7]

Second, the presence of local business owners in a community can lead to greater environmental responsibility through accountability. A business owner can be shamed into thinking twice about polluting freely, for example, if the victims are attending the same church or going to the same schools. The responsibility that local owners feel to their own neighborhoods helps explain why U.S. locally owned businesses have been found to give 2.5 times as much money to local charities per employee as non-local businesses do.[8]

Courtesy Bellingham Farmers Market

Local farmers offer up their mixed greens at the Bellingham Farmers Market.

Third, because local businesses tend to use local materials and sell to local markets, their inputs and outputs require less shipping, consume less energy, and emit fewer pollutants, including greenhouse gases (GHGs). To be sure, a number of studies have argued that local food does not always minimize carbon emissions. Alaskans, for example, might find that growing bananas in their own greenhouses is more energy-intensive than transporting bananas from Guatemala.[9]

But the most widely publicized of these studies actually prove very little. For example, one report suggested that U.K. residents eating local lamb generated four times as many GHGs as they would have had they imported New Zealand lamb. But the study, whose funding by the New Zealand lamb export association went unnoticed, only compared energy-intensive, industrial-agriculture methods in the two countries, and it never even examined the GHG impacts of local production.[10]

Finally, every profitable green small-business model provides an invaluable jigsaw piece to the global puzzle of sustainability. A low-cost, Internet-based food distribution system—such as the Oklahoma Food Coop—can offer communities everywhere a model for greater food self-reliance. A successful local wind project, such as the subdivision-owned windmills in Hepburn Shire, just outside Melbourne, Australia, can help thousands of other windy communities worldwide see how to achieve energy self-reliance. According to localization advocates, a key to global sustainability and poverty alleviation (alongside Fair Trade and technology transfer programs) might be open-source platforms that spread without charge, particularly to poorer communities, start-of-the-art business models, technologies, and practices.[11]

Localization and Prosperity

The sustainability impacts of localization would be interesting but ultimately unconvincing if local businesses turned out to have few economic benefits for a community. In fact, a growing body of evidence suggests that localization, done properly, can increase prosperity for three reasons.

First, the immobility of local businesses means that economic development efforts focused on them are more likely to produce enduring results. An investigative report on the cost effectiveness of tax abatements in Lane County, Oregon, found that 95 percent of the tax abatement dollars given between 1990 and 2002 had gone to six non-local companies—three of which came, took the benefits, and then shut down and moved elsewhere. The rest went to about a hundred local companies. The public cost to the region of a non-local job, in tax-abatement terms, was about $23,800. The comparable cost of a local job was $2,100—the same per-job cost reported by several microenterprise organizations in the western United States. Thus non-local jobs were more than 10 times costlier. On a long-term, net jobs basis (taking into account the big firms' departures), non-local jobs were 33 times more expensive.[12]

Second, a local business tends to generate a higher economic multiplier than a comparable non-local business. In the summer of 2003, for instance, two economists studied the impact of a proposed Borders bookstore in Austin, Texas, compared with two local bookstores. They found that $100 spent at Borders would circulate $13 in the Austin economy, while $100 spent at the two local bookstores would circulate $45—translating to three times the jobs, earnings, and tax collections.[13]

Many other studies in the United States and the United Kingdom all point in the same direction, and for an obvious reason: local businesses spend more of their money locally. Unlike a chain book store, for example, a local bookstore has local management, uses local business services, advertises locally, and enjoys a stream of local profits.[14]

Third, the uniqueness of a local business fits hand-in-glove with other theories of economic development. For example, a community rich in local business creation attracts and retains entrepreneurs and entrepreneurial young people. As Richard Florida of the Creative Class Group argues, such "creative economies" succeed because they are tolerant, diverse, and fun, and in the end such economies depend on the ability to seed and expand local businesses.[15]

Most economists and economic developers are only dimly aware of these findings, since they are based on new studies and theories. But even as these ideas spread, resistance will run deep, because most economic developers know they will get more press, political kudos, and budgetary rewards for a single big-business deal creating 1,000 jobs than for 100 deals that each create 10 jobs. From an economic standpoint, however, the jury has returned with a clear and convincing verdict: locally owned businesses are significantly better bets for income, wealth, and jobs.

Localization and Efficiency

Skeptics of localization continue to assert that local businesses simply have poorer, more expensive goods and services that cannot possibly achieve the higher economies of scale inherent in global businesses. Yet at some point increasing scale brings diminishing returns and poorer performance. The recent global financial meltdown is a poignant reminder that many global corporations, not to mention the global financial institutions that have been their enablers, carry many more risks than people ever appreciated. In fact, what is becoming clear is that the global scale of business carries many profound dis-economies.

For example, even when nonlocal production can bring down costs by siting a factory in a jurisdiction with low-wage labor and high-pollution technologies, long-distance distribution is becoming increasingly inefficient. Consider food. Economist Stewart Smith of the University of Maine estimates that $1 spent on a typical U.S. foodstuff item in 1900 wound up yielding 40¢ for the farmer, with the other 60¢ split between inputs and distribution. Today, about 7¢ of every retail food dollar goes to the farmer, rancher, or grower, while 73¢ goes to distribution. Whenever the distribution costs tower over the production costs, there are huge opportunities for cost-effective localization. Food localization reduces the need for and expense of many components of distribution, such as refrigeration, packaging, advertising, and third parties. And as oil and energy prices rise in the years ahead, distributional inefficiencies like these will increase, opening up new opportunities for localization.[16]

Other trends also are making local businesses more competitive. For 50 years consumers in industrial countries have been shifting their expenditures from goods to services, which fuels localization because local services, where providers and clients have face-to-face relationships, have always been highly competitive. Homeland security concerns are nudging officials to promote self-reliance in commodities like food and energy. While the spread of the Internet is not unambiguously positive for localization (mass retailers like Amazon and eBay could not exist without it), it ultimately levels the playing field by providing local competitors with a low-cost tool for marketing themselves.

Even without these trends, small-scale businesses are already competitive in almost every business category. The North American Industrial Classification System, an important database produced by the U.S. Census Bureau, contains 1,100 such categories, and there are more small businesses—nearly all of which are locally owned—than large ones in all but 7 of them. The point is that even in very small communities, a smart economic developer can find exciting examples of small-scale success in almost every industry and replicate them.[17]

Fulfilling the Market Potential

Despite the market potential for more localization, formidable barriers stand in the way. Consumers are deluged with billions of dollars of global advertising and are often unaware of competitive local goods and services. Small-business owners—distrustful of their local competitors and overwhelmed by the daily work of keeping their firms alive—fail to forge natural business partnerships that might otherwise be beneficial. Investors are deterred from putting their money into profitable local businesses by obsolete security laws that make it unreasonably expensive. And public policymakers worldwide, despite all their positive rhetoric about small business, seem unable to break their addiction to subsidizing global businesses. The localization movement aims to dismantle these barriers.

To help consumers find and buy competitive local goods and services, Local First campaigns, like the one in Bellingham, are providing information about which businesses and products are in fact local and what their prices and quality are compared with the global competition. These initiatives are also nudging consumers to buy local through myriad tools. Local coupon books provide consumers with introductory discounts to local business. Local debit, credit, gift, and loyalty cards reward local purchases. Local barter and money systems induce participating consumers to use their credits exclusively with local businesses.[18]

To improve the competitive practices of local businesses, alliances like the Sustainable Business Network of Greater Philadelphia (a BALLE affiliate) are organizing conferences where they can showcase best business practices in everything from marketing strategy to energy-reduction technologies. Peer networks, especially those organized by sector (food, energy, retail, and so forth), are helping local businesses improve their competitiveness. Local businesses are learning that by working together, they can achieve most of the economies of larger scale that might otherwise give some global businesses a competitive advantage. Tucson Originals in Arizona, for example, enables participating local-food businesses to improve their bottom line through joint procurement and marketing.[19]

Perhaps the biggest obstacle to localization is the unavailability of capital. Complex securities laws governing capital markets make it unaffordable for small investors to place their savings in small businesses even in wealthy nations. In Australia, for instance, local businesses account for two thirds of the economy and have steadily improved their share of gross domestic product vis-à-vis global business, yet almost none of the 9 percent "superannuation" funds that citizens must put into their retirement accounts can be placed in local business. A growing mission of the localization movement is to deregulate grassroots participation in capital markets, help small businesses issue local stock inexpensively, provide liquidity to these markets through local stock exchanges, and create new investment professionals—advisors, broker dealers, traders, fund managers—who specialize in local investment.[20]

Changing investment rules is really a subset of a much larger policy reform agenda. Local business alliances are beginning to stake out policy positions dramatically at odds with the traditional business community. For example, while the U.S. Chamber of Commerce has been opposing "cap-and-trade" legislation to curb GHGs, a number of local business associations have been lobbying for the legislation. A similar split can be seen around proposals to eliminate tax loopholes for U.S. multinationals: the Chamber opposes these reforms, while local business networks support them.[21]

The biggest public policy change sought by localization advocates is to overhaul the priorities of economic development. Public dollars, they argue, should be focused exclusively on nurturing local business. Every economic development dollar and hour spent on attracting or retaining non-local business is a dollar and hour unavailable for the superior payoffs, in both sustainability and prosperity, for localization.[22]

The agenda for localization actually contains hundreds of action points for activists, businesses, and policymakers, many of whom never agree on much of anything. Localization is forging unlikely new alliances between green businesses and anti-business greens and between free-market conservatives and anti-globalization progressives. And this, in the end, might be the most compelling feature of localization and its most enduring contribution—a culture of sustainability rooted in deep democracy.

vation Review, summer 2009, pp. 21–22; information on Ashoka at www.ashoka.org, on the Schwab Foundation at www.schwabfound.org, and on the Skoll Foundation at www.skollfoundation.org.

6. Information on Global Giving at www.globalgiving.com; U.S. examples of venture philanthropy organizations include the Acumen Fund, Good Capital, and Social Investment Forum, while European ones include Triodos Bank, Bonventure, and LGT Venture Philanthropy.

7. J. Mair and S. Seelos, *The Sekem Initiative*, IESE Case Study DG-1466-E (Barcelona: IESE Business School, 2004); Sekem Web site, at www.sekem.com/english/default.aspx; I. Abouleish and H. Abouleish, "Garden in the Desert: Sekem Makes Comprehensive Sustainable Development a Reality in Egypt," *Innovations*, summer 2008. Box 14 based on William McDonough and Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things* (New York: North Point Press, 2002).

8. J. Mair and J. Mitchell, *Waste Concern*, IESE Case Study DG-1502-E (Barcelona: IESE Business School, 2006); Waste Concern's impact from the Dhaka Case Study at the 2007 C40 Large Cities Climate Summit, New York, at www.nycclimatesummit.com/casestudies_waste.html, viewed 15 July 2009.

9. J. Mair and J. Shortall, *PDA* (Barcelona: IESE Business School, in press).

10. J. Mair and C. Seelos, "The Sekem Initiative: A Holistic Vision to Develop People," in F. Perrini, ed., *New Social Entrepreneurship: What Awaits Social Entrepreneurship Ventures?* (Cheltenham, U.K.: Edward Elgar, 2006), pp. 210–23; Waste Concern as best practice for Clean Development Mechanism projects from UNESCAP, *Economic and Social Survey of Asia and the Pacific*, 2008, at www.unescap.org/survey2008/download/index.asp. Box 15 based on the following: World Federation of Exchanges, "The World Federation of Exchanges," at www.world-exchanges.org/about-wfe, viewed 7 August 2009; Bank for International Settlements, "Statistical Annex," in *BIS Quarterly Review* (Basel, Switzerland: December 2008); Standard & Poor's, "S&P U.S. Carbon Efficient Index," fact sheet, at www2.standardandpoors.com, viewed 7 August 2009; Robert Kropp, "S&P Adds Carbon Index to Its Family of Environmental Indices," *SocialFunds.com*, 16 March 2009; STOXX Indexes, at www.stoxx.com/index.html, viewed 8 August 2009; U.S. Environmental Protection Agency, "Greenhouse Gas Reporting Rule," at www.epa.gov/climatechange/emissions/ghgrulemaking.html, viewed 9 August 2009; BM&FBOVESPA, at www.bmfbovespa.com.br; Eduardo Athayde, "Principio do Preservador-Pagador," *O Estado de São Paulo* (Brazil), 4 June 2009.

11. Transfair USA, at www.transfairusa.org; Rugmark, at www.rugmark.org/home.php.

12. For information on El Poder de Consumidor and Interrupcion, see Alejandro Cavillo Unna and Diego Carvajal profiles, at www.ashoka.org/fellows; for the Akatu Institute for Conscious Consumption, see Mattar Helio profile, at www.schwabfound.org/sf/SocialEntrepreneurs/Profiles/index.htm; for Polish organizations addressing the problems caused by mass consumption, see Zdzislaw Nitak, Jacek Schindler, and Ewa Smuk Stratenwerth profiles, at www.ashoka.org/fellows.

13. O. Sulla, "Philanthropic Foundations and Multilateral Aid Institutions like the World Bank: Increased Opportunities for Collaboration in ACP Agriculture," presented at 6th Brussels Development Briefing, Brussels, 2 July 2008; M. Jarvis and J. Goldberg, *Business and Philanthropy: The Blurring of Boundaries*, Business and Development Discussion Paper No. 09 (Washington, DC: World Bank Institute, fall 2008).

Relocalizing Business

1. Natural Resources Defense Council, at smartercities.nrdc.org/rankings/small; Sustainable Connections, at www.sustainableconnections.org.

2. Applied Research Northwest survey from New Rules Project, "Study Finds More People Shopping Locally Thanks to 'Think Local First'," 3 December 2006, at www.newrules.org; Michelle Long, executive director, Sustainable Connections, e-mail to author, 14 August 2009.

3. Numbers of communities affiliated with U.S. business alliances available at Web sites of BALLE

(www.livingeconomies.org), AMIBA (www.amiba.net), and the Post-Carbon Institute (www.postcarbon.org); Michael Brownlee, U.S. director, Transition Towns, e-mail to author, 8 August 2009.

4. U.S. Census Bureau, *Statistical Abstract of the United States: 2009* (Washington, DC: U.S. Government Printing Office, 2009), Table 738, p. 493.

5. Sustainability definition from World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987), p. 8.

6. Pete Hurrey, "Chicken Poop a Real Concern for Chesapeake Bay Waters," 24 April 2009, at www.thebaynet.com/news/index.cfm/fa/viewStory/story_ID/12976.

7. Stacy Mitchell, "Will Wal-Mart Eat Britain," speech to the New Economics Foundation, 25 May 2005.

8. National Federation of Independent Business, "Charitable Contributions Comparison," January 2003.

9. See, for example, Annelies Van Hauwermeiren et al., "Energy Lifecycle Inputs in Food Systems: A Comparison of Local versus Mainstream Cases," *Journal of Environmental Policy & Planning*, March 2007, pp. 31–51.

10. James McWilliams, "Food That Travels Well," *New York Times*, 6 August 2007; for a critique, see Michael H. Shuman, "On the Lamb," *The Ethicurian*, 10 August 2007.

11. Oklahoma Food Coop, at www.oklahomafood.coop; David Shapero, managing director, Future Energy Pty. Ltd., "Going Local" Workshop, Melbourne, Australia, 24 June 2009.

12. Sherri Buri McDonald and Christian Wihtol, "Small Businesses: The Success Story," *The Register-Guard* (Eugene, OR), 10 August 2003; Michael H. Shuman, "Go Local and Prosper," *Eugene Weekly*, 8 January 2004.

13. Austin study in Civic Economics, *Economic Impact Analysis: A Case Study* (Austin, TX: December 2002).

14. For other studies on this point, see Institute for Local Self-Reliance, *The Economic Impact of Locally Owned Businesses vs. Chains: A Case Study in Midcoast Maine* (Minneapolis, MN: September 2003); David Morris, *The New City-States* (Washington, DC: Institute for Local Self-Reliance, 1982), p. 6; Christopher Gunn and Hazel Dayton Gunn, *Reclaiming Capital: Democratic Initiatives and Community Control* (Ithaca, NY: Cornell University Press, 1991); Gbenga Ajilore, "Toledo-Lucas County Merchant Study," Urban Affairs Center, Toledo, OH, 21 June 2004; and Justin Sachs, *The Money Trail* (London: New Economics Foundation, 2002), whose multiplier methodology has been used in dozens of small U.K. communities

15. Richard Florida, *The Rise of the Creative Class* (New York: Basic Books, 2002).

16. Stewart Smith, e-mail to author, 2 December 2005, updating Stewart Smith, "Sustainable Agriculture and Public Policy," *Maine Policy Review*, April 1993, pp. 68–78.

17. See Michael H. Shuman, *The Small-Mart Revolution: How Local Businesses Are Beating the Global Competition* (San Francisco: Berrett-Koehler, 2006), pp. 65–67.

18. Descriptions of these tools can be found in Shuman, op. cit. note 17, and in Stacy Mitchell, *The Big Box Swindle: The True Cost of Mega Retailers and the Fight for America's Independent Businesses* (Boston: Beacon Press, 2006).

19. Sustainable Business Network of Greater Philadelphia, at www.sbnphiladelphia.org; Tucson Originals, at www.tucsonoriginals.com.

20. Calculated from Australian Bureau of Statistics, "Counts of Australian Businesses, Including Entries and Exits," Report 8165, 14 December 2007.

21. Lisa Lerer, "Chamber Under Fire on Warming," *The Politico*, 5 May 2009, p. 1.

22. See, for example, the unsuccessful initiative in Austin, Texas, to eliminate all city "economic devel-

opment" subsidies for chain and other nonlocal stores; Leigh McIlvaine, "State and Local Ballot Initiative Round-Up, 7 November 2007, at www.clawback.org/2008/11/07/state-and-local-ballot-initiative-round-up.

Government's Role in Design

1. Rwanda Environment Management Authority, "FAQs," at www.rema.gov.rw/index.php?option=com_content&view=article&id=93&Itemid=41&lang=en; Karen Ann Gajewski, "Nations Set Goals to Phase Out the Use and Sale of Incandescent Light Bulbs," *The Humanist*, July-August 2007, p. 48; Gwladys Fouché, "Sweden's Carbon-Tax Solution to Climate Change Puts It Top of the Green List," *Guardian* (London), 29 April 2008; Jim Bai and Leonora Walet, "China Offers Big Solar Subsidy, Shares Up," *Reuters*, 21 July 2009.

2. Sam Perlo-Freeman, "Military Expenditure," in Stockholm International Peace Research Institute, *SIPRI Yearbook 2009. Armaments, Disarmament and International Security* (Oxford: Oxford University Press, 2009), p. 179.

Editing Out Unsustainable Behavior

1. Karen Ann Gajewski, "Nations Set Goals to Phase Out the Use and Sale of Incandescent Light Bulbs," *The Humanist*, July-August 2007, p. 48; Alexander Jung, "Getting Around the EU Ban: Germans Hoarding Traditional Light Bulbs," *Seigel Online International*, 27 July 2009.

2. Lester R. Brown, "Ban the Bulb: Worldwide Shift from Incandescents to Compact Fluorescents Could Close 270 Coal-Fired Power Plants," *Earth Policy Update* (Washington, DC: Earth Policy Institute, 9 May 2007); Jung, op. cit. note 1; Warna Oosterbaan, "Good Light Bulbs are Hard on the Eyes," NRC Handelsblad, 19 January 2009; "The Rise of the Light Bulb Fascist," 27 July 2009, at freestudents.blogspot.com/2009/07/rise-of-light-bulb-fascist.html; "Liberal Fascism," *TheAmericanScene.com*, 6 February 2008.

3. Sustainable Consumption Roundtable, *Looking Back, Looking Forward: Lessons in Choice Editing for Sustainability* (London: Sustainable Development Commission, May 2006). Box 16 from the following: signatory countries committed to the 10-year framework at www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf; U.N. Department of Economic and Social Affairs (UNDESA) and U.N. Environment Programme (UNEP), *Proposed Input to CSD 18 and 19 on a 10 Year Framework of Programmes on Sustainable Consumption and Production (10YFP on SCP): Third Public Draft* (2 September 2009), at esa.un.org/marrakechprocess/pdf/Draft3_10yfpniputtoCSD2Sep09.pdf; overview of the work of the Marrakech Task Force on Sustainable Lifestyles, at www.unep.fr/scp/marrakech/taskforces/lifestyles.htm; UNDESA/UNEP, Marrakech Task Force on Cooperation with Africa, at esa.un.org/marrakechprocess/tfcooperationafrica.shtml; UNDESA/UNEP, Marrakech Task Force on Sustainable Public Procurement, at esa.un.org/marrakechprocess/tfsuspubproc.shtml; International Task Force on Sustainable Products, at www.itfsp.org; Marrakech Task Force on Sustainable Tourism, Green Passport Program, at www.unep.fr/greenpassport; UNEP, *Sowing the Seeds of Change: An Environmental and Sustainable Tourism Teaching Pack for the Hospitality Industry* (Nairobi: 2008); Task Force on Sustainable Tourism Development, at www.veilleinfotourisme.fr/taskforce, Marrakech Task Force on Sustainable Buildings and Construction, at www.environment.fi/default.asp?contentid=328751&lan=EN, Marrakech Task Force on Education for Sustainable Consumption, at esa.un.org/marrakechprocess/tfedususconsump.shtml; UNESCO Associated Schools Network, at portal.unesco.org/education/en/ev.php-URL_ID=7366&URL_DO=DO_TOPIC&URL_SECTION=201.html.

4. Marla Cone, "Barbecue Ruling Adopted to Take a Bite Out of Smog," *Los Angeles Times*, 6 October 1990; Bob Pool, "Fanning the Flames," *Los Angeles Times*, 10 March 1991; shift from leaded to unleaded petrol from Sustainable Consumption Roundtable, op. cit. note 3, and from U.S. Environmental Protection Agency, "EPA Takes Final Step in Phaseout of Leaded Gasoline," press release (Washington, DC: 29 January 1996); Frank Convery, Simon McDonnell, and Susana Ferreira, "The Most Popular Tax in Europe? Lessons from the Irish Plastic Bags Levy," *Environmental and Resource Economics*, September 2007, pp. 1–12; Leo Hickman, "Should You Have the Choice to