2010

STATE OF THE WORLD

Transforming Cultures

From Consumerism to Sustainability

THE
WORLDWATCH
INSTITUTE

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

Engaging Religions to Shape Worldviews

Gary Gardner

When Pan Yue, Vice-Minister of China's Ministry of Environmental Protection, wants to advance environmentalism these days, he often reaches for an unusual tool: China's spiritual heritage. Confucianism, Taoism, and Buddhism, says Pan, can be powerful weapons in "preventing an environmental crisis" because of each tradition's respect for nature. Mary Evelyn Tucker, a Confucian scholar at Yale University, elaborates: "Pan realizes that the ecological crisis is also a crisis of culture and of the human spirit. It is a moment of re-conceptualizing the role of the human in nature."[1]

Religious groups have responded with interest to Pan's overtures. In October 2008, a group of Taoist masters met to formulate a formal response to climate change, with initiatives ranging from solar-powered temples to a Taoist environmental network. Inspiration came from the Taoist concept of yin and yang, the interplay of opposites to create a balanced whole, which infuses the climate crisis with transcendent meaning. "The carbon balance between Earth and Sky is off-kilter," explains a U.N. official who attended the meeting, interpreting the Taoist view. "It is…significant that the current masters of Taoism in China have started to communicate precisely through this ancient yet new vocabulary."[2]

The Chinese Taoists are not alone in their activism. Bahá'ís, Christians, Hindus, Jews, and Muslims—encouraged by a partnership of the United Nations and the Alliance for Religions and Conservation (a U.K. nonprofit)—developed seven-year climate and environment plans that were announced in November 2009, just before the start of the U.N. climate conference in Copenhagen. The plans are the latest religious efforts to address the sustainability crises of our time, including climate change, deforestation, water scarcity, and species loss. By greening their activities and uncovering or re-emphasizing the green dimensions of sacred texts, religious and spiritual groups are helping to create sustainable cultures.[3]

How influential such efforts will be is unclear—in most faiths, environmental activism generally involves a small minority. But in principle, religious people—four out of every five people alive today identify themselves as this—could become a major factor in forging new cultures of sustainability. There is plenty of precedent. The anti-apartheid and U.S. civil rights movements, the Sandinista revolution in Nicaragua, the Jubilee 2000

Gary Gardner is a senior researcher at the Worldwatch Institute who focuses on sustainable economies.

debt-reduction initiative, the nuclear-freeze initiative in the United States in the 1980s—all these featured significant input and support from religious people and institutions. And indigenous peoples, drawing on an intimate and reciprocal relationship with nature, help people of all cultures to reconnect, often in a spiritual way, with the natural world that supports all human activity.[4]

The Greening of Religion

Over the past two decades, the indicators of engagement on environmental issues by religions and spiritual traditions have grown markedly. And opinion polls reveal increased interest in such developments. The World Values Survey, a poll of people in dozens of countries undertaken five times since the early 1980s, reports that some 62 percent of people worldwide feel it is appropriate for religious leaders to speak up about environmental issues, suggesting broad latitude for religious activism.[5]

More specific data from the United States suggest that faith communities are potentially an influential gateway to discussions about environmental protection. A 2009 poll found that 72 percent of Americans say that religious beliefs play at least a "somewhat important" role in their thinking about the stewardship of the environment and climate change.[6]

Another marker of the cultural influence of religious and spiritual traditions is the emergence of major reference works on religion and sustainability, giving the topic added legitimacy. Over the past decade, an encyclopedia, two journals, and a major research project on the environmental dimensions of 10 world religions have documented the growth of religions in the environmental field. (See Table 4.) Dozens of universities now offer courses on the religion/sustainability nexus, and the 2009 Parliament of the World's Religions had major panels on the topic.[7]

Table 4. Reference Works on Religion and Nature

Initiative	Date Appeared	Description
"Religions of the World and Ecology" Project	1995–2005	A Harvard-based research project that produced 10 volumes, each devoted to the relationship between a major world religion and the environment
Encyclopedia of Religion and Nature	2005	A 1,000-entry reference work that explores relationships among humans, the environment, and religious dimensions of life
The Spirit of Sustainability	2009	One volume in the 10-volume *Berkshire Encyclopedia of Sustainability*, examining the values dimension of sustainability through the lens of religions
Green Bible	2008	The New Revised Standard Version, with environmentally oriented verses in green and with essays from religious leaders about environmental topics; printed on recycled paper using soy-based ink
Worldviews: Global Religions, Culture, and Ecology and *Journal for the Study of Religion, Nature, and Culture*	1995, 1996	Journals devoted to the linkages among the spheres of nature, spirit, and culture

Source: See endnote 7.

Religious activism on behalf of the environment is now common—in some cases, to the point of becoming widespread, organized, and institutionalized. Three examples from the realms of water conservation, forest conservation, and energy and climate illustrate this broad-based impact.

First, His All Holiness, Patriarch Bartholomew, ecumenical leader of more than 300 million Orthodox Christians, founded Religion, Science and the Environment (RSE) in 1995 to advance religious and scientific dialogue around the environmental problems of major rivers and seas. RSE has organized shipboard symposia for scientists, religious leaders, scholars, journalists, and policymakers to study the problems of the Aegean, Black, Adriatic, and Baltic Seas; the Danube, Amazon, and Mississippi Rivers; and the Arctic Ocean.[8]

In addition to raising awareness about the problems of specific waterways, the symposia have generated initiatives for education, cooperation, and network-building among local communities and policymakers. Sponsors have included the Prince of Wales; attendees include policymakers from the United Nations and World Bank; and collaborators have included Pope John Paul II, who signed a joint declaration with Patriarch Bartholomew on humanity's need to protect the planet.[9]

Second, "ecology monks"—Buddhist advocates for the environment in Thailand—have taken stands against deforestation, shrimp farming, and the cultivation of cash crops. In several cases they have used a Buddhist ordination ritual to "ordain" a tree in an endangered forest, giving it sacred status in the eyes of villagers and spawning a forest conservation effort. One monk involved in tree ordinations has created a nongovernmental organization to leverage the monks' efforts by coordinating environmental activities of local village groups, government agencies, and other interested organizations.[10]

Third, Interfaith Power and Light (IPL), an initiative of the San Francisco–based Regeneration Project, helps U.S. faith communities green their buildings, conserve energy, educate about energy and climate, and advocate for climate and energy policies at the state and federal level. Led by Reverend Sally Bingham, an Episcopal priest, IPL is now active in 29 states and works with 10,000 congregations. It has developed a range of innovative programs to help faith communities green their work and worship, including Cool Congregations, which features an online carbon calculator and which in 2008 awarded $5,000 prizes to both the congregation with the lowest emissions per congregant and the congregation that reduced emissions by the greatest amount.[11]

These and other institutionalized initiatives, along with the thousands of individual grassroots religious projects at congregations worldwide—from Bahá'í environmental and solar technology education among rural women in India to Appalachian faith groups' efforts to stop mountaintop mining and the varied environmental efforts of "Green nuns"—suggest that religious and spiritual traditions are ready partners, and often leaders, in the effort to build sustainable cultures.[12]

Silence on False Gods?

In contrast to their active involvement in environmental matters, the world's religious traditions seem to hold a paradoxical position on consumerism: while they are well equipped to address the issue, and their help is sorely needed, religious involvement in consumerism is largely limited to occasional statements from religious leaders.

Religious warnings about excess and about excessive attachment to the material world are legion and date back millennia. (See Table 5.) Wealth and possessiveness—key features of a consumer society—have long been linked by religious traditions to greed, corruption, selfishness, and other character flaws. Moreover,

Table 5. Selected Religious Perspectives on Consumption

Faith	Perspective
Bahá'í Faith	"In all matters moderation is desirable. If a thing is carried to excess, it will prove a source of evil." (Bahá'u'lláh, *Tablets of Bahá'u'lláh*)
Buddhism	"Whoever in this world overcomes his selfish cravings, his sorrow fall away from him, like drops of water from a lotus flower." (*Dhammapada*, 336)
Christianity	"No one can be the slave of two masters....You cannot be the slave both of God and money." (Matthew, 6:24)
Confucianism	"Excess and deficiency are equally at fault." (*Confucius*, XI.15)
Hinduism	"That person who lives completely free from desires, without longing...attains peace." (*Bhagavad Gita*, II.71)
Islam	"Eat and drink, but waste not by excess: He loves not the excessive." (*Qur'an*, 7.31)
Judaism	"Give me neither poverty nor riches." (Proverbs, 30:8)
Taoism	"He who knows he has enough is rich." (*Tao Te Ching*)

Source: See endnote 13.

faith groups have spiritual and moral tools that can address the spiritual roots of consumerism—including moral suasion, sacred writings, ritual, and liturgical practices—in addition to the environmental arguments used by secular groups. And local congregations, temples, parishes, and ashrams are often tight-knit communities that are potential models and support groups for members interested in changing their consumption patterns.[13]

Moreover, of the three drivers of environmental impact—population, affluence, and technology—affluence, a proxy for consumption, is the arena in which secular institutions have been least successful in promoting restraint. Personal consumption continues upward even in wealthy countries, and consumer lifestyles are spreading rapidly to newly prospering nations. Few institutions exist in most societies to promote simpler living, and those that do have little influence. So sustainability advocates have looked to religions for help, such as in the landmark 1990 statement "Preserving and Cherishing the Earth: An Appeal for Joint Commitment in Science and Religion" led by Carl Sagan and signed by 32 Nobel Laureates.[14]

Despite the logic for engagement, religious intervention on this issue is sporadic and rhetorical rather than sustained and programmatic. It is difficult to find religious initiatives that promote simpler living or that help congregants challenge the consumerist orientation of most modern economies. (Indeed, an extreme counterexample, the "gospel of prosperity," encourages Christians to see great wealth and consumption as signs of God's favor.) Simplicity and anti-consumerism are largely limited to teachings that get little sustained attention, such as Pope Benedict's July 2009 encyclical, *Charity in Truth*, a strong statement on the inequities engendered by capitalism and the harm inflicted on both people and the planet. Or simplicity is practiced by those who have taken religious vows, whose commitment to this lifestyle—while often respected by other people—is rarely put forth as a model for followers.[15]

Advocating a mindful approach to consumption could well alienate some of the faith-

ful in many traditions. But it would also address directly one of the greatest modern threats to religions and to spiritual health: the insidious message that the purpose of human life is to consume and that consumption is the path to happiness. Tackling these heresies could nudge many faiths back to their spiritual and scriptural roots—their true source of power and legitimacy—and arguably could attract more followers over the long run.

Contributions to a Culture of Sustainability

Most religious and spiritual traditions have a great deal to offer in creating cultures of sustainability.

Educate about the environment. As religious traditions embrace the importance of the natural environment, it makes sense to include ecological instruction in religious education—just as many Sunday Schools include a social justice dimension in their curricula. Teaching nature as "the book of Creation," and environmental degradation as a sin, for example—positions adopted by various denominations in recent years—is key to moving people beyond an instrumentalist understanding of the natural world.[16]

Educate about consumption. In an increasingly "full world" in which human numbers and appetites press against natural limits, introducing an ethic of limited consumption is an urgent task. Religions can make a difference here: University of Vermont scholar Stephanie Kaza reports, for example, that some 43 percent of Buddhists surveyed at Buddhist retreat centers were vegetarians, compared with 3 percent of Americans overall. Such ethical influence over consumption, extended to all wisdom traditions and over multiple realms in addition to food, could be pivotal in creating cultures of sustainability. (See Box 3.)[17]

Educate about investments. Many religious institutions avoid investments in weapons, cigarettes, or alcohol. Why not also steer funds toward sustainability initiatives, such as solar power and microfinance (the *via positiva*, in the words of the Archbishop of Canterbury)? This is what the International Interfaith Investment Group seeks to do with institutional religious investments. In addition, why not stress the need for personal portfolios (not just institutional ones) to be guided ethically as well? In the United States alone the value of investment portfolios under professional management was more than $24 trillion in 2007, only 11 percent of which was socially responsible investment.[18]

Express the sacredness of the natural world in liturgies and rituals. The most important assets of a faith tradition are arguably the intangible ones. Rituals, customs, and liturgical expressions speak to the heart in a profound way that cognitive knowledge cannot. Consider the power of the Taoist yin and yang framing of climate change, or of Christian "carbon fasts" at Lent, or of the Buddhist, Hindu, and Jain understanding of *ahimsa* (non-harming) as a rationale for vegetarianism. How else might religious and spiritual traditions express sustainability concerns ritualistically and liturgically?

Reclaim forgotten assets. Religious traditions have a long list of little-emphasized economic teachings that could be helpful for building sustainable economies. These include prohibitions against the overuse of farmland and pursuit of wealth as an end in itself, advocacy of broad risk-sharing, critiques of consumption, and economies designed to serve the common good. (See Table 6.) Much of this wisdom would be especially helpful now, as economies are being restructured and as people seem open to new rules of economic action and a new understanding of ecological economics.[19]

Coming Home

Often painted as conservative and unchanging institutions, many religions are in fact rapidly embracing the modern cause of environmen-

Box 3. A Global Ecological Ethic

The modern global ecocrisis is a strong signal that "environmentally at least, all established ethics are inadequate," in the words of ethicists Richard Sylvan and David Bennett. Most ethical systems today are indifferent to the steady degradation of natural systems and need to be reformed or replaced. Ecological ethics is a complementary ethical system that gives the natural world a voice in ethical discourse.

A specifically ecological ethic is "ecocentric" (perceiving and protecting value in all of nature), not "anthropocentric" (restricting value to humanity alone). It recognizes that humans are only a part of life on Earth, that humans need the rest of the planet and its inhabitants vastly more than they need humans, and that there is an ethical dimension to all human relationships with the planet. Indeed, a truly ecocentric ethic recognizes that in certain situations, the needs or rights of Earth or its other inhabitants take precedence over purely or narrowly human ones.

An ecological ethic is distinct from ethics rooted in enlightened human self-interest, the basis for virtually all ethical philosophies until now. Anthropocentric ethics encourages rather than counters the human inclination toward short-termism, greed, and limited sympathies. It also denies any responsibility for the effects of human behavior on the millions of other species and living individuals on this planet.

Suppose, for example, that a company wants to cut down a forest of old-growth hardwood trees and convert them into paper products. Company officials argue that local jobs depend on the logging, that the public needs the logs for paper and wood products, that the old-growth trees can be replaced by purpose-grown ones that are just as good, and so on. This is anthropocentric ethics at work.

An argument based on ecological ethics would assert that undisturbed trees are more useful to society because of their ecological value—they stabilize the climate, air, and soil upon which people ultimately depend. Furthermore, it would show that an old-growth forest is vastly richer (in terms of biodiversity) than a planted monoculture and can never, as such, be replaced; that it has value in and of itself regardless of its use-value to humans; and that its conversion into, say, cardboard and toilet paper would be despicable or even mad. When this full toolbox of arguments is given standing, the ecological point of view has a decent chance of prevailing. The paradox is that ecological ethics, though infused with nonhuman dimensions, greatly increases the likelihood of humanity's survival.

The prospects for institutionalizing ecological ethics may be growing as humanity recognizes its radical dependence on the environment. To advance the cause will require work on many fronts. To begin, it will be necessary to replace the sense of self as consumer with a sense of self as green citizen. This implies developing some limits to consumption—fewer disposable items, for example.

It will also require appreciating and adopting many of the principles emerging from "traditional ecological knowledge"—local or bioregional ecological wisdom, spiritual values, ritual practices, and ethics—that has sustained traditional peoples for millennia. Where such knowledge survives, it must be protected and encouraged; where it does not, it must be rediscovered and re-embodied in "invented traditions" that re-root humans in the natural world.

Finally, developing an ecological ethics will require the help of the world's spiritual and religious traditions, which are highly influential in shaping the ethical sensibilities of a large share of humanity.

—Patrick Curry
University of Kent, Canterbury, U.K.

Source: See endnote 17.

Table 6. Economic Precepts of Selected Religious and Spiritual Traditions

Economic Teaching or Principle	Description
Buddhist economics	Whereas market economies aim to produce the highest levels of production and consumption, "Buddhist economics" as espoused by E. F. Schumacher focuses on a spiritual goal: to achieve enlightenment. This requires freedom from desire, a core driver of consumerist economies but for Buddhists the source of all suffering. From this perspective, consumption for its own sake is irrational. In fact, the rational person aims to achieve the highest level of well-being with the least consumption. In this view, collecting material goods, generating mountains of refuse, and designing goods to wear out—all characteristics of a consumer economy—are absurd inefficiencies.
Catholic economic teachings	At least a half-dozen papal encyclicals and countless bishops' documents argue that economies should be designed to serve the common good and are critical of unrestrained capitalism that emphasizes profit at any cost. The July 2009 encyclical *Charity in Truth* is a good recent example.
Indigenous economic practices	Because indigenous peoples' interactions with nature are relational rather than instrumental, resource use is something done with the world rather than to the world. So indigenous economic activities are typically characterized by interdependence, reciprocity, and responsibility. For example, the Tlingit people of southern Alaska, before harvesting the bark of cedar trees (a key economic resource), make a ritual apology to the spirits of the trees and promise to use only as much as needed. This approach creates a mindful and minimalist ethic of resource consumption.
Islamic finance	Islamic finance is guided by rules designed to promote the social good. Because money is intrinsically unproductive, Islamic finance deems it ethically wrong to earn money from money (that is, to charge interest), which places greater economic emphasis on the "real" economy of goods and services. Islamic finance reduces investment risk—and promotes financial stability—by pooling risk broadly and sharing rewards broadly. And it prohibits investment in casinos, pornography, and weapons of mass destruction.
Sabbath economics	The biblical books of Deuteronomy and Exodus declare that every seventh ("Sabbath") year, debts are to be forgiven, prisoners set free, and cropland fallowed as a way to give a fresh start to the poor and the imprisoned and to depleted land. Underlying these economic, social, and environmental obligations are three principles: extremes of consumption should be avoided; surplus wealth should circulate, not concentrate; and believers should rest regularly and thank God for their blessings.

Source: See endnote 19.

tal protection. Yet consumerism—the opposite side of the environmental coin, and traditionally an area of religious strength—has received relatively little attention thus far. Ironically, the greatest contribution the world's religions could make to the sustainability challenge may be to take seriously their own ancient wisdom on materialism. Their special gift—the millennia-old paradoxical insight that happiness is found in self-emptying, that satisfaction is found more in relationships than in things, and that simplicity can lead to a fuller life—is urgently needed today. Combined with the newfound passion of many religions for healing the environment, this ancient wisdom could help create new and sustainable civilizations.

The Meatrix, 2003; Jonah Sachs, creative director, Free Range Studios, e-mail to author, 5 August 2009; Claire Atkinson, "'Desperate Housewives' Keeps Sunday Rates Competitive," *Advertising Age*, 21 September 2006; Stuart Elliott, "THE MEDIA BUSINESS: ADVERTISING; Prices for Commercials Already Vary Widely as the Season, with 38 New Series, Is Barely Under Way," *New York Times*, 2 October 2002.

58. Paul Hawken, *Blessed Unrest* (New York: Penguin Group, 2007); Paul Hawken, "Biology, Resistance, and Restoration: Sustainability as an Infinite Game," presentation at Bioneers Conference, October 2006.

59. See Gary Gardner, "Engaging Religions to Shape Worldviews," in this volume; activism from *Renewal*, Producers Marty Ostrow and Terry Kay Rockefeller, Fine Cut Productions LLC, 2007.

60. Barbara K. Rodes and Rice Odell, comp., *A Dictionary of Environmental Quotations* (New York: Simon & Schuster, 1992), p. 26.

Traditions Old and New

1. "People," in Central Intelligence Agency, *The World Factbook*, at www.cia.gov/library/publications/the-world-factbook/geos/xx.html.

2. United Nations Population Division, *World Population Prospects, 2008 Revision* (New York: 2009); Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: The Penguin Group, 2005), pp. 79–119, 286–93.

Engaging Religions in Building a Sustainable Culture

1. Stephen Scharper, "Faiths May Hold the Key to Green China," *Toronto Star*, 7 July 2009; Mary Evelyn Tucker, "Pan Yue's Vision for Ecological Civilization," blog, *Sustainable China*, at www.sustainablechina.info/2008/12/08/a-meeting-with-pan-yue.

2. "Third Taoist Ecology Forum Opens in Jurong, Jiangsu—And This One is Country-wide," at www.arcworld.org/news.asp?pageID=273; Mark Leon Goldberg, "Taoism—'The Way' for Climate Action in China?" *UN Dispatch*, at www.undispatch.com/archives/2008/11/taoism_—_guidi.php.

3. Alliance of Religions and Conservation (ARC) and the U.N. Development Programme, *Guide to Creating Your Seven-Year Plan* (Bath, U.K.: ARC, August 2008).

4. "People," in Central Intelligence Agency, *The World Factbook*, at www.cia.gov/library/publications/the-world-factbook/geos/xx.html; John A. Grim, series co-ed., *Indigenous Traditions and Ecology: The Interbeing of Cosmology and Community* (Cambridge, MA: Harvard University Center for the Study of World Religions, 2001).

5. World Values Survey, at www.worldvaluessurvey.org, viewed 4 August 2009.

6. Faith in Public Life and Public Religion Research, "Key Religious Groups Want Government to Address Climate Change and Its Impact on World's Poor," at www.faithinpubliclife.org/tools/polls/climate-change; Public Religion Research, "Climate Change & Poverty Survey, 20-27 March, 2009," e-mail to author, 16 July 2009.

7. Courses are from a survey done by Worldwatch Institute, August 2009; Parliament from Mary Evelyn Tucker, Yale University, e-mail to author, 23 August 2009. Table 4 from the following: Mary Evelyn Tucker and John Grim, series eds., *Religions of the World and Ecology*, book series (Cambridge, MA: Center for the Study of World Religions at Harvard University, 1998–2003); Bron Taylor, ed., *Encyclopedia of Religion and Nature* (London: Continuum, 2008); Willis Jenkins, ed., *The Spirit of Sustainability*, a project of the Forum on Religion and Ecology at Yale University (Great Barrington, MA: Berkshire, forthcoming); *The Green Bible* (New York: HarperOne, 2008); *Journal for the Study of Religion, Nature and Culture*, at www.religionandnature.com/journal; *Worldviews: Global Religions, Culture, and Ecology*, at www.brill.nl/m_catalogue_sub6_id9007.htm.

8. Religion, Science and the Environment, at www.rsesymposia.org.

9. Ibid.

10. Susan M. Darlington, "Practical Spirituality and Community Forests: Monks, Ritual, and Radical Conservatism in Thailand," in Anna L. Tsing and Paul Greenough, eds., *Nature in the Global South* (Durham, NC: Duke University Press, 2003); Susan Darlington, "Buddhism and Development: The Ecology Monks of Thailand," in Christopher Queen, Charles Prebish, and Damien Keown, eds., *Action Dharma: New Studies in Engaged Buddhism* (New York: Routledge Curzon, 2003).

11. The Regeneration Project, at www.theregenerationproject.org.

12. Bahá'í from www.barli.org/training-programmes.html#45; Appalachia from Renewal Project, *Renewal* (documentary film), at renewalproject.net; Sarah McFarland Taylor, *Green Sisters: A Spiritual Ecology* (Cambridge, MA: Harvard University Press, 2007).

13. Table 5 from the following: Bahá'í Reference Library, "World Peace," at reference.bahai.org/en/t/bic/SB/sb-13.html#fr5; Buddhism, Confucianism, Taoism, and Hinduism from Center for a New American Dream, "Religion and Spirituality," at www.affluenza.org/cnad/religion.html; Christianity and Judaism from *The New Jerusalem Bible* (New York: Doubleday, 1990); Islam from Islam Set, "Environmental Protection in Islam," at www.islamset.com/env/section4.html.

14. Carl Sagan, "Preserving and Cherishing the Earth—An Appeal for Joint Commitment in Science and Religion," *American Journal of Physics*, July 1990, pp. 615–17.

15. Benedict XVI, *Caritas in Veritate,* encyclical letter (Vatican City: The Vatican, 2009).

16. Nature as the book of Creation from "Benedict XVI's Very Own Shade of Green," *National Catholic Reporter*, 31 July 2009; Larry B. Stammer, "Interfaith Campaign Targets Issue of Environmental 'Sin'," *Los Angeles Times*, 29 November 1997.

17. Stephanie Kaza, "Western Buddhist Motivations for Vegetarianism," *Worldviews: Environment, Culture, Religion*, vol. 9, no. 3 (2005), pp. 385–411; 3 percent from Vegetarian Resource Group, "How Many Vegetarians are There?" at www.vrg.org/press/2009poll.htm, viewed 9 September 2009. Box 3 based on the following: Richard Sylvan and David Bennett, *The Greening of Ethics: From Human Chauvinism to Deep-Green Theory* (Cambridge, MA: White Horse Press, 1994), p. 26; distinction from enlightened human self-interest first raised by Richard Routley (later Sylvan) in "Is There a Need for a New, an Environmental Ethic?" *Proceedings of the XII World Congress of Philosophy*, No. 1 (Varna, Bulgaria: 1973), pp. 205–10.

18. International Interfaith Investment Group, at www.3ignet.org; $24 trillion is a Worldwatch calculation based on data in Social Investment Forum, *2007 Report on Socially Responsible Investing Trends in the United States* (Washington, DC: 2007); 11 percent from ibid.

19. Table 6 from the following: Buddhist economics from E. F. Schumacher, *Small is Beautiful* (New York: Harper & Row, 1973); Catholic economic teaching from United States Conference of Catholic Bishops, "Catholic Teaching on Economic Life," at www.usccb.org/jphd/economiclife; indigenous economic practices from Grim, op. cit. note 4; Islamic finance from Paul Maidmant, "A Distant Mirror," and from Elisabeth Eaves, "God and Mammon," both in *Forbes*, 21 April 2008; Sabbath economics from Ross Kinsler and Gloria Kinsler, *The Biblical Jubilee and the Struggle for Life* (Maryknoll, NY: Orbis Books, 1999).

Ritual and Taboo as Ecological Guardians

1. Rabbi Goldie Milgram, *Meaning & Mitzvah: Daily Practices for Reclaiming Judaism through Prayer, God, Torah, Hebrew, Mitzvot and Peoplehood* (Woodstock, VT: Jewish Lights Publishing, 2005).

2. Roy Rappaport, *Ritual and Religion in the Making of Humanity* (Cambridge, U.K.: Cambridge University Press, 1999), p. 24. This definition is a nontechnical adaptation of Rappaport's formal definition: "the performance of more or less invariant sequences of formal acts and utterances not entirely encoded by the performers."

3. E. N. Anderson, *Ecologies of the Heart: Emo-*