
STEPHEN M. JOHNSON*

**Is Religion the Environment’s Last Best Hope?
Targeting Change in Individual Behavior
Through Personal Norm Activation**

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From the explosion of command-and-control legislation following Earth Day through the more recent economic-based initiatives such as pollution trading, federal and state legislators and environmental regulators have focused most of their energy on reducing pollution from large industrial sources.¹ Although individuals cumulatively

* Associate Dean and Professor, Walter F. George School of Law, Mercer University. B.S., J.D., Villanova University; LL.M., George Washington University School of Law.

¹ See *infra* p. 122–23 and notes 12–18.

contribute significantly to air, waste, and water pollution problems, regulators have generally avoided targeting them.² However, many of the most vexing environmental problems that remain cannot be resolved without limiting individuals' environmentally destructive choices or at least without spurring individuals to take actions that reduce the harm that they cause to the environment.³

Targeting individual behavior may be difficult though. Because of the large number of individuals to be regulated, command-and-control approaches⁴ to regulation may be inefficient as well as politically infeasible. Economic-based alternatives also face roadblocks. Taxes, for instance, would likely face fierce consumer opposition. While subsidies to individuals to encourage environmentally friendly behavior could be effective if there were adequate funds to support them, it is unlikely that the government could provide such support because of the high costs. Finally, pollution trading programs that target individuals would be expensive to establish and administer and no baselines exist from which to determine initial allocations of pollution rights to individuals.

Building on Robert Ellickson's groundbreaking work in *Order Without Law*,⁵ Professor Michael Vandenbergh has argued that activation of personal norms is the best approach for changing individual behavior to reduce environmentally harmful actions by individuals.⁶ Vandenbergh argues that information disclosure laws and other information disclosure efforts by government can be used to activate personal norms in favor of environmental protection or personal responsibility and that individuals will reduce their environmentally harmful behaviors once those norms are activated.⁷ According to Vandenbergh, when individuals learn that their actions cause specific harms to the environment and public health and that

² See *infra* p. 124–26 and notes 22–35.

³ See *infra* p. 137–38 and notes 36–37.

⁴ Under the command-and-control approach, the federal government establishes uniform national pollution limits or commands that the federal or state governments impose on individual polluters through a system of permits or other controls. See Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333, 1334–35 (1985) (describing command-and-control regulation).

⁵ See ROBERT C. ELICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* (1991).

⁶ Michael P. Vandenbergh, *Order Without Social Norms: How Personal Norm Activation Can Protect the Environment*, 99 NW. U. L. REV. 1101, 1107 (2005).

⁷ *Id.*

they can reduce those harms by taking different actions, that knowledge will activate norms that will encourage them to change their behavior.⁸ Vandenberg argues that activating personal norms through information disclosure would be much more effective than command-and-control or economic-based alternatives would be if those alternatives were implemented on their own.⁹

While Vandenberg focused on government efforts to activate personal norms in favor of environmental protection or personal responsibility, the recent shift in public attitudes toward global warming and the increased willingness of individuals to act to reduce their impact on global warming demonstrate that another constituency can, and has, played an important role in norm activation and influencing environmentally conscious behavior. Over the past decade, many churches and religious organizations have delivered strong messages through words and deeds about the role that individuals play in contributing to global warming and the harm that they can cause to the environment and the poor through their actions and daily choices regarding energy use and transportation.¹⁰ Through these efforts, religious groups have activated personal norms of stewardship and social justice that have spurred changes in individual attitudes and behavior even without the imposition of command-and-control or economic-based programs by the government. Similarly, religious organizations have played an important role in uniting communities and framing disputes in environmental justice controversies.¹¹

As regulators begin to target individual behavior to address global warming and a variety of other environmental problems caused to a significant degree by individual action, regulators should recognize the role that religious organizations play in influencing individual behavior. If the government relies on information disclosure laws and strategies to activate personal norms and influence individual behavior change, as Vandenberg suggests, the government should explore ways to involve religious organizations in the information disclosure and could even provide grants to facilitate those efforts. If the government relies on pollution trading or on subsidies to target

⁸ *Id.* at 1121–25.

⁹ *Id.* at 1103–07.

¹⁰ *See infra* p. 150–61 and notes 148–91.

¹¹ *See infra* p. 147–48 and note 142.

individual behavior, religious organizations might also play a valuable role in the administration of those programs.

This Article explores the important role that religious organizations have played, and can play, in personal norm activation to influence change in individuals' environmentally destructive actions. Part I of the Article describes the need for regulating or targeting individuals, in addition to industrial sources, in order to address many of the remaining significant environmental problems. Part II examines the advantages and disadvantages of targeting individual actions through command-and-control regulation, economic-based alternatives, and information disclosure programs. Part III outlines the concept of norm activation and details the manner in which information disclosure programs can be used to activate personal norms to influence changes in individual behavior. It also identifies some of the limitations on the use of information disclosure to activate norms and limitations on the development of effective information disclosure programs to activate norms. Part IV explores the manner in which churches and religious organizations, over the past decade, have, through their statements and actions, activated personal norms of stewardship and social justice to change individuals' attitudes and actions in ways that reduce harm to the environment and public health. Finally, Part V discusses the ways that the government could partner with religious organizations to influence changes in individuals' environmentally destructive behavior or to implement programs that encourage individuals to reduce their environmentally destructive behavior.

I

WHY REGULATE INDIVIDUALS?

Traditionally, federal and state environmental laws have focused on controlling pollution caused by large industrial sources rather than on controlling pollution caused by individuals.¹² The major permitting programs in the Clean Water Act,¹³ Clean Air Act,¹⁴ and

¹² See ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION 129 (5th ed. 2006); Michael P. Vandenberg, *From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law*, 57 VAND. L. REV. 515, 517-18, 524-26 (2004).

¹³ E.g., Clean Water Act § 301, 33 U.S.C. § 1311 (2006) (establishing effluent limits for point sources); *id.* § 306, 33 U.S.C. § 1316 (establishing new source performance standards for point sources); *id.* § 307, 33 U.S.C. § 1317 (establishing toxic and pretreatment effluent standards for point sources); *id.* § 402, 33 U.S.C. § 1342

Resource Conservation and Recovery Act,¹⁵ for instance, target large industrial sources. To the extent that those laws address pollution caused by individuals, such as household hazardous waste and nonpoint source pollution, the federal laws impose minimal requirements and delegate most of the responsibility for addressing those problems to state and local governments.¹⁶ Second generation economic-based programs, such as pollution trading programs¹⁷ and information disclosure programs,¹⁸ have also typically only targeted industrial sources.

It is not hard to see why Congress has focused on large industrial sources over individuals. First, because there are so many individuals that contribute to pollution problems and because they contribute in different ways, it is much more difficult and expensive to design programs that can be enforced efficiently against individuals than it is to design programs to be enforced against the smaller universe of

(establishing national pollutant discharge elimination system permit program for point source discharges).

¹⁴ *E.g.*, 42 U.S.C. § 7411 (2006) (establishing new source performance standards for stationary sources); *id.* § 7412 (establishing standards for emissions of hazardous air pollutants by stationary sources); *id.* § 7503 (establishing a permit program for stationary sources in “non-attainment” areas); *id.* § 7661a (establishing a permit program for stationary sources).

¹⁵ *E.g.*, 42 U.S.C. § 6925 (2006) (establishing a permit program for treatment, storage, or disposal of hazardous waste).

¹⁶ *See, e.g.*, Clean Water Act § 319, 33 U.S.C. § 1329 (providing for nonpoint source management programs under the Clean Water Act); 42 U.S.C. §§ 6941–6969 (providing for nonhazardous waste management under the Resource Conservation Recovery Act). The major provisions in the federal environmental laws that target individual behavior are limits on wetlands development in section 1344 of the Clean Water Act and protections for endangered and threatened species in the Endangered Species Act, 16 U.S.C. § 1538 (2006). Even in those laws, though, Congress took steps to reduce the impact of the law on individuals. Both the Endangered Species Act and the Clean Water Act allow individuals to proceed with activities that harm the environment as long as they obtain a permit from the government and mitigate that harm. *See id.* § 1539 (“incidental take” permits); Clean Water Act § 404, 33 U.S.C. § 1344 (wetlands permits). The U.S. Army Corps of Engineers generally approves more than ninety percent of the applications for permits to develop wetlands. *See, e.g.*, U.S. ARMY CORPS OF ENGINEERS, FY 2003 REGULATORY STATISTICS, <http://www.usace.army.mil/CECW/Documents/cecwo/reg/2003webcharts.pdf> (last visited May 5, 2009).

¹⁷ *See* 42 U.S.C. §§ 7651, 7651a–o (2006) (sulfur dioxide trading program).

¹⁸ *See* 42 U.S.C. § 11023 (2006) (involving toxic release inventory reporting requirements at section 116 of the Emergency Planning and Community Right to Know Act); 42 U.S.C. § 13106 (2006) (reporting requirements of chapter 133 of the Pollution Prevention Act).

large industrial sources.¹⁹ Second, since the concentration of pollution is greater at industrial sources, regulators get more pollution reduction bang for the buck by targeting those sources.²⁰ Finally, public resistance to federal regulation of individual behavior is a significant roadblock to such regulation programs.²¹

However, individual behavior is a major cause of many of today's most difficult environmental problems,²² and it may be impossible to resolve those problems by focusing solely on large industrial sources. For instance, individuals contribute to the global warming problem through excessive and inefficient use of energy at home and excessive driving in heavily polluting vehicles.²³ Individuals' actions account

¹⁹ See Christopher D. Stone, *Is Environmentalism Dead?*, 38 ENVTL. L. 19, 32 (2008); Vandenberg, *supra* note 12, at 521. To the extent that Congress has regulated individual behavior in the wetlands and endangered species context, it focused on activities where a smaller number of individuals engaged in the activities and the impacts of their actions were more direct and dramatic than in other contexts like household hazardous waste disposal or nonpoint source pollution.

²⁰ PERCIVAL ET AL., *supra* note 12, at 129. Although the cumulative impacts of individual behavior are significant, the separate impacts of each individual's actions are often minimal. Vandenberg, *supra* note 12, at 518.

²¹ PERCIVAL ET AL., *supra* note 12, at 129. For instance, regulatory limits on development to protect wetlands and endangered species are frequently challenged as violating private property rights.

²² Although it was published more than twenty years ago, the EPA's *Unfinished Business* report identified many environmental problems that remain unresolved today, including nonpoint source pollution, nonhazardous waste, hazardous air pollutants, criteria air pollutants, and the greenhouse effect. EPA, UNFINISHED BUSINESS: A COMPARATIVE ASSESSMENT OF ENVIRONMENTAL PROBLEMS (1987). As detailed below, individual behavior contributes significantly to most of those problems.

²³ Andrew Green, *Self Control, Individual Choice, and Climate Change*, 26 VA. ENVTL. L.J. 77, 78 (2008); see also Michael P. Vandenberg & Anne C. Steinemann, *The Carbon-Neutral Individual*, 82 N.Y.U. L. REV. 1673, 1677 (2007). Many of the waste, air, and water pollution problems detailed in this section are caused by excessive and inefficient energy use and excessive driving of heavily polluting vehicles. Individuals could greatly reduce pollution emissions caused by excessive and inefficient energy use by switching to more energy efficient appliances, such as hot water heaters, furnaces, air conditioners, dryers, and refrigerators; installing energy efficient lighting, such as compact fluorescent bulbs; improving insulation in their homes; and switching to alternative sources of energy. Vandenberg & Steinemann, *supra*, at 1699–1700. With regard to transportation, Vandenberg and Steinemann note that a ten percent reduction in vehicle miles traveled by individuals could generate more greenhouse gas emissions reduction than the iron and steel, cement manufacturing, or petrochemical production industries emit each year. *Id.* at 1698. Such reductions could be accomplished through carpooling or greater reliance on mass transportation. Similarly, if individuals drove more efficient vehicles or properly maintained their vehicles, significant reductions in greenhouse gas and other pollution emissions could be achieved. Vandenberg and Steinemann note that

for more than thirty percent of the United States' annual emissions of greenhouse gases and eight percent of the world's annual emissions.²⁴ Emissions from individuals in the United States exceed emissions from all large U.S. industrial sources as well as from all sources in Africa, Central America, and South America combined.²⁵ Individuals are also a major source of other air pollution problems. A recent EPA report indicated that motor vehicles contribute twenty-nine percent of emissions of air toxics while large industrial sources are only responsible for nineteen percent of such emissions.²⁶ In addition, backyard burning of garbage by individuals is the primary source of dioxin emissions in the United States.²⁷ Individuals are also major contributors to the ozone problem, as they emit more than thirty percent of ozone precursors nationwide through operation of on-road and nonroad motor vehicles, residential energy consumption, and consumer product use, including solvents, pesticides, and architectural coatings.²⁸ Furthermore, individuals are a major source of indoor air pollution problems. Indoor air pollution is often caused by combustion byproducts from ovens, heaters, and other combustion sources; volatile organics, such as those found in paints, solvents, and cleaners; formaldehyde (from building materials and furniture); toxic emissions (from carpeting); and household pesticide use.²⁹

proper maintenance of tire pressure alone could reduce carbon dioxide emissions by forty-one billion pounds each year. *Id.* at 1700.

²⁴ Vandenberg & Steinemann, *supra* note 23, at 1677.

²⁵ *Id.*

²⁶ EPA, NATIONAL AIR QUALITY: STATUS AND TRENDS THROUGH 2007, at 26 (2008), available at <http://www.epa.gov/air/airtrends/2007/report/toxic.pdf>. Professor Michael Vandenberg points out that, primarily due to motor vehicle emissions, individuals release fifty times more benzene and five times more formaldehyde than all large industrial sources combined. Vandenberg, *supra* note 12, at 519.

²⁷ EPA, AN INVENTORY OF SOURCES AND ENVIRONMENTAL RELEASES OF DIOXIN-LIKE COMPOUNDS IN THE UNITED STATES FOR THE YEARS 1987, 1995, AND 2000, at 1–42 (2006), available at <http://www.epa.gov/ncea/pdfs/dioxin/2006/dioxin.pdf>. In 2000, backyard burning of garbage accounted for thirty-five percent of dioxin emissions in the United States. *Id.*

²⁸ Vandenberg, *supra* note 12, at 546–49. According to EPA data, in 2002, motor vehicles emitted 8,133,567 tons of nitrogen oxides and 4,660,578 tons of volatile organic compounds (VOCs), while industrial sources only emitted 1,158,549 tons of nitrogen oxides and 1,680,541 tons of VOCs. EPA, Air Emission Sources: Nitrogen Oxides, <http://www.epa.gov/air/emissions/nox.htm> (last visited May 5, 2009); EPA, Air Emission Sources: Volatile Organic Compounds, <http://www.epa.gov/air/emissions/voc.htm> (last visited May 5, 2009).

²⁹ EPA, An Introduction to Indoor Air Quality, <http://www.epa.gov/iaq/ia-intro.html> (last visited May 5, 2009).

Individuals are major sources of many water and air pollution problems. For instance, excessive fertilization of lawns and faulty or leaking septic systems are significant causes of nutrient overloading in waterbodies.³⁰ Similarly, runoff of pesticides, oil, and other fluids from homes and streets; improper disposal of household chemicals and pharmaceuticals; and atmospheric deposition of toxics from utilities and automobiles are major contributors to the problem of toxics in waterbodies.³¹ Pathogens in waterbodies are also frequently caused by individual activity, including faulty or leaking septic systems, discharges from recreational vehicles and campers, boat and marina waste, pet waste, and urban and agricultural runoff.³²

Contamination from improper waste disposal can also be attributed to individual activity to a significant degree. Individuals generate about 1.6 million tons of household hazardous waste each year nationally, much of which is disposed of in municipal landfills instead of being properly recycled.³³ The volume of waste and nature of the problem is likely to increase as individuals increasingly dispose of electronic waste, such as computers and cell phones, instead of recycling it.³⁴ The problems are not limited to hazardous waste however. Environmental contamination caused by incineration and landfilling and improper disposal of waste could be significantly reduced if individuals recycled nonhazardous waste (glass, plastic, aluminum, and newspaper) at a greater rate than they currently do.³⁵

³⁰ EPA, Challenges Facing Our Estuaries, <http://www.epa.gov/owow/estuaries/pivot/overview/cf.htm> (last visited May 5, 2009); *see also* Vandenberg, *supra* note 12, at 573.

³¹ EPA, *supra* note 30; *see also* Vandenberg, *supra* note 12, at 543, 564, 576–77. Households release as much mercury to wastewater as all large industrial sources. *Id.* at 564. In addition, on average, approximately a pound of pesticides is applied to each private lawn per year. *Id.* at 577.

³² EPA, *supra* note 30.

³³ Vandenberg, *supra* note 12, at 542–43. Significant quantities of mercury are disposed of in household hazardous waste, in products such as batteries, fluorescent lighting, thermostats, and discarded electrical equipment. *Id.* at 564.

³⁴ According to the EPA, in 2005, Americans generated approximately 1.9 to 2.2 million tons of e-waste and recycled only about 345,000 to 379,000 tons. EPA, FACT SHEET: MANAGEMENT OF ELECTRONIC WASTE IN THE UNITED STATES 1 (2008), *available at* <http://www.epa.gov/epawaste/conserves/materials/ecycling/docs/fact7-08.pdf>.

³⁵ The EPA estimates that 33.4% of household waste is currently being recycled. EPA, MUNICIPAL SOLID WASTE GENERATION, RECYCLING, AND DISPOSAL IN THE UNITED STATES: FACTS AND FIGURES FOR 2007, at 1 (2008), *available at* <http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-fs.pdf>. Recycling rates vary from state to state however. In Delaware, for instance, only about twelve percent of household waste is recycled. DEL. SOLID WASTE AUTH., ASSESSMENT OF COMMERCIAL AND INDUSTRIAL RECYCLING ACTIVITIES 16 (2006), *available at* <http://www.dswa.com/pdfs/dsmreport.pdf>.

In each of the cases outlined above, individuals are significant sources of environmental problems, but federal and state governments have imposed few direct limits on the activities of individuals that cause those problems. It is clear, though, that laws and government efforts must be refocused on individual activities because individuals are often the principal remaining source of environmental problems, and it may not be possible to prevent the problems without changing individuals' behaviors. As the U.S. population continues to grow, the magnitude of individuals' contribution to environmental problems will only grow with it, unless affirmative action is taken to target individual behavior.³⁶

There are other reasons why it is important to refocus government attention on individual activities. In some cases, it may be cheaper, or at least quicker, to achieve pollution reduction by focusing on individual behavior than on industrial sources.³⁷ In addition, in many cases, regulatory intervention is necessary because the market will not provide sufficient incentives for individuals to avoid environmentally harmful activities. Clearly, there are times when there are incentives in the market for individuals to avoid environmentally harmful activities. For instance, when individuals cause internalized harm, as when a homeowner's use of pesticides and household chemicals creates harmful indoor air quality or when several residents of a lakefront community contaminate the lake through faulty septic systems. In these instances, individuals have incentives to change their actions and reduce or eliminate the environmental harm, regardless of whether the government imposes any regulatory limits on their actions. The costs to the individuals of the environmentally harmful actions often outweigh the benefits of the actions. However,

Other States have set more aggressive goals for recycling, although not all are meeting those goals. *E.g.*, RES. RECOVERY PROGRAM, STATE OF MINN., OVERVIEW: 2006 RECYCLING RECOVERY RATES OF METROPOLITAN STATE AGENCY OFFICES AND OPERATIONS (2007), available at <http://www.rro.state.mn.us/2006%20recycle%20report.pdf> (finding that state agencies had met the sixty percent recycling goal for state agencies in the Saint Paul and Minneapolis area set by MINN. STAT. § 115A.15(9) (2008)); DEP'T OF ENVTL. QUALITY, STATE OF OR., 2007 OREGON MATERIAL RECOVERY AND WASTE GENERATION RATES REPORT 3 (2008), available at <http://www.deq.state.or.us/lq/pubs/docs/sw/2007MRWGRatesReport.pdf> (describing failure to meet a statewide fifty percent material recovery goal set by OR. REV. STAT. §459A.010 (2008)).

³⁶ The U.S. population has grown by between nine and eighteen percent every decade from 1950 through the present. U.S. CENSUS BUREAU, POPULATION AND HOUSING UNIT COUNTS: 2000 CENSUS OF POPULATION AND HOUSING 2 (2004), available at <http://www.census.gov/prod/cen2000/phc3-us-pt1.pdf>.

³⁷ Vandenbergh, *supra* note 12, at 518.

in many cases involving individual actions, the harm is caused by multiple individuals and it is externalized. For instance, when individuals choose to drive automobiles that emit significant amounts of greenhouse gases, the harm that they cause is dispersed widely across space and time. In those cases, it is not clear to individuals that the cost of their environmentally harmful actions outweighs the benefits. Without some intervention in those cases, individuals lack incentives to change their environmentally harmful behavior.

II

WHAT TYPE OF REGULATION IS APPROPRIATE TO CHANGE INDIVIDUAL BEHAVIOR?

Presuming that some government intervention is necessary to require or encourage individuals to reduce or avoid environmentally harmful behaviors, what approach is most likely to accomplish that goal? The tools that government has used to target the behavior of large industrial facilities include command-and-control regulation; economic-based programs involving taxes, subsidies, or pollution trading; and information disclosure programs. It may be difficult to utilize some of those approaches effectively to target individual behavior, although information disclosure programs show promise.

A. *Command-and-Control Regulation*

Although command-and-control regulation was the predominant tool that regulators adopted in the aftermath of Earth Day to address pollution caused by large industrial sources, most of the major environmental programs and initiatives adopted over the last few decades have focused on alternatives to command and control.³⁸ Even if command-and-control regulation remained the preferred alternative for new environmental regulatory programs, however, there are several reasons why it would probably be a poor instrument choice for regulating individuals.³⁹ First, because there are so many

³⁸ STEPHEN M. JOHNSON, *ECONOMICS, EQUITY, AND THE ENVIRONMENT 2* (2004) [hereinafter JOHNSON, *ECONOMICS, EQUITY, AND THE ENVIRONMENT*] (describing the trend from command-and-control regulation to market-based alternatives, such as pollution trading, taxes, subsidies, and information disclosure programs); Stephen M. Johnson, *Economics v. Equity: Do Market-Based Environmental Reforms Exacerbate Environmental Injustice?*, 56 WASH. & LEE L. REV. 111, 112–19 (1999) [hereinafter Johnson, *Economics v. Equity*].

³⁹ For reasons outlined in this section, in most cases, command-and-control regulation is not the optimal tool to require or encourage individuals to reduce environmentally

individuals that contribute to many of the remaining environmental problems, such as global warming, ozone pollution, and water pollution caused by nonpoint sources, it would be administratively difficult and expensive to require every individual who is engaged in environmentally harmful behaviors to obtain a permit for their activities.⁴⁰ While it would be possible to craft a command-and-control program that imposed limits on individual behavior but did not require permits or addressed behavior through general or regional permits, it would still be very time consuming and expensive to monitor the actions of individuals to ensure that they were complying with the requirements of the program.⁴¹ Furthermore, the cost of enforcing the program against individuals who violated requirements of the program could become exorbitant.⁴² In addition, experience with the wetlands and endangered species requirements suggests that establishment of command-and-control requirements on individuals would likely face significant political and public opposition.⁴³ Finally, as Professors Michael Vandenberg and Brooke Ackerly have pointed out, command-and-control programs that target individual behavior may often increase the price of consumer goods or otherwise disproportionately impact low-income individuals.⁴⁴ For instance, many of the limits that could be placed on automobile emissions by individuals could increase the cost of owning or

harmful behavior. However, that does not mean that command-and-control regulation should play no role in influencing individual behavior. Professor Michael Vandenberg suggests that command-and-control laws could play an important role in creating or influencing personal or social norms against environmentally harmful behavior. Vandenberg, *supra* note 12, at 599–600. In addition, he notes that command-and-control requirements have been successful in addressing some individual behavior when combined with information disclosure or economic incentives, as in jurisdictions that ban the disposal of household hazardous waste or motor oil. *Id.* at 599.

⁴⁰ See PERCIVAL ET AL., *supra* note 12, at 129; Vandenberg, *supra* note 12, at 598.

⁴¹ See Vandenberg, *supra* note 6, at 1105.

⁴² *Id.*; see also Vandenberg, *supra* note 12, at 598–99.

⁴³ See PERCIVAL ET AL., *supra* note 12, at 129; Vandenberg, *supra* note 6, at 1105.

⁴⁴ Michael P. Vandenberg & Brooke A. Ackerly, *Climate Change: The Equity Problem*, 26 VA. ENVTL. L.J. 55, 56 (2008). At the same time, though, low-income communities are often disproportionately impacted by the pollution that such programs would be designed to prevent. Johnson, *Economics v. Equity*, *supra* note 38, at 117 n.40 (describing studies that demonstrate disproportionate impacts in air pollution, siting of hazardous waste facilities, and enforcement of environmental laws); see also INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, U.N., CLIMATE CHANGE 2007: SYNTHESIS REPORT 65 (2007), available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf (“[T]hose in the weakest economic position are often the most vulnerable to climate change.”).

operating motor vehicles.⁴⁵ Those price changes could have a greater impact on low-income individuals than on middle- to high-income individuals. The equity barrier is not insurmountable though as subsidies could be provided to low-income individuals to facilitate compliance with new command-and-control requirements.⁴⁶

B. Economic-Based Programs

Since economic-based programs, such as pollution trading, taxes, and subsidies, have become more popular as a tool for effecting pollution reduction by large industrial sources, it makes sense to explore the use of those programs to target individual behavior. However, there are some significant roadblocks to successful implementation of those programs to reduce environmentally harmful actions by individuals.

1. Pollution Trading

Although regulators are frequently turning to pollution trading to reduce pollution from large industrial sources, it would be difficult to implement pollution trading programs to reduce pollution by individuals for many of the same reasons that it would be difficult to implement command-and-control programs to target individual behavior. First, because there would be so many individuals that would need to participate in a trading program, it would be very expensive and time consuming to allocate pollution rights to individuals, to oversee trading of rights between individuals, to monitor individuals to ensure that they were complying with the limits set by the trading program, and to impose sanctions on persons who did not comply with the program.⁴⁷ Second, unlike the trading programs that have been implemented for sources that have historically monitored their emissions, there are no baselines for emissions from individuals that could be used to determine the initial allocation of pollution rights.⁴⁸ Third, the transaction costs associated with negotiating a trade of pollution rights between individuals may

⁴⁵ Similarly, while energy efficiency standards for appliances and more stringent building codes for homes and apartments could save money in the long term, they can impose initial costs that are outside the reach of low-income individuals. Vandenberg & Ackerly, *supra* note 44, at 56.

⁴⁶ *Id.* at 57.

⁴⁷ See Vandenberg, *supra* note 12, at 601; Vandenberg, *supra* note 6, at 1105.

⁴⁸ See *supra* note 47.

exceed the value of the rights traded.⁴⁹ Fourth, trading programs might also increase the cost of consumer goods and thereby create the same equity problems as command-and-control programs.⁵⁰ Finally, some commentators have argued that implementing pollution trading programs for individuals could negatively influence the way that individuals think about pollution by encouraging them to view pollution as a right, rather than as a harmful activity that should be avoided.⁵¹

2. *Taxes*

Pollution taxes could be a powerful tool to influence individual behavior. If set at the appropriate level, they could encourage consumers to purchase energy efficient cars and appliances and to conserve energy, water, and other resources. Unlike trading programs, taxes also send the message that environmentally harmful activity is not a right but is something to avoid or minimize. Unfortunately though, taxes are politically and publicly unpopular in the United States and are unlikely to be widely implemented as a tool to motivate individuals to act more environmentally responsible.⁵² In addition, taxes create equity problems similar to those created by command-and-control programs, as the price increases for consumer products caused by taxes are likely to have a greater impact on low-income individuals than on middle- or high-income individuals.⁵³

3. *Subsidies*

While pollution taxes could influence individual behavior by discouraging consumers from engaging in environmentally harmful activities, subsidies work the opposite way by encouraging consumers to engage in environmentally beneficial activities. Many environmentally beneficial activities, such as the purchase of efficient appliances or automobiles or the retrofitting of a home to make it more energy efficient, impose additional initial costs on consumers. Although consumers may save money in the long run by engaging in those activities, they may not have the resources or be willing to expend the resources in the short term despite the long-term savings

⁴⁹ See *supra* note 47.

⁵⁰ See Vandenberg & Ackerly, *supra* note 44, at 56.

⁵¹ Vandenberg, *supra* note 12, at 601–02.

⁵² *Id.* at 604–05; see also Vandenberg, *supra* note 6, at 1105.

⁵³ See Vandenberg & Ackerly, *supra* note 44, at 55–56.

unless there are additional incentives for them to engage in the activities. Subsidies have been shown to be quite effective in providing that additional incentive to individuals.⁵⁴ Subsidies can also be effective in addressing the equity imbalances created by other environmental protection programs.

Professors Vandenberg and Ackerly propose a particularly unique marriage of subsidies and pollution trading to spur environmentally conscious activities by individuals while addressing equity concerns. In order to reduce carbon emissions by individuals, they propose the creation of an “equity offset” market that could be incorporated into a broader carbon-trading program for individuals.⁵⁵ Noting that many individuals are currently voluntarily buying carbon offsets to compensate for activities that discharge large amounts of greenhouse gases, such as commuting long distances, they propose the creation of equity offsets that individuals could buy to compensate for those activities.⁵⁶ Equity offsets would be different from the current offsets that are on the market because the money raised from the sale of the offsets could be used to provide subsidies to low-income individuals to buy energy efficient appliances or vehicles or to retrofit or build energy efficient homes.⁵⁷ As an alternative approach to provide incentives to low-income individuals to reduce greenhouse gas emissions, they suggest that low-income individuals who purchase energy efficient appliances or vehicles or take other actions to reduce their greenhouse gas emissions, could create offsets that could be sold

⁵⁴ Vandenberg, *supra* note 12, at 606; *see also* John C. Dernbach, *Harnessing Individual Behavior to Address Climate Change: Options for Congress*, 26 VA. ENVTL. L.J. 107, 152–53 (2008).

⁵⁵ Vandenberg & Ackerly, *supra* note 44, at 65–68.

⁵⁶ *Id.* at 67–69.

⁵⁷ *Id.* at 69–70. Professors Vandenberg and Ackerly believe that individuals will be motivated by personal norms to purchase equity offsets that provide benefits to low-income individuals. They posit that

[t]he individual-to-individual offset scheme may enable individuals who are aware of their disproportionately high consumption patterns to act in a way that is consistent with their concern for the socioeconomic inequality that enables them to have a disproportionate impact on the environment in the first place. Both the more conservative norm of altruism for the poor and the more liberal norm of concern about the injustice of socioeconomic differences may be activated by these offset schemes.

Id. at 72.

to industries that are participating in a national greenhouse gas cap-and-trade program.⁵⁸

While subsidies provide many benefits as a tool to regulate individual behavior, there are some important limits to their effectiveness. First, the government may lack funding to provide subsidies that are large enough or available broadly enough to spur desired environmentally beneficial activities.⁵⁹ Even if the funding is available, it may not be politically acceptable to devote sufficient resources to a subsidy program to effect the necessary changes in individual behavior.⁶⁰ In addition, as Professor Andrew Green suggests, subsidies could “negatively alter individuals’ environmental values and make it more difficult to address environmental harms.”⁶¹ Green argues that subsidies could signal to consumers “that care for the environment should be viewed as a price, rather than a responsibility.”⁶² He asserts that

if someone is willing to pay the price (forego a subsidy for driving a fuel-efficient car), they have no further responsibility. Further, such subsidies may “crowd out” responsible behavior where, for example, individuals who take an action to obtain satisfaction from helping the environment lose that satisfaction because they now receive payment for it.⁶³

4. *Information Disclosure Programs*

The tool that holds perhaps the most promise for influencing environmentally conscious individual behavior is information disclosure. Over the past few decades, information disclosure laws

⁵⁸ *Id.* at 73–75. While Professors Vandenberg and Ackerly suggest that only non-low-income individuals should be allowed to create offsets to participate in a national cap-and-trade program for greenhouse gases, Professor John Dernbach proposes a program where any individual who reduces their greenhouse gas emissions could create and market pollution rights in a national cap-and-trade program. Dernbach, *supra* note 54, at 154.

⁵⁹ Vandenberg & Ackerly, *supra* note 44, at 64. It is often necessary to couple taxes with subsidies to provide the funding for subsidies. For instance, Professor Dernbach proposes a small increase in the federal gasoline tax or a comparable energy or carbon tax to fund subsidies for activities by individuals to reduce greenhouse gas emissions. Dernbach, *supra* note 54, at 153. Political and public opposition to taxes, though, limits the extent to which they can function as a viable funding source for subsidies.

⁶⁰ Andrew Green, *You Can't Pay Them Enough: Subsidies, Environmental Law, and Social Norms*, 30 HARV. ENVTL. L. REV. 407, 436 (2006).

⁶¹ *Id.* at 408.

⁶² *Id.*

⁶³ *Id.*

and programs have played a central role in the second generation of environmental programs aimed at industrial sources.⁶⁴ At the federal level, Congress began the trend toward greater reliance on “right to know” laws with the enactment of the Emergency Planning and Community Right to Know Act of 1986.⁶⁵ Within a decade, Congress amended the Clean Air Act,⁶⁶ the Safe Drinking Water Act,⁶⁷ and the Clean Water Act⁶⁸ to incorporate similar right-to-know programs. States and nonprofit organizations have also acted aggressively to use information disclosure as a tool to promote environmental protection.⁶⁹ Those laws have resulted in the education of citizens

⁶⁴ See JOHNSON, ECONOMICS, EQUITY, AND THE ENVIRONMENT, *supra* note 38, at 187; Dennis D. Hirsch, *Second Generation Policy and the New Economy*, 29 CAP. U. L. REV. 1 (2001); Bradley C. Karkkainen, *Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm?*, 89 GEO. L.J. 257 (2001); Peter S. Menell, *Structuring a Market-Oriented Federal Eco-Information Policy*, 54 MD. L. REV. 1435 (1995); William F. Pedersen, *Regulation and Information Disclosure: Parallel Universes and Beyond*, 25 HARV. ENVTL. L. REV. 151 (2001); Richard B. Stewart, *A New Generation of Environmental Regulation*, 29 CAP. U. L. REV. 21 (2001).

⁶⁵ Pub. L. No. 99-499, 100 Stat. 1613, 1728–58 (1986) (codified as amended 42 U.S.C. §§ 11001–11050 (2006)). The law requires companies that produce, store, or use certain substances to file annual pollution discharge reports and requires the EPA to make those reports accessible to the public in an Internet database. 42 U.S.C. § 11023; *see also* EPA, Tri Explorer, <http://www.epa.gov/triexplorer/> (last visited May 5, 2009).

⁶⁶ The 1990 amendments to the Clean Air Act require facilities that produce, process, handle, or store hazardous substances covered by the act to prepare risk management plans that assess the potential effects of an accidental release of the substances. 42 U.S.C. § 7412(r)(1) (2006). Those plans are accessible to the public. *See* 40 C.F.R. § 68.165 (2007).

⁶⁷ In 1996, Congress amended the Safe Drinking Water Act to require drinking water suppliers to notify consumers within twenty-four hours of certain violations of the law and to send consumers an annual “consumer confidence report” that describes the source and quality of their drinking water, the health and environmental effects of contaminants in their drinking water, and the compliance history of the drinking water supplier. Safe Drinking Water Amendments of 1996, Pub. L. No. 104-182, sec. 114, § 300g–3(c), 110 Stat. 1613, 1636–41. The law also requires the EPA to establish a national database to track the occurrence of contaminants in drinking water. 42 U.S.C. § 300j–4(g) (2006); *see also* EPA, National Contamination Occurrence Database, <http://epa.gov/safewater/databases/ncod/index.html> (last visited May 5, 2009).

⁶⁸ In 2000, Congress enacted the Beaches Environmental Assessment and Coastal Health Act, which amended the Clean Water Act to require states to provide notice to the public when beaches are unsafe for swimming, surfing, or other recreational activities. Pub. L. No. 106-284, secs. 4, 7, §§ 1346, 1375a, 114 Stat. 870, 872–76 (2000).

⁶⁹ *E.g.*, CAL. HEALTH & SAFETY CODE §§ 25249.5–.13 (West 2006) (requiring labeling of products containing carcinogenic substances or reproductive toxicants); CAL. HEALTH & SAFETY CODE §§ 44300–44394 (West 2006) (outlining California’s Air Toxics “Hot Spots” Information and Assessment Act); MASS. ANN. LAWS ch. 21I, §§ 1–23 (LexisNexis 2007) (outlining Massachusetts Toxics Use Reduction Act); N.J. STAT. ANN. § 34:5A (West 2000 & Supp. 2008) (outlining New Jersey’s Worker and Community

regarding the pollution and environmental harms caused by industrial sources. Consequently, citizens have been empowered to act as consumers, lobbyists, and litigators to force or encourage companies to reduce their pollution and environmentally harmful activity.

While the information disclosure laws and programs that have been implemented in the past have focused on educating citizens about the pollution and environmentally harmful actions of industrial sources, Professor Michael Vandenberg and others believe that information disclosure laws could be successfully used to educate citizens about their own environmentally harmful actions and the impacts of those actions.⁷⁰ As outlined in Part III of this Article, that information would then activate norms in individuals that would persuade them to avoid those environmentally harmful actions.

Most of the information disclosure programs that have been adopted in the past have focused on disclosing “descriptive information,” such as raw data regarding volumes of pollutants used or released, notices regarding the presence of specific chemicals in products, or notices regarding violations of environmental standards.⁷¹ Professor Vandenberg suggests, though, that information disclosure programs aimed at individuals could go further and include “persuasive information,” characterization of information by the government designed to persuade individuals to change their behavior.⁷² He argues that government agencies could act as “norm entrepreneurs,” disclosing information that will activate norms in

Right to Know Act); Pollution in Your Community, Scorecard, <http://www.scorecard.org> (last visited May 5, 2009); Right-to-Know Network, <http://www.rtknet.org> (last visited May 5, 2009).

⁷⁰ Vandenberg, *supra* note 12, at 609–12; *see also* Dernbach, *supra* note 54, at 123–24.

⁷¹ Vandenberg, *supra* note 12, at 609–10.

⁷² *Id.* at 610–12. Persuasive information could range from simple brochures to elaborate public information campaigns. *Id.* Industries frequently objected when the EPA attempted to transform the descriptive information provided under the Emergency Planning and Community Right to Know Act, or other information disclosure laws, into persuasive information by integrating information about the risks created by releases of pollutants, violations of environmental standards, or the presence of chemicals in products. Johnson, *Economics v. Equity*, *supra* note 38, at 153–54 n.244 (describing the EPA’s efforts to integrate risk information into their databases and industry reaction to those efforts). However, industries objected in those cases because the disclosure of the information would likely motivate individuals to encourage the businesses to change their environmentally harmful practices. It is less likely that businesses will object to government efforts to persuade individuals to alter their environmentally harmful practices, except to the extent that those practices include purchasing environmentally harmful products created by those businesses.

individuals that persuade them to avoid environmentally harmful behaviors.⁷³ When used in conjunction with other tools, such as economic incentives or command-and-control limits, he suggests that information disclosure programs have successfully addressed recycling and improper disposal of motor oil in certain communities and could be adopted more widely to address a variety of environmental problems caused by individual behavior.⁷⁴

III

NORM ACTIVATION AND INFORMATION DISCLOSURE

Almost two decades ago in his groundbreaking work *Order Without Law*, Robert Ellickson demonstrated that individuals often cooperate with each other, even in the absence of formal legal requirements, because they are strongly influenced by norms.⁷⁵ Ellickson's work focused on "social norms," beliefs that others value an act and will informally reward it or sanction noncompliance.⁷⁶ According to Ellickson's social-norms theory, individuals' choices are strongly influenced by their belief that others will reward or sanction those choices.⁷⁷ Professor Cass Sunstein notes that social norms help explain why individuals sometimes act in ways that economists might not predict under the traditional rational actor model. As Sunstein points out:

[W]hen people deviate from economic predictions—when they appear not to maximize their "expected utility"—it is often because of norms.

. . . Individual rationality is a function of social norms. The costs and benefits of action, from the standpoint of individual agents, include the consequences of acting inconsistently with social norms.⁷⁸

⁷³ Vandenberg, *supra* note 12, at 610. Professor Vandenberg notes, though, that skeptics may argue that agencies are abdicating their appropriate role as regulators when they attempt to influence individual behavior through education rather than regulation. *Id.* at 612.

⁷⁴ *Id.* at 613–14.

⁷⁵ ELLICKSON, *supra* note 5, at 1–11.

⁷⁶ Vandenberg, *supra* note 6, at 1101–02; *see also* Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 914 (1996).

⁷⁷ ELLICKSON, *supra* note 5, at 123–36.

⁷⁸ Sunstein, *supra* note 76, at 909–10. Professors Vandenberg and Steinemann note, for instance, that "one might avoid a behavior with an immediate positive monetary payoff that violates a social norm out of concern that social sanctioning will lead to future

In recognition of the important role that social norms play in individual decision making, Professor Sunstein has suggested that “[a] regulatory policy that targets social norms may well be the cheapest and most effective strategy available to a government seeking to discourage risky behavior.”⁷⁹

While Ellickson and Sunstein have examined the influence of social norms on individuals’ choices, Professor Michael Vandenberg and others have turned their focus to “personal norms,” beliefs that one has a personal obligation to act even where others will not reward the act.⁸⁰ Vandenberg argues that personal norms affect individual behavior in much the same way as social norms. Under the traditional rational actor model, Vandenberg notes that personal norms “may influence the utility calculus. For example, one might weigh the psychic costs and benefits of some behaviors, such as the guilt of knowing that one acted immorally or the increased esteem of knowing that one acted appropriately or even altruistically.”⁸¹ Thus, because of personal norms, individuals may act in environmentally beneficial ways that might not otherwise seem to be in their own self-interest under the rational actor model.

Vandenberg argues that personal norms are more important than social norms in influencing individual behavior with regard to many of the environmental problems that are caused by individuals because, as noted above, many of those problems involve multiple individuals causing external harm, such as individuals contributing to global climate change by driving heavily polluting vehicles.⁸² In those contexts, which Vandenberg and others also refer to as “negative-payoff, loose-knit group situations,” the costs to individuals of changing the behavior exceed the benefits of changing the behavior. And, more importantly with regard to norms, individuals are either acting in isolation or are not acting in close enough proximity with others to be influenced significantly by social rewards or social

monetary costs or lost social opportunities.” Vandenberg & Steinemann, *supra* note 23, at 1706.

⁷⁹ Sunstein, *supra* note 76, at 908. Sunstein argued that governments could act as “norm entrepreneurs” to change social norms and thereby influence individual action. *Id.* at 909.

⁸⁰ See Dernbach, *supra* note 54, at 119–25; Vandenberg, *supra* note 6, at 1105.

⁸¹ Vandenberg & Steinemann, *supra* note 23, at 1706; *see also* Green, *supra* note 60, at 418–19 (describing the reasons why individuals often act in ways that would not be predicted by a narrow version of rational choice theory).

⁸² Vandenberg, *supra* note 6, at 1112–14.

sanctions.⁸³ Social norms are therefore less effective at influencing individual behavior in those cases than personal norms.

Norms theorists have asserted that individuals hold “concrete” (first order) norms and “abstract” (second order) norms.⁸⁴ The concrete norms are very specific and are linked to the more general abstract norms.⁸⁵ Thus, a carbon-neutrality norm, a belief that an individual should have a carbon footprint of zero, might be a concrete norm that is linked to a more general abstract norm in favor of protecting the environment.⁸⁶ Abstract norms that are widely held and stable can have the most influence on changing individual behavior.⁸⁷

In recognition of the important role that personal norms can play in influencing individual behavior, Professor Vandenberg has developed an environmental norm activation theory to explore ways in which government can encourage individuals to associate, or link, concrete norms in favor of environmentally sensitive actions to widely held abstract norms, and thus, encourage individuals to take those environmentally sensitive actions.⁸⁸ Vandenberg’s work builds on a values-belief-norms theory advanced in the social psychology literature by Paul Stern, which draws on the work of Shalom Schwartz.⁸⁹ In their work, Stern and his colleagues assert that when an individual believes that a value is threatened and that the individual can act to reduce that threat, a personal norm is activated that induces the individual to act to reduce that threat.⁹⁰

⁸³ *Id.* at 1106–12; *see also* Green, *supra* note 60, at 411, 422–23 (discussing externally conferred norms versus internalized norms). Professor Ann Carlson’s review of the success or failure of recycling programs also illustrated the limited role that social norms can play in negative payoff, loose-knit group situations, although she calls them “large-number, small-payoff collective action problems.” Ann E. Carlson, *Recycling Norms*, 89 CAL. L. REV. 1231, 1233–34 (2001). She concluded that “people are inclined to resolve collective action problems, but they only do so on a sustained basis if they have face-to-face contact with other potential cooperators.” *Id.* at 1245.

⁸⁴ Vandenberg, *supra* note 6, at 1114.

⁸⁵ *Id.* at 1114–15.

⁸⁶ Vandenberg & Steinemann, *supra* note 23, at 1678. Vandenberg and Steinemann describe their carbon-neutrality norm as “a perceived obligation to achieve zero net carbon emissions through a combination of reductions in carbon emissions and purchases of carbon offsets.” *Id.* at 1717.

⁸⁷ Vandenberg, *supra* note 6, at 1114–16.

⁸⁸ *Id.* at 1116–22.

⁸⁹ *Id.* at 1115–16; *see also* Paul C. Stern et al., *A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism*, 6 HUM. ECOLOGY REV. 81 (1999).

⁹⁰ Stern, *supra* note 89, at 83–85.

Vandenbergh describes the environmental norm activation process as follows:

To activate a concrete norm, an individual must hold two types of beliefs. First, she must be aware of the consequences of her act regarding the objects of an abstract norm (commonly referred to as "AC"). . . . Second, she must take personal responsibility for causing or preventing those consequences (commonly referred to as "AR").

. . . [C]hanges in beliefs concerning AC and AR relevant to the abstract norm will activate a concrete personal norm, producing a sense of duty to act consistently with the concrete norm and guilt if the norm is violated. The sense of duty to act may arise even in the absence of a perceived likelihood of external social sanctions.⁹¹

In other words, if an individual becomes aware that his or her actions can have a particular consequence with regard to an abstract norm (AC) and they feel that they can be responsible for causing or preventing those consequences (AR), it may activate a concrete norm to cause or prevent the consequences.

Norm activation can influence individuals to take civic action (for example, voting, lobbying, or organizing their community), to take direct action (for example, through carpooling or recycling), or to take action as a consumer (for example, by buying a hybrid vehicle or installing photovoltaic cells).⁹² Studies suggest though that it has the greatest impact on civic behavior and the least impact on consumer behavior.⁹³ However, norm activation will not guarantee changes in any of those types of individual behavior in all cases because other constraints, such as financial impediments or the influence of other personal or social norms, could prevent individuals from changing their behavior.⁹⁴ Assuming that norm activation can influence individuals to change their environmentally harmful behavior, some commentators have questioned whether such agency efforts impermissibly interfere with individual autonomy.⁹⁵

⁹¹ Vandenbergh, *supra* note 6, at 1120–21.

⁹² Vandenbergh & Steinemann, *supra* note 23, at 1696–97.

⁹³ *Id.*; see also Vandenbergh, *supra* note 6, at 1123.

⁹⁴ See Vandenbergh, *supra* note 6, at 1122–23. Consequently, Vandenbergh and others argue that norm activation often needs to be coupled with financial incentives or other programs.

⁹⁵ Professor Andrew Green suggests that "[u]sing information to attempt to 'activate' existing norms or even to 'de-bias' individuals does not seem particularly intrusive of autonomy. Purposeful norm or value management, however, seems more intrusive,

Professor Vandenberg suggests that there are at least three abstract personal norms to which concrete norms could be linked to influence individuals to avoid environmentally harmful behaviors. First, he argues that there is a widely held, but not universal, environmental-protection norm, a belief that it is important to protect the environment.⁹⁶ Second, he identifies a personal-responsibility norm, which focuses on a commitment to avoid taking actions that harm others.⁹⁷ While the norm is widespread, Vandenberg notes that it has not yet been very effective at influencing individuals to avoid environmentally harmful activities.⁹⁸ A third norm that Vandenberg identifies is a reciprocity norm, which holds that individuals will cooperate with each other more than the rational actor model would predict if they believe that others are cooperating or will cooperate.⁹⁹

In addition to the norms identified by Vandenberg, there are a few other abstract norms that might influence individuals to avoid environmentally harmful actions. First, abstract personal norms addressing security or autonomy are widely held and could influence individuals to change their behavior to the extent that environmental problems caused by individual behavior could be demonstrated to threaten security or autonomy.¹⁰⁰ More importantly, as discussed below, there are abstract norms addressing stewardship and social justice that are widely held¹⁰¹ and that are, through the works of churches and religious organizations, influencing individual behavior.

inducing individuals to act on internalized norms without thought." Green, *supra* note 60, at 439.

⁹⁶ *Id.* at 1107; Vandenberg & Steinemann, *supra* note 23, at 1712. Professor Andrew Green also suggests that there is a widely held environmental-protection norm but that it is tied closely to preventing harm to the environment that harms human health and welfare, and it may not influence individuals to avoid actions that harm the environment when those actions do not harm human health or welfare. Green, *supra* note 60, at 414–15.

⁹⁷ Vandenberg & Steinemann, *supra* note 23, at 1678, 1712.

⁹⁸ *Id.* at 1715–16. Just as Professor Green noted with regard to the environmental-protection norm, the personal-responsibility norm is limited in the extent to which it can influence individuals to change environmentally harmful behavior because it focuses on avoiding harm to others. It would not motivate individuals to change behaviors that harm the environment where the harm to the environment cannot be shown to harm other persons.

⁹⁹ Vandenberg, *supra* note 6, at 1107, 1117. Vandenberg notes, though, that once individuals believe that others are not reciprocating, they will stop cooperating. *Id.* at 1118.

¹⁰⁰ *Id.*; see also Dernbach, *supra* note 54, at 125.

¹⁰¹ Dernbach, *supra* note 54, at 125.

For Professor Vandenberg, information disclosure efforts by the government are the key to linking concrete personal norms in favor of environmentally sensitive individual behavior to any of these abstract personal norms. As noted above, Vandenberg argues that personal norms can be activated by changes in beliefs about the causes of environmental problems (AC) and changes in beliefs about the extent to which modifications in individual behavior can reduce those environmental problems (AR). Building on the success of information disclosure programs like the Toxic Release Inventory under the Emergency Planning and Community Right to Know Act, Vandenberg argues that the government could develop information disclosure programs that activate personal norms by demonstrating to individuals that the environmental problems caused by individual behavior are significant (AC) and that changes in individual behavior can ameliorate those problems (AR).¹⁰² Vandenberg recognizes that it would be very difficult to gather and disseminate information to individuals that identified to any specific individual the extent to which their conduct causes environmental problems and the extent to which changes in their behavior can reduce those problems.¹⁰³ However, he is confident that information disclosure programs can activate personal norms and influence individual behavior as long as the programs disclose information about the extent to which individuals, in the aggregate or by the mean individual, cause environmental problems and the extent to which changes in individual behavior can reduce those problems.¹⁰⁴

Thus, in order to activate a concrete personal norm to reduce the use and release of toxins by individuals, which is tied to abstract personal norms in favor of environmental protection and reciprocity, Vandenberg suggests that the government could develop an “individual toxic release inventory” (ITRI).¹⁰⁵ Instead of requiring

¹⁰² Vandenberg, *supra* note 6, at 1124.

¹⁰³ *Id.* at 1124, 1127.

¹⁰⁴ *Id.* at 1124.

¹⁰⁵ *Id.* at 1106–07, 1124. The reciprocity norm is activated by information that demonstrates that each individual is responsible for a meaningful share of environmental problems as compared to other individuals and industrial sources and that changes in the individual’s actions, in addition to changes by other individuals and industrial sources, are necessary to reduce or eliminate the environmental problem. *Id.* at 1125. Vandenberg suggests that individuals greatly underestimate the extent to which they contribute to environmental problems relative to industrial sources and the extent to which changes in individual behavior can reduce or eliminate those problems. *Id.* at 1131–32.

individuals to file reports regarding their releases of toxic pollutants, the government would conduct surveys to calculate estimates of the use and release of toxic pollutants by individuals in the aggregate and by the mean individual.¹⁰⁶ Theoretically, when the government disclosed that information to individuals and they compared that information to information regarding releases by industrial sources, those individuals would conclude that their personal use and release of toxics is a significant environmental problem and that they can substantially reduce that problem by eliminating or reducing their activities that release toxins.¹⁰⁷ The information disclosure would, therefore, activate a concrete personal norm tied to the environmental-protection norm and encourage individuals to reduce or eliminate their activities that release toxins or to support government efforts to invest in financial incentives or infrastructure to address the problems caused by individual use and release of toxins.¹⁰⁸

Along the same lines, Professor Vandenberg suggests that the government could develop an “individual carbon release inventory” (ICRI) to activate a carbon-neutral norm tied to the abstract personal-responsibility norm.¹⁰⁹ As with the ITRI proposal, the government would conduct surveys to determine aggregate and mean individual releases of greenhouse gases and disclose that information to the public.¹¹⁰ Theoretically, when individuals compare that information to the releases of greenhouse gases by industrial sources, they will conclude that individual activities that cause releases of greenhouse gases are a major cause of global climate change and that changes in individual behavior can greatly reduce emissions of greenhouse gases.¹¹¹ The information disclosure would therefore activate a concrete personal norm tied to the personal-responsibility norm and encourage individuals to avoid or reduce specific activities that cause releases of greenhouse gases.¹¹²

¹⁰⁶ *Id.* at 1148–51.

¹⁰⁷ *Id.* at 1151–53.

¹⁰⁸ *Id.* at 1108.

¹⁰⁹ Vandenberg & Steinemann, *supra* note 23, at 1728.

¹¹⁰ *Id.* at 1730–31.

¹¹¹ *Id.*

¹¹² In addition to his ITRI and ICRI proposals, Vandenberg discusses several programs where information disclosure has been successfully used to activate norms and to encourage individuals to recycle, reduce their personal car use, and take various actions to reduce greenhouse gas emissions. *Id.* at 1710–11.

Due to scientific uncertainty, it is often difficult to identify all of the types and the precise extent of environmental and health problems caused by specific actions by individuals. However, information disclosure programs that identify and quantify the effects of specific actions by individuals and identify alternatives that individuals can take to avoid those actions are most likely to activate personal norms and influence behavior change.¹¹³

Not all commentators agree that information disclosure campaigns and norm activation are the best approach to influence change in the environmentally harmful behavior of individuals. In her review of recycling programs, for instance, Professor Ann Carlson concluded that government programs that provided infrastructure to make recycling more convenient were much more successful at increasing recycling rates than information campaigns.¹¹⁴ Similarly, several studies have concluded that eco-labeling programs have little effect on consumers' decisions regarding whether to purchase "green" products.¹¹⁵ Professor Vandenberg argues, though, that the limited success of those information disclosure programs demonstrates the importance of designing the program carefully to provide information that will activate norms such as environmental protection, personal responsibility, and reciprocity.¹¹⁶ He also acknowledges the importance of developing infrastructure to facilitate behavior change by individuals and stresses the importance of utilizing information disclosure programs in conjunction with other tools, such as subsidies or command-and-control limits, to overcome constraints to the

¹¹³ Dernbach, *supra* note 54, at 144, 147–50 (proposing that greenhouse gas legislation should include requirements for detailed information disclosure regarding the health and environmental effects of climate change and ways to reduce energy use); *see also* Vandenberg & Steinemann, *supra* note 23, at 1731–33. Vandenberg notes that disclosure of additional information facilitates activation of additional norms. For instance, while disclosure of information regarding the extent to which individual activities cause environmental problems might activate an environmental-protection norm, the information might not activate a personal-responsibility norm. However, if the government also discloses information to demonstrate the extent to which those individual activities harm the health and welfare of other persons, the information disclosure could activate a personal-responsibility norm. *Id.* at 1732–33.

¹¹⁴ Carlson, *supra* note 83, at 1236, 1295–96.

¹¹⁵ *E.g.*, EPA, STATUS REPORT ON THE USE OF ENVIRONMENTAL LABELS WORLDWIDE 30–31 (1993); *see also* James Salzman, *Informing the Green Consumer: The Debate Over the Use and Abuse of Environmental Labels*, 1 J. INDUS. ECOLOGY 11, 13 (1997).

¹¹⁶ Vandenberg, *supra* note 6, at 1133, 1137–38.

behavior change that is motivated by norm activation.¹¹⁷ Norm activation, he suggests, can provide the political support for those other tools.¹¹⁸

Although Professor Vandenberg's information disclosure proposals seem well reasoned, he acknowledges that there are some significant roadblocks to widespread adoption of information disclosure as a tool to influence individual behavior changes to address environmental problems. First and foremost, while agencies are staffed by scientists, economists, and other employees with expertise in carrying out the agencies' traditional mission of developing and implementing regulations through informal rulemaking, most agencies do not have the expertise to design and implement information disclosure campaigns that are aimed at activating personal norms to effect changes in individual behavior.¹¹⁹ As noted above, in order to be successful, information disclosure campaigns must provide the type of information to individuals that will activate personal norms—such as those in favor of environmental protection, personal responsibility, and reciprocity—and thereby encourage individuals to change their behavior. In order to effectively design such programs, agencies need to employ and utilize social scientists who are trained to design, implement, and evaluate programs that use information to change individual behavior.¹²⁰ As Vandenberg acknowledges,

[S]cholars will need to improve models designed to explain and predict the influences of legal, economic, social, and psychological incentives on individuals. . . . [A]gencies may need to conduct social psychological analyses of agency regulatory efforts directed at private individuals at the same level of sophistication as is now achieved for economic analyses of command and control regulations directed at industrial sources.¹²¹

Agency efforts to influence individual behavior through information disclosure may also be hampered by the Information Quality Act (IQA).¹²² The IQA was enacted without congressional

¹¹⁷ *Id.* at 1108.

¹¹⁸ *Id.* at 1136.

¹¹⁹ Vandenberg & Steinemann, *supra* note 23, at 1737–38.

¹²⁰ *Id.*

¹²¹ Vandenberg, *supra* note 12, at 522.

¹²² 44 U.S.C. § 3516 (2006).

debate as a rider to appropriations legislation in 2000.¹²³ It imposes several limits on “dissemination” of information by agencies. The IQA gives the Office of Management and Budget (OMB) primary authority for implementing the law and requires OMB to issue guidelines to administer the law.¹²⁴ The OMB’s guidelines apply to information that agencies distribute, regardless of whether the information is prepared by the agencies or by outside parties, and to information distributed by third parties when agencies have directed the third parties to distribute it or when the agencies have authority to review and approve the information distributed by the third parties.¹²⁵

Substantively, the law requires the OMB to issue guidelines to ensure and maximize the “quality, objectivity, utility, and integrity of information” disseminated by agencies, which serve as the basis for guidelines imposed by agencies on their information dissemination.¹²⁶ According to the OMB guidelines, all information disseminated by agencies must be presented in a clear and unbiased manner and in context with other information if necessary to ensure “an accurate, clear, complete, and unbiased presentation” of information.¹²⁷ Information about environmental, health, or safety risks must comply with strict limits on dissemination of risk information imposed by the Safe Drinking Water Act Amendments of 1996.¹²⁸ That law requires data to be based on “the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices.”¹²⁹ That standard is significantly more stringent than many of the other provisions of environmental laws, which

¹²³ Information Quality Act, Pub. L. No. 106-554, § 515, 114 Stat. 2763, 2763A-153 to -154 (2000) (codified as amended 44 U.S.C. § 3516).

¹²⁴ *Id.* § 515(a).

¹²⁵ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452, 8460 (Feb. 22, 2002). OMB’s guidelines define dissemination to include agency-initiated and agency-sponsored information. Agency-initiated information includes information that the agency prepared as well as information prepared by an outside party that the agency distributes “in a manner that reasonably suggests that the agency agrees with the information.” *Id.* at 8454. Agency-sponsored information includes “situations where an agency has directed a third-party to disseminate information, or where the agency has the authority to review and approve the information before release.” *Id.*

¹²⁶ Information Quality Act, § 515(a)–(b), 114 Stat. at 2763A-153 to -154.

¹²⁷ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. at 8459.

¹²⁸ *Id.* at 8460.

¹²⁹ 42 U.S.C. § 300g-1(b)(3)(A)(i) (2006).

merely require agencies to set environmental health and safety standards based on the “best evidence available” or the “latest scientific knowledge.”¹³⁰

The OMB’s peer review guidelines impose additional limits on agencies’ information dissemination, prohibiting dissemination of various types of information unless they are reviewed pursuant to a specific peer review process outlined by the OMB.¹³¹ The limits imposed by the IQA and the OMB’s peer review guidelines can be manipulated by OMB and others to significantly limit (censor) the substance of information disclosed by agencies.¹³² Thus, they can significantly limit efforts of agencies to engage in persuasive information disclosure campaigns.¹³³ The requirement that information be presented in a clear and unbiased manner and in context could even be abused to limit agency efforts to provide basic descriptive data regarding the extent to which individual activities cause environmental problems and the relative contribution of individual sources to environmental problems compared to industrial sources.

The law can be manipulated because it requires agencies to provide administrative processes for persons to challenge the accuracy of information disseminated by agencies (corrections requests) and to appeal the agencies’ decision to disseminate the information.¹³⁴ In addition, the law requires agencies to submit periodic reports to the OMB regarding corrections requests. The agencies’ responses to corrections requests¹³⁵ and OMB’s guidelines require agencies to establish procedures for review of information before it is disseminated.¹³⁶ It frequently takes agencies several months to respond to corrections requests, while administrative appeals often

¹³⁰ See, e.g., Occupational Safety and Health Act, 29 U.S.C. § 655(b)(5) (2006); Clean Water Act § 304, 33 U.S.C. § 1314(a)(1) (2006); Clean Air Act, 42 U.S.C. § 7408(a)(2) (2006).

¹³¹ Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. 2664-02 (Jan. 14, 2005).

¹³² See Stephen M. Johnson, *Junking the “Junk Science” Law: Reforming the Information Quality Act*, 58 ADMIN. L. REV. 37, 78–80 (2006).

¹³³ See *id.*

¹³⁴ Information Quality Act, Pub. L. No. 106-554, § 515(b), 114 Stat 2763, 2763A-154 (2000) (codified as amended 44 U.S.C. § 3516 (2006)).

¹³⁵ *Id.*

¹³⁶ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452, 8459 (Feb. 22, 2002).

take nine months or longer to resolve.¹³⁷ Most of the corrections requests that have been filed under the law since it was enacted have been directed at the EPA.¹³⁸ Although it is unlikely that agencies can be sued in court for violating the IQA,¹³⁹ the administrative processes and OMB review impose significant limits on agencies' information disclosure efforts. The additional limits and procedures imposed by the law ossify information disclosure efforts and, consequently, discourage such efforts.¹⁴⁰ Critics assert that this was precisely the goal of the law.¹⁴¹

IV CHURCHES, RELIGIOUS ORGANIZATIONS, AND NORM ACTIVATION IN FAVOR OF STEWARDSHIP AND SOCIAL JUSTICE

While governments could use information disclosure campaigns to activate personal norms to encourage individuals to refrain from environmentally harmful behaviors, several churches and religious organizations have already taken the lead in that area. Just as churches and religious organizations played a pivotal role in mobilizing change in the civil rights movement and the environmental justice movement,¹⁴² churches and religious organizations have been

¹³⁷ Johnson, *supra* note 132, at 65–66.

¹³⁸ *Id.*

¹³⁹ See *In re* Mo. River Litig., 363 F. Supp. 2d 1145, 1174–75 (D. Minn. 2004) (concluding that the “language of the IQA indicates that the Court may not review an agency’s decision to deny a party’s information quality complaint” and finding that a “guiding principle” behind the APA was to prevent judicial interference with agency decisions); *Salt Inst. v. Thompson*, 345 F. Supp. 2d 589, 601–03 (E.D. Va. 2004).

¹⁴⁰ Johnson, *supra* note 132, at 66–67.

¹⁴¹ *Id.* at 67.

¹⁴² Lisa A. Binder, *Religion, Race, and Rights: A Rhetorical Overview of Environmental Justice Disputes*, 6 WIS. ENVTL. L.J. 1, 13 (1999) (exploring the role that religion and religious organizations play in hazardous facility siting disputes and the similar role that religion and religious organizations played in the civil rights movement). Binder explains that

[t]he rhetoric used by people debating the environmental justice issues implicated by the siting of facilities in their communities thus reveals how people think about environmental justice, not as an abstract theory but as a concept that may have real effects on their everyday lives and livelihoods.

. . . Siting opponents often view the issue in profoundly moral terms and adopt a passionate rhetoric rich with references to religion, racism, and substantive and procedural rights.

. . . .

at the forefront in norm activation to encourage individuals to refrain from environmentally harmful behavior. As discussed below, statements and actions by churches and religious organizations have likely been a major reason for the shift in the public attitude toward global climate change and the increased willingness of individuals to take actions to reduce activities that emit greenhouse gases. They could play an equally important role in encouraging individuals to avoid actions that are contributing to many of the other remaining environmental problems discussed in this Article, including emissions of air toxins and nonpoint source pollution. As Professors Daryl Fisher-Ogden and Shelly Ross Saxer recently suggested, religious values and norms can also be instrumental in building public support for command-and-control programs or economic-based initiatives, including those that target environmental problems caused by individuals.¹⁴³

Norm activation campaigns by churches and religious organizations have some distinct advantages over government-sponsored information campaigns that attempt to activate norms. First, unlike agencies, churches and religious organizations often are quite adept at managing and utilizing information to activate personal norms and influence individual behavior. They already have many of the experts that are necessary to design, implement, and evaluate effective information campaigns. Second, it is less likely that critics will challenge efforts of churches and religious organizations, rather than government agencies, to activate personal norms and influence individual behavior as violating personal autonomy. Third, the independent information campaigns of churches and religious

. . . Such rhetoric is prevalent throughout the movement, from individual debates at siting hearings, to media interviews of facility opponents, to the names of grass-roots environmental justice groups such as Jesus People Against Pollution.

Id. at 3, 15.

Since the environmental justice movement derives from a marriage of the civil rights and environmental movements, it is not surprising that religion has played a pivotal role in both the environmental justice and civil rights movements. For a brief exploration of the roots of the environmental justice movement, see Clifford Rechtschaffen, *Advancing Environmental Justice Norms*, 37 U.C. DAVIS L. REV. 95, 96 (2003).

¹⁴³ Daryl Fisher-Ogden & Shelly Ross Saxer, *World Religions and Clean Water Laws*, 17 DUKE ENVTL. L. & POL'Y F. 63 (2006). Fisher-Ogden and Saxer argue that "the environmental movement today continues to draw much of its strength from a religious inspiration. . . . Perhaps if our environmental laws could be designed and implemented with a greater acceptance of religious values in the public debate, they might be less susceptible to constant challenge." *Id.* at 66, 71 (internal quotation omitted).

organizations fall completely outside of the realm of the Information Quality Act.¹⁴⁴

While governments should continue to explore and implement information disclosure campaigns aimed at activating norms, they should recognize the vital role that churches and religious organizations play in influencing individual behavior and try to complement those activities. In addition, governments should explore partnerships with churches and religious organizations to activate norms to change environmentally harmful behavior by individuals.

While Professor Vandenberg has examined the manner in which government information disclosure campaigns might be used to activate norms in favor of personal responsibility, protection of the environment, and reciprocity, churches and religious organizations have been issuing statements and taking actions that activate norms in favor of stewardship and social justice.¹⁴⁵ These norms are grounded in teachings of their faiths and, at least within their communities, are presumably widespread and deeply held. With regard to stewardship, statements and actions of churches and religious organizations stress to individuals that their actions can cause harm to the environment, over which they have an obligation of stewardship (AC),¹⁴⁶ and that they can reduce those harms by avoiding actions that cause harm (AR). Similarly, with regard to social justice, statements of churches and religious organizations alert individuals that their actions, which harm the environment and negatively impact health, can disparately impact the poor (AC) and that they can reduce those harms to the poor by avoiding actions that harm the environment (AR). To the extent that environmental problems caused significantly by individual action disparately impact the poor, as is the case with global

¹⁴⁴ See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452, 8454 (Feb. 22, 2002) (explaining that since agencies neither “initiate” the information disclosure by churches or religious organizations nor “sponsor” it, the information provided by churches and religious organizations to their members is not “disseminated” by agencies, so it is not governed by the Information Quality Act).

¹⁴⁵ See Shalom H. Schwartz, *Are There Universal Aspects in the Structure and Contents of Human Values?*, 50 J. SOC. ISSUES 19, 27–31 (2004) (stating that social justice is one of the fifty-six “universal values” identified by psychologist Shalom Schwartz based on surveys of more than twenty-five thousand people in forty-four countries). Although Schwartz did not identify “stewardship” as a universal value, it seems closely related to two other values that he identified: unity with nature and protecting the environment. See *id.*

¹⁴⁶ See Vandenberg, *supra* note 6, at 1120–22.

warming,¹⁴⁷ words and deeds of churches and religious organizations can activate both the stewardship and social justice norms. Even in cases where individual activities cause harm to natural resources and the environment without clearly harming human health, words and deeds of churches and religious organizations can activate the stewardship norm.

A. Statements by Churches and Religious Organizations

Over the past few years, several major churches and religious organizations have made strong statements regarding greenhouse gas emissions and global warming or other environmental problems. These statements have activated norms of stewardship and social justice within their communities and have significantly affected individual perceptions of environmental problems, motivating members of their communities to take actions to reduce greenhouse gas emissions and to support government initiatives to address climate change.

For instance, in 2002, Pope John Paul II reminded Catholics of their obligations to be stewards of the earth, reminded them that environmental problems disparately impact the poor, and called upon Catholics to reduce over-consumption and to adopt a code of environmental ethics.¹⁴⁸ He stated that

[i]f we examine carefully the social and environmental crisis which the world community is facing, we must conclude that we are still betraying the mandate God has given us: to be stewards called to collaborate with God in watching over creation in holiness and wisdom.

. . . .

. . . A solution at the economic and technological level can be found only if we undergo . . . an inner change of heart, which can lead to a change in lifestyle and of unsustainable patterns of consumption and production.¹⁴⁹

As part of a code of environmental ethics, the Pope urged Catholics to

think of the world's children when we reflect on and evaluate our options for action [and]

¹⁴⁷ Vandenberg & Ackerly, *supra* note 44, at 60–64.

¹⁴⁸ Pope John Paul II, *Common Declaration of Environmental Ethics*, L'OSSERVATORE ROMANO, June 10, 2002, available at http://www.vatican.va/holy_father/john_paul_ii/speeches/2002/june/documents/hf_jp-ii_spe_20020610_venice-declaration_en.html.

¹⁴⁹ *Id.*

....
. . . [t]o acknowledge the diversity of situations and responsibilities in the work for a better world environment. We do not expect every person and every institution to assume the same burden. Everyone has a part to play, but for the demands of justice and charity to be respected the most affluent societies must carry the greater burden, and from them is demanded a sacrifice greater than can be offered by the poor.¹⁵⁰

The Vatican made a stronger statement on the environment this past year when, in an interview with the official Vatican newspaper, a senior Vatican official identified “destroying the environment” as a sin.¹⁵¹ In the interview, Monsignor Ginafranco Girotti stated that “[i]f yesterday sin had a rather individualistic dimension, today it has an impact and resonance that is above all social, because of the great phenomenon of globalization In effect, attention to sin is a more urgent task today, precisely because its consequences are more abundant and more destructive.”¹⁵²

The United States Conference of Catholic Bishops has also made strong statements regarding individual responsibility for global warming and environmental problems over the past two decades. In a 1991 statement, the Bishops stressed that

in most countries today, . . . it is the poor and the powerless who most directly bear the burden of current environmental carelessness

....

....

. . . We are not gods, but stewards of the earth.

....

. . . We ask the *members of our Church* to examine our lifestyles, behaviors and policies—individually and institutionally—to see how we contribute to the destruction or neglect of the environment and how we might assist in its protection and restoration. We also urge *celebrants and liturgy committees* to incorporate themes into prayer and worship that emphasize our responsibility to protect all of God’s creation

....

¹⁵⁰ *Id.*

¹⁵¹ Tracy Wilkinson, *Thou Shalt Honor Thy Mother Earth: Vatican Tells Catholics that Pollution Is a Modern-Day Sin Requiring Urgent Attention*, L.A. TIMES, Mar. 14, 2008, at A7.

¹⁵² *Id.*

. . . As individuals, . . . we need a change of heart to save the planet for our children and generations yet unborn.¹⁵³

A decade later, the Bishops stressed similar themes of stewardship, social justice and the need for individual action in a statement on global warming, noting that

global climate change . . . is about our human stewardship of God's creation and our responsibility to those who come after us.

. . . .

. . . Human behavior and activity are . . . contributing to a warming of the earth's climate. Although debate continues about the extent and impact of this warming, it could be quite serious. Consequently, it seems prudent not only to continue to research and monitor this phenomenon, but to take steps now to mitigate possible negative effects in the future.

. . . .

. . . Inaction and inadequate or misguided responses to climate change will likely place even greater burdens on already desperately poor peoples. Action to mitigate global climate change must be built upon a foundation of social and economic justice that does not put the poor at greater risk

. . . .

True stewardship requires changes in human actions Our religious tradition has always urged restraint and moderation in the use of material goods, so we must not allow our desire to possess more material things to overtake our concern for the basic needs of people and the environment.

. . . .

As an act of solidarity and in the interest of the common good, the United States should lead the developed nations in contributing to the sustainable economic development of poorer nations and to help build their capacity to ease climate change. Since our country's involvement is key to any resolution of these concerns, we call on our people and government to recognize the seriousness of the global warming threat and to develop effective policies that will diminish the possible consequences of global climate change.¹⁵⁴

¹⁵³ U.S. CONFERENCE OF CATHOLIC BISHOPS, RENEWING THE EARTH: AN INVITATION TO REFLECTION AND ACTION ON ENVIRONMENT IN LIGHT OF CATHOLIC SOCIAL TEACHING 2, 3, 13, 14 (1992), *available at* http://www.usccb.org/sdwp/ejp/bishops_statement.shtml.

¹⁵⁴ U.S. CONFERENCE OF CATHOLIC BISHOPS, GLOBAL CLIMATE CHANGE: A PLEA FOR DIALOGUE, PRUDENCE, AND THE COMMON GOOD 1-3, 8, 14 (2001) (citation omitted), *available at* <http://www.usccb.org/sdwp/international/globalclimate.shtml>. For additional discussion regarding Catholic theology and social teaching on the environment,

Many other churches and religious organizations have also made strong statements regarding the environment and global climate change over the past decade. Evangelical Christians have become a strong voice in the environmental movement over the past few years. In 2004, the National Association of Evangelicals, an organization that includes more than sixty denominations,¹⁵⁵ adopted a historic document outlining the tie between the values of stewardship and social justice and protection of the environment and calling on Evangelicals to take a variety of actions to protect the environment.¹⁵⁶ In *For the Health of the Nation: An Evangelical Call to Civic Responsibility*, the organization announced that

[w]e are not the owners of creation, but its stewards This implies the principle of sustainability: our uses of the Earth must be designed to conserve and renew the Earth rather than to deplete or destroy it.¹⁵⁷

The organization further stated that

Jesus summed up God's law by commanding us to love God with all that we are and to love our neighbors as ourselves.

God identifies with the poor, and says that those who "are kind to the poor lend to the Lord."

. . . .

. . . Because natural systems are extremely complex, human actions can have unexpected side effects. We must therefore approach our stewardship of creation with humility and caution.

. . . We urge Christians to shape their personal lives in creation-friendly ways: practicing effective recycling, conserving resources, and experiencing the joy of contact with nature. We urge government to encourage fuel efficiency, reduce pollution, encourage sustainable use of natural resources, and provide for the proper care of wildlife and their natural habitats.

. . . .

see Robert W. Lannan, *Catholic Tradition, and the New Catholic Theology and Social Teaching on the Environment*, 39 CATH. LAW. 353 (2000).

¹⁵⁵ National Association of Evangelicals, Current NAE Members, <http://www.nae.net/index.cfm?FUSEACTION=nae.members> (last visited May 5, 2009).

¹⁵⁶ NAT'L ASSOC. OF EVANGELICALS, FOR THE HEALTH OF THE NATION: AN EVANGELICAL CALL TO CIVIC RESPONSIBILITY (2004) (citation omitted), http://www.nae.net/images/civic_responsibility2.pdf.

¹⁵⁷ *Id.* at 11.

We call on all Christians to become informed and then to vote, as well as to regularly communicate biblical values to their government representatives.¹⁵⁸

A decade earlier, the leaders of several major Jewish organizations issued *A Jewish Response to the Environmental Crisis*, which also focused on the tie between individual actions and stewardship and stressed the need for individual action to protect the environment.¹⁵⁹ The statement provided that

[w]e, American Jews of every denomination, . . . are united in deep concern that the quality of human life and the earth we inhabit are in danger, afflicted by rapidly increasing ecological threats. Among the most pressing of these threats are: depletion of the ozone layer, global warming, massive deforestation, the extinction of species and loss of biodiversity, poisonous deposits of toxic chemicals and nuclear wastes, and exponential population growth. We here affirm our responsibility to address this planetary crisis in our personal and communal lives.

For Jews, the environmental crisis is a religious challenge. As heirs to a tradition of stewardship that goes back to Genesis and that teaches us to be partners in the ongoing work of Creation, we cannot accept the escalating destruction of our environment and its effect on human health and livelihood. Where we are despoiling our air, land, and water, it is our sacred duty as Jews to acknowledge our God-given responsibility and take action to alleviate environmental degradation and the pain and suffering that it causes.

. . . We pledge to carry to our homes, communities, congregations, and workplaces the urgent message that air, land, water and living creatures are endangered. We will draw our people's attention to the timeless texts that speak to us of God's gifts and expectations. This consultation represents a major step towards:

- mobilizing our community towards energy efficiency, the reduction and recycling of wastes, and other practices which promote environmental sustainability;
- initiating environmental education programs in settings where Jews gather;

¹⁵⁸ *Id.* at 8, 12.

¹⁵⁹ Coalition on the Environment and Jewish Life, *A Jewish Response to the Environmental Crisis*, <http://www.coejl.org/about/founding.php> (last visited May 5, 2009) [hereinafter COEJL, *A Jewish Response*]. The Coalition on the Environment and Jewish Life was established in 1993 by the Jewish Council for Public Affairs, the Religious Action Center of Reform Judaism, and the Jewish Theological Seminary of America. Coalition on the Environment and Jewish Life, *About COEJL*, <http://www.coejl.org/~coejlor/about> (last visited May 5, 2009).

- to learn, particularly among young people;
- pressing for appropriate environmental legislation at every level of government and in international forums;
- convening business and labor leaders to explore specific opportunities for exercising environmental leadership;
- working closely in these endeavors with scientists, educators, representatives of environmental groups, Israelis, and leaders from other religious communities.¹⁶⁰

The National Council of Churches of Christ has also recently issued a statement of principles on global warming that has as major themes stewardship, social justice, and a call to individual action.¹⁶¹ The principles provide:

Strive for justice and acknowledge that global warming's societal impact already falls, and will continue to fall, most heavily on the people around the world who are least able to mitigate the impacts—poor and vulnerable populations in the U.S. and in developing countries. As a leading industrialized nation that has disproportionately contributed to greenhouse gas emissions, it is incumbent upon us to rectify this injustice.

....

... Heed the call to be faithful stewards and caretakers of God's creation by limiting the future impacts of global warming on God's Earth.

....

... In a world of finite resources, for all to have enough requires that those among us who have more than enough will need to address our patterns of acquisition and consumption. We can not achieve significant reductions in global warming emissions unless we make changes in our lifestyles and particularly in our energy consumption. To support the goal of sufficiency, legislation must:

1. Encourage energy conservation in our homes, our communities, and our places of worship.
2. Encourage energy conservation in national transportation and distribution systems and commercial enterprises.¹⁶²

In addition to the statements outlined above, the teachings of Buddhism, Hinduism, and Islam have not only been influential in

¹⁶⁰ COEJL, A Jewish Response, *supra* note 159.

¹⁶¹ National Council of Churches of Christ, Faith Principles on Global Warming, <http://www.ncccojustice.org/climateprinciples.html> (last visited May 5, 2009).

¹⁶² *Id.*

norm activation within those faith communities but have served as the basis for environmental laws in other countries.¹⁶³

While statements of churches or religious organizations can activate personal norms that encourage individuals to take action to avoid harm to the environment, two recent resolutions adopted by the Southern Baptist Convention expressed skepticism over the extent to which individuals are responsible for global warming and environmental harms and downplayed the impact that changes in individual behavior could make regarding environmental problems.

In June 2007, the Convention adopted a resolution on global warming that discussed principles of stewardship and social justice but stressed that “the scientific community [was] divided regarding the extent to which humans are responsible for recent global warming . . . [and m]any scientists reject the idea of catastrophic human-induced global warming.”¹⁶⁴ The Resolution also noted that

some estimate that compliance with Kyoto would cost the global economy from about \$200 billion to \$1 trillion each year without a policy that would allow for global carbon emissions trading and \$75 billion each year even with a worldwide trading scheme.

....

. . . Businesses and municipalities will likely pass along the cost of emissions reductions programs to consumers, driving up the cost of goods and services.¹⁶⁵

Consequently, while the resolution ultimately “reaffirmed” a responsibility to care for the earth by taking individual and collective efforts to reduce pollution, decrease waste, and improve the environment, it also stressed the need “to proceed cautiously in the human-induced global warming debate in light of conflicting scientific research” and urged Congress and the President “to only support cost-effective measures to reduce CO₂ and other greenhouse gas emissions and to reject government-mandated reductions in greenhouse gas emissions.”¹⁶⁶

¹⁶³ See Fisher-Ogden & Saxer, *supra* note 143, at 84–96.

¹⁶⁴ Southern Baptist Convention, Resolution on Global Warming, June 2007, <http://www.sbc.net/resolutions/amResolution.asp?ID=1171> (last visited May 5, 2009).

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* There is, however, a sharp division within the evangelical community regarding climate change. See EVANGELICAL CLIMATE INITIATIVE, CLIMATE CHANGE: AN EVANGELICAL CALL TO ACTION (2006), available at <http://pub.christiansandclimate.org/pub/statement-booklet.pdf>. The authors of that report concluded that “Christian moral convictions demand our response to the climate change problem.” *Id.* at 7. Further, the

Similarly, a 2006 resolution on environmentalism and evangelicals provided that “the scientific community is divided on the effects of mankind’s impact on the environment . . . [and s]ome environmental activists are seeking to advance a political agenda based on disputed claims, which not only impacts public policy and in turn our economic well-being, but also seeks to indoctrinate the public.”¹⁶⁷ Accordingly, while the resolution ultimately urged a commitment to stewardship, it did so in equivocal terms. Specifically, the Resolution provided that “we urge all Southern Baptists toward the conservation and preservation of our natural resources for future generations *while respecting ownership and property rights*; . . . [and] we encourage public policy and private enterprise efforts that seek to improve the environment *based on sound scientific and technological research*.”¹⁶⁸

B. Activities by Churches and Religious Organizations

In addition to making statements, often based on religious teachings, that tie individual responsibility to avoid harming the environment to stewardship and social justice norms, churches and religious organizations have been taking concrete actions that demonstrate the link between individual actions and harm to the environment. In many cases, the religious organizations are activating norms of stewardship and social justice by providing educational materials and templates to local faith communities in order to identify the tie between individual actions and harm to the environment. In addition, they are providing educational materials and resources to local faith communities that describe alternatives to environmentally harmful activities and that identify ways to support government efforts to reduce environmental harms. In some cases, they are also leading by example, taking actions that reduce global warming or other environmental harm.

For instance, the United States Conference of Catholic Bishops has launched the Climate Change Justice and Health Initiative to educate Catholics and involve them in taking action to reduce greenhouse gas

report stated that the “[t]he need to act now is urgent. Governments, businesses, churches, and individuals all have a role to play in addressing climate change—starting now.” *Id.* at 8.

¹⁶⁷ Southern Baptist Convention, Resolution on Global Warming, June 2006, <http://www.sbc.net/resolutions/amResolution.asp?ID=1159> (last visited May 5, 2009).

¹⁶⁸ *Id.* (emphasis added).

emissions.¹⁶⁹ A website for the Initiative identifies the ties between church doctrine and individual responsibility for global climate change and lists actions that individuals can take to reduce greenhouse gas emissions or to support or encourage government efforts to reduce emissions.¹⁷⁰ It also identifies conferences that are being organized by local parishes or dioceses regarding global climate change and programs that local parishes and dioceses are implementing to reduce greenhouse gas emissions, such as reducing energy use.¹⁷¹ The website also includes “prayer resources” for local parishes, including sermons and special prayers regarding global climate change and climate change quotes and clip art for weekly bulletins that are distributed to parishioners.¹⁷²

The Conference of Catholic Bishops has also launched the Children’s Health and the Environment Initiative to educate Catholics and involve them in taking action to reduce use of products that can harm children’s health.¹⁷³ Like the Climate Change website, the website for the Children’s Health Initiative includes (1) information regarding actions that individuals can take to reduce or avoid using products that harm children’s health or to support or encourage government efforts to protect children’s health; (2) information regarding conferences, programs, and initiatives that local parishes and dioceses are sponsoring to protect children’s health; and (3) prayer resources.¹⁷⁴ On a more symbolic level, the Vatican recently

¹⁶⁹ U.S. Conference of Catholic Bishops, Climate Change Justice and Health Initiative, <http://www.usccb.org/sdwp/ejp/climate/index.shtml> (last visited May 5, 2009).

¹⁷⁰ *Id.* (select “What We Can Do”; follow “Personal Reflection,” “Take Action in My State,” “Take Action Nationally,” or “Take Action Globally” hyperlinks).

¹⁷¹ U.S. Conference of Catholic Bishops, What Catholics Are Doing, <http://www.usccb.org/sdwp/ejp/climate/wcd.shtml> (last visited May 5, 2009).

¹⁷² U.S. Conference of Catholic Bishops, *supra* note 169 (select “Prayer Resources”; follow “Special Occasions Prayers,” “Homily Suggestions,” or “Bulletin Quotes and Clip Art” hyperlinks).

¹⁷³ U.S. Conference of Catholic Bishops, Making a CASE for Children’s Health, <http://www.usccb.org/sdwp/ejp/case/index.shtml> (last visited May 5, 2009).

¹⁷⁴ *Id.* More generally, the Environmental Justice Program of the U.S. Conference of Catholic Bishops has a website that includes educational materials, information about regional environmental projects of parishes and dioceses, models for local environmental programs, and information about grants that are available from the Conference for environmental projects. U.S. Conference of Catholic Bishops, Justice, Peace and Human Development: Useful Resources for Dioceses and Parishes, <http://www.usccb.org/sdwp/ejp/resources/index.shtml> (last visited May 5, 2009).

installed solar panels in the main auditorium in Vatican City and joined a reforestation program to offset its carbon emissions.¹⁷⁵

Other religious organizations have launched similar programs to educate members about environmental problems and individual responsibility and to encourage members to take action to reduce those problems. The Eco-Justice Working Group of the National Council of Churches of Christ¹⁷⁶ sponsors programs that educate members about biodiversity, climate change, consumerism, environmental health, environmental justice, green buildings, public lands, and water conservation, among other topics.¹⁷⁷ Each of those campaigns includes information that demonstrates the link between personal responsibility for those problems and church doctrine; identifies things that members can do in their daily lives, as consumers or as advocates, to reduce those problems; identifies programs that local groups are implementing to target the problems; and provides prayer resources for the issues.¹⁷⁸ The Green Cleaning Fellowship, for instance, is a campaign that congregations can implement to encourage the use of less toxic cleaning products at home;¹⁷⁹ the Faithful Harvest Campaign encourages congregations to become more conscious about their food choices.¹⁸⁰ Through the Chesapeake Covenant Campaign, churches enter into covenants to help protect the Chesapeake Bay by engaging in conservation land practices and implementing energy efficiency measures within the congregation.¹⁸¹

The Coalition on the Environment and Jewish Life partners joined with the National Council of Churches of Christ on an Interfaith Climate Change Campaign and has also launched its own Four-Part

¹⁷⁵ Wilkinson, *supra* note 151.

¹⁷⁶ The National Council of Churches of Christ is an organization that includes forty-five million people in more than one hundred thousand congregations from Protestant, Anglican, Orthodox, Evangelical, historic African American, and Living Peace churches. National Council of Churches of Christ, About the National Council of Churches, http://www.nccusa.org/about/about_ncc.htm (last visited May 5, 2009).

¹⁷⁷ National Council of Churches of Christ, Campaigns and Initiatives, <http://www.nccojustice.org/campaigns.html> (last visited May 5, 2009).

¹⁷⁸ *Id.*

¹⁷⁹ National Council of Churches of Christ, Adamah Congregations, <http://www.nccojustice.org/adamah.htm> (last visited May 5, 2009).

¹⁸⁰ National Council of Churches of Christ, Faithful Harvest Campaign, <http://www.nccojustice.org/faithharvesthome.html> (last visited May 5, 2009).

¹⁸¹ National Council of Churches of Christ, Chesapeake Covenant Congregations, <http://www.nccojustice.org/cheshome.htm> (last visited May 5, 2009).

Climate Change Campaign.¹⁸² The Four-Part Climate Change Campaign encourages synagogues and their members to install compact fluorescent lighting, “green” the synagogues, advocate to legislators on climate change, educate youth about climate change, and encourage carbon neutrality.¹⁸³ The Coalition on the Environment and Jewish Life is also a member of the National Religious Partnership for the Environment, whose other members include the National Council of Churches of Christ, the Evangelical Environmental Network, and the U.S. Conference of Catholic Bishops.¹⁸⁴ The Partnership provides educational and advocacy materials and support and networking to its members regarding transportation, natural resources, toxics use and emissions, energy efficiency, and other environmental issues.¹⁸⁵

Another global warming initiative that has been adopted by many churches in the United States over the last few years is the “carbon fast,” which was created by the Church of England.¹⁸⁶ During each day of Lent, the forty days preceding Easter in the Christian faith, participants in the carbon fast engage in activities that reduce their personal carbon use, such as reducing their use of hot water, insulating their hot water heaters, or switching to compact fluorescent light bulbs.¹⁸⁷ Like many of the campaigns described above, organizers of the carbon fast provide prayer resources to churches and provide a wealth of information on individual responsibility for global climate change, the problems caused by global climate change, and things that individuals can do to reduce their emissions of greenhouse gases.¹⁸⁸

¹⁸² See Coalition on the Environment and Jewish Life, Four-Part Climate Change Campaign, http://www.coejl.org/~coejlor/climatechange/cc_4part.php (last visited May 5, 2009).

¹⁸³ *Id.*

¹⁸⁴ National Religious Partnership for the Environment, What Is the Partnership?, http://www.nrpe.org/whatisthepartnership/partners_intro01.htm (last visited May 5, 2009).

¹⁸⁵ National Religious Partnership for the Environment, How Can I Become Involved?, <http://www.nrpe.org/howcani/index.html> (last visited May 5, 2009). The Partnership’s website provides resources for individuals and families, educators, and congregations. See *id.*

¹⁸⁶ Eviana Hartman, *The Faithfully Green Try a ‘Carbon-Fast’ for Lent*, WASH. POST, Feb. 24, 2008, at N04.

¹⁸⁷ Tearfund, Carbon Fast, <http://www.tearfund.org/webdocs/Website/Churches/Carbon%20Fast.pdf> (last visited May 5, 2009).

¹⁸⁸ See generally Tearfund, Campaigning: Carbon Fast, <http://www.tearfund.org/Campaigning/Carbon+Fast.htm> (last visited May 5, 2009).

Several churches and religious organizations have also targeted climate change through the Interfaith Power and Light Campaign of the Regeneration Project.¹⁸⁹ The campaign began as a coalition of Episcopal churches aggregated to purchase renewable energy.¹⁹⁰ Today, however, it has grown into an interfaith coalition of four thousand congregations in twenty-eight states and, according to its website, the campaign

includes educating congregations and helping them buy energy efficient lights and appliances, providing energy audits and implementing the recommendations, encouraging people to buy more fuel efficient vehicles and to drive less, supporting renewable energy development through “greentags,” working on large-scale renewable energy installation projects such as rooftop solar and advocating for sensible energy and global warming policy.¹⁹¹

V PARTNERSHIPS WITH CHURCHES AND RELIGIOUS ORGANIZATIONS

Through all of the programs, campaigns, websites, and statements that are described above, churches and religious organizations are playing an important role in activating personal norms of stewardship and social justice as well as in providing their members with the information and tools to change their actions to reduce environmental harm and to advocate for government policies and actions that reduce environmental harm. Since churches and religious organizations are already playing an important role in norm activation and influencing individual behavior change, government efforts to activate norms should, at a minimum, recognize that important role and not frustrate the efforts of churches and religious organizations.

Perhaps, however, government agencies and regulators can go further than that and enter into partnerships with churches and religious organizations to facilitate norm activation and influence individual behavior change. For instance, if government agencies choose to rely on information disclosure campaigns to activate personal norms to influence individual behavior change, as Professor Vandenberg suggests above, the agencies might partner with

¹⁸⁹ The Regeneration Project, About Us, <http://www.theregenerationproject.org/About.htm> (last visited May 5, 2009).

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

churches and religious organizations to disseminate the information. The agencies could assemble the data and information that would identify the link between individual actions and environmental problems (AC) and the ways that changes in individual behavior could reduce environmental problems (AR), and the agencies could seek assistance from churches and religious organizations in disseminating that information to the public.

Through its Public Involvement Policy, the EPA already targets churches and religious organizations as resources for identifying persons and communities that will be impacted by agency rulemaking, permit decisions, or other decisions and for reaching out to those persons and communities to involve them in the decision-making process.¹⁹² Partnering with churches and religious organizations in information campaigns could simply be seen as an extension of those outreach efforts.¹⁹³ It is likely, though, that information disclosure campaigns that government agencies conduct in partnership with religious organizations would be subject to the requirements of the Information Quality Act, whereas information campaigns conducted solely by religious organizations would not be subject to the Act.¹⁹⁴ Similarly, as noted earlier, since agencies lack expertise in designing information disclosure campaigns to activate personal norms, their campaigns may be less effective in influencing individual behavior change than the campaigns of churches and

¹⁹² See EPA, PUBLIC INVOLVEMENT POLICY 15, 16 (2003), available at <http://www.epa.gov/publicinvolvement/policy2003/finalpolicy.pdf>.

¹⁹³ It is possible that the Public Involvement Policy might apply directly to information campaigns designed by the EPA, since the policy applies to the development of "significant information product[s]," which are defined as products that use "national or regional data to describe environmental conditions, trends, and/or the performance of companies, facilities, and communities." *Id.* at 31. Even if the policy does not apply on its face to agency information campaigns, the policy states that "the agency should approach all decision making with a bias in favor of significant and meaningful public involvement" and "this policy can serve as a model for building public involvement into new programs as they are developed." *Id.* at 9, 10. Partnering with churches and religious organizations on information campaigns is consistent with that goal.

¹⁹⁴ See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452, 8454 (Feb. 22, 2002) (explaining that information that an agency prepares is "disseminated" and governed by the IQA even though it may be distributed through a third party because it is "agency-initiated" information).

religious organizations to activate norms of stewardship and social justice.¹⁹⁵

As an alternative to partnering with churches and religious organizations to implement government-designed information campaigns, governments could establish grant programs to fund information and education campaigns that churches and religious organizations design and implement, like the initiatives identified in the preceding section.¹⁹⁶ The EPA's Public Involvement Policy recognizes the importance of providing funding to communities to facilitate public participation.¹⁹⁷ By funding information campaigns of religious organizations instead of developing and implementing their own information campaigns, agencies may be able to take advantage of the religious organizations' greater expertise at norm activation. It is possible, though, that funding of such programs might trigger the Information Quality Act.¹⁹⁸ It might also raise some First Amendment concerns if the funding was only provided to churches

¹⁹⁵ While agencies could take advantage of the expertise of churches and religious organizations by working with them to develop an informational campaign, that might raise some First Amendment concerns regarding "excessive entanglement" between church and state. *See* *Lemon v. Kurtzman*, 403 U.S. 602, 602 (1971).

¹⁹⁶ The federal government has expanded direct funding of religious organizations for secular programs over the past decade through President George W. Bush's Faith-Based and Community Initiative. *See* Exec. Order No. 13,279, 67 Fed. Reg. 17,141 (Dec. 12, 2002) (requiring equal protection for faith-based and community organizations); Exec. Order No. 13,199, 66 Fed. Reg. 8499 (Jan. 29, 2001) (creating the White House Office of Faith-Based and Community Initiatives); Exec. Order No. 13,198, 66 Fed. Reg. 8497 (Jan. 29, 2001) (creating five centers for faith-based and community initiatives).

¹⁹⁷ The EPA's Public Involvement Policy urges EPA staff to budget for public involvement activities and to consider providing technical or financial assistance to the public to facilitate public involvement. EPA, *supra* note 192, at 6. While the information campaigns of religious organizations may motivate individuals to reduce their environmentally harmful activities, they can also motivate individuals to take civic action to spur government to address environmental problems. To that extent, providing funding for such information campaigns is consistent with the goal of the EPA's public involvement policy to improve public involvement in agency decision making.

¹⁹⁸ *See* Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. at 8454. OMB's guidelines define dissemination to include agency-initiated and agency-sponsored information. Agency-sponsored information includes "situations where an agency has directed a third-party to disseminate information, or where the agency has authority to review and approve the information before release." *Id.* While the guidelines might be read to require application of the IQA when agencies provide funding for information campaigns of religious organizations, there is a strong counterargument that the law should not apply because the agency is not "directing" the organization to disseminate the information and the agency may not have authority to review or approve the information before it is disseminated.

and religious organizations, but those concerns could probably be avoided if the funding was made available to all organizations that implemented information campaigns to activate norms to promote change in individual behavior.¹⁹⁹

VI CONCLUSION

While most of the federal, state, and even local environmental laws have targeted large industrial sources since the advent of modern environmental law in the 1970s, it is becoming increasingly clear that laws and initiatives will have to target individual behavior to address global warming and many of the remaining major environmental problems. Governments will need to rely on a mix of tools to target individual behavior, including the use of information disclosure to activate personal norms. As governments choose the best mix of tools to target individual behavior, they should remain cognizant that churches and religious organizations have played a major role in changing individual perceptions of climate change and influencing individuals to take personal responsibility for climate change. Accordingly, as governments design programs to address other environmental problems caused significantly by individual actions, they should explore partnerships, grant programs, and other ways to take advantage of the expertise that churches and religious organizations have in activating personal norms and influencing individuals to change their behavior. Religion could be the environment's last best hope.

¹⁹⁹ See *Rosenberger v. Rector & Visitors of Univ. of Va.*, 515 U.S. 819 (1995) (upholding funding of a religiously oriented student publication by a state university since aid was available to all bona fide student groups). Even if the funding were made available to nonreligious organizations, though, it might be impermissible for religious organizations to use the funding for purely religious, as opposed to secular, purposes, such as the preparation and distribution of prayer resources regarding environmental issues. See *Mitchell v. Helms*, 530 U.S. 793, 840–41 (2000) (O'Connor, J., concurring) (“[W]e have long been concerned that secular government aid not be diverted to the advancement of religion.”).