World Religions and the Clean Air Act

Daryl Fisher-Ogden

Follow this and additional works at: http://scholarship.law.nd.edu/ndjlepp

Recommended Citation
Available at: http://scholarship.law.nd.edu/ndjlepp/vol23/iss2/3
WORLD RELIGIONS AND THE CLEAN AIR ACT†

DARYL FISHER-OGDEN*

I. INTRODUCTION

As climate change and greenhouse gases become frequent news topics, it is worth considering whether people and communities should comply with current clean air standards before enacting additional ones. A society ruled by law must rely on voluntary compliance with its laws by a majority of its citizens, rather than police enforcement of all law.¹ Consider what the United States would be like if a majority of citizens refused to voluntarily comply with driving laws or laws against theft. Enforcement wouldn’t be possible—there would be chaos on the roads and property would disappear from store shelves.

In Part II, this article examines the United States’ Clean Air Act and the underlying values that support compliance with its provisions. Although not all citizens and corporations comply, many do.² The religious roots of the United States provide a societal consensus that has supported both enactment and continued enforcement of the clean air standards. Then, in Part III, this article surveys various religious views in order to demonstrate differing societal views about the value or role of clean air. Part III explores views from Buddhism, Hinduism, indigenous religions, Islam, and the Judeo-Christian tradition. Finally, Part IV proposes that other nations adopt the United States’ Clean Air Act³ as a statutory model, and explores the challenges in developing a societal consensus to support enactment of similar legislation with regard to each of the religious views articulated in Part III.

† On March 25, 2009, the Notre Dame Journal of Law, Ethics & Public Policy hosted a panel discussion entitled “God and Godlessness in the Environment.” A version of this paper was presented at that event.

* Dean and Professor of Law, Abraham Lincoln University School of Law. The author is also an ordained minister in the United States Presbyterian Church. This article is a continuation of scholarship developed in Daryl Fisher-Ogden & Shelley Ross Saxer, World Religions and Clean Water Laws, 17 DUKE ENVT'L. & POL’Y F. 63 (2006).


² For example, car manufacturers comply with emissions standards, even as they lobby to change or postpone those standards.

II. THE UNITED STATES' CLEAN AIR ACT

The legislation commonly known as the Clean Air Act (CAA) was signed into law on December 17, 1963 as an expansion of the Air Pollution Control Act of 1955. It has been amended several times since then, with the most recent major amendment coming in 1990. Congress articulated the purposes of the CAA in the first section of the Act:

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;
(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;
(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and
(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

In short, the CAA was based on a legislative desire to protect and enhance air quality, and provided funding in order to accomplish these goals. In addition to those reasons for the enactment of the CAA found within the Act itself, insight can be gleaned from the congressional records, and from the general societal consensus in favor of the legislation.

A. CAA Internal Rationale

Several sections of the CAA detail the rationale for the Act. Through enactment of the CAA, Congress was attempting to strike a balance between economic and air quality concerns. Improving air quality and reducing pollution are of primary importance in the CAA. Thus, the level of air pollution is to be monitored, so as to gage pollution intensity and the state of public health. Such improvements can be
understood to rest on the belief that all creation—even the air—has worth, and are grounded in the general Judeo-Christian values that underlie American society.9

The very first section of the Act, which outlines congressional findings, states four reasons for its enactment: (1) metropolitan areas are growing rapidly; (2) air pollution is increasing in amount and complexity; (3) reducing air pollution is a state and local responsibility; and (4) federal funding is necessary in controlling air pollution.10 These broad rationales give rise to other sections of the CAA, such as section 7408, which gives the Administrator of the Environmental Protection Agency (EPA) a timetable for publishing standards for national ambient air quality.11 Those standards are to include consideration of air pollution’s negative effect on the public health.12 Additionally, the Administrator is given broad discretion to periodically review standards and to adjust pollutant criteria when there are “risks to ecosystems.”13

While voluntary compliance is ideal, the CAA does grant the Administrator power to curb violations.14 After giving a violator time to reply to notification of a violation, the Administrator can order compliance, impose an administrative penalty, or bring a civil action against the violator.15 These administrative enforcement powers show the seriousness with which Congress sought to improve air quality. A violator can avoid the penalty only if there is evidence that the failure to comply resulted from burning related to coal, the use of innovative technology, permitted delay, or emergency suspension of the CAA standards.16 These few narrow exceptions indicate that Congress valued compliance very highly.

Congress also weighed possible economic effects of the CAA. Within the Act itself, Congress allows the Administrator, a state governor, or the President to consider the economic impact of imposing the CAA standards.17 For example, in issuing rules or prohibitions concerning the burning of coal for fuel, these officials can balance the societal cost, in economic terms, with the goal of reducing air pollution.18 Yet Congress retains the prerogative to preempt any state authority so that the CAA standards are not weakened by local officials.19

9. See infra Part III.E for more on the Judeo-Christian value system.
11. Id. § 7408(a)(1).
12. Id. § 7408(a)(1)(A), (a)(2)(A).
13. Id. § 7408(c), (g).
14. Id. § 7413(a)(1).
15. Id. § 7413(a)(1)(A)–(C), (2)(A)–(C), (3)(A)–(C), (5)(A)–(C).
16. Id. § 7420(a)(2)(B)(i)–(v).
17. Id. § 7425(a).
18. Id. § 7425(b).
19. Id. § 7416.
Despite some economic concerns, the CAA contains strong language about the need to reduce air pollution. Section 7491, aimed at achieving greater visibility, declares as a national goal "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution." Congress understood that the reduction of air pollution would require a national effort, and by setting the goal in section 7491, the CAA enabled federal and state officials to pursue the reduction of air pollution from human sources on a national scale.

An additional declaration of purpose in the CAA enumerates other goals: (1) protecting public health from air pollution; (2) enhancing the air quality for areas within the National Park system; (3) ensuring economic growth while preserving clean air; (4) preventing deterioration of air quality; and (5) permitting increased air pollution only after careful evaluation and public comment. Each of these purposes demonstrates congressional concern about the present state of air pollution, and the foresight to take steps to correct and improve air quality.

The CAA is carefully crafted to balance the goals of improved air quality with the realistic assessment of the need to involve state and local officials. The Administrator was not given carte blanche to impose standards, but was to take into account recommendations from others. However, the Administrator can impose sanctions when a state fails to comply with the planning required by the CAA.

The concern for improving air quality was manifested in the attainment dates set forth by Congress. The 1990 amendments to the CAA set the target date of 1995 for achievement of the primary standards. Included within this target date were implementation plans for general improvement of air quality, as well as plans aimed at specific compounds such as sulfur oxide and nitrogen dioxide. Since the attainment dates in section 7514a were added to the CAA in the 1990 amendments, it is apparent that Congress had ongoing concern about the rate at which the standards set by the Administrator were being achieved.

The ability to punish violators is the "stick" that Congress uses to encourage compliance. The Administrator is given agency authority to assess fines up to $200,000. For more egregious acts, violators would

---

20. Id. § 7491(a)(1).
21. Id. § 7470.
22. Id. § 7491(b)–(f).
23. Id. § 7509(a)–(b).
24. Id. § 7514a.
25. Id.
26. Id. § 7514a(b)–(c).
be subject to civil action brought by the Administrator. Any court ruling in favor of the Administrator needs to take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator’s business, the violator’s history of compliance with this subchapter, action taken to remedy the violation, [and] the effect of the penalty on the violator’s ability to continue in business.

Where there is a pressing need, the Administrator is authorized to bring an action for immediate restraint of a polluter. The pollution at issue might come from a fixed or moving source, or substantially endanger public health or the environment. If court action is not practicable, the Administrator must consult with state and local authorities, and then may issue a direct order to stop the pollution. Such an order is only good for sixty days, and is intended to be a temporary measure that allows time for the Administrator to pursue court action. Given the various enforcement powers authorized by the CAA, it is clear that Congress wanted both the Administrator and the federal courts to have the authority to stop pollution immediately. But stopping polluters is not all that the Administrator is authorized to do.

The Administrator also has authorization to monitor numerous gases and overall air quality. Congress set forth detailed instructions for periodic reporting about air quality; the Administrator is to monitor air quality with urban monitoring stations, daily analysis, and record-keeping. There are also provisions concerning “exceptional events” that provide the Administrator power to issue regulations for even unusual occurrences of air pollution. These regulations are to be based on five principles:

(i) the principle that protection of public health is the highest priority;
(ii) the principle that timely information should be provided to the public in any case in which the air quality is unhealthy;
(iii) the principle that all ambient air quality data should be included in a timely manner, [in] an appropriate Federal air quality database that is accessible to the public;

29. Id. § 7524(b).
30. Id.
31. Id. § 7603.
32. Id.
33. Id.
34. Id.
35. See, e.g., id. §§ 7671a–7671e.
36. Id. § 7619(1)–(4).
37. Id. § 7619(b)(1)(A).
(iv) the principle that each State must take necessary measures to safeguard public health regardless of the source of the air pollution; and

(v) the principle that air quality data should be carefully screened to ensure that events not likely to recur are represented accurately in all monitoring data and analyses.\textsuperscript{38}

These principles demonstrate congressional intent that the public be both protected from and informed about deteriorating air quality. Congress recognized that enforcement would be made easier for the Administrator if the public were in favor of the regulations.

Congress considered the particles found in polluted air and included some scientific findings in the text of the CAA. Specifically, Congress showed concern about the presence and sources of acidic compounds.\textsuperscript{39} Congress recognized that such compounds do not come from or remain within national borders, and so found international acid deposition to be significant.\textsuperscript{40} Timely reduction of acid deposition was found to be both possible and necessary for future generations, requiring reduction of atmospheric pollution and control of emissions.\textsuperscript{41} Congress intended to effectuate such reductions by requiring compliance by affected sources with prescribed emission limitations by specified deadlines, which limitations may be met through alternative methods of compliance provided by an emission allocation and transfer system. It is also the purpose of this subchapter to encourage energy conservation, use of renewable and clean alternative technologies, and pollution prevention as a long-range strategy, consistent with the provisions of this subchapter, for reducing air pollution and other adverse impacts of energy production and use.\textsuperscript{42}

The three-fold rationale expressed in section 7651(b)—encouragement of energy conservation, use of renewable and clean alternative technologies, and prevention of further pollution—provided the foundation for the following sections of the CAA, which specify how the Administrator should achieve the stated purposes.\textsuperscript{43}

One creative way to reduce pollution that Congress enacted was a system of transfers. Under the transfer system, persons are allowed to create certain levels of pollution.\textsuperscript{44} If a person were to find himself under

\textsuperscript{38} Id. § 7619(b)(3)(A).

\textsuperscript{39} Id. § 7651(a)(1)–(2).

\textsuperscript{40} Id. § 7651(a)(3); see also Joseph Goffman, Title IV of the Clean Air Act: Lessons for Success of the Acid Rain Emissions Trading Program, 14 Penn St. Envtl. L. Rev. 177, 177 (2006).

\textsuperscript{41} 42 U.S.C. § 7651(a)(4)–(7).

\textsuperscript{42} Id. § 7651(b).

\textsuperscript{43} Id. §§ 7651b–7661f.

\textsuperscript{44} Id. § 7671f(b).
the allowance level for one substance, he is allowed to transfer the unused allowance to another substance.\textsuperscript{45} Similar transfers are also allowed between persons, provided there is an overall reduction in the annual pollution amount.\textsuperscript{46} Consumption allowances are also permitted, again with the goal of overall reduction of pollution.\textsuperscript{47}

To summarize, when enacting and amending the CAA, Congress sought to reduce air pollution with the goals of improving the public health and of ensuring a better environment and air quality for future generations of Americans. The enforcement provisions of the CAA enable the Administrator to control and correct polluters in an ongoing manner, and to take immediate action when it is warranted.

B. CAA Congressional Rationale

While the text of the CAA itself demonstrates congressional resolve to improve air quality, the discussion that preceded its enactment indicates that Congress' motivations were largely based on a sense of stewardship stemming from America's Judeo-Christian background. Originally, the 1955 Air Pollution Control Act focused on establishing federal research and assistance programs.\textsuperscript{48} In 1963, the CAA was passed as a complete revision of existing law.\textsuperscript{49} Its various amendments, most notably in 1965, 1967, 1977, and 1990, gave the United States the first modern environmental law.\textsuperscript{50} All of these amendments were discussed, debated, and shaped by Congress with the overall goal of improving air quality. It is instructive to examine the debates in order to comprehend more fully the underlying rationales for the CAA.

In July of 1955, President Eisenhower signed into law the basic federal effort to combat air pollution.\textsuperscript{51} This was substantially expanded upon in December 1963, by revisions during Lyndon Johnson's presidency, and the legislation became known as the Clean Air Act.\textsuperscript{52} Earlier that year, the House Committee on Interstate and Foreign Commerce had issued an extensive report about the potential CAA.\textsuperscript{53} A conference committee developed joint language and created a report on the changes to the House version.\textsuperscript{54}

\textsuperscript{45} Id.
\textsuperscript{46} Id. § 7671f(c).
\textsuperscript{47} Id. § 7671f(d).
\textsuperscript{49} Id.
\textsuperscript{50} S. REP. NO. 101-228, at iii, 1 (1989).
\textsuperscript{51} Air Pollution Control Act, ch. 360, 69 Stat. 322 (1955).
\textsuperscript{52} S. REP. NO. 101-228, at 1.
\textsuperscript{53} H.R. REP. NO. 88-508.
The House Report offered a detailed rationale for passing the new CAA. It found that air pollution was an increasingly serious problem.\(^5\)
Although great progress had been made between 1955 and 1963, the problem remained unsolved.\(^6\) "In fact, the blight of air pollution, especially resulting from motor vehicle exhaust gases, [had] become a real menace to all urban areas."\(^7\) As a result of work by both the Committee and the executive branch, it was recognized that the problem of air pollution continued to grow.\(^8\) As a solution, more emphasis was placed on controlling air pollution at all levels of government.\(^9\) The CAA strengthened and made more explicit the authority of the Department of Health, Education, and Welfare (HEW).\(^6\) The Act was designed to help gather data and, through grants, develop methods for control and abatement of air pollution.\(^6\) However, the original CAA still left the primary responsibility for combating air pollution in the hands of state and local agencies;\(^6\) the Secretary of HEW would mainly be responsible for creating a research and development program to assist in controlling and preventing air pollution in the future, primarily by means of a grant program.\(^5\)

President Kennedy had asked for legislation giving the federal government authority

(a) to engage in a more intensive research program permitting full investigation of the causes, effects, and control of air pollution;
(b) to provide financial stimulation to States and local air pollution control agencies through project grants which will help them to initiate or improve their control programs;
(c) to conduct studies on air pollution problems of interstate or nation-wide significance; and
(d) to take action to abate interstate air pollutions along the general lines of the existing water pollution control enforcement measures.\(^6\)

In response to these requests, however, the 1963 CAA provided only limited authority to HEW.\(^5\) The House committee was "impressed with the seriousness of the air pollution problem and the need for more

\(^6\) Id. at 3.
\(^7\) Id. at 4.
\(^8\) Id. at 2-4.
\(^9\) Id. at 3-4.
\(^6\) Id.
\(^6\) Id. at 3-4.
\(^6\) Id. at 4.
\(^6\) Id. at 7.
\(^6\) Id. at 13.
\(^6\) Id. at 9.
WORLD RELIGIONS AND THE CLEAN AIR ACT

Nevertheless, the committee affirmed that state and local authorities should take on most of the responsibility for any regulatory control of air pollution. Congress saw only a limited need for assistance from the federal government, through conferences and grants.

The grants posed their own problems. The HEW Secretary anticipated two problems in particular. The first problem was with funding. The grants were to assist in establishing and maintaining air pollution control programs. This purpose might imply that the federal government would continue to assist the programs, but Congress wanted a ceiling on the grant appropriations. The grants that were funded were not spread evenly throughout the states due to both differences in air pollution levels and the variety of programs to combat air pollution. But a second problem was that grants were not necessarily designed to accomplish the objectives of the legislation. After considering these two problems, the Secretary recommended that specific allotments be omitted from the legislation, and discretion given to the Secretary in distributing the grants, with instruction to take into consideration the "equitable geographical distribution of projects."

Congress agreed with the Secretary and gave him discretion, within each state, to determine both the amounts and recipients of the grants. For each grant, the Secretary was instructed to consider the affected population, the extent of air pollution, and the financial needs of potential grant-receiving agencies, thus addressing some of the Secretary's concerns. With regard to the possibility of creating dependence on federal funds, the House stated that "the objective of the grant program is to provide impetus to the establishment and improvement of air pollution prevention and control programs ... not to provide a substitute for State and local funds." Ultimately, Congress pushed for a conference on abating air pollution. This conference would be called by the HEW Secretary after consultation with state and local agencies, and was to be

66. Id.
67. Id.
68. Id.
69. Id. at 13–14.
70. Id.
71. Id. The Bureau of the Budget concurred in this concern, urging Congress to adopt a program that provides "short term assistance directed toward initiating or strengthening control programs." Id. at 19.
72. Id. at 14.
73. Id.
74. Id.
75. Id. at 7; H.R. Rep. No. 88-1003, at 4 (1963) (Conf. Rep.).
one of the principal means of bringing about abatement of air pollution.”  

By 1965, Congress was again confronting the problem of air pollution. On October 20, 1965, President Johnson signed into law further amendments to the CAA. This legislation broadened the CAA in two important areas: motor vehicles and solid waste disposal. The new aspects of the CAA aimed to further reduce emissions from both motor vehicles and solid waste disposal operations, through regulations issued by HEW. As stated by the House, the 1965 amendments to the CAA were necessary because

[t]he trends of economic growth, technological progress, and rising urban populations have helped to create environmental contamination particularly in two areas: (1) air pollution, especially emanating from motor vehicles, affecting thousands of communities in all parts of the country and imposing a serious threat to public health and national welfare, and (2) difficulties encountered in the efficient and economical disposal of solid waste.

Congress further noted that because motor vehicles were responsible for a growing air pollution problem, immediate steps were needed to bring this pollution under control. The new amendments focused on standards for exhaust emissions from motor vehicles, and were meant to benefit everyone in the country. The ultimate objective was to fully and effectively control motor vehicle pollution. Congress’ solution—establishing federal standards for allowable motor vehicle emissions—preempted a state-by-state approach that would have created a compliance nightmare for automobile makers.

As with the original 1963 CAA, the 1965 amendments directed HEW to conduct research, and to provide federal money to encourage and help agencies combat air pollution. Determining new methods for reduction and elimination of motor vehicle emissions, such as hydrocarbons and oxides, required research. Because solid waste disposal utiliz-

79. Id.
82. Id. at 1, 9.
83. Id. at 3.
84. Id. at 4.
85. Id. at 5.
86. Id.
87. Id. For a discussion of the need for federal standards, see Letter from Robert E. Giles, Gen. Counsel, Dep’t of Commerce, to Oren Harris, Chairman, Comm. on Interstate & Foreign Commerce, House of Representatives (June 21, 1965), in id. at 35–38.
89. Id. at 2.
ing incineration techniques created air pollution, research was also required to find new disposal solutions to supplement use of landfills.90

Congress felt that the air pollution problem was growing in magnitude and complexity.91 It also recognized that air pollution was a national problem as much as a local one.92 To this end, the 1965 CAA amendments expanded the HEW Secretary’s authority to include the creation and staffing of federal air pollution control facilities, thus moving from the sole role of assisting state and local agencies to more direct federal involvement.93 In the area of motor vehicle emissions, the 1965 amendments provided new standards to be met by automobile makers in future years, and gave the HEW Secretary authority to receive reports and levy fines for violations.94 The basic approach of the 1965 amendments concerning solid waste disposal involved less federal control; while it included increased research and financial assistance, state and local agencies were to plan and conduct the air pollution control programs.95 It seems to have been too soon for Congress to address the remaining sources of air pollution considered by the original CAA.

But by 1967, Congress was again considering amendments to the Clean Air Act. It now recognized the need for air pollution control on a regional basis to supplement the efforts already being made by state and local agencies.96 New amendments continued the program of grants and research, but reduced grant funding to any single state.97 The same amendments added provisions for interstate control agencies, and authorized the HEW Secretary to establish air quality standards if a state failed to do so.98 Congress remained concerned about the declining air quality, and considered the possibility of national emissions standards beyond the existing motor vehicle standards.99 Fuel additives would now be registered with HEW, which would arrange for studies on the need for national emission standards, the cost of implementing the CAA, manpower needs for air pollution control, and the practicality of controlling aircraft emissions.100

90. Id. at 8.
91. Id. at 6; see also Agency Report from Wilbur J. Cohen, Under Secretary, Dep’t of Health, Educ. & Welfare, to Oren Harris, Chairman, Comm. on Interstate & Foreign Commerce, House of Representatives (June 10, 1965), in id. at 14–24.
93. Id.
94. Id. at 10.
95. Id. at 12–14.
97. Id. at 2.
98. Id.
99. See id.
100. Id.; see also H.R. REP. NO. 90-916 (1967) (Conf. Rep.).
Congress' concern focused on the threat to human health and the well-being of all Americans.\textsuperscript{101} Air pollution was worsening, with deaths now attributable to the problem.\textsuperscript{102} One study by the Surgeon General showed that the mortality rate increased with unusually severe air pollution.\textsuperscript{103} Another study showed Congress that there was a "significant correlation between air pollution levels and a number of other conditions including emphysema, chronic bronchitis, and the common cold."\textsuperscript{104} Congress concluded that air pollution was a major factor in the diseases contracted by many Americans.\textsuperscript{105}

Given these concerns, Congress enacted the 1967 amendments to the CAA, which continued to rely primarily on state action.\textsuperscript{106} HEW would play a supporting role, by publishing air quality criteria and ensuring that states had adequate standards.\textsuperscript{107} Congress recognized that scientific information would need to be made available to agencies that were adopting air quality standards, so it funded research activities to provide improved technological means.\textsuperscript{108} Congress felt that only technological breakthroughs would be able to adequately supply the low-cost energy needed by the American economy.\textsuperscript{109}

The HEW Secretary was also required to consult with various committees and other federal departments prior to issuing air quality criteria.\textsuperscript{110} The 1967 CAA amendments created one such group specifically for this purpose—the President's Air Quality Advisory Board, composed of both government agency and private industry representatives.\textsuperscript{111} The criteria issued by the HEW became more important, as such standards were made prescriptive, rather than advisory.\textsuperscript{112} To this end, if a state or local authority did not take action, the Secretary was given authority to seek court action whenever air pollution "creates substantial and imminent public health endangerment."\textsuperscript{113}

One of the major changes brought about through the 1967 amendments was the enactment of national motor vehicle emission standards.\textsuperscript{114} Congress decided that federal standards would supersede state

\begin{enumerate}
\item H.R. REP. No. 90-728, at 3.
\item Id. at 2-3.
\item Id. at 3.
\item Id. at 5.
\item Id.
\item Id. at 9.
\item Id.
\item Id. at 15, 24.
\item Id. at 25.
\item Id. at 15.
\item Id. at 28.
\item Id. at 16.
\item Id. at 19.
\item Id. at 20.
\end{enumerate}
laws regarding motor vehicle emissions control. A waiver was left in place for California, however, since that state had historically set more stringent emission restrictions. One primary reason for requiring national standards was to give automobile manufacturers one uniform level of emissions to meet, rather than forcing them to comply with varying state standards. Responsibility for oversight of the administration of the national standards fell upon the HEW Secretary.

In 1970, Congress once again considered amending the CAA in order to "speed up, expand, and intensify the war against air pollution in the United States with a view to assuring that the air we breathe throughout the nation is wholesome once again." Congress was moved by the inadequate progress in fighting air pollution, as well as the slow, and often ineffective, implementation of contemporary strategies to control it. There were problems with enforcement of motor vehicle emission standards, because they were only being enforced on prototypes rather than on automobiles fresh off the assembly line. In addition, the CAA had not yet specifically addressed the problem of aircraft emissions of smoke and other pollutants.

Congress summarized its concern over the slow progress in controlling air pollution, citing a number of factors:

1. cumbersome and time-consuming procedures called for under the 1967 act;
2. inadequate funding on federal, state, and local levels;
3. scarcity of skilled personnel to enforce control measures;
4. inadequacy of available test and control technologies;
5. organizational problems on the federal level where air pollution control has not been accorded sufficiently high priority; and
6. last, but not least, failure on the part of the national air pollution control administration to demonstrate sufficient aggressiveness in implementing present law.

Congress also recognized that many people, both private citizens and public officials, were deeply concerned about the threat of air pollution, and noted that such a ground swell would be important for the

---

115. Id. at 21.
116. Id.
117. Id. at 22.
118. Id.
120. Id.
121. Id. at 3.
122. Id. at 4.
123. Id. at 5.
124. Id.
United States in reaching the goal of clean air everywhere within the nation.\textsuperscript{125}

Seeking to remedy these problems, the 1970 amendments to the CAA required more stringent testing of automobiles that included daily sample testing at assembly plants.\textsuperscript{126} The HEW Secretary would now be authorized to prescribe limits on automotive fuel ingredients, provided there was enough evidence to justify the limitations.\textsuperscript{127} Also, stationary sources of air pollution would be required to meet new federal emission standards.\textsuperscript{128} National ambient air quality standards would be established for five pollutants, with the Secretary authorized to include additional pollutants.\textsuperscript{129}

The 1970 amendments were based on several conclusions by Congress. First, that air pollution comes from a large number of diversified sources.\textsuperscript{130} Second, that effective strategies were needed for the different pollutants in order to improve the air quality.\textsuperscript{131} Third, that reducing and eliminating different pollutants would require effective technologies to be developed.\textsuperscript{132} Finally, that there was need for prompt and effective efforts to implement and enforce the strategies by all levels of government.\textsuperscript{133} However, Congress deliberately put into the amendments provisions that even they knew had little chance of actually being implemented.\textsuperscript{134}

When air quality had not improved sufficiently by 1977, Congress again considered amendments to the CAA. The Clean Air Act Amendments of 1977 formally became law when President Carter signed the legislation on August 7, 1977.\textsuperscript{135} The House and Senate had passed different versions, necessitating a conference committee to work out the differences.\textsuperscript{136} Once the committee agreed on the appropriate language, the House passed the CAA amendments on August 4, 1977, the same day as the Senate passed the legislation.\textsuperscript{137}

\textsuperscript{125} Id.
\textsuperscript{126} Id. at 6.
\textsuperscript{127} Id.
\textsuperscript{128} Id. at 9–10. For a discussion of stationary sources in Texas under these amendments, see Ellie Edman, Comment, \textit{Is BACT Getting Cut Back?: A Look at the Requirements of the Clean Air Act in the Wake of a Possible Energy Crisis, the Desire for Clean and Efficient Energy Suppliers, the Futuregen Project, and TXU’s Proposed Plants}, 9 Tex. Tech. Admin. L.J. 131 (2007).
\textsuperscript{129} H.R. Rep. No. 91-1146, at 7.
\textsuperscript{130} Id. at 15.
\textsuperscript{131} Id.
\textsuperscript{132} Id.
\textsuperscript{133} Id.
\textsuperscript{135} Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685.
\textsuperscript{137} Id. at 1.
The legislation was grounded in three principles. The first was protecting public health, which was the foremost value and paramount purpose for the 1977 amendments. Second came strengthening both technological incentives and disincentives. Third, new values were emphasized compared to older amendments, such as taking a preventive approach to air pollution, protecting and enhancing the quality of life for Americans, identifying and regulating ambient air pollutants, and increasing the commitment to states to furnish tools and authority to meet the heightened air quality standards.

The 1977 amendments altered several aspects of prior legislation. The EPA Administrator would now be required to regulate radioactive pollutants. Ozone protection would be strengthened by closing some gaps left by earlier laws. States were given an expanded role in identifying pollutants that affect visibility, while the national goals for this were retained. In addition, other states besides California were allowed to adopt the California motor vehicle emissions standards, which are stricter than the national standards, since public health is more important than cost considerations.

By 1989, it was once again clear to Congress that more amendments were needed to strengthen the CAA. The exposure of Americans to increased, rather than decreased, levels of air pollution, along with expanding knowledge of the health effects of pollution, concerned Congress. Congress sought to protect public health, noting that Americans suffer exposure to a large number of air pollutants in both outside and inside air. Stating that "air pollution recognizes no State or international borders," Congress sought to provide a stronger control strategy for the nation through these amendments. Based on studies and consideration of air pollution problems, the 1989 amendments also addressed previously unconsidered issues, such as acid rain.

The 1989 amendments to the CAA covered a wide variety of areas. The legislation gave increased authority to the EPA Administrator to respond to new information about pollution by altering the designated

138. Id. at 109.
139. Id.
140. Id.
141. Id.
142. Id. at 110.
143. Id. at 72–73.
144. Id.
145. Id. at 72–74.
146. Id. at 77.
148. Id. at 2.
149. Id. at 3.
150. Id. at 3–4.
control areas.\textsuperscript{151} Monitoring of emissions and air quality, including ozone, would be further enhanced.\textsuperscript{152} The role of the Administrator in providing assistance to other agencies and coordinating air quality and transportation issues would be strengthened, so that potential alternatives to single driver cars could be optimized.\textsuperscript{153} Remedial steps were included to decrease nonattainment for ozone, carbon monoxide, and particulate matter.\textsuperscript{154} While granting that emissions from motor vehicles had been reduced since the 1970 amendments, this Congress still determined that further reductions were needed, because the number of vehicles was increasing rapidly.\textsuperscript{155} Civil and administrative penalties were increased to strengthen enforcement of air quality standards.\textsuperscript{156} A program for combating acid rain was established with the goal of reducing annual emissions to below the 1980 level in ten years and a clear indication that the EPA was not to abet non-compliance with these standards.\textsuperscript{157} Finally, the 1989 amendments included a federal permit program that would reflect other environmental legislation permits for discharge of pollutants.\textsuperscript{158}

It is clear that Congress was disappointed in both the EPA and the overall lack of progress in improving air quality by 1989. Observing that deadlines for improvement had passed, Congress noted that there had been multiple reasons for this failure:

Among them are the understatement of emissions in inventories submitted by the States and approved by EPA; inadequacies in models used to predict ambient air quality; failure of States to implement some of the controls they had committed to in their SIPs [State Implementation Plans]; failure of some controls to achieve the projected emissions reductions; and failure of EPA or

\textsuperscript{151} Id. at 14.
\textsuperscript{152} Id. at 16.
\textsuperscript{153} Id. at 18–19.
\textsuperscript{154} Id. at 52; see also Christopher T. Giovinazzo, Defending Overstatement: The Symbolic Clean Air Act and Carbon Dioxide, 30 Harv. Envtl. L. Rev. 99, 99 (2006) ("The mandates are symbolic in the sense that they set a lofty goal . . . without explaining how the goal can be reached in practice.").
\textsuperscript{155} S. Rep. No. 101-228, at 85.
\textsuperscript{156} Id. at 122–23. But see Christopher M. Wynn, Note, Facing a Hobson’s Choice? The Constitutionality of the EPA’s Administrative Compliance Order Enforcement Scheme Under the Clean Air Act, 62 Wash. & Lee L. Rev. 1879, 1882 (2005) (discussing the challenges to enforcing civil penalties based on violations of due process and the separation of powers principles).
\textsuperscript{157} S. Rep. No. 101-228, at 302–03.
\textsuperscript{158} Id. at 346–47. Such permit programs include provisions in the Clean Water Act, the Toxic Substances Control Act, and the Resource Conservation and Recovery Act. See id. For a discussion of the cap-and-trade permit program under Title IV of the CAA, see Goffman, supra note 40, at 177.
the States to require additional controls when it became evident that the attainment deadlines would not be met.\footnote{159}{S. REP. NO. 101-228, at 11.}

Incorrect assumptions, a lack of enforcement, and a lack of resources led to the failed efforts at improved air quality.\footnote{160}{Id.} Most of all, improvements in air quality were too slow, as a result of the lack of political will to implement difficult measures.\footnote{161}{Id. at 12; \textit{see also} Giovinazzo, \textit{supra} note 154, at 126 ("The CAA's symbolism is intended to prevent a reluctant EPA or other challengers to air pollution control from invoking a predictable short list of excuses, either in order to water down the CAA beyond recognition or to resist acting altogether.").} As a consequence, the 1989 amendments included some nonattainment provisions which were crafted to reduce emissions from all the major sources contributing various pollutants.\footnote{162}{S. REP. NO. 101-228, at 13. For a discussion of pollutants produced by marine engines and the regulation of such, see Jeffrey G. Granillo, \textit{Section 213 of the Clean Air Act & Marine Shipping: The Case Against Extraterritorial Application}, 20 U.S.F. MAR. L.J. 103 (2007-08).}

Because the previous versions of the CAA had not accomplished all that had been hoped, Congress noted how poorly the law was functioning when it enacted the 1989 amendments.\footnote{163}{S. REP. NO. 101-228, at 128.} The EPA had only regulated seven chemicals related to air pollution, and even those were not regulated from all polluting sources.\footnote{164}{Id.} This under-regulation was due in part to an interpretation of the congressional mandate that would have required no emissions—an unattainable goal—and in part to the EPA's reluctance to harm major segments of the American economy.\footnote{165}{Id. at 12; \textit{see also} Giovinazzo, \textit{supra} note 154, at 126 ("The CAA's symbolism is intended to prevent a reluctant EPA or other challengers to air pollution control from invoking a predictable short list of excuses, either in order to water down the CAA beyond recognition or to resist acting altogether.").} Congress recognized that the EPA had dragged its feet during its eighteen years of administering the CAA; the EPA had listed only eight toxic substances, while States regulated 708 similar substances.\footnote{166}{Id. at 131.} In response to the EPA's lack of initiative, Congress now listed 191 pollutants and set forth a mandatory schedule for the establishment of minimum standards.\footnote{167}{Id. at 133.}

The Clean Air Act has been modified only a few times since the 1989 amendments. However, the goals and objectives stated by Congress, and the various prior amendments, reveal a deep concern with the quality and pace of progress toward clean air. The frustration Congress felt led to increased federal involvement with, and then control over, various aspects of air pollution abatement. The concern most often cited by Congress is the public health effect of air pollution. Congress has also recognized the need to use increasingly available new technologies to
assist in combating air pollution. As Justice Breyer has stated, "Subsequent legislative history confirms that the technology-forcing goals of the 1970 amendments are still paramount in today's Act."\textsuperscript{168} Having considered the Congressional rationale that shaped the Clean Air Act, it is instructive to turn to the underlying societal rationale that supported, encouraged, and even demanded congressional action.

C. Societal Rationale

While the United States does not formally endorse any religion, much of its societal outlook on air quality is based in the Judeo-Christian viewpoint. Concepts such as caring for one's neighbor and for nature, which have implications for air pollution regulation, come directly from the books of Genesis and Exodus in the Hebrew Scriptures.\textsuperscript{169} Even many of today's secular environmental groups use religious terminology in seeking to convince their followers and others of the rightness of their environmental positions.\textsuperscript{170} These and other cultural factors have heavily influenced the growth of an ethic particularly focused on the environment in the United States.\textsuperscript{171} Public sentiment has frequently provided the catalyst for passage of clean air legislation,\textsuperscript{172} and recent clean air developments in the courts and the EPA continue to reflect the societal rationale and seek societal support for their decisions.

The CAA's enactment came on the heels of public awareness of and concern about the state of the environment that arose in the 1960s. Writings by Rachel Carson, Barry Commoner, and Stewart Udall sketched out existing environmental problems and the looming crisis if humanity did not change its ways.\textsuperscript{173} In response, the CAA offered a few specifics, but because it consisted mainly of general guidelines it left the federal agencies to work out the details.\textsuperscript{174} Unfortunately, this general language allowed Congress to respond to public concern while still avoid-

\begin{itemize}
\item \textsuperscript{168} Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 492 (2001).
\item \textsuperscript{169} See Genesis 1–2; Exodus 20:4–17.
\item \textsuperscript{170} See, e.g., Lisa A. Binder, Religion, Race, and Rights: A Rhetorical Overview of Environmental Justice Disputes, 6 Wis. ENVTL. L.J. 1 (1999).
\item \textsuperscript{174} See discussion supra Part II.A.
\end{itemize}
ing responsibility for making the hard decisions involved in balancing public health, industry concerns, and available technology. The symbolic language also tended to polarize discussion in agency proceedings, and led various interest groups to seek more legislation. Some may view strident debate as helpful in resolving the difficult problems associated with improving air quality; some view such debate as a result of disgruntled stakeholders who act on their individual value systems and emotions. As one writer noted:

From its genesis in the political mobilization that led to the 1970 Clean Air Act (CAA), there has been a pattern of broad and aspirational legislation; agency rulemaking shaping policy based on a blend of technical information and expertise, shifting political pressures and priorities, and statutory gap-filling; litigation challenging agency action, inaction, and interpretations; enforcement challenging industry conduct; and a new legislative codification, modification, and extension.

Even after the 1989 amendments, the CAA continued to have high aspirations without going into detail, leaving many of the difficult decisions unresolved. For example, the CAA left unclear and unresolved aspects of the emissions trading system, even though there was general agreement and support for emissions trading. The largely symbolic design of the CAA was Congress' way of pre-committing the EPA to tackle air pollution promptly and vigorously while warding off resistance. Resistance often comes from stakeholders, who use religious-seeming language to call the other side evil and assert their own positions as those of preserving Creation. Fundamental differences cast into religious or absolute terms, while motivating for individual groups, make it very difficult to arrive at an acceptable compromise. Unfortunately, court decisions did not always act more responsibly.

175. Dwyer, supra note 134, at 233.
176. Id. at 234. But see Kruger, supra note 172, at 3 (noting how certain aspects of the CAA have gained political acceptance).
178. Id. at 10,418.
179. Id. at 10,423; see also William N. Eskridge, Jr., Politics Without Romance: Implications of Public Choice Theory for Statutory Interpretation, 74 Va. L. Rev. 275, 283 (1988) (claiming that legislation often is the result of pressure from interest groups, which skews public decision making away from public interests and toward private rent-seeking).
181. Giovinazzo, supra note 154, at 100.
182. See Martel, supra note 177, at 10,426.
183. Id.
The 2007 decision by the U.S. Supreme Court in *Massachusetts v. EPA*\(^{184}\) has reignited environmental groups, who seek policy change on the part of the EPA and regulation of greenhouse gases as air pollutants under the CAA.\(^{185}\) While the Court did not order the EPA to adopt greenhouse gas emission standards, it did find that the EPA is authorized to do so under section 202 of the CAA.\(^{186}\) The Court also sent a clear message: it believed that threats stemming from climate change were supported by both science and by society, as suggested through a broad consensus of experts.\(^{187}\) Subsequently, several bills were introduced in Congress to label carbon fuel as an air pollutant. The problem with much of this proposed legislation, however, is a political climate that eschews direct taxes and requires the cooperation of industry and labor.\(^{188}\) In summing up the current societal views, one commentary noted that “[t]he full docket of cases, laws, and regulations proves that despite the CAA having been enacted nearly forty years ago, the work of interpreting it is far from over.”\(^{189}\) The EPA, which is charged with interpreting and implementing the CAA, necessarily uses a certain amount of pragmatism to compensate for the infeasibility of literal enforcement of some sections of the Act.\(^{190}\) For example, the CAA, read literally, promises a “risk-free” environment, but leaves the EPA to define what an acceptable risk will be.\(^{191}\)

To more fully understand the present societal support for improving air quality as reflected by the CAA, it is helpful to review, in general terms, the development of American environmental ethics. Lynn White, Jr. influenced this development with his seminal claim that what people do collectively depends on what people collectively think.\(^{192}\) As the CAA was developed and amended, the American people also developed various environmental ethics. For many of its strongest supporters, environmentalism has become a type of religion.\(^{193}\) The major new approaches that have come from this development today include ecofeminism,

\(^{184}\) 549 U.S. 497 (2007).


\(^{186}\) *Massachusetts v. EPA*, 549 U.S. at 532.

\(^{187}\) Altman & Lewis, supra note 185, at 10,359.

\(^{188}\) *See, e.g., id.* at 10,361 (noting the influence of industry and labor unions in formulation of the Bingaman-Specter cap-and-trade legislation).

\(^{189}\) *Id.* at 10,366.

\(^{190}\) Giovinazzo, supra note 154, at 100–01.

\(^{191}\) Dwyer, supra note 134, at 233.

\(^{192}\) Lynn White, Jr., *The Historical Roots of Our Ecologic Crisis,* 155 *Science* 1203, 1205 (1967) (“What people do about their ecology depends on what they think about themselves in relation to things around them.”).

biocentrism, environmental justice, deep ecology, and pragmatism.\textsuperscript{194} Each of these environmental ethical approaches reflects a societal rationale for the enactment of the CAA and its amendments.

Ecofeminism has three basic claims: 1) both nature and women have been dominated by men; 2) western thought traditionally associates women with nature; and 3) women and the natural world have both been controlled by the patriarchal approach taken by men.\textsuperscript{195} Ecofeminism hopes to create an alternative viewpoint, or even society, that recognizes the full humanity of each person, male or female.\textsuperscript{196} Women are seen as repositories of ecological knowledge concerning the maintenance of forests, plants, and animals.\textsuperscript{197} Rather than viewing women and nature as cursed, ecofeminism would "acknowledge such organic interdependence, biotic vulnerability, and even nature's tragic tears without employing these as the divide between Spirit and body or between Spirit and nature."\textsuperscript{198}

The Latin American ecofeminist Ivone Gebara posits three stages of the development of ecofeminism: first, women are recognized as being oppressed; second, male dominance is questioned, leading to the articulation of feminine divine symbols; and third, patriarchal thinking about the separation of humans and nature is deconstructed.\textsuperscript{199} Distinguishing themselves from those who believe in Deep Ecology, ecofeminists find the very term "anthropocentrism" to be a misunderstanding of the connection between women being dominated, and nature being dominated, by male patriarchy.\textsuperscript{200} The recurring themes in ecofeminist literature focus on the interrelationship, interdependency, and mutuality of humans and nature.\textsuperscript{201}

Unlike the ecofeminists who focus on prior male domination, biocentrists emphasize the oneness of all parts of nature. The basic tenet of biocentrism is that every being has a stake in the environment, regard-

\textsuperscript{194} See Callicott, supra note 171. For another alternative, see Eskridge, supra note 179 (discussing public choice theory, which looks at the political process according to principles of economics).

\textsuperscript{195} Callicott, supra note 171.

\textsuperscript{196} Rosemary Radford Ruether, Ecofeminism Philosophy, Theology, and Ethics: A Comparative View, in ECOSPIRIT: RELIGIONS AND PHILOSOPHIES FOR THE EARTH 77, 80 (Laurel Kearns & Catherine Keller eds., 2007) [hereinafter ECOSPIRIT].

\textsuperscript{197} Id.

\textsuperscript{198} Sharon Betcher, Grounding the Spirit: An Ecofeminist Pneumatology, in ECOSPIRIT, supra note 196, at 315, 335.

\textsuperscript{199} Ruether, supra note 196, at 85.

\textsuperscript{200} Rosemary Radford Ruether, Deep Ecology, Ecofeminism, and the Bible, in DEEP ECOLOGY AND WORLD RELIGIONS: NEW ESSAYS ON SACRED GROUNDS 229, 230 (David Barnhill & Roger Gottlieb eds., 2001) [hereinafter DEEP ECOLOGY AND WORLD RELIGIONS]. Thus, the ecofeminists do not agree with those who believe in deep ecology. See infra notes 217–23 and accompanying text.

\textsuperscript{201} Ruether, supra note 196, at 91.
less of whether or not they are conscious.\textsuperscript{202} Thus, all living beings are worthwhile and should have equal moral consideration given to their interests.\textsuperscript{203} This position closely resembles the religious beliefs of Buddhism, a religion that also values all sentient beings.\textsuperscript{204} As one commentator points out, the problem with this approach is that “most of our environmental problems remain unaddressed.”\textsuperscript{205} For many Americans, the fates of insects and weeds are not pressing environmental concerns.\textsuperscript{206} Biocentrists, alternatively, seek a more holistic environmental ethic that includes all of nature.\textsuperscript{207}

Another approach in support of environmental legislation is the environmental justice movement. Advocates of this position point out that minority communities frequently bear the brunt of the environmental burden because undesirable facilities often are built nearby.\textsuperscript{208} The basic premise of the environmental justice position is that “privileged white people systematically receive the benefits of environmental protection while poor people of color systematically incur the environmental risk.”\textsuperscript{209} Some in this group use a Marxist view to critique current environmental positions held by more traditional environmental groups.\textsuperscript{210} The environmental justice movement began in the late 1980s when it raised the issue of racism on the part of regulatory agencies, industry, and established environmental organizations.\textsuperscript{211} Members of the movement accused these establishments of racism and of valuing “golf courses and ‘endangered bunnies’” more than people of color.\textsuperscript{212} The movement gathered supporters in the early 1990s, and, although it still lacked the resources of other environmental groups, its supporters used more confrontational methods such as demonstrations.\textsuperscript{213} The symbolic language of environmental justice draws on images of racism, violence, and religion.\textsuperscript{214} Much like black churches’ support of the social justice movement during the civil rights movement in the 1960s, today the religious communities of people of color are generally supportive of the environmental

\textsuperscript{202} Callicott, supra note 171.
\textsuperscript{203} Id.
\textsuperscript{204} For a discussion of Buddhist beliefs, see infra Part III.A.
\textsuperscript{205} Callicott, supra note 171.
\textsuperscript{206} But see Stephen Orr, A Sustainability That Aims to Seduce, N.Y. TIMES, Aug. 21, 2008, at F1.
\textsuperscript{207} Callicott, supra note 171.
\textsuperscript{208} See Binder, supra note 170, at 4.
\textsuperscript{209} Gauna, supra note 172, at 8.
\textsuperscript{210} See Callicott, supra note 171.
\textsuperscript{211} Gauna, supra note 172, at 6–7. For collective readings on environmental justice, see Confronting Environmental Racism: Voices From the Grassroots (Robert Bullard ed., 1993).
\textsuperscript{212} Binder, supra note 170, at 4–5.
\textsuperscript{213} Gauna, supra note 172, at 12.
\textsuperscript{214} Binder, supra note 170, at 15.
justice movement. While relatively new to the environmental protection scene, the advocates of this movement have now gained acceptance as representatives of a distinct environmental ethical approach and have "a place at the table."

The fourth group to emerge from the environmental battles of the late twentieth century is Deep Ecology. This group believes that most of the environmental problems currently facing the United States, including air pollution, derive from an anthropocentrism. Deep Ecology holds that there needs to be a re-orientation so that humans are viewed as part of nature to such an extent that destruction of any part of nature entails self-destruction. This group stresses the intrinsic value of the natural world and promotes reverence of that world, claiming to receive sacred truths from it. Deep Ecologists concentrate on the similarities, connections, and interrelations of humans and the natural world, which includes flowers, fish, earth, sky, and all other parts of nature. When recognized as part of a community, ants, birches, and elk can provide remedies for some of humanity's ills. The key norms of this group include self-realization and equality with all of nature. Deep Ecology views itself as the response to the environmental crisis that does not stem from "manipulative science and voracious productivism."

Alternatively, pragmatists simply want to find solutions to the environmental crisis without assessing blame. Pragmatism tends to view environmental issues from a how-to-solve-it approach. Among those taking this approach are economists, who believe in balancing economic progress with environmental preservation. The pragmatist views other outlooks as too "ivory-tower" for the general public. Pragmatism focuses on local environmental problems and practical solutions, rather than on a one-size-fits-all approach. By searching for local solutions, various interest groups can come together and work to improve the environment. Even corporations are voluntarily adopting pragmatic environmental alternatives, some from stewardship policies and others from

215. Id. at 13; see also Ruether, supra note 200, at 238.
217. Callicott, supra note 171.
218. Id.
220. Id. at 19.
221. Id. at 20.
223. Gottlieb, supra note 219, at 22.
225. Callicott, supra note 171.
226. Id.
227. Id.
purely economic motives. Corporations gain several things by these programs: expertise, knowledge of how regulations may affect the corporation, and, hopefully, future allocation of credit for reducing air pollutants. Several states have also become involved in finding pragmatic solutions to pollution by adopting state-wide reduction programs, seeking to influence federal policies so as to benefit their home industries, and developing programs to encourage innovative technologies. Still, these pragmatic environmentalists realize that less economic growth might be better because it would slow the rate of resource consumption.

The benefit of these environmental groups is that they have raised both awareness and political energies on behalf of nature. They have contributed to the improvement of air quality through the passage of various CAA amendments and the regulations adopted as a result of such legislation. At times, however, the thrust of their arguments has closely resembled a religious crusade. When this happens, the policies or laws being proposed may have strong support from the proposing group, but not from the broader society. One author went so far as to call the federal government’s environmental policy “Disneyland management,” suggesting that image was more important to Congress than substance when dealing with environmental issues.

III. RELIGIOUS VIEWS OF AIR AND RESULTING LEGISLATION

While secular environmental groups in the United States have lobbied for and supported legislation such as the CAA, environmental groups in other countries may have different moral values as a result of having different religious views. Because the CAA contains sections that are largely symbolic, the U.S. public could endorse the legislation even if the EPA couldn’t meet its lofty goal of clean air. Other societies might not endorse symbolic language as the American public has. Secular environmentalists use religious language in describing nature, such as describing wilderness areas as cathedrals and depicting preservation as the means of human salvation. In other countries, particularly those that

228. Kruger, supra note 172, at 6.
229. Id. at 7-8.
230. Id. at 10.
231. Nelson, supra note 193, at 77.
232. See id. at 78.
233. See id. at 77-78.
234. Id.; see also id. at 69-74 (describing the problems encountered when some environmental groups pushed for the U.S. Forest Service to work to restore forests to a state of “original nature”).
235. Id. at 80.
236. Giovinazzo, supra note 154, at 102.
have adopted a specific religion as the official state religion, the religious language can be more overt.\textsuperscript{238} Religious adherents often dominate such countries, even to the point of persecuting people of other religions who may reside there.\textsuperscript{239} Since religions offer an alternative understanding of the role of humanity and nature, it is useful to have religious support for any environmental legislation.\textsuperscript{240} However, with the ecological crisis of continuing air pollution, there is also a need for dialogue amongst religious traditions that seeks areas of mutual agreement towards improving air quality.\textsuperscript{241}

A. Buddhism

Buddhism’s adherents are found in large concentrations in Asia; some Asian countries even declare Buddhism as the official state religion.\textsuperscript{242} Buddhism values natural resources as a part of all life on earth, and perceives nature as the embodiment of various deities.\textsuperscript{243} This value has prompted the nation of Bhutan to prohibit “hunting, fishing or violating any form of life.”\textsuperscript{244} The religious beginnings of Buddhism date back to the sixth century B.C.E., when it was founded by Siddhartha Gautama, who lived in present-day Nepal.\textsuperscript{245} His search for meaning in life led him to renounce his family’s wealth and seek “a way to extricate

\textsuperscript{238} Religious adherents make up the vast majority of the world’s population. The latest statistics are as follows: Christianity: 2.1 billion; Islam: 1.5 billion; secular/nonreligious/agnostic/atheist: 1.1 billion; Hinduism: 900 million; Chinese traditional religion: 394 million; Buddhism: 376 million; primal-indigenous: 300 million; African traditional & diasporic: 100 million; Sikhism: 23 million; Juche: 19 million; Spiritism: 15 million; Judaism: 14 million; Baha’i: 7 million; Jainism: 4.2 million; Shinto: 4 million; Cao Dai: 4 million; Zoroastrianism: 2.6 million; Tenrikyo: 2 million; Neo-Paganism: 1 million; Unitarian-Universalism: 800,000; Rastafarianism: 600,000; Scientology: 500,000. Adherents.com, Major Religions Ranked by Size, http://www.adherents.com/Religions_By_Adherents.html (last visited Dec. 4, 2008).

\textsuperscript{239} For example, when India was created as an independent Hindu country, Pakistan was also created as a Muslim country, resulting in the migration of approximately 17 million people both ways across the border. See Infoplease.com, India: History, Geography, Government, and Culture, http://www.infoplease.com/ipa/A0107629.html (last visited Mar. 7, 2009).

\textsuperscript{240} Gottlieb, supra note 219, at 18.

\textsuperscript{241} Ruether, supra note 200, at 232.


\textsuperscript{243} See Kenneth L. Woodward, Countless Souls Cry Out to God, Newsweek, Jan. 10, 2005, at 37, 37 (“Among coastline Buddhists in Thailand and Sri Lanka . . . there are many weather gods to both blame and propitiate with assorted prayers and offerings.”).

\textsuperscript{244} Lhundup, supra note 242, at 699.

\textsuperscript{245} Steve Hagen, Buddhism Plain and Simple 6 (1997); see also Lhundup, supra note 242, at 700.
himself from the universal despair that seemed to form the very ground of human existence."246 Six years later Gautama found enlightenment and understanding of human problems.247 He was then identified as Buddha, and taught what are known as the Four Noble Truths and the Eightfold Path.248 One of the central tenets of Buddhism is the belief in "compassion towards all sentient beings."249 This belief has been closely linked to the Buddhist recognition of a "sacred duty of . . . refraining from killing living beings and defiling the environment."250 Buddhists thus have an environmental duty to protect the air.

The sacred writings of Buddhism include several references to how Buddhists experience the air in its purer state. The Bhikkus (Buddhist monks) seek the path of purity and find:

Yadá nabhe gajjati meghdundubhi
Dhärakulā vihagapathe samantato,
Bhikkhū ā pabbhāragato va jhāyati
Tāto ratim paramataram na vindati.

When in the sky storm cloud’s drum thunders and the pathways of the birds on all sides become thick due to heavy rains, Bhikku sits in hillcaves, rapt in rapturous reveries, considers this to be no higher bliss bestowed upon man than this.251

Through Dharma, the Buddhist believer finds understanding of human conduct and duty.252 Buddhists also believe that the earth flourishes in its natural state, but greed and desire ultimately lead to destruction and chaos.253 As one sacred text states, “Pollution is everywhere, in Buddhism it is prohibited.”254 Buddhists believe that even non-sentient forms can achieve enlightenment, and therefore must be protected from any pollution that would harm them, including air pollution.255

Bhutan is a small country located in the southeast region of the Himalayas, and has officially adopted Buddhism as the state religion.256 Conservation efforts in Bhutan are “rooted in Buddhist teachings that

---

246. HAGEN, supra note 245, at 6–7.
247. Id. at 7.
248. Lhundup, supra note 242, at 700–01.
249. Id. at 701; see also Donald Sweearer, Buddhism and Ecology: Challenge and Promise, 10 EARTH ETHICS 10 (1998), available at http://fore.research.yale.edu/religion/buddhism/index.html.
250. Lhundup, supra note 242, at 710.
252. Shiva Shanker Tripathi, Buddhism and the Ecological Crisis, in WORLD RELIGIONS AND THE ENVIRONMENT, supra note 251, at 187, 196.
253. Sweearer, supra note 249.
255. Swearer, supra note 249.
256. Lhundup, supra note 242, at 694.
humans must respect all sentient beings and that humans are one with their natural surroundings.”\textsuperscript{257} The Bhutan government views natural resources as something that should not be plundered. Indeed, such plundering would be not only sinful from a Buddhist perspective, but unethical as well.\textsuperscript{258}

In adopting its National Environmental Protection Act (NEPA) in 2007, the Bhutanese government declared that people have the “fundamental right to a safe and healthy environment with equal and corresponding duty to protect and promote the environmental well being of the country.”\textsuperscript{259} The legislation establishes a National Environment Commission to oversee the functions of the Act, and grants it the power to set emission limits.\textsuperscript{260} The Act clearly prohibits environmental pollutants: “No person shall discharge or emit or be permitted to discharge or emit any pollutants in excess of such standards as may be prescribed.”\textsuperscript{261} In doing so, it is careful to include not only direct polluters, but also those who would permit others to pollute.

The enforcement mechanisms of the Bhutanese Act are similar to those established by the CAA’s provisions. In addition to issuing standards, the NEPA Commission is required to foster scientific research aimed at developing, monitoring, and assessing biological trends.\textsuperscript{262} Tax incentives are permitted for the manufacturing of environmentally friendly products.\textsuperscript{263} The NEPA Commission also has authority to establish an information network that can gather, analyze, and disseminate data about the Bhutanese environment.\textsuperscript{264} There are civil and criminal penalties for violation of the Act.\textsuperscript{265}

Because the Act is relatively new, it is too soon to assess how much support it will experience amongst the people of Bhutan. However, the government encourages every citizen to think of himself as “a trustee for the country’s natural resources and environment.”\textsuperscript{266} It is expected that there will be wide support for the Act, since it is based on Buddhist teaching about human duty in caring for the environment.

\textsuperscript{257} Id. at 708.
\textsuperscript{258} Id. at 714.
\textsuperscript{260} Id. ch. 3, §§ 20, 30(f).
\textsuperscript{261} Id. ch. 4, § 56.
\textsuperscript{262} Id. ch. 5, § 74.
\textsuperscript{263} Id. ch. 5, § 78(a).
\textsuperscript{264} Id. ch. 5, § 82.
\textsuperscript{265} Id. ch. 9, §§ 101–04.
\textsuperscript{266} Id. ch. 5, § 67.
B. Hinduism

The Hindu views about the environment differ from the Buddhist views. Hindu literature can be traced to about 1000 B.C.E., although archaeological evidence suggests that the Hindu religion goes back even further, to 1500 B.C.E., in India.267 The self-conscious identity of Hinduism as a religion developed between 1200 and 1500 C.E. This identity arose from the Hindu conflicts with Muslims during that period.268 The technical term "Hinduism" was first applied to the religious practices in India in 1829 and came into wide use with the missionary movement in India in the 1870s.269 The term is sometimes tied to geographic boundaries; the Laws of Manu, written in 200 C.E., give the basic borders of India as the locale of this religion.270 When applied to theological concepts, Hinduism is an interlinking web of ideas drawn from different texts and emphasizing different gods.271 It encompasses various doctrines and deities.272

There are different sects within Hinduism, but many acknowledge several basic Hindu beliefs. These include the ideas of reincarnation and karma, which directly affect the Hindu view of the environment and humanity's place in the world. Drawing from the Hindu sacred texts, these two concepts encourage a life that does not pollute the world.

Since Hinduism teaches that a human may be reincarnated as another life form, all life is sacred to the Hindu believer.273 Reincarnation is the re-birth of a soul into another life, after having died in the prior life. In Hinduism, this re-birth may be higher or lower on the animal totem-pole depending on the type of life a soul has just lived.274 If one lived doing evil deeds, then one's soul will move down several levels.275 Human life does not, therefore, have a higher value than other

271. See id. at 35.
275. Id.
forms of life. The ultimate goal of life is to achieve a purified mind that shows its unity with the divine, or the ultimate god, Brahman.

Another central belief shared by the various Hindu sects is that of karma. This concept is linked to reincarnation because it is the basis for determination of the level at which the soul is re-born. Early Hinduism held that one’s karma could not be changed, and encouraged resignation to the fate life had brought in this cycle. With the challenges of British charitable actions, Hinduism considered an alternative: each soul/person builds her own karma through the deeds done during a lifetime. Good deeds result in good karma, or higher re-birth in the caste system.

Hinduism also views the natural world as made up of five basic elements, and thus teaches that material reality is noticeable through earth, water, fire, air, and space. These five elements are an essential part of the Hindu view of nature, as seen in the following text:

\[
\text{Aka ashimiti vikhy\=tam sarvabh\=u/\=tadharah prabhuh} \\
\text{Aka\=sadbhavadv\=arih salil\=adagdim\=arutau}
\]

The father of all creatures, God, made the sky, from sky he made water and from water made fire and air, earth came into existence.

In these verses, air is experienced through touch; indeed, the Sanskrit word vayu is often translated as “wind” instead of as “air.” Traditional Hinduism seeks to attain spiritual liberation, which includes experiencing the touch of wind as being at one with the believer. Other relevant concepts from Hinduism include the goddess Shakti, and dharma, which is the idea of doing what is right. Shakti, as the goddess of activating energy, and Prakriti, as the goddess of nature, both

276. Dwivedi & Tiwari, supra note 273, at 160.
278. Doniger, supra note 270, at 37.
280. Id. at 585.
281. Doniger, supra note 270, at 37.
282. Pennington, supra note 279, at 587.
283. Chapple, supra note 272, at 61.
284. Id.
286. Chapple, supra note 272, at 61-63.
287. Id. at 62.
288. For more on dharma, see Subhamoy Das, What is Dharma? About the Path of Righteousness, http://hinduism.about.com/od/basics/a/dharma.htm (last visited Mar. 27, 2009); see also Christopher Key Chapple, Hinduism, Jainism and Ecology, 10 EARTH ETHICS 16, 16-17 (1998) (discussing dharma in the ecological context).
demonstrate the interactivity of women and nature which is needed for ecological balance in Hinduism. Dharma has become a code of conduct that helps define human-nature relationships. Here, dharma dictates that balance and oneness include acting for the good of the world.

The Hindu belief of dharma, however, conflicts with implementing judicial rulings, since it focuses more on internal monitoring of actions rather than external coercion. The internal regulation of behavior by dharma is a very different concept from the United States' legal environmental approach of external constraints. This idea of dharma was a major factor in a 1997 study that found "severe problems in the working of the formal regulatory system" in India.

India is largely Hindu in its beliefs, with eighty-one percent of its citizens claiming to be Hindus. Hinduism is one of the oldest continually observed traditions on the Indian subcontinent. As the air quality has deteriorated in many cities, some Hindu thinkers are reflecting on how the religion's values can contribute to greater care for the earth. For one ecofeminist who has a Hindu background, there is a need to return to "traditional Hindu cosmology to express the worldview that is needed for recovery of ecological knowledge and life-sustaining practice." However, the increasing number of people moving to the urban areas of India threatens to undermine the Hindu ecological sensibility. One writer observes: "India and the Hindu approach to environmental issues operates in a careening, inventive fashion, drawing from the tradition, yet recognizing the complexity of distinguishing between human need and human greed."

Indian legislation reflects the tension of economic needs and Hindu teachings where the environment is concerned. The Air (Prevention and Control of Pollution) Act was adopted on March 29, 1981. The Air Act (AA) added responsibility for air quality to a Central Board (or

289. See Ruether, supra note 196, at 83.
290. Dwivedi & Tiwari, supra note 273, at 177.
295. Id.
296. See Ruether, supra note 196, at 83 (discussing Vandana Shiva).
297. Chapple, supra note 272, at 71.
298. Id. at 73.
agency) already overseeing water quality.300 The function of the Board would be to "improve the quality of air and to prevent, control or abate air pollution in the country."301 As with the U.S. Clean Air Act, the AA designates specific air pollution control areas where efforts are to be undertaken by the Indian states rather than the central government.302 However, the AA allows each state to set automobile emissions standards, unlike the CAA, which instructs a federal agency (the EPA) to set the standards.303 The Indian states may also set standards for stationary source emissions.304 These and other sections of the AA demonstrate the detailed care the Indian government is taking to improve air quality in accordance with the dictates of dharma.

In order to facilitate the implementation of AA standards, the Union Cabinet adopted a National Environmental Policy in 2006 ("the Policy").305 The Cabinet noted that air pollution impacts the poor, women, and children especially.306 The Policy takes an integrated approach to confrontation of the direct causes of air pollution by undertaking efforts to "improve conversion, transmission, distribution, and end-use efficiency, and [research and development] in, and dissemination of, renewable energy technologies."307 Practical help for the poor includes distribution of solar cookers and improvement of fuelwood stoves.308 Realizing that industries might not voluntarily comply, the Policy permits use of both fiat and incentives.309 It also strengthens efforts to substitute bio-fuels for fossil fuels and develop a strategy to convert mass transit to low pollution technology.310

Drawing on the Hindu dharma teaching to care for the earth, the Indian government is seeking implementation of stringent environmental laws. The success of this legislation will depend on strong enforcement by government agencies. It will also depend on the support of the people, which may be encouraged by their religious belief of Hinduism.

300. Id. ch. II, § 3.
301. Id. ch. III, § 16(1).
303. The Air (Prevention and Control of Pollution) Act ch. III, § 17(g); 42 U.S.C. § 7543(a).
304. The Air (Prevention and Control of Pollution) Act ch. III, § 17(g).
306. Id. § 5.2.8, at 36.
307. Id. at 37.
308. Id.
309. Id.
310. Id.
C. Indigenous Religions

Indigenous religions have a widely admired ecological wisdom.\textsuperscript{311} Almost every continent has indigenous persons who practice ancient religious traditions.\textsuperscript{312} The United Nations International Labour Organization defines indigenous people as

\begin{quote}
[p]eoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present State boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.\textsuperscript{313}
\end{quote}

While these traditions vary in many of their specific beliefs, they share some common viewpoints regarding the relationship between humanity and the earth.\textsuperscript{314} For instance, many indigenous people see a close relationship between humans and nature.\textsuperscript{315} Thus, their religious beliefs emerge from an interweaving of people in relationship with a giving ecosystem.\textsuperscript{316} Although there are similarities between indigenous beliefs and deep ecology, the former focuses on a community's relation to the earth, and the latter on individuals.\textsuperscript{317}

The beginnings of indigenous spirituality are lost in the mists of history. As practiced today, there is no "pure" indigenous spirituality because of the outside influences of more dominant cultures.\textsuperscript{318} Indigenous spirituality is, however, marked by "a concern for spontaneities of religious experience, remarkable intimacies with local bioregions often believed to be the source of sacred revelation, and developed ritual practices which instill the collective memories of the people and their home-

\textsuperscript{311} Betcher, supra note 198, at 318.
\textsuperscript{314} See Anna L. Peterson, Being Human: Ethics, Environment, and Our Place in the World 100 (2001).
\textsuperscript{315} Id. at 126.
\textsuperscript{316} John Grim, Indigenous Knowing and Responsible Life in the World, in Eco-Spirit, supra note 196, at 196, 203.
\textsuperscript{317} Grim, supra note 222, at 39.
land in individual bodies and minds.\textsuperscript{319} Nature has traditionally been a central factor within indigenous beliefs, often characterized by an intense inter-relationship between humans and elements such as wind or rain.\textsuperscript{320} Frequently, indigenous spirituality sees humans as part of a continuum within nature, rather than as separate and above nature.\textsuperscript{321} It is a place-based knowledge that often guides indigenous religious beliefs.\textsuperscript{322}

A number of writers have emerged to record the beliefs passed on through the stories of indigenous people. Luther Standing Bear, a Sioux and the hereditary chief of the Dakotas,\textsuperscript{323} described the indigenous belief of human kinship with nature: "Kinship with all creatures of the earth, sky, and water was a real and active principle. For the animal and bird world there existed a brotherly feeling that kept the Lakota safe among them."\textsuperscript{324} The closeness of indigenous people with birds of the air leads to a concern when that air becomes polluted.

As with many indigenous people, the Navajo view wind as sentient. Wind existed as a person whose task was to care for the Earth when the Earth came into existence.\textsuperscript{325} Wind is seen as beautiful, and as a person from the underworld.\textsuperscript{326} The ancient harmony can be experienced in the tangible feel of breezes.\textsuperscript{327} One traditional Native American prayer states:

O Great Spirit,  
Whose voice we hear in the winds,  
And whose breath gives life to the world,  
Hear us! We are small and weak,  
We need your strength and wisdom.\textsuperscript{328}

Many indigenous peoples associated the Air or Wind with the supreme being. Often this association goes so far as to equate the Spirit (of the supreme being) with the Wind itself.\textsuperscript{329} Additionally, even sticks

\begin{itemize}
\item \textsuperscript{320} Allison M. Dussias, \textit{Asserting a Traditional Environmental Ethic: Recent Developments in Environmental Regulation Involving Native American Tribes}, 33 \textit{New Eng. L. Rev.} 653, 654 (1999).
\item \textsuperscript{321} Peterson, \textit{supra} note 314, at 122.
\item \textsuperscript{322} Grim, \textit{supra} note 316, at 204.
\item \textsuperscript{323} Native American Authors Project, Luther Standing Bear, http://www.ipl.org/div/natam/bin/browse.pl/A110 (last visited Feb. 7, 2009).
\item \textsuperscript{324} Luther Standing Bear, \textit{Land of the Spotted Eagle} 193 (Univ. of Neb. Press 1978) (1933).
\item \textsuperscript{325} James Kale McNeley, \textit{Holy Wind in Navajo Philosophy} 15 (1981).
\item \textsuperscript{326} \textit{Id.} at 16.
\item \textsuperscript{327} Grim, \textit{supra} note 319, at 14–15.
\item \textsuperscript{328} Freda Rajotte, \textit{First Nations Faith and Ecology} (1998).
\item \textsuperscript{329} \textit{See, e.g.,} John Neihardt, \textit{Black Elk Speaks} 24 (State Univ. of N.Y. Press 2008) (1932) ("Now the fifth Grandfather spoke, the oldest of them all, the Spirit of the Sky.").
\end{itemize}
or clay have within them a spiritual essence that must be taken into account, for any human interaction with these may raise their wrath if they are not respected. The Hopi of the southwestern United States believe that all natural things play a role in maintaining the equilibrium of the world.

It is primarily humans who need to restore the earth when the equilibrium is lost. One indigenous writer foresaw the misuse of the air in a vision that showed the Earth becoming sick. In the vision, the air and water were polluted, and he had to restore the Earth through various dances.

As indigenous people have confronted modern air pollution, they have sought to live out their beliefs by advocating for the earth generally, and for cleaner air specifically. One area inhabited by indigenous peoples that is currently dealing with the impacts of air pollution is the Arctic National Wildlife Refuge in Alaska. Advocates claim that the Refuge needs to be preserved because it is one of the few remaining areas that is still untouched by man—despite indigenous peoples having been in the area for centuries. Another endeavor is atmospheric monitoring by the Arctic Council, a group of eight nations currently establishing a network to track pollution in the polar region. Climate change is a deep concern for indigenous peoples of the Arctic, as they are directly impacted by melting polar ice and the decreasing amount of summer sea ice. The United Nations does what it can to declare the rights of indigenous people, but compliance with its declarations is voluntary. Although the Arctic Council and others like it have no legislative power, they do lobby various governments for more protection of the polar region from air pollution.

330. RAJOTTE, supra note 328, at 13.
331. Id. at 73.
332. NEIHARDT, supra note 329, at 25.
333. RAJOTTE, supra note 328, at 77.
334. NEIHARDT, supra note 329, at 32–33.
336. The Ottawa Declaration of 1996 formally established the Arctic Council as a high level intergovernmental forum to provide a means for promoting cooperation, coordination, and interaction among the Arctic States, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common Arctic issues. Issues of particular importance were sustainable development and environmental protection in the Arctic. For more on the Arctic Council, see The Arctic Council, http://arctic-council.org/section/the_arctic_council (last visited Mar. 29, 2009). This effort of atmospheric monitoring is undertaken by the AMAP working group of the Council.
D. Islam

Muslims predominate in many countries in the Middle East; some of those countries have Islam as their official religion.\textsuperscript{339} Egypt, for example, bases its environmental laws on the principles of Islamic Sharia drawn from the Quran.\textsuperscript{340} In Islam, humanity is viewed as being a steward, or trustee, of the environment.\textsuperscript{341}

Islam began as a result of revelations to the Prophet Muhammad in the early seventh century C.E.\textsuperscript{342} There are a number of different texts held sacred by Islam: "Quran (the book of God), Sunnah (what the Prophet did), and Hadith (narrated by Sahabas)."\textsuperscript{343} Briefly, Muhammad lived in the area of modern Saudi Arabia and led various military efforts that resulted in "freeing" Mecca in the seventh century C.E.\textsuperscript{344} Muhammad received the Quran from the angel Gabriel as the verbatim words of God, and it is typically divided into sections called "sura."\textsuperscript{345} As Islam gained converts, different commentaries on the sura of the Quran were written, including the Sharia.\textsuperscript{346} The Sharia contains the basic tenets of Islamic law, and many Muslim countries rely on it in formulating their laws.\textsuperscript{347} It was created in the eighth and ninth centuries C.E. by classical Muslim jurists and reflects their worldview.\textsuperscript{348} The Sharia draws on the Quran as it seeks to guide the faithful Muslim in living according to the word of God as revealed to Muhammad.\textsuperscript{349}

Muslim thinking about nature is shaped by several passages in the Quran, which exalt nature as the work of Allah:

\begin{itemize}
\item \textsuperscript{339} For example, Egypt, Kuwait, and Saudi Arabia. \textit{See} \textit{WORLD ALMANAC}, supra note 312, at 780, 801, 833.
\item \textsuperscript{341} Frederick M. Denny, \textit{Islam and Ecology: A Bestowed Trust Inviting Balanced Stewardship}, 10 \textit{Earth Ethics} 10, 10 (1998).
\item \textsuperscript{343} M. Rafiq & Mohammad Ajmal, \textit{Islam and the Present Ecological Crisis}, in \textit{WORLD RELIGIONS AND THE ENVIRONMENT}, supra note 251, at 119 (using the spelling "Quran" rather than "Koran" since it is the more accurate transliteration of the Arabic term for this holy writing of Islam).
\item \textsuperscript{346} Sardar, supra note 344, at 51.
\item \textsuperscript{347} Stilt, supra note 340, at 722.
\item \textsuperscript{348} Sardar, supra note 344, at 51.
\item \textsuperscript{349} \textit{Id}.
\end{itemize}
Faqqim wajhaka lilddeeni haneefan fitrata Allahi allatee fatara al%
aqsa AAalayha la tabdeela likhalqi Allahi rhalika aldeenu alqayyimu walakinna akthara alnnasi la yaAAaloomana

So set thou thy face steadily and truly to the Faith: (establish)
Allah's handiwork according to the pattern on which He has made
mankind: no change (let there be) in the work (wrought) by Allah.
[That]hat is the standard Religion: but most among mankind under-
stand not.350

Humans are to purify nature. “Qad aflaha man zakkaha Waqad
khaba man dassaha (Truly he succeeds that purifies it, And he fails that
corrupts it!).”351 Humans thus have a divine mandate to improve nature
and get rid of impurities as they find them. This purification is focused
on bringing order and progress to nature—but not destroying it in the
process.352 The limits of nature should not be exceeded: “Wala tufsidoo
fee al-ar
di baAAada Islahiha waodAAoohu khawfan wataAAAan inna
ra
mata Allahi qareebun mina almuhsineena (Do no mischief on the
earth, after it hath been set in order, but call on Him with fear and
longing (in your hearts): for the Mercy of Allah is (always) near to those
who do good).”353 Allah requires humans to observe nature’s boundaries
and draws near to believers who do good to the earth.

The air is part of creation for Muslims. As in many other religions,
it is often associated with the wind:

Wahuwa allathee yursilu alrriyaha bushran bayna yaday rahmatihi
hatta isha aqallat sahaban thiqalan suqnahu libaladin mayyitin
faanzalna bihi almaa faakhrajna bihi min kulli alththamarati
kathalika nukhriju almaawta laAAallakum tathakkaroona

It is He Who sendeth the winds like heralds of glad tidings, going
before His mercy: when they have carried the heavy-laden clouds,
We drive them to a land that is dead, make rain to descend
thereon, and produce every kind of harvest therewith: thus shall
We raise up the dead: perchance ye may remember.354

The wind is akin to divine messengers, and should not be fouled by
humans. Air pollution thus represents a violation of Allah’s ordering of
nature. “Inna kulla shay-in khalaqnu biqadarin (Verily, all things have
We created in proportion and measure).”355 There is a balance to nature

(1934–38) [hereinafter QUR'AN]. The Arabic text and English translation of the Quran
are also available at http://www.sacred-texts.com/isl/quran/index.htm (last visited Mar.
29, 2009).
351. QUR'AN, supra note 350, 91:9–10.
352. Rafiq & Ajmal, supra note 343, at 123.
353. QUR'AN, supra note 350, 7:56.
354. Id. 7:57.
355. Id. 54:49.
as Allah has created it. According to Islam, air is a part of that balance and should be maintained in a pure state. Otherwise, a society may face tangible losses:

Walaqollillahum waalaomaniyannahum waala'amurannahum falayubattikunna athana al-anAAami wala'amurannahum falayughayirunna khalqa Allahi waman yattakhithi alshshaytana waliyyan min dooni Allahi faqad khsira khusranan mubeenan

“I will mislead them, and I will create in them false desires; I will order them to slit the ears of cattle, and to deface the (fair) nature created by Allah.” Whoever, forsaking Allah, takes Satan for a friend, hath of a surety suffered a loss that is manifest. 356

Nature, including the air and all creatures who draw breath from it, is fair in its original state and should not be defaced by humanity. All elements of nature are to be considered common property of every creature—not just humans. 357 The Quran even predicts the air pollution experienced today as a result of smoke, gas, and other emissions. 358 Corruption of the air spreads because of human activity, which damages the environment. 359

Islam and the Quran have considerable influence over the legislation that is enacted in Egypt, because Islam is the official religion of that country. 360 As a result, Egypt has followed the Muslim precepts in its legislation and court decisions, and the Egyptian constitution specifically incorporates the Muslim faith. 361 The Egyptian constitution, adopted in 1971, states that “the principles of the Islamic Sharia are a main source of legislation.” 362 In 1980, this language was changed from “a main source” to “the main source.” 363 The Egyptian courts have given this provision a narrow interpretation, allowing room for some modern legal concepts like Egyptian environmental laws. 364 The Egyptian Environmental Affairs Agency (EEAA), established in 1982 and made permanent

---

356. Id. 4:119.
358. Rafiq & Ajmal, supra note 343, at 128.
361. WORLD ALMANAC, supra note 312, at 780; see also Stilt, supra note 340, at 723 (describing how the constitution declares Islam the official religion of the country).
363. Id. at 724.
364. Id. at 724–27 (discussing relevant decisions of the Egyptian Supreme Constitutional Court interpreting this part of the Constitution).
by the Egyptian Law 4 of 1994, has powers very similar to those of the U.S. Environmental Protection Agency.\footnote{365}

While these powers support the Islamic concept of human stewardship, there is no specific mention of the Muslim faith in the major Law 4.\footnote{366} Furthermore, Law 4 requires projects to proceed only when the air quality standards are not exceeded.\footnote{367} The EEAA has the power to set standards for vehicle exhaust emissions, similar to the U.S. EPA’s power.\footnote{368} Other air pollutants, such as the burning of solid waste and spraying of pesticides, are prohibited beyond set limits.\footnote{369} As does the United States’ EPA, the EEAA designates areas for protection and issues regulations for the permissible amount of pollutant emissions in each of those areas.\footnote{370} The controlled pollutants include carbon monoxide, unburned hydrocarbons, and exhaust in both current and new vehicles.\footnote{371} The permissible pollutant levels are reduced for new vehicles, with a one year grace period for owners to bring their vehicles into compliance.\footnote{372}

The Egyptian government has committed itself to sustainable development based on Islamic principles.\footnote{373} Egypt’s Islamic Declaration on Sustainable Principles refers to humans as having a “lieutenancy mission on earth.”\footnote{374} It remains to be seen just how successful these environmental laws and regulations will be.

E. The Judeo-Christian Tradition

The largest religious group on earth is Christianity, with concentrations in the Americas, Europe, and sub-Saharan Africa.\footnote{375} For some countries, a Judeo-Christian background shapes the cultural setting in

\footnote{366. Egyptian Law 4/1994, art. 5.}
\footnote{367. Id. pt. 2, art. 34.}
\footnote{368. Id. pt. 2, art. 36.}
\footnote{369. Id. pt. 2, arts. 37, 38.}
\footnote{371. Id. pt. 2, art. 37.}
\footnote{372. Id.}
\footnote{374. Id.}
\footnote{375. WORLD ALMANAC, supra note 312, at 612.}
which laws and policies are formulated. This influence cannot be underestimated in the United States, since it is this religious background which provides most Americans with the desire to support a caring approach to the environment, based “on a shared appreciation for God’s creative power and works.” Judeo-Christian views have ranged between two poles: 1) nature exists only for humanity’s sake; and 2) humans are stewards of nature and must conserve it.

With the rise of environmentalism in the late-1960s and early-1970s, accusations were made that “our present state of affairs—at least in the West—can be traced to the view that Nature is the dominion of Man, and that this attitude, in turn, derives from our religious traditions,” originating in Judaism and continuing into Christianity. Thus, it is imperative to analyze the main message regarding humanity’s connection with nature found within the Judeo-Christian beliefs that inform our value system.

The Judeo-Christian tradition started with Judaism and later combined with Christian principles drawn from the Jewish faith and interpreted by Jesus Christ. The first written records of Judaism we have were made in the tenth century B.C.E., during the times of the Jewish Kings David and Solomon. However, the oral traditions of those writings date back much further. The foundational document found in both the Torah and the Christian Bible, which establishes the ultimate source of the air and its relationship to humanity, is the Jewish book of Genesis. Judeo-Christian religions view Genesis as part of the scripture that forms the basis for faith in God. There are two sections of text which establish God as the creator of water and of humanity:

And God said, “Let there be an expanse between the waters to separate water from water.” So God made the expanse and separated the water under the expanse from the water above it. And it

---

376. See, e.g., id. (noting that Christianity is the official religion in many western European countries).
377. Peterson, supra note 314, at 7 (discussing Oelschlaeger’s “hopes for a consensus to emerge within mainstream religious bodies in the United States in favor of ‘caring for creation’”).
380. Id. (quoting Ian L. McHarg, Values, Process and Form, in The Fitness of Man’s Environment 207, 213–14 (1968)).
382. Id.
was so. God called the expanse "sky." And there was evening, and there was morning—the second day.384

* * *

So God created man in his own image, in the image of God he created him; male and female he created them. God blessed them and said to them, "Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground."385

The first passage indicates that God created, and therefore has authority over, the expanse known as the sky. The second passage again shows God as a creator and authority figure. God gives the waters and the earth to humanity to "subdue" and to "rule." These two verbs have occasioned much debate over the last two thousand years.386 The Hebrew verbs in the text are rada and kabs. Rada is typically translated as meaning dominion, of the kind the head of a household might have over servants or a king over conquered enemies.387 Kabs translates to the stronger idea of subduing or subjugation, and is usually used in a military situation.388 Taken together, these Hebrew verbs, rada and kabs, form the concept of humans as ultimate rulers over the earth, including its air. Any single text, however, should not be taken in isolation, but rather viewed in its original context.

The terms for the human-earth relationship in Genesis 1 may be best understood in the context of the particular harshness of subsistence agriculture in the Mediterranean highlands that provided the livelihood of the priests' constituency. Economic survival could be thought of in adversarial terms, as humans overpowering the intractable ground and subjugating the earth.389 However, Judeo-Christian religions do also see humans as moral agents based on the concept of stewardship, who—as this faith assumes that all life forms have real moral value—have a responsibility to protect the existence of all organisms.390

386. See, e.g., Lannan, supra note 378, at 365 (discussing the Roman Catholic tradition).
388. Id. at 137.
389. Id. at 136–37.
390. Lawrence Troster, Hearing the Outcry of Mute Things: Toward a Jewish Creation Theology, in Ecospirirt, supra note 196, at 337, 343, 352.
In contemplating humans as moral agents, Jewish scholars have written various midrashim, or commentaries, on the Genesis text.\textsuperscript{391} According to two midrashim, everything on Earth is an integral part of creation, even those things which might appear to be superfluous.\textsuperscript{392} Another author asserts that the text teaches "humility, modesty, kindness to all beings, a reverence for life, and a concern for future generations."\textsuperscript{393}

To understand the Judeo-Christian view of air specifically, Genesis 1:6 needs to be examined: "And God said, 'Let there be an expanse between the waters to separate water from water.'"\textsuperscript{394} The word translated as "expanse" is \textit{rakia} in Hebrew. \textit{Rakia} may also mean "spreading out," "gaseous expanse," or "air."\textsuperscript{395} One writer claims that in the Hebrew Scriptures, air is represented by Spirit.\textsuperscript{396} as indeed the Hebrew words for wind and Spirit are both \textit{ruach}.\textsuperscript{397} For the believer, therefore, spoiling of the air quality is similar to grieving the Spirit of God.

Thus, humanity has the responsibility to care for the air and to seek ways to rid the air of pollutants. This belief undergirds much of the popular support for the Clean Air Act. The Judeo-Christian concept of stewardship has reached beyond Jewish and Christian believers, and is evident in secular approaches to environmental concerns.\textsuperscript{398}

\section*{IV. Conclusion}

The Clean Air Act was a bold step when enacted in the 1960s. Unfortunately, its high hopes were not realized, and air quality continued to deteriorate. Congress attempted to remedy this problem through repeated amendments to the Act. By pushing industries to find alternative technologies, some improvement was achieved.\textsuperscript{399} Support for the goal of clean air has been demonstrated through the growth of environ-

\textsuperscript{394}. Genesis 1:6.
\textsuperscript{395}. BERNSTEIN, supra note 393, at 15.
\textsuperscript{396}. Betcher, supra note 198, at 318.
\textsuperscript{397}. See F. BROWN ET AL., THE BROWN-DRIVER-BRIGGS HEBREW AND ENGLISH LEXICON 924 (1905).
\textsuperscript{398}. See supra Part II.C.
\textsuperscript{399}. For example, Los Angeles is known for its smog problem. Los Angeles County has had an air pollution control board since 1947. As a result of the combined efforts by Los Angeles County and other agencies, the number of smog alerts has decreased from 121 in 1977 to seven in 1996. See South Coast Air Quality Management District, The Southland's War on Smog: Fifty Years of Progress Toward Clean Air (May 1997), http://www.aqmd.gov/news1/Archives/History/marchcov.html.
mental groups, popular willingness to continue purchasing cars at a higher price, and election of national candidates who espouse environmental protection views. The United States’ underlying Judeo-Christian values, as seen in the call for stewardship, continue to motivate both industries and individuals to seek ways to achieve clean air.

Other countries may look to the United States for a model of legislation to assist with their own air quality problems. In evaluating the effectiveness of laws such as the Clean Air Act, it will be essential to note the popular support for the law stemming from the religious and cultural values in the United States. Other countries should examine their own religious and cultural values to determine how much support there would be for stringent or lax standards, as successful enforcement of any clean air legislation will depend on popular support.

---

400. One website lists seventeen major groups, many of which were founded in the 1960s or later. See Environment Directory, General Environmental Interest, http://www.webdirectory.com/General_Environmental_Interest/ (last visited Mar. 29, 2009).


402. For example, the Sierra Club endorsed Barack Obama and criticized John McCain for their respective stances on environmental issues. See Press Release, Sierra Club, Sierra Club Endorses Obama for President (June 19, 2008), available at http://www.sierraclub.org/pressroom/releases/pr2008-06-19.asp.

403. The Los Angeles agency and the California Assembly both encourage individuals to switch to compact fluorescent light bulbs to assist in saving energy that is often produced by burning coal. See Matthew Yi, Lawmaker Takes on Light Bulbs, S.F. CHRON., Feb. 9, 2007, at B1.