

## Environmental Management Through Legislative Measures in The United States

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### ABSTRACT

*The writer traces the history of environmental laws and policy within the United States, and reviews major statutes dealing with air and water pollution, waste disposal, toxic substances, insecticides, fungicides and rodenticides, endangered species, and public lands. The paper concludes with a brief assessment of the effectiveness of some of these measures and suggestions for continued improvement.*

### ABSTRAK

*Penulis menggariskan sejarah undang-undang dan polisi alam sekitar di Amerika Syarikat dan mengulas statut-statut penting berhubung dengan pencemaran udara dan air, buangan sisa, bahan beracun, racun serangga, racun kulat, racun makhluk perosak, spesies terancam dan tanah awam. Kertas ini diakhiri dengan suatu penilaian ringkas tentang keberkesanan setengah daripada langkah-langkah dan cadangan-cadangan yang dikemukakan untuk pembaikan seterusnya.*

### INTRODUCTION

We travel together, passengers on a little space ship, dependent on its vulnerable resources of air and soil, all committed for our safety to its security and peace, preserved from annihilation only by the care, the work, and, I will say, the love we bestow on our fragile craft.

-Adlai Stevenson, at the United Nations, 1965.

For internal reasons, nations in general jealously guard their sovereign right to develop and deploy their natural resources in whatever manner they deem consistent with their national interest. The ecological impact of such decisions is further exacerbated by the fact that nations develop at different rates and at different times in history. Even though countries such as the United States established national parks and national forests fairly quickly, development was a predominant theme for more than a half of a century. Resource use expanded greatly as technology for mineral and forest exploitation, earth moving, and various manufacturing processes was

discovered. There was a massive increase in the volume of various waste products released into the air, water and land including pesticides, herbicides, fungicides, and other toxic and non-toxic substances.<sup>1</sup> The Congress of the United States ultimately responded by enacting various statutes, some of which will be discussed within this article. However, there can be little question that environmental degradation is not a domestic, but a global problem. The United National Conference on Environment and Development held last June in Rio de Janeiro illustrates the continuing focal shift. The conference also dramatically illustrated global differences. The United States was not enthusiastic about discussing commitments to deal with climate change, yet was anxious to deal with issues such as tropical forest protection, biodiversity and ocean pollution. Developing nations insisted that development be given priority, and that issues such as inequitable patterns of trade and investment, poverty, and technical and financial assistance be included.<sup>2</sup> Developing nations understandably resist the notion that their actions should be curtailed in order to deal with the consequences of the irresponsible actions of others. Clearly, transnational efforts to reconcile conflicting national economic development policies in an effort to save the environment must necessarily take into account any resulting inequities or disparities which might result. The task of reconciliation begins necessarily at the country level.

The United States has essentially attempted to deal with its environmental management through a series of legislative enactments. A review of some of the major statutes might be of assistance as Malaysia tackles the environmental problems of its own nation and the world.

### THE BEGINNING OF THE US ENVIRONMENTAL POLICY

Prior to 1970, it is safe to say that the United States did not actually have an environmental policy. It is true that there had been various environmental concerns which had resulted in action at both the state and federal level. In 1961, for example, the United States and the Soviet Union had signed a treaty banning nuclear bomb tests in the open atmosphere. The Wilderness Act of 1964 had been passed, as well as the first version of the Endangered Species Act in 1966. In addition, the Sierra Club had gained thousands of new members through its efforts to defeat a proposal in 1966 to build two dams in the Grand Canyon. However, it was not until the 1970's that environmental law really "came of age."

Important factors that brought this about included increased sophistication in the scientific arena. Technology developed which allowed measurement of many contaminants in parts per million rather than parts per thousand. Computer technology permitted various types of modeling which would

project long-run impacts of various levels of these contaminants on the human environment. Books such as Rachael Carson's *Silent Spring*, published in 1962, alerted the public to the dangers from chemical pesticides and their effects on birds and other wildlife. Finally, catastrophic events such as the 1969 oil spill in Santa Barbara, California made environmental regulation politically attractive.

## NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act<sup>3</sup> (NEPA) was the first act signed into law by President Nixon in the 1970's. It came about, at least in part, as a result of two reports that the members of Congress received in 1968; "Managing the Environment,"<sup>4</sup> issued by the Subcommittee on Science, Research, and Development of the House Committee on Science and Astronautics and the "Congressional White Paper"<sup>5</sup> issued by a House-Senate Colloquium to Discuss a National Policy for the Environment. Both of these reports suggested that the federal government was playing a major role in the mismanagement of natural resources, and strongly recommended that a national policy was needed to deal with these concerns.

Section 101<sup>6</sup> of NEPA makes it the policy of the United States to use "all practicable means" to administer all federal programs in an environmentally responsible manner. This is the "substantive" section of the act. The language is broad and very general. Importantly, however, it requires federal agencies to take environmental consequences into account when they make certain decisions. Section 102<sup>7</sup>, on the other hand, is the procedural section; that is, it outlines specific procedures that agencies will use to accomplish the goals of section 101. The most significant provision is section 102(2)(c)<sup>8</sup>, which deals with the preparation of Environmental Impact Statements (EIS's) by agencies whenever there is a "recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment." During the year 1990, for example, various agencies filed a total of 477 EIS's.<sup>9</sup>

Subsection II of NEPA creates the Council on Environmental Quality (CEQ), housed in the Executive Office of the President. The CEQ serves as an advisor on current environmental issues, and it is the overseer of NEPA. In 1977, President Carter issued Executive Order 11991 which made the CEQ regulations binding for the NEPA process. CEQ studies have been the forerunner of change in a number of areas, including offshore drilling, toxic substances, and marine pollution. Other CEQ projects include the Acid Rain Task Force and the Global 2000 Report. Each year, an annual report on the state of the environment is issued by the CEQ. With the election of President Clinton, the CEQ is expected to either be strengthened into a "coordination

point within the White House for environmental issues” or to be converted into some other significant form.<sup>10</sup>

## ENVIRONMENTAL PROTECTION AGENCY

The Executive Reorganization Plan of 1970 created the Environmental Protection Agency (EPA). This agency is the principal federal regulator of pollution control matters. The EPA reviews Environmental Impact Statements dealing with any aspect of its responsibilities centering around air and water pollution, drinking water supplies, solid waste, pesticides, etc. Also the EPA frequently reviews statements filed by states and other jurisdictions as a technical service. The EPA lists in the *Federal Register* statements that it has reviewed and commented on.

Even though environmental funding was significantly curtailed during the early days of the Reagan administration, by the late 1980's, the EPA had grown to fourteen thousand employees. Its major environmental statutes filled a 654 page book and the regulations encompassed eleven volumes and 8608 pages of the Code of Federal Regulations. EPA's operating programs required a budget of about \$2.7 billion, and the Superfund and Leaking Underground Storage Tank programs required an additional \$1.6 billion.<sup>11</sup> Newly elected Vice President Gore has a strong interest in environmental issues, as demonstrated in his best-selling book, "Earth in the Balance."<sup>12</sup> His influence can be seen in the appointment of Carol M. Browner, a former aid and head of the Florida Department of Environmental Regulation, as the Administrator of the EPA. It is viewed as a virtual certainty that the EPA will be elevated to a Cabinet level position, and potentially emerge as the Department of Environment.<sup>13</sup>

Almost all federal statutes in the environmental arena require state implementation. In Ohio, for example, the General Assembly created the Ohio Environmental Protection Agency (OEPA) in 1972. Essentially, it deals with pollution control at the state level, administering grants from the EPA along with monies allocated to it by the state and fees generated by issuing permits, etc. The state has also created an Environmental Board of Review (EBR) to hear appeals from decisions of the OEPA.

## CLEAN AIR ACT

The Clean Air Act<sup>14</sup> (CAA), as amended in 1990, is the comprehensive federal statute designed to control air pollution. The Act itself is 355 pages long, almost 300 pages longer than the 1970 version.<sup>15</sup> EPA Assistant Administrator William G. Rosenberg estimated that various amended provision could add \$25 billion annually to US regulatory costs.<sup>16</sup>

The basic framework of the CAA required the EPA to establish national ambient air quality standards (NAAQS's) for various pollutants, including carbon monoxide, particulates, sulfur dioxide, nitrogen dioxide, hydrocarbons, ozone, and lead. There were to be two types of standards; "primary" standards for the protection of public health, and a more stringent "secondary" standard for the protection of public welfare. Within a period of nine months after the EPA had promulgated a standard, each state was required to submit to the EPA a plan to implement the standard and maintain it, known as State Implementation Plans (SIP's). If the plan was adequate, and had been adopted after public hearings, the EPA was required to approve it. Primary standards were to be attained "as expeditiously as practicable but in no case later than three years from the date of approval of such plan." Secondary standards were to be achieved within "a reasonable time." If the plan was inadequate, and was not amended, then the EPA would issue its own plan or amendments, called a Federal Implementation Plan (FIP) and that would be binding on the state.<sup>17</sup>

The state essentially has the job of determining how to best regulate existing stationary sources within the state. However, for new sources, existing sources modified in such a way that they emit more or different pollutants, and hazardous air pollutants (defined as those which might reasonably cause death or an increase in serious irreversible or incapacitating reversible illnesses in humans), the EPA set uniform national emission standards. The New Source Performance Standards (NSPS's) for stationary sources were to reflect best available control technology, taking into account the cost of compliance. Normally, this meant that it was specified how many pounds of a pollutant could be emitted per unit per day. In 1977, this section was amended to specify a percentage by which emissions of sulfur dioxide, nitrogen dioxide and particulates were to be reduced. In 1990, once again there was a new approach. In part to deal with acid rain concerns, a complex system of sulfur dioxide "allowances" has been initiated. An allowance is an authorization from the Administrator of the EPA to emit one ton of sulfur dioxide during or after a particular year. The EPA regulations allow for trading of these allowances among lawful allowance holders.<sup>18</sup>

An operating permit assures that federal standards are achieved by regulated sources. Each state is required to develop an operating permit program, due to the EPA by November 15, 1993.<sup>19</sup>

The CAA also included a program to address pollution from moving sources, such as motor vehicles and aircraft. The basic approach was to establish standards at the federal level which applied to vehicles or motor vehicle engines built after 1975. Standards prior to the 1975 year would be set by the EPA. Starting with 1975, Congress set the standards. In intervening years, the industry has received additional extensions of time to comply.

The Clean Air Act was the first statute that specifically authorized suits by private citizens for review of agency actions. Penalties for violators

include a maximum of \$25,000 per day civil penalties and possible criminal prosecution of corporate executives who knowingly pollute and significantly endanger health.

## CLEAN WATER ACT

The Clean Water Act of 1972 (CWA-later amended in 1977, 1981, and 1987)<sup>20</sup> was a dramatic change from earlier regulatory schemes where primary responsibility rested with individual states. The goal of the Clean Water Act was to have "fishable and swimmable" waters by 1983, and total elimination of pollutant discharges into navigable waters by 1985. Discharge standards were set for all point sources of pollution. These were to reflect "best practicable control technology current available" (BPT) by 1977, and "best available technology economically achievable" (BAT) by 1983. Somewhat different standards applied to publicly owned treatment works (POTW's). In addition, point sources were required to comply with any more stringent standard imposed by the state or federal government which would be necessary to meet ambient water quality standards. New sources were required to meet the BAT standards. Section 307 dealt with toxic substances, and specified that the EPA was to maintain a list of toxic substances and set separate limits for them, based primarily on the protection of public health. Thermal discharges were required to meet standards set by the EPA under section 316.

This regulatory scheme became more complicated with the 1977 amendments. Three different categories of pollutants were established:

1. Toxic pollutants: the amendments required that the BAT standard (or more stringent one) be met by July 1, 1984. For pollutants not included originally, this would take effect within three years after the EPA adopted the applicable effluent limitation.
2. Conventional pollutants: including BOD, fecal coliform, suspended solids, and pH. A new category was specified known as the "best conventional pollutant control technology" (BCT). This was to be achieved by July 1, 1984. In this one category, the EPA was to consider the benefits, and compare it to the cost of compliance in setting the standards.
3. Nonconventional pollutants: to include everything else that was not classified by the EPA as "toxic" or "conventional." These were required to meet the BAT standard by July 1, 1984.

In order to accomplish this regulation of point sources, section 402 created the National Pollutant Discharge Elimination System (NPDES). This required that a permit be obtained from the EPA (or from the state if it had an EPA-approved program) to discharge from any point source. The permit would include the applicable effluent limitations, and enforcement schedules to meet upcoming deadlines.

One problem that was not addressed until the 1987 amendments was the difficulty with non-point source pollution. Section 319 requires states to identify bodies of water where water quality standards cannot be met without control of non-point pollutants, and to set up management programs for these bodies of water. These plans must be approved by the EPA.

Another "permit" system within the Clean Water Act involves the Section 404 "dredge and fill" permits which are issued by the Corps of Engineers. Essentially, a permit is needed to put dredged or fill material into navigable waters. Wetlands have been held to be "navigable waters," thereby requiring a permit.

The Clean Water Act also has a provision allowing suits by citizens against any person or governmental unit that is violating an effluent limitation or standard or an order implementing the limitation or standard under the act. It also authorizes criminal and civil penalties, and authorizes suit against the administrator for failing to perform any nondiscretionary duty under the act. One other statute which deserves a quick comment is the Safe Drinking Water Act.<sup>21</sup> The Act requires the EPA to set maximum levels for contaminants in water delivered to users of public water systems. A 1984 report by the Office of Technology Assessment identified more than 200 contaminants in groundwater used for drinking, many of them toxic. The Act directs the EPA to set health-based standards for contaminants in drinking water and to require water supply system operators to come as close as possible to meeting them by using the best available technology that is economically and technologically "feasible."

## RESOURCE CONSERVATION AND RECOVERY ACT

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA)<sup>22</sup>, which established a "cradle to grave" regulatory scheme for both municipal solid waste and hazardous waste disposal. The Administrator of the EPA is authorized to promulgate regulations to achieve the objectives of the act, which include:

1. assuring that hazardous waste management practices are conducted in a manner which protects human health and the environment;
2. requiring that hazardous waste be properly managed in the first instance; and
3. minimizing the generation of hazardous waste by encouraging process substitution, materials recovery, properly conducted recycling and reuse, and treatment.<sup>23</sup>

In 1984, Congress concluded that "land disposal should be used only as a last resort and only under conditions which are fully protective of human

health and the environment."<sup>24</sup> Therefore, they amended RCRA to focus on decreasing waste generation and the treatment of waste to minimize toxicity.<sup>25</sup>

States may be authorized by the EPA Administrator to administer and enforce the hazardous waste program, assuming that they meet the minimum national standards for state hazardous waste management plans.<sup>26</sup> State plans are even permitted to be more stringent than those imposed by federal regulations. To date, forty-five states have received this authority.<sup>27</sup>

### COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT

Even with RCRA, there still remained a problem. Love Canal<sup>28</sup> and other atrocities dramatically brought the attention of Congress to the fact that US citizens needed to be protected against the dangers posed by previously abandoned waste sites throughout the country. This resulted in the enactment of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund")<sup>29</sup> of 1980. Essentially CERCLA was aimed at cleaning up the worst of the hazardous waste sites and making the responsible parties pay for the clean-up. "Superfund" was to be financed by taxes on crude oil and other commercial chemicals. Two response types were named in the program: short-term response was designed to establish quick removal of wastes in emergency situations; long-term response was established to clean up sites placed on the National Priority List (NPL). Approximately 900 sites were listed or proposed for listing on the NPL by 1986. (There are approximately 1245 sites currently on the list. Since 1980, 84 sites have been cleaned up, at a cost of \$11.1 billion.)<sup>30</sup>

In 1986, the Superfund Amendment and Reauthorization Act (SARA) was passed. SARA increased enforcement powers and upped the trust fund from \$1.6 billion to \$8.5 billion dollars. SARA also set mandatory deadlines for the completion of two important types of work at NPL sites: 275 sites were required to be investigated and 175 remedial actions were required to reach the final clean-up stage by 1989. SARA also mandated that the EPA must consider the best economic route for cleanup. At approximately the same time that SARA was enacted, Congress amended Subtitle I of RCRA. This amendment was to set up a trust fund of \$500 million strictly for the clean-up of leaking underground petroleum tanks. This money was allocated because CERCLA excludes petroleum releases from its jurisdiction.

One final important provision of SARA was the Emergency Planning and Community Right to Know Act (EPCRA).<sup>31</sup> This was, in part, a congressional response to the December 1984 accidental release in Bhopal, India, and the EPA's subsequent Chemical Emergency Preparedness Plan (CEPP). Basically, EPCRA was aimed at establishing and maintaining contingency plans for



responding to chemical accidents which could impair health and cause environmental damage within a community. Each governor was required to appoint a "state emergency response commission" (SERC) by April 17, 1987. SERC was required to establish emergency planning districts within each state by July 17, 1987 and appoint "local emergency planning committees" (LEPC's) by August 17, 1987. The EPA was required to establish a list of "extremely hazardous substances" and "threshold planning quantities" to be the basis of community planning and preparedness for accidental releases. Each facility within a district that had any extremely hazardous substances present in excess of threshold planning quantities was required to notify SERC by May 17, 1987 or within 60 days after the facility became subject to the planning requirements. By September 17, 1987, each covered facility was required to designate a facility emergency coordinator to participate in the emergency planning process. LEPC was required to develop and establish emergency response plans by October 17, 1988. In Ohio, for example, SERC was established by Section 3750.02(A) of the Ohio Revised Code. It consists of the members appointed by the governor to represent the interests of industry, public safety, and environmental groups. If there is a "release" of an "extremely hazardous substance," in excess of "reportable quantities" at a facility, such facility must immediately notify the LEPC and SERC.

### TOXIC SUBSTANCES CONTROL ACT

The Toxic Substances Control Act (TosCA),<sup>32</sup> which focused a regulatory program primarily at the federal level, was passed by Congress in 1976. Section 2(b) of the act provides insight into three policies attempting to be accomplished:

It is the policy of the United States that:

1. adequate data should be developed with respect to the effect of chemical substances and mixtures on health and the environment and that the development of such data should be the responsibility of those who manufacture and those who process such chemical substances and mixtures;
2. adequate authority should exist to regulate chemical substances and mixtures which present an unreasonable risk of injury to health or the environment, and to take action with respect to chemical substances and mixtures which are imminent hazards; and
3. authority over chemical substances and mixtures should be exercised in such a manner as not to impede unduly or create unnecessary economic barriers to technological innovation while fulfilling the primary purpose of this chapter to assure that such innovation and commerce in such chemical substances and mixtures do not present an unreasonable risk of injury to health or the environment.

To carry out these policies, there are a variety of substantive provisions. The EPA is empowered to adopt rules requiring testing by manufacturers of substances; a manufacturer is required to give notice to the EPA before manufacturing or importing a new chemical substance; and the EPA is empowered to apply any of a number of restrictions "to the extent necessary to protect adequately against unreasonable risk of injury to health or to the environment...using the least burdensome requirements."

Two specific health hazards were addressed when TOSCA was amended in 1986 and 1988. Specifically, sections 201-215 concern asbestos hazards in public and commercial buildings and schools, while sections 301-311 relate to indoor radon abatement.

### FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT

A specialized type of toxic chemical that has received specialized statutory treatment is the regulation of pesticides. The applicable statute is the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).<sup>33</sup> Essentially, "economic poisons" must be registered with the EPA before they can be distributed in interstate commerce. Each substance must be properly labeled, cautioning how to prevent injury to human beings and the environment. If the substance is inherently unsafe, it cannot be registered. If at any time it is discovered that a substance creates an "unreasonable environmental risk," its registration can be cancelled.

Raw agricultural products that contain pesticides are regulated pursuant to the Federal Food, Drug and Cosmetic Act.<sup>34</sup> The tolerance level is set by the EPA, with the Food and Drug Administration (FDA) monitoring actual pesticide contamination. The FDA has the authority to confiscate foods that violate the established standards.

### ENDANGERED SPECIES ACT

In 1973, Congress addressed the problem of endangered species of plants, fish, and animals. The Endangered Species Act (ESA)<sup>35</sup> was a major conservation statute to protect species from extinction and their habitats from destruction. As amended in 1978 and 1982, the ESA requires the Secretary of the Interior to compose a list of species based on biological information, which are endangered or threatened. Basically, the ESA imposes very strict planning and procedural requirements on federal agencies. The Act prohibits any federal agency from funding, authorizing or conducting actions that would jeopardize listed species or result in the destruction or modification of a critical habitat.

Other federal statutes dealing with wildlife include the Migratory Bird Treaty Act, the Bald Eagle Protection Act, the Wild Free-Roaming Horses and Burros Act, the Marine Mammal Protection Act, the Fishery Conservation and Management Act, and the Fish and Wildlife Coordination Act. The primary federal effort to provide habitat for wildlife on public lands is the National Wildlife Refuge System.

## PUBLIC LANDS

Essentially, there are four agencies of the federal government that deal with the public lands of the United States:

1. The Forest Service of the Department of Agriculture. It is responsible for the national forests, which comprise approximately one-fourth of all public lands. Most of these are located in western states, including Alaska. The primary statutes under which the Forest Service has its authority are: the Organic Act of 1897; the Multiple Use-Sustained Yield Act; and the Forest and Rangeland Renewable Resources Planning Act.
2. The Bureau of Land Management (BLM) of the Department of the Interior. It is responsible for the administration of over sixty percent of all federal lands which have not been designated as national forests or national parks, and are not suitable for agriculture. There are a variety of acts that govern these lands.
3. The Fish and Wildlife Service of the Department of the Interior. This department administers the National Wildlife Refuge System. These are administered as "wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas."
4. The National Park Service of the Department of the Interior. This agency administers the National Park System. The National Park Service Act of 1916 establishes that all national parks are to be managed: "To conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." The individual parks are governed by individual statutes. The National Park Service essentially controls three types of areas: natural areas (national parks and national monuments of scientific significance); historical areas (historical or archaeological significance); and recreation areas (national recreation areas, seashores, lakeshores, scenic parkways and wild and scenic rivers).

In addition, there are a number of special statutes that apply to public lands. These include the Wilderness Act of 1964, the Coastal Zone

Management Act of 1972, the Antiquities Act of 1906, the National Historic Preservation Act, and the Wild and Scenic Rivers Act.

## CONCLUSION

As is obvious from all of the information above, environmental law in the United States is an overwhelming field. Regulations and paperwork have proliferated to the extent that many businesses have a difficult time even knowing what the law is! To attempt to visually demonstrate the extent of the problem, an employee at Bernhardt Furniture Co. in Lenoir, North Carolina made a pile of all the government forms dealing with the disposal of dirty cleaning rags (the company's primary hazardous waste) and stood next to it. The employee was 6 feet 2 inches, and the pile of forms was taller than he was.<sup>36</sup>

And so, after more than twenty years of environmental regulation, the important question focuses on whether conditions are getting better or worse. Michael R. Deland, former Chairman of the Council on Environmental Quality indicates that the answer to this question is far from simple.<sup>37</sup> The quality of the air has improved in most US cities, yet air pollution has increased in some suburban and rural areas.<sup>38</sup> Water quality is improving in most US lakes, rivers and streams, and most areas have adequate wastewater treatment. However, there are widespread losses of wildlife habitat, reduced catches of fish, and areas where water quality is suffering.<sup>39</sup> Major cities including New York, Los Angeles and Boston are lacking in adequate sewage treatment. Nonpoint sources of pollution are a "stubborn, continuing problem."<sup>40</sup> Even though the United States is slowly making progress in accommodating various land uses, there are still problems with energy development, wetlands, and the handling of industrial and community waste.<sup>41</sup>

For the past twenty years, environmental issues have often been decided in an adversarial framework, with government and environmentalists pitted against industry. Although many companies such as DuPont, McDonald's, 3M, Procter & Gamble, and Pacific Gas & Electric are cooperating with government efforts in a proactive fashion,<sup>42</sup> others continue to expend most of their effort in an "attack mode-lobbying against new environmental legislation and telling the public that these laws will cost jobs."<sup>43</sup> Although it certainly is true that environmental improvement may be costly, the investment is often offset by gains realized from new market development and utilization of more efficient production processes. Harvard economist Michael Porter has even suggested that the countries who have the most restrictive environmental rules will ultimately be the most economically competitive.<sup>44</sup> The lesson to be learned from the experience of the United States might be that strong, integrated governmental policies and a real

partnership between government and business will be the most beneficial for all concerned and assure that our "little space ship" is preserved.

## NOTES

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18. 136 Cong. Rec. at S 4421.
19. Koorse, *supra*, note 16.
20. 33 USCA Sections 1251 et seq.
21. 42 USCA Sections 300f-300j-26.
22. 42 USCA Sections 6901-6991 (1988).
23. 42 USCA Section 6902(a) (4)-(6).
24. 1984 USCA Section 5615; see Cole, *Hunt v. Chemical Waste Management Inc.,: Alabama Attempts to Spread the Nation's Hazardous Waste Disposal Burden by Imposing a Higher Tax on Out-of-State Hazardous Waste*, 67 Notre Dame Law Review 1215, at 1221 (1992).
25. 42 USCA Section 6924.
26. 42 USCA Section 6922.
27. Wynne & Hamby, *Interstate Waste: A Key Issue in Resolving the National Hazardous Waste Capacity Crisis*, 32 South Texas Law Review 609 (1991).

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30. Peter Hong & Michele Galen, *The Toxic Mess Called Superfund*, Business Week, May 11, 1992, at 32.
31. 42 USCA Sections 11001-11050.
32. 15 USCA Sections 2601-2671.
33. 7 USCA Sections 136-136(y).
34. 21 USCA Sections 301 et seq.
35. 16 USCA Sections 1531 et seq.
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