

The Impact of Environmental Laws on the American Economy

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The roots of United States environmental law can be traced to the early environmental movement of the late 1960's and early 70's. In 1962, Rachael Carson's bestselling book *Silent Spring* raised environmental concern over DDT, a chemical compound used in insecticides that not only persisted in the environment, but affected the reproductive capability of birds and mammals (Lockitch, 2004). Activist groups like Greenpeace, the Defenders of the Earth, and the National Wildlife Federation also formed in the 1960's and the number of citizens belonging to environmental organizations grew by around three-quarters of a million people in the span of the decade (Putnam, 2000). In 1970, the environmental movement gained national recognition when around twenty million people nationwide celebrated Earth Day on April 22nd (Putnam, 2000).

The first piece of environmental law passed by Congress was the National Environmental Policy Act of 1969. The purpose of the act as stated by the law was

“To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality” (EPA, 2005).

The act gave the federal government power to enact further regulation, like the Clean Air and Clean Water Acts, in order to preserve the environment. It also required that the environmental impact of all federally funded programs be considered before implementation (Scalia, 1999).

Following the National Environmental Policy Act, Congress created the Environmental Protection Agency, or EPA, in 1970, to enforce and carry out environmental regulations provisioned in the National Environmental Policy Act (EPA, 2005). Creation of the EPA greatly increased the scope and power of the Federal Government, and Congress gave the

organization superseding status over all state and local environmental regulatory agencies and boards. Furthermore, the EPA mandated that all states comply with their set regulations (Milloy, 1997).

After the creation of the EPA in 1970, Congress passed The Clean Air Act, which increased the power of the EPA. The Clean Air Act required that the National Ambient Air Quality Standards (NAAQS) set by the EPA be met in all states and by all industries by 1975. Concerns of the Clean Air Act included ozone depletion, acid rain, industrial smog in metropolitan areas, and vehicle emissions (EPA, 2005).

The major method of improving the air quality of the country, as proposed by the United States Congress and Environmental Protection Agency, was setting and enforcing the NAAQS (EPA, 2005). The EPA forced people and businesses to clean up the environment through fines and mandates, instead of funding efforts to reduce emissions (Scalia, 1999). The EPA set critical air quality standards for six pollutants: ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, respirable particulate matter, and lead, in order to protect the public welfare, determining that these pollutants constituted a serious hazard to human health (National, 2005). In addition to the six pollutants controlled by the NAAQS, the EPA has listed and limited 188 other air toxins (Arrandale, 1995).

The original standards of the Clean Air Act helped to greatly reduce ambient air pollution. The act limited harmful factory emissions and greatly increased air quality around industrial areas (EPA, 2005). The act also called for stricter emissions regulation on motor vehicles, reducing the amount of mobile air pollution throughout the country. Although small levels of smog still exist, reduction of smog in metropolitan areas was a major achievement of the Clean Air Act (EPA, 2005). The original Clean Air Act set acceptable pollutant levels based on risk analysis to human health. Using regulations based on their risk analysis, the EPA reduced air levels of the six pollutants in the NAAQS as well as dangerous chemicals such as asbestos, benzene, beryllium, inorganic arsenic, mercury, radionuclides, and vinyl chloride by 125,000 tons (EPA, 2005). The Clean Air Act of 1970 alleviated the harmful health affects of air pollution in the areas of the nation with the worst air quality, making the air in the country's industrial cities safer, as the original standards of the Clean Air Act were met in nearly all regions of the country.

However, in 1990, the Clean Air Act was amended to include a more rigorous updated set of standards. Subsequently states, industries, localities, and individuals had to comply with the updated standards or face fines and prosecution by the Federal Government (Arrandale, 1995). The 1990 amendments to the Clean Air Act established a new set of industrial standards called Maximum Achievable Control Technology – MACT (EPA, 2005). The MACT standards are divided into two sets, those for existing businesses and

those for new businesses. Current businesses must comply with environmental standards based on the best performing 12% of industries within their sector. New businesses must comply with the best controls achieved by a similar source of emission pollution, meaning they must meet the emissions standards of the lowest-polluting company within their area of business (EPA, 2005). The MACT are designed to encourage unity of environmental standards among industry, and to prevent non-environmentally-friendly industries from enjoying an economic benefit (EPA, 2005).

The EPA assures that more stringent environmental standards are necessary to save lives. From 1982-1989, a study predating the amendment of NAAQS, based on 555,000 people living in metropolitan areas, was conducted by the EPA to test the effects of air pollution on human health. After completing the test, the EPA found a 17 percent increase in mortality rate in areas that were deemed hazardous over non-polluted areas (Milloy, 1997). Based on the results of this experiment, the EPA concluded that stricter air quality standards would save around 200,000 lives nationwide. On the other hand, none of the 550,000 subjects in the experiment were tested for pollution exposure, nor was there ever conclusive testing to relate the effects of pollution to cause of death (Milloy, 1997). In short, the study found that there are more deaths in large metropolitan and industrial areas. However, considering that crime rates and poverty are also higher in those areas, the correlation between death and pollution cannot be easily determined.

Nonetheless, the EPA enacted stricter environmental standards that cost American taxpayers more than 10 billion dollars a year (Milloy, 1997). The actual cost of EPA regulations is far greater than the drain of taxpayer dollars. For example, emissions regulations have a negative impact on the nation's automobile industry (Oliver, 1993). Daniel Oliver, former chairman of the Federal Trade Commission (FTC), reported that by requiring that anti-pollution devices be installed on all vehicles, the EPA increased the cost of every automobile sold in the country by \$1,500 to \$2,000 dollars (Oliver, 1993). In 1993, Murray Weidenbaum, former Chairman of the Council of Economic Advisors, estimated that the 1990 amendments to the Clean Air Act cost the American economy \$25-35 billion dollars a year. According to the presidential Council of Economic Advisors, environmental regulation already costs the American economy nearly \$100 billion annually (Oliver, 1993).

The quality of the nation's air was not the only pollution crisis facing America at the beginning of the 1970's. Public concern over United States water quality had been growing, as incidents like the 1969 Cuyahoga River fire in Ohio, and an oil spill off the coast of California brought media attention to the growing problem (Frye, 2002). In 1972, to address a growing water quality crisis in the United States, the federal government made amendments to the Water Quality Act of 1965 (EPA, 2005). The amendments to the Water Quality Act created the modern Clean Water Act, giving regulatory power

regarding aqueous pollution control to the EPA (EPA, 2005). The Clean Water Act operated similarly to the Clean Air Act. The law allowed the EPA to set quality standards for the nation's surface waters and drinking water (EPA, 2005). For example, the EPA has listed standards for 112 different chemicals, including asbestos, copper, radon, and PCB's. Also, the Clean Water Act made point source pollution – direct dumping of pollutants into waterways – illegal, and allocated federal funds for the construction of sewage treatment plants (EPA, 2005). The stated goal of the Clean Water Act was to return all of the nation's surface water's to fishable, drinkable conditions by the year 1983 (Marxsen, 1996).

The federal Clean Water Act was a necessity in the 1970's, when water quality throughout the United States was at a seriously dangerous level. Cleaning up water pollution is a difficult procedure. Stopping pollution is the best, most effective method for cleaning up waterways (EPA, 2005). The Clean Water Act has greatly helped the water quality of the nation's major rivers and great lakes through the outlaw of point source pollution. Through stoppage of point source pollution, the Clean Water Act has removed over a billion pounds of toxic substances from the nation's waterways per year (Frye, 2002). Nearly all of the nation's waterways are now cleaner and safer than they were only a quarter-century ago in response to the Clean Water Act (EPA, 2005). Also because of improvements made to drinking water quality standards, nearly 157 million people have been protected from lead and other harmful chemicals in tap water (Improve, 2005). However, cleaning up the nation's water has been a high-cost procedure, and some EPA standards for pollutants have risen to unattainable levels as of the 1976, 1977 and 1987 amendments to the law.

The total cost of the Clean Water Act, as estimated by the Environmental Protection Agency, from 1972 to 1995 was \$995 billion (Marxsen, 1993). If maintained at the yearly average of nearly \$44 billion, the total cost of the Clean Water Act to consumers and taxpayers over its thirty-three year history is close to \$1.5 trillion. As estimated by the EPA, compliance with all pollution controls cost the American economy \$150 billion annually. A report from the United States Census Bureau indicated that each dollar of compliance costs actually takes three to four dollars out of the United States economy (Census, 2005). Therefore in actuality, environmental regulation has reduced the American gross national product by around half-a-trillion dollars annually (Marxsen, 1996).

In conclusion, environmental regulation in an industrialized nation such as the United States is vital to protecting the natural environment from the adverse affects of pollution. There is no question that regulation is necessary, and that it has worked. Thanks to the Clean Air Act, Clean Water Act, and Environmental Protection Agency, Americans can breathe easier and still enjoy the nation's multitude of waterways. Environmental

regulations were put into place at exactly the right time, before any permanent damage to the environment could occur.

References

Arrandale, T. (1995). A guide to the environmental mandate maze: exploring new ways out. *Governing*, p. 47+.

Carson, R. (1962). *Silent Spring*. New York: Houghton Mifflin.

Environmental Protection Agency. (2005). *Laws and regulations*. Retrieved Mar 21, 2005, from <http://www.epa.gov>.

Frye, D. (2002). The clean water act: thirty years later. San Diego City Council. Retrieved Mar 22, 2005 from <http://www.sdearthtimes.com/et1102/et1102s6.html>.

Hazardous air pollutants. (2005). Scorecard.org. Retrieved Mar 22, 2005 from <http://www.scorecard.org/env-releases/hap/>.

Improve water quality. Government's 50 greatest endeavors. Retrieved Mar 22, 2005 from <http://www.brook.edu/gs/cps/50ge/endeavors/water.htm>.

Lockitch, K. (2005). Reject environmentalism, not DDT. *Ayn Rand Institute*, Retrieved Mar 21, 2005, from <http://www.aynrand.org/site/News2?JServSessionIdr001=8qxudwiewo4.app14&page=new>

Marxsen, C. S. (1996). Can America afford clean water? *USA Today*, 60-61.

Milloy, S. and Gough, M. (1997) The EPA's clean air-ogance. *Cato Institute*. Retrieved Mar 22, 2005 from <http://www.cato.org/dailys/1-21-97.html>.

National clean air standards. *Texas environmental profiles*. Retrieved Mar 22, 2005 from http://www.texasep.org/html/air/air_2std.html.

Oliver, D. (1993). How regulation affects the consumer. *Consumers' Research*, 14-18.

Putnam, R. (2000). *Bowling alone*. New York: Simon and Schuster.

Scalia, J. (1999). Federal enforcement of environmental laws, 1997. *Bureau of Justice Statistics Report*, 1-10.