

# Phillipine clean air act essay sample

[Environment](#), [Pollution](#)



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The Clean Air Act is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Base on my reasearch, this law authorizes Environmental Protection Agency(EPA ) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. One of the goals this Act was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. “ Major sources” are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants

## CONTENT OF THE TOPIC

### The Issue

Air pollution is a significant drain on the health, economy, and environment of the UnitedStates. Adverse health affects range from mild eye irritation to death and birth defects. Reduced crop yields, “ dead” lakes, and crumbling monuments are also caused by air pollution. Because of all these deleterious effects, the United States has been progressively expanding its efforts to control pollution since the first city smoke control ordinances

were passed in 1881. The first major national strides were made in 1970 with the establishment of the Environmental Protection Agency and the 1970 Clean Air Act. The 1990 Clean Air Act Amendments are a landmark effort to reduce air pollution through a variety of instruments including the use of a market based system of tradeable pollution “ permits” under Title IV and Title V. Recently, however, enforcement has lagged because of Congressional resistance.

The American public is becoming increasingly aware of air pollution as a national and international problem. Everyone familiar with hot, quiet summer days in almost any large urban area is familiar with smog’s visual blight. However, air pollution is not constrained to urban environments or even to hot summer days; it is an ongoing problem for many regions. While air pollution is visible locally, its sources are a combination of a wide variety of local and extra-local pollutants. Air pollution is far more than an impairment of visibility. It causes significant health problems, damages land and aquatic environments, primarily through the phenomena know as “ acid rain,” damages construction materials, paper, leather, and textiles. Despite the damage caused by pollution, a combination of a general societal dependence on the sources of pollution and the specific, mostly economic concerns of polluters, inhibits government’s willingness and ability to implement some of the more austere measures espoused by environmentalists. Nevertheless, government response to pollution has also escalated culminating in the 1990 Clean Air Act Amendments. This set of amendments is a comprehensive approach to many sources of pollution and supports several different enforcement and implementation mechanisms.

## Effects of Air Pollution

Air pollution originates from a variety of natural sources such as forest fires, volcanoes, and windblown dust as well as the more deleterious anthropogenic (man made) sources such as auto emissions, power plants, heating units, and primary metal smelters. Unlike natural pollution, anthropogenic pollution can be mitigated or controlled and thereby limit pollution damages and costs. The six major or “ traditional” air pollutants are carbon monoxide, ozone, particulate matter, sulfur dioxide, nitrogen dioxide, and lead. A second category of pollutants is referred to as toxic or hazardous air pollutants. This category includes asbestos, benzene, vinyl chloride, beryllium, mercury, radionuclides, and arsenic. The “ traditional” air pollutants are known to be causes and/or aggravators of respiratory tract problems, eye and throat irritation, asthma, impairment of some cardiovascular functions, and lung damage to name a few. Toxic air pollution also has serious impacts on health. They have been found to contribute to lung disease, Leukemia, liver, spleen, kidney, and lymph damage, and a variety of cancers. Air pollution has been responsible for thousands of deaths in its most severe form such as the notorious 1952 “ black fog” in London . While air pollution rarely becomes that severe, it clearly hurts human health in many ways.

## History of Clean Air Efforts

As the costs and effects of air pollution have become more widely accepted as facts and not just environmentalist nightmares, efforts to limit and

mitigate those effects have accelerated resulting in increasingly effective legislation. The first American responses to air quality problems were taken by the cities of Chicago and Cincinnati in 1881 in response to dense smoke Problems. Over the next 30 years, 23 other cities passed similar ordinances. By the 1930s and 1940s, some cities such as Pittsburgh and St. Louis had been forced to establish tough smoke ordinances and enforcement provisions that significantly increased air quality. Efforts to combat air pollution remained local until the first federal air pollution legislation was passed in 1955. This legislation, and subsequent efforts in 1960 and 1962 kept responsibility for reducing air pollution at the state and local level but began research and training on air pollution at the federal level with the Public Health Service in the Department of Health Education and Welfare (HEW).

The federal government began to take a more active hand in controlling air pollution with the 1963 Clean Air Act. This act provided for more research and education, federal enforcement authority to abate interstate pollution problems, and the development of air quality criteria. Although a landmark effort in many ways, this legislation retained state and local jurisdictions as primary enforcement and monitoring agencies. In 1965, the Clean Air Act was amended with the Motor Vehicle Air Pollution Control Act which authorized the Secretary of Health, Education, and Welfare to promulgate emission standards for motor vehicles. The resulting emission standards for all 1968 light-duty motor vehicles were the first federally mandated emission standards. The 1965 amendment also established the National Pollution

Control Administration (NAPCA) to provide regulatory leadership for future pollution control efforts. As air quality continued to worsen and weaknesses or previous legislation became evident, Congress passed the Air Quality Act of 1967. Many of the components of the 1967 act provide the foundation for current air quality legislation.

The most important parts of the act required the Secretary of Health, Education and Welfare to designate Air Quality Control Regions and stipulate air quality control criteria and techniques. By 1970, NAPCA had only designated 23 of their proposed 57 Air Quality Control Regions. Air Quality Criteria Documents for sulfur oxides and particulates were issued two years after the passage of the bill and criteria documentation for HCs, CO, and oxidants were not ready until 1970 and NO<sub>x</sub> criteria were not issued until 1971. These procedures and definitions were complex and understandably took considerable time to establish. However, the resulting lack of timely improvements in air quality paved the way for more effective legislation. The 1970 Clean Air Act was created in the same year as the Environmental Protection Agency (EPA), partly in response to recognized deficiencies in earlier legislation. In conjunction, the two were designed to remedy problems with earlier legislation.

The objective of the 1970 Clean Air Act was “to protect and enhance the quality of the Nation’s air resources so as to promote public health and welfare and the productive capacity of its population.. The most important aspects of the Act included the federal government adoption of responsibility and authority for controlling air pollution, the provision of significant federal

enforcement capabilities, and a goal of clean air for all regions by July 1, 1975. The EPA was authorized to take steps to halt emissions that endangered public health and could impose fines of up to \$25, 000 per day on intentional pollution ordinance violators. The 1970 Act also established emission goals for automobiles and regulated use of potentially harmful fuel additives. Anyone removing pollution control devices could be subject to a \$10, 000 fine. 1970 was a landmark year both for the creation of the EPA and for the adoption of environmental legislation that had significant built-in enforcement provisions. Although great strides were made following the 1970 legislation, it became clear that many regions would not achieve federal goals. That realization culminated in the 1977 Clean Air Act Amendment which postponed and modified goals and deadlines. Clean air legislation languished almost untouched during the Reagan administration even though pollution continued to be a significant voter concern. In 1990, the stage was finally set for another landmark effort to combat air pollution.

### Regulatory Methods

Regulations, pollution charges/taxes, subsidies for pollution abatement investments, and most recently, tradeable pollution permits are all viable abatement instruments. One author also cites an expanding role for private litigation as a potentially effective regulatory technique – particularly when used in conjunction with one or more of the other options. Direct regulation the establishment, monitoring, and enforcement of specific requirements – is the most frequently used approach. The most common type of regulations are emissio standards which establish limits on emissions for specific groups

of sources such as pounds of emissions per hour or the amount of particulate and hydrocarbon matter allowed in automobile emissions. Other regulations place limits on fuel content, specify the opacity of stack plumes, and prohibit certain activities such as open burning. The “best practicable means” is the most common means of establishing emission standards. The term implies economic, political, and technical practicality. It also implies that emission standards become more stringent over time as technology improves and the public and government become more accepting of higher standards and their attendant costs.

The merits of regulation include transparency, certainty, and neutrality which are all important considerations regarding affected businesses and their success and continued operation. Regulation also includes a number of negative factors. The costs of administering regulations, including all the fine print, can be quite high. Secondly, regulations are not necessarily neutral because they apply exactly the same to all situations which does not allow variance for local conditions and needs. Perhaps most importantly, regulations do not provide any incentive to reduce pollution below the level stipulated by the regulations; regulations effectively provide a floor underneath pollution levels. Subsidies are financial incentives paid to polluters to stimulate pollution control measures. Subsidies take a variety of forms. The most common types of subsidies are tax exemptions or tax reductions on pollution control equipment, investment tax credits, and accelerated depreciation of assets used for pollution control.



While subsidies reduce the financial burden of investment in pollution control, they do not provide positive incentives to pursue pollution control. Subsidies simply assist those firms that are investing in pollution control for other reasons. It is also difficult to determine the amount of subsidies to be paid and, once the subsidy is acquired, there is no guarantee that it will be utilized effectively for the full duration of the asset. Taxes on pollution, on the other hand, provide an active incentive to reduce pollution output. Taxes on pollution can also be assessed at purchase point prior to the actual emission of pollution as when we purchase gasoline for our cars. Pollution taxes are more easily tailored to local conditions and, since costs are largely passed on to end product users, consumers as well as primary pollution producers have substantial impetus to minimize pollution. Additionally, pollution taxes put the onus of reducing pollution on the polluters themselves and provides revenue for regulatory monitoring and compliance. Taxing products and activities that create pollution is an effective way of incorporating environmental costs in personal decision making.

A fourth strategy establishes a system of tradeable pollution permits; each permit grants the owner a right to emit a certain amount of pollution. In this system, a regulatory body gives or sells a fixed number of permits equal to the total pollution target for the year. Polluters can buy and sell these permits according to their situation. Permits provide incentive for firms to reduce their pollution output by allowing them to sell unused permits. This system allows for tremendous polluter flexibility in reducing pollution over time but since the total number of permits allocated is reduced over time to meet progressively more stringent air quality standards, all polluters will

eventually have to seriously curtail their pollutant output. Greater utility for private litigation would help enforce any other system.. By expanding avenues of legal redress for private interested or injured parties against polluters, citizens and environmental organizations can take a more active “watchdog” role over polluters and the EPA and provide them with extra incentive to fully comply with appropriate regulations/taxes/permits if not to actually reduce emissions.

Transparency and public knowledge is crucial for citizen awareness and subsequent political pressure as well as to the efficacy of private litigation. The 1986 Emergency Planning and Community Right-to-Know Act, also known as Title III of the Superfund law, requires manufacturers of over 300 chemicals to report annually to the EPA and to the states in which they operate the amounts of these substances they emit to air, water, or land. These enforcement strategies provide regulatory agencies such as the EPA and its state and local counterparts with a wide range of incentives with which to obtain compliance. By combining these instruments in effective ways, polluting businesses are allowed the greatest flexibility in adopting the most economical pollution abatement strategies which is vital for the ongoing success of any abatement program. Overly restrictive regulations damage businesses and their employees – and thereby influence voters. Consequently, effective regulation must walk a fine line between effectively reducing pollution and not placing so great a burden on polluting businesses that the regulation becomes an economic and political issue. Given an “either/or” choice between jobs and the local economy or more stringent

pollution control, voters are more likely to support the former much more vigorously.

### The 1990 Clean Air Act Amendments

One of the difficulties faced by most pollution abatement techniques is the increasing marginal cost of pollution reduction. It is relatively easy to initially reduce heavy pollution. But before long the point of diminishing returns is reached where every step in reducing pollution further has a progressively increasing cost. Consequently, achieving completely pollution-free air is a very costly, probably unfeasible, and, at this time, is a politically unrealistic short term goal. The 1990 Clean Air Act Amendments (CAAA) build on the main tenets of the 1970 Clean Air Act although there are also several new provisions. The CAAA are divided into a number of “ titles” addressing a broad range of pollution control and abatement issues.

**Title I: Nonattainment** This title defines various categories of ozone (6 categories in spectrum), carbon monoxide and particulate matter (2 categories each) “ nonattainment” regions and establishes deadlines ranging from three to twenty years for regions to achieve specified air quality standards. Smaller pollution sources became included for heavily polluted regions to allow regulatory agencies greater freedom to address the full range of polluters. The 1990 law also supplants the 1970 provision for “ reasonable further progress” with annual emission reduction goals.

**Title II: Mobile Sources** Title II specifies more than 90 emissions standards for vehicle emissions including reductions of hydrocarbons and nitrogen oxides

by 35 percent and 60 respectively for all new cars beginning with the 1996 model year. Oil companies are required to offer alternative gasoline formulations including mixtures of gasoline with ethanol and methanol, liquified petroleum gas, and liquified natural gas that produce fewer emissions during combustion, particularly in non-attainment areas. In addition, auto manufacturers are being required to produce experimental cars for sale (150, 000 in 1996 and 300, 000 in 1998) in Southern California that meet even more stringent emission standards.

**Title III: Hazardous Air Pollutants** Title III lists 189 chemicals for which the EPA is to phase in emission standards by the year 2000. These are pollutants which are known to be or reasonably suspected to be carcinogenic, mutagenic, teratogenic, neuro-toxic, cause reproductive dysfunctions, or are acutely or chronically toxic. The objective is for an average 90 percent reduction in air toxics and a 95 percent reduction in particulate Matter. This provision also establishes the Chemical Safety Board which is responsible for investigating chemical accidents and preparing risk management plans for accidental toxic releases. Industrial plants are also required to prepare and make public safety reviews and safety standards which contributes to transparency and public awareness.

**Title IV and Title V: Acid Deposition Control and Permits** . The most innovative feature of the 1990 CAAA is the establishment of an emissions trading program for sulfur dioxide (SO<sub>2</sub>), the primary precursor to acid deposition. The goal of a tradeable emissions allowance (EA) system is to allow industry – primarily the steam turbine electricity generating industry –

maximum flexibility in undertaking reduction of SO<sub>2</sub> emissions by 10 million tons per year through the year 2000. This title also specifies reductions of nitrogen oxides (NO<sub>x</sub>) of 2 million tons per year.

The first phase of Title IV requires the 110 largest polluter plants to reduce emissions to an intermediate level by 1995. By the year 2000, all fixed point polluters with capacity greater than 25 megawatts and all new plants are expected to be in compliance resulting in a 40 percent decline in SO<sub>2</sub> emissions from 1980 levels, approximately 23 million tons every year. The first auction of EAs was conducted by the Chicago Board of Trade on March 29, 1993. The price of permits will vary with supply and demand although the price will tend to go up over time as the total amount of permits issued declines. The current effective cap on permit prices is \$2000 per ton which is the current penalty for non-compliance. Although an innovative market approach to reducing pollution, there are several objections. Many people find that putting a price on clean air is immoral although there is broad agreement that polluters should not be able to pollute for free. Secondly, by explicitly permitting pollution, it institutionalizes a right to pollute and destroys the idea that the environment is a sanctuary and undermines efforts to reduce pollution to the maximum extent possible in favor of reducing emissions to the point of maximum financial benefit.

**Title VI: Stratospheric Ozone Protection** Title VI domestically implements the Montreal Protocol on Substances

That Deplete the Ozone Layer by requiring a phaseout of specific ozone depleting chemicals. The production of chloroflourcarbons (CFCs) and carbon

tetrachloride will be progressively phased out until they become illegal on January 1, 2000. Methyl chloroform cannot be legally produced after January 1, 2002. The use of hydrochlorofluorocarbons in aerosol cans and insulating materials was prohibited on January 1, 1994 and the production of those chemicals will be prohibited after 2030. The EPA is also required to issue new rules regarding the recycling and disposal of ozone-depleting chemicals.

**Title VII: Enforcement** This provision enhances EPA monitoring requirements and updates penalties to make them consistent with those in other environmental statutes. It also provides greater legal standing for citizens to file suit directly against non-complying polluters and against the government – commonly the EPA – if its monitoring and enforcement activities are insufficient to bring a pollution source into compliance. Suits against the EPA have been used to compel the EPA to implement its own regulations when it has failed to do so.

**Title XI: Clean Air Employment Transition Assistance** Title XI authorizes the secretary of labor to establish a compensation, retraining, and relocation program to assist workers laid off because of their company's compliance with the Clean Air Act. The annual cost of this program is expected to reach \$250 million by 1995. The previous sections of the 1990 CAAA will have substantial impact on American business and employment patterns in the years ahead. Title XI is a valuable tool for minimizing the dislocation and anxiety that will naturally result from reduced or eliminated businesses complying with the 1990 CAAA.

The other three titles (VIII, IX, and X) are smaller provisions requiring, respectively, EPA monitoring and study of smaller pollution sources, research into pollution and its health effects and a requirement that EPA expends at least 10 percent of its subcontracting funds on business that are at least 51 percent owned by socially and economically disadvantaged businesses.

The 1990 Clean Air Act Amendments comprise a landmark piece of legislation that will significantly improve national air quality and environmental quality. It makes important provisions for private involvement in oversight and litigation as well establishing procedures for significant pollution reduction including an innovative system of tradeable pollution permits. The real success of the 1990 CAAA may be mitigated by Congressional resistance.

## CONCLUSION

While the 1990 Clean Air Act Amendments will doubtlessly help improve air quality over time, it is too early to determine how effective it has been. State sponsored impediments such as local coal usage requirements raise barriers to efficient and timely compliance. Companies that are impacted by the legislation also spend effort to block or circumvent enforcement. This last factor in particular is exacerbated by the current political climate in Washington D. C. The EPA is under heavy fire from a Republican controlled Congress. In order to prevent Congress from completely reexamining the 1990 Clean Air Act Amendments and potentially gutting them, the EPA has chosen to relax its enforcement procedures which it hopes will minimize complaints of “extremism.”

The EPA's current "loose" enforcement stance has cost the agency its credibility. While companies were initially motivated to comply with the amendments because of mandatory and discretionary sanctions that could be imposed by the EPA, many have discovered that discretionary sanctions appear to be unlikely and that even mandatory sanctions have proved far less certain and timely than the language of the legislation implies. It is uncertain whether Congress will revise the Clean Air Act again but it appears "extremely unlikely that the EPA will pursue (or could sustain) a tough enforcement stance. The terms of the CAAA implementation are likely to be rewritten, in effect if not in fact, through a process of consultation and negotiation between the states and the federal government.

#### RECOMMENDATION

I recommend the establishment of a national fund to encourage the buy back or retrofit of legacy sources to reduce air pollution (including criteria, hazardous and other air pollutants). Legacy sources most appropriate for funding consideration include sources such as old, high emitting lawn and garden equipment, diesel trucks, and smaller stationary sources like generators, small boilers, wood stoves, etc. This fund, along with other federal, state and local measures including regulation, can rapidly reduce legacy source pollution, benefit disadvantaged communities, and create jobs manufacturing the replacement or retrofit equipment. Legacy programs have proven to be cost effective and should be expanded to a national level. And also to continue and expand the EPA program to encourage state efforts to adopt renewable set-asides in state and regional emissions trading programs



to control ground-level ozone, attain particulate matter standards, and improve visibility in national parks.