



Perspectives

# The Feasibility Principle

A Useful Alternative to Cost-Benefit Analysis

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## Background

Many environmental statutes incorporate statutory provisions reflecting, to some extent, the feasibility principle, the principle that administrative agencies should promulgate the most stringent standards feasible to protect people from potentially serious health effects and environmental harms. The concept of feasibility maximizes environmental protection, but discourages regulations producing widespread plant shutdowns. For example, the Clean Air Act requires the EPA to set standards requiring the maximum achievable reductions of hazardous air pollutants considering cost and other factors. The Clean Water Act requires effluent standards for industrial emission sources (point sources) of water pollution that reflect the best available technology. The Occupational Safety and Health Act requires protection of workers from toxic emissions materially impairing worker health to the extent feasible.

**The Issue**  
What principles should govern agency decisions about how much pollution reduction to require?

The Supreme Court has defined feasibility in terms of what one is capable of doing. This implies that government agencies need not require the impossible. Rather, the feasibility principle imposes two constraints on the stringency of environmental standards. It authorizes government agencies to forego physically impossible environmental improvements, a technological constraint. The feasibility principle also embodies a cost constraint, a presumption against requirements so costly as to require widespread plant shutdowns. The cost and technology constraints together demand that industry implement those environmental and safety improvements that industry can make while continuing to produce goods for consumers. While the feasibility principle guards against widespread economic harm, it does not allow the inability of a few poorly managed firms to meet generally reasonable standards to limit the stringency of general rules governing an industry.

The feasibility principle does not consist wholly of constraints. The principle requires maximizing pollution reductions and the associated saving of life, preservation of health, and protection of the environment, up to the point where plant closures begin to occur. Possibly as a result of this approach, environmental statutes have produced a small net increase in employment while significantly reducing pollution, even as population and consumption have risen. Feasible yet stringent standards generate jobs in engineering, installing, and operating pollution control technologies or new production processes.

While many environmental statutes rely, in part, on the feasibility principle, a series of executive orders and the Unfunded Mandates have placed increased reliance upon cost-benefit analysis (CBA). A CBA-based approach requires regulators to quantify and give dollar value to the health and environmental improvements associated with proposed pollution limits. It shifts the focus from maximizing feasible reductions in harmful pollution to constantly asking whether any pollution reduction is worth the costs of achieving it.

## What People are Fighting About

Industry and the conservative think tanks they fund have strongly supported reliance on CBA. CBA has appealed to some policy-makers and academics because they view the alternatives as "absolutist" and irrational. Many environmentalists and environmental experts, however, believe that CBA gives short shrift to environmental values that often prove difficult to quantify. Part of the fight about CBA revolves around the question of whether any suitable alternative means of choosing environmental standards is available. (See [CPR Perspective on Cost-Benefit Analysis](#).) The feasibility principle provides an alternative to cost-benefit based standard setting.

**What's At Stake?**  
The ability of agencies to establish sensible safeguards protecting public health and the environment.  
  
The principle that companies and individuals must avoid seriously damaging people's health and our environment to the extent feasible.

Implementing the feasibility principle requires a "feasibility analysis." This analysis informs government agencies of the projected cost of pollution control requirements. Government officials then must compare these costs to the economic capacity of implementing firms to make sure that costs do not render an otherwise desirable requirement infeasible. This analysis, however, does not require agencies to quantify benefits, since it requires no comparison of costs to benefits. Feasibility analysis, however, follows detailed evaluation of science to make sure that the pollutants that feasibility-based standards address raise serious health and environmental concerns. CBA, by contrast, requires an analytical process that evaluates cost in precisely the same way that feasibility analysis does. But CBA also requires regulators to do the near impossible - i.e. put a dollar figure on the value of harms that a new standard could avoid. This requires the agency to engage in wide-ranging guesswork to estimate the number of deaths and illnesses a given standard would avoid. Even where strong scientific evidence exists that a pollutant causes serious harms, science rarely provides comprehensive enough data to allow reasonably good numerical estimates of harms. In the many cases where agencies cannot generate numbers, CBA-based approaches tend to ignore scientific evidence of harm. But CBA demands more of an agency than just quantifying frequently unquantifiable effects. It also requires it to assign a dollar value to harms like death and illness to facilitate comparisons of costs to benefits. In order to do this, agencies frequently must engage in quite controversial and often fantastic assumptions. The requirement that agencies make implausible assumptions in order to generate numbers from very limited

data makes them easy targets for industry litigation resisting standards. The entire process of making and debating benefits estimates has proven so inefficient that industry has seized upon it as a means to stop regulation altogether.

## CPR's Perspective

The feasibility principle offers a better approach to standard setting than CBA. Feasibility-based provisions are not absolutist, for they require consideration of cost. But they offer a much more sensible way of addressing the cost of environmental regulation than CBA.

The combination of strict environmental protection with acceptance of some restraint to avoid widespread shutdowns makes sense. Strict standards protect people from harms that can devastate individuals and their families. Those harms include cancer, birth defects, and asthma (including cases requiring hospitalization). Many regulated pollutants can kill people, and just about all of them can produce illnesses that devastate afflicted individuals. Environmental harms often manifest themselves not as a cost spread nice and evenly among a large population, but as a devastating experience for the communities located near the plant, including the individual who suffers from cancer, the parent who cares for a child suffering from a serious birth defect, or the asthmatic child who cannot attend school because of difficulty breathing. (See [CPR Perspective on Environmental Justice](#).)

### What's On the Table?

Should environmental standards maximize feasible reductions in pollution? Once scientists conclude that a pollutant is harmful, should government repeatedly revisit the question of whether it's worth regulating, or instead focus on taking practical measures to ameliorate potentially serious harms?

How can we sensibly address public health and environmental problems without severe economic disruption?

While pollution concentrates harms on selected individuals, companies usually can spread around the cost of stringent environmental protection or avoid much of the cost through innovation. Even firms that fail to innovate shop around for the least costly contractor and equipment when they reduce pollution and usually manage to spend less than agencies predict on compliance.

Firms often have the ability to distribute the compliance cost they cannot avoid widely, so that it has minimal impacts on individuals. Firms generally prefer to pass compliance cost on to their customers in the form of price increases. Price increases, while sometimes inconvenient, rarely devastate individuals in the way that cancer or birth defects do. The cost of complying with environmental standards generally makes up a tiny percentage of industry profits, often less than 1 percent, so that firms often can pay to meet their environmental responsibilities with relatively little pain.

The feasibility principle conforms more closely to ethical values than a cost-benefit approach. Firms have a responsibility to avoid seriously harming people, just like individuals do. While the feasibility principle does not require that all pollution associated with potentially serious harm cease, it does demand that firms engage in all feasible efforts to reduce pollution. It is demanding without being absolutist. It only allows pollution to the extent necessary to guard against very serious concentrated economic harms, such as the shutdown of an industry or a large number of plants.

By contrast, CBA-based approaches allow firms to kill and injure people if it would cost "too much" to refrain. And it allows high costs to justify killing, even when the cost of behaving ethically would have only minimal impacts on individuals.

Feasibility analysis offers a much more modest and sane approach. The feasibility principle, like any principle suffers from some problems. But it does offer a rational alternative to CBA.

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