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"Polluter Pays" Principle

While pollution control policies are currently enforced using the traditional command and control principle, a paradigm shift to a market-based approach is gaining acceptance and policy instruments are already being put in place. Examples of market-based instruments (MBIs) include pollution charges, environmental subsidies, deposit-refund systems and tradable permits.

The use of charge systems has been advocated for various technical and economic arguments. The main arguments advanced for the use of the system include a) economic efficiency in meeting environmental objectives and administration; b) a source of revenue for pollution control; c) incentive to innovate on the part of polluters; and d) flexibility and transparency of the system. The charge system creates incentives to polluters to reduce the cost of meeting a given standard or reduce the charge liability by: 1) lessening product output or substituting less pollution-intensive products; 2) changing the inputs; 3) choosing different known technologies; and 4) installing pollution treatment facilities.

Making use of pollution charges basically embraces the "polluter pays" principle. The principle is embodied in the idea that environmental externalities should be internalized by those who cause them. By internalizing the cost of pollution, firms are given an incentive to minimize the generation of pollutants and/or provide treatment for the pollution generated.

In terms of pollution charges for water management, their use serves two objectives—environmental and economic. The environmental objective is to maintain a specified water quality standard while the economic objective is to encourage firms to pursue the most cost-effective pollution prevention and abatement measures that would allow them to comply with pollution load limits.

Accordingly, the design of an effective pollution charge system for water quality management must take into consideration three important aspects: 1) the ecological characteristic of the water body; 2) the source and nature of pollution; and 3) the institutional and regulatory structure.

"Polluter pays" principle

The "polluter pays" principle aims at ensuring that the costs of environmental control fall in the first place on the polluters, thereby ensuring that market forces take these costs into account and that resources would be allocated accordingly in production and consumption...

Command and control principle

In a "command and control regime," the government enforces regulatory measures and permit requirements to control activities causing environmental pollution.

Environmental quality standards prescribe the allowable and acceptable level of pollutants with fine and penalties for noncompliance. Policies are now shifting from this dominant approach to more market-based instruments for economic and technical arguments.

The *Economic Issue of the Day* is one of a series of PIDS efforts to help in enlightening the public and other interested parties on the concepts behind certain economic issues. This dissemination outlet aims to define and explain, in simple and easy-to-understand terms, basic economic concepts as they relate to current and everyday economics-related matters.

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The views expressed are those of the author(s) and do not necessarily reflect those of PIDS or the SANREM-CRSP/SEA.



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The Laguna Lake Development Authority (LLDA) provides an example of the pollution charge system applied to industrial and commercial establishments around the lake. The pollution charge consists of two parts: a fixed amount and a variable amount. The fixed charge rate covers the administrative costs of implementing the charge system while the variable fees are charges based on pollution load. The higher the volume and concentration of pollution being discharged are, the higher the fee is.

Under the system, industries covered include, albeit not limited to, food processing, food canning, livestock raising, grain milling, petroleum refining, plastic and synthetics, pulp and paper, sugarcane processing, textile milling, and thermal power generation (Favila 1996). While the charge system is currently applied only to the pollutant biological oxygen demand (BOD), other pollutants will be included in the future.

The variable charge rate is intended to approximate the cost of pollution abatement. Under the pollution charge system, considerations are taken so that the charge rate will not be cheaper for industries to pollute than to pay the fee. *

References

- Favila, G.F. 1996. Pollution charge system readied to protect Laguna Lake. *Business and Environment* September-October, p. 6.
- Goodstein, E.S. 1999. *Economics and the environment*. New Jersey: Prentice Hall.
- Organization of Economic Co-operation and Development (OECD). 1985. *Environment and economics*. Paris.

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