

# Combating environmental pollution crimes through environmental tax instruments in Indonesian development law

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## ABSTRACT

Environmental pollution remains a critical issue in Indonesia's development process, as rapid industrialization and economic growth often lead to significant environmental degradation. The inadequacy of conventional legal enforcement mechanisms, which primarily rely on administrative and criminal sanctions, has failed to create a deterrent effect on environmental offenders. This study examines the role of environmental tax instruments as alternative legal and economic tools to prevent and combat environmental pollution crimes within the framework of Indonesian development law. Using a normative juridical (doctrinal) approach that is prescriptive and analytical in nature, this study analyzes relevant legislation, legal doctrines, and the conceptual foundations of environmental and tax law. The methods applied include a statute, conceptual, and case approach, supported by qualitative analysis through grammatical, systematic, and historical interpretation. The findings indicate that environmental taxes serve not only as a fiscal instrument but also as a preventive legal mechanism that embodies the polluter pays principle, promoting compliance and environmental accountability among economic actors. Strengthening the legal framework and policy implementation of environmental taxes is essential for achieving sustainable development goals and ensuring environmental justice in Indonesia.

**Keywords:** Environmental Pollution, Crimes, Environmental Tax

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## 1. INTRODUCTION

Environmental protection and management are systematic and integrated efforts undertaken by communities or countries to preserve environmental functions and prevent pollution or environmental damage, starting from planning, utilization, control, maintenance, monitoring, and law enforcement processes. In other words, environmental protection and management are human efforts to interact with the environment to maintain life and environmental sustainability to achieve the welfare of a nation. Environmental management protection, National Law Development Agency, explains the following:

*Constitutionally, there are legal norms that provide protection for the community to obtain a good and healthy environment, which the state must provide. The right to a good and healthy environment, as stipulated in Article 28 h of the 1945 Constitution, has legal implications that the state must always provide an environment that is in accordance with the basic norms of the 1945 Constitution. In fact, Article 33 of the 1945 Constitution mandates that "The earth, water, and natural resources contained therein shall be controlled by the state and used for the greatest prosperity of the people." The meaning of the greatest prosperity of the people indicates that the people must receive the benefits of the natural resources (SDA) that exist in Indonesia.*

Environmental protection and management are closely related to the implementation of sustainable development policies. Development in general can be defined as conscious human efforts to continuously improve welfare, which involves major changes to economic, social, physical, regional structures, consumption patterns, natural resources and the environment, technology, and culture. Development is essentially a process of environmental change, namely, reducing environmental risks and increasing environmental benefits.

Environmental law plays an important role in preventing and combating pollution and environmental damage, particularly by regulating activities that have a negative impact on the environment and incorporating environmental policies into environmental legislation.

Low understanding of environmental law, sustainable management of natural resources accompanied by law enforcement, and weak economic conditions have negatively impacted natural resource development efforts and environmental damage. High levels of environmental pollution result from non-compliance with several regulations in the field of natural resources (Renggong, 2018).

Activities related to environmental conservation have not been fully effective in curbing the rate of destruction and pollution caused by both community members and business entities. This is evident from the large number of news reports in various media outlets covering environmental destruction and pollution in regions across Indonesia (Sunarso, 2005).

The environmental legal policies implemented by the government to prevent environmental pollution have relied solely on traditional instruments, such as permits and requirements for the use of pollution technology. However, the key to tackling environmental issues is cost, which is why the Organization for Economic Cooperation and Development (OECD) has implemented the polluter-pays principle, which is considered an efficient and effective environmental policy.

Green Tax is the most effective pollution control instrument, as it is a permanent incentive to reduce pollution and lower the costs of tackling it. The Indonesian government has recently begun to make new breakthroughs that can reduce the rate of environmental destruction and pollution, namely, through plans to implement an environmental tax.

Legal policy instruments include the Strategic Environmental Assessment (SEA), Spatial Planning, Environmental Quality Standards, environmental damage quality criteria, Environmental Impact Assessment (EIA), UKL-UPL, licensing, environmental economic instruments, environmental-based legislation, environmental-based budgeting, environmental risk analysis, environmental auditing, and other environmental instruments as needed and/or in line with scientific developments.

The application of environmental taxes in Indonesia can be said to be in line with the provisions of Law No. 32 of 2009 concerning Environmental Protection and Management. Tax law is one of the instruments that can be used to control environmental destruction and pollution, in addition to other legal instruments such as administrative, civil, and criminal law (Rangkuti, 2020).

Economic instruments in Law No. 32 of 2009 concerning Environmental Protection and Management need to be implemented as an obligation of the government to adopt policies in the field of taxation as incentives and disincentives for environmental management. From an economic perspective, the application of environmental taxes is considered a permanent incentive levy aimed at reducing pollution and curbing the costs of addressing it (Erwin, 2008).

From a taxation perspective, the function of environmental taxes is not much different from that of general taxes. Taxes have two main functions: budgetary and regulatory. When viewed from the objectives and targets to be achieved from the implementation of environmental taxes, it can be said that the regulatory function is more prominent than the budgetary function. However, it is necessary to further examine whether the regulatory function is inherent in the concept of environmental tax to be implemented in Indonesia, or whether, on the contrary, the plan to implement environmental tax is motivated solely by fiscal policy that emphasizes maximizing revenue for the regional treasury. This has sparked pros and cons among the public, especially entrepreneurs, regarding the plan to implement environmental tax.

To combat environmental pollution through economic instruments, the government subsequently issued Government Regulation No. 46 of 2017 on Environmental Economic Instruments. Article 1, paragraph 1 of this Government Regulation states that Environmental Economic Instruments are a set of economic policies to encourage the Central Government, Local Governments, or Every Person to preserve environmental functions. Thus, it can be understood that economic instruments are policies aimed at preserving environmental functions.

Environmental pollution and/or damage occurs as a result of excessive exploitation, resulting in the need for remediation of environmental pollution and/or damage. Therefore, effective policies are needed to combat environmental pollution and damage for sustainable development. This is the basis for the author to further examine the issue of combating environmental pollution through environmental tax instruments (Ulum & Ngindana, 2017).

Environmental pollution and/or damage occurs as a result of excessive exploitation, resulting in the need for remediation of environmental pollution and/or damage. Therefore, effective policies are needed to combat environmental pollution and damage for sustainable development. In this context, environmental tax instruments have emerged as strategic alternatives to support more effective and equitable environmental law enforcement. Environmental taxes can function as both preventive and corrective instruments, encouraging businesses to implement the polluter pays principle while also providing incentives for environmentally friendly industrial practices (Munte et al., 2017). Through fiscal mechanisms, the state can internalize the external costs of polluting activities into the economic cost structure of businesses, thus creating a balance between development and environmental protection (Ibrahim et al., 2017).

The implementation of environmental taxes also aligns with the direction of development law in Indonesia, which emphasizes the integration of economic growth, social justice and environmental sustainability. This instrument has the potential to strengthen a legal system that is adaptive to global challenges such as climate change, natural resource degradation, and the need for a green economy (Rahmawati, 2013).

Therefore, discussing the application of environmental tax instruments to combat environmental pollution crimes is crucial, not only within the context of fiscal policy but also within the national development and legal framework. This effort is expected to strengthen the effectiveness of environmental law enforcement and achieve sustainable development in Indonesia.

## **2. METHOD**

This research is normative or doctrinal legal research that is prescriptive and analytical in nature, focusing on the prevention of environmental pollution crimes through environmental tax instruments within the framework of development law in Indonesia (Zed, 2004). The approaches used include a legislative approach to examine legal regulations related to taxes and the environment, a conceptual

approach to examine the doctrines and legal principles that underlie them, and a case approach to analyze the application of environmental taxes in handling pollution cases. Data were collected through a literature review of relevant primary, secondary, and tertiary legal materials. Data analysis was conducted qualitatively through grammatical, systematic, and historical interpretations to gain a comprehensive understanding and produce legal recommendations that support the effectiveness of environmental tax instruments in addressing pollution crimes.

### **3. RESULT AND DISCUSSION**

#### **3.1 Result**

##### **3.1.1 The Environmental Law Provisions on Preventing Environmental Pollution Through Environmental Tax Instruments**

Environmental taxes serve several important functions, including altering ecological habits and providing funding to reduce pollution from industrial emissions and waste disposal. The concept of environmental taxes has long been introduced in European countries such as Denmark, Germany, Norway, and the United Kingdom. Environmental taxes, or green taxes, are defined as "an expression in policy of the polluter-pays principle: whoever causes pollution should pay for it." Environmental taxes were first considered for implementation in Indonesia around 2006 as an instrument to control negative externalities. Environmental taxes have not been optimally implemented to date, considering the unclear regulations regarding taxes.

The role of environmental tax instruments against environmental pollution crimes is as an incentive and disincentive for environmental management. From an economic perspective, the application of environmental taxes is said to be a permanent incentive levy that aims to reduce pollution and the cost of handling it. Criminal law policies to overcome environmental pollution crimes through environmental tax instruments have not been implemented to date, considering the many rejections from entrepreneurs and concerns about the occurrence of overlapping taxes for entrepreneurs.

Based on the opinions expressed by the experts above, it can be understood that the function of theory in a study is to classify and analyze the findings, whether normative or empirical. Using existing theories, research findings can be analyzed and presented in the form of explanations to answer various issues or problems raised in the research. Criminal policy theory, legal system theory, and substitute law theory were used to analyze the issues raised in this study.

Criminal policy is an effort to prevent crimes. Criminal policy is inseparable from broader policies, namely "social policy," which consists of "social welfare policy" and "social defense policy." Crime control policy (criminal policy) is carried out using penal means (criminal law); therefore, "criminal law policy," especially at the judicial/applicative policy stage, must pay attention to and aim at achieving the objectives of social policy, namely social welfare and social defense.

Criminal policy is a part of law enforcement policy. Law enforcement policy is part of social policy and legislative policy. Criminal policy is an integral part of social policy and efforts to achieve social welfare.

Law enforcement policy must consider the broad scope of a legal system. According to Friedman, a legal system has a broader scope than law itself. The word "law" often refers only to rules and regulations that govern a society. Meanwhile, the legal system distinguishes between the rules and regulations themselves, as well as the structures, institutions, and processes that implement them. According to Friedman, it is determined by three elements: the legal structure, legal substance, and legal culture.

According to Hoefnagels, crime control policy can be implemented by combining criminal law application, prevention without punishment, and efforts to influence society's views on crime and punishment through mass media.

The theory proposed by G. Pieter Hoefnagels above suggests that crime prevention policies can be simplified in two ways: first, penal policy, commonly referred to as “criminal law application”; and second, non-penal policy. Penal policy focuses on repressive measures after a crime has been committed, whereas non-penal policy focuses on preventive measures before a crime is committed.

Crime prevention and control efforts must support the goals of social welfare and defense. Thus, the discussion on preventing environmental pollution through environmental tax instruments can be analyzed based on the criminal policy theory.

In relation to combating environmental pollution crimes, there is a close link between the development of environmental law relating to the behavior or activities of subjects of environmental law and the protection of humans from the negative impacts arising from the exploitation of natural resources. Thus, environmental law is not always related to the regulation of environmental protection or the use of natural resources such as water, land, sea, and minerals. The substance of environmental law includes several legal provisions concerning and related to efforts to prevent and overcome environmental problems.

As a legal system, environmental law has distinctive characteristics, especially when considered in relation to its placement within the fields of public and private law commonly recognized in legal studies. The distinctive feature of environmental law lies in its substance and the interests it covers, which are so broad and diverse that environmental law cannot be placed within either of the two fields of law, namely, private and public law (Ulm & Ngindana, 2017).

Environmental issues are generally grouped into two categories: the first concerns environmental destruction and the second concerns environmental pollution. Land burning, deforestation, oil spills in rivers or the sea, and hunting of endangered species are issues that fall within the scope of environmental laws (Havinanda, 2020).

From a legal perspective, addressing environmental problems and enforcing environmental laws in society is important for maintaining and preserving a healthy environment. The development of legal aspects related to environmental issues covers criminal, civil, administrative, and international law and other related branches of law. Environmental issues must be addressed in an integrated manner, covering various interrelated fields in society, if we want environmental preservation policies and commitments to be implemented and realized as expected.

With regard to legal instruments for the prevention of environmental pollution crimes through environmental taxation instruments, in this case, it can be reviewed and analyzed based on policy developments in environmental law, where in the enforcement of environmental crimes, there are various legal instruments that can be used, such as criminal, civil, and administrative law.

### **3.1.2 The Criminal Law Policies on Combating Environmental Pollution Crimes Through Environmental Tax Instruments**

Currently, many countries are considering imposing or expanding green taxes. Green taxes are generally levied on the production and consumption of goods and services deemed environmentally damaging. State revenue from green taxes is expected to contribute to environmental restoration and provide funding for more environmentally friendly activities (Shahzad, 2020).

The authority to collect environmental taxes in Indonesia is implied in several laws that are delegated to regional governments. Therefore, environmental taxes must be regulated in regional regulations to legitimize the actions of regional governments in exercising their authority. Currently, provisions regarding regional taxes are regulated by Law Number 28 of 2009 concerning Regional Taxes and Regional Levies. A closer look at the concept of environmental tax offers an effective solution for controlling environmental quality. This stems from the coercive nature of taxation, which is expected to compel companies to reduce their environmental impacts. However, the draft environmental tax seems unclear, particularly regarding the subject matter, tariffs, and budget allocation. Therefore, a comprehensive review is needed to ensure its applicability and avoid creating an excessive burden on Indonesian businesses.



From a tax perspective, it can be said that the criteria for determining environmental tax subjects are unclear. Similarly, in terms of environmental tax rates, there must be a clear measure of the percentage of environmental taxes. The lack of clear measures and regulations regarding environmental tax subjects, objects, and rates raises concerns that companies will ultimately shift the burden of environmental tax obligations to consumers (Labeaga & Labandeira, 2020).

The concept of environmental taxation based on a turnover approach should be abandoned, as it gives the impression that its application is solely for fiscal purposes. Environmental taxation using an impact-based approach should be prioritized because it strengthens corporate accountability in managing environmental impacts. The current implementation of the green tax in Indonesia refers to Government Regulation No. 46 of 2017, concerning Environmental Economic Instruments. Three forms of environmental funding are the Environmental Recovery Guarantee Fund (DJPLH), Environmental Pollution and/or Damage Mitigation and Recovery Fund (DP2KPLH), and Conservation Trust/Assistance Fund (Bashir et al., 2021).

Environmental taxes (green taxes) are one of the government's concrete steps in responding to environmental harm. The concept of taxes, as widely understood, has four main functions: (1) Budgeting function (collecting funds from the public for state activities); (2) Regulatory function (a function for the government to achieve certain goals); (3) Stability function (related to the government's goal of stabilizing prices under certain conditions, for example, during inflation, etc.); (4) The function of income distribution (taxes are used as a means of increasing employment opportunities, which, in turn, can increase people's income).

There are two general discussions regarding the concept of environmental taxes: the implementation of environmental taxes and the provision of tax credits for green products. An environmental tax would mean that any company that worsens environmental conditions would be subject to mandatory levies (the polluter-pays principle). This concept has generated much controversy, especially among business circles. Furthermore, taxes are calculated based on total production costs. This would create a new expense item in addition to environmental costs, such as environmental impact analysis (EIA) audit fees that have been implemented previously. Consequently, production costs would increase, profits would decrease, and other multiplier effects would occur (Krass et al., 2013).

In Indonesia, the implementation of the Green Tax has not yet been ratified by the Indonesian government due to continued opposition from businesspeople and economic observers. Upon closer examination, it is true that the Green Tax will place a greater burden on businesses. However, further analysis shows that the Green Tax offers numerous benefits to the government. The benefits that can be gained from the implementation of the Green Tax include the following: (1) Financing efforts for development and environmental conservation (natural resources) in Indonesia. The government has often argued for limited funding for environmental conservation. If implemented, this policy would be a significant source of funding; (2) As a means of regulating and monitoring natural resource exploitation policies by companies or industries so that the exploitation of natural resources can be limited according to reasonable limits and reduce damage to the natural environment by industry; (3) As a means to save national energy. With the proper implementation of the Green Tax, national energy can be saved as efficiently as possible. The implementation of this Green Tax indirectly requires the industry to innovate in the field of energy utilization (changing the use of non-renewable natural resources such as fuel to use renewable natural resources such as heat energy (solar) or wind power); (4) Reducing pollution by industrial exhaust emissions (CO<sub>2</sub>), which have so far caused drastic climate change (global warming), can also reduce water and soil pollution; and (5) Protecting from water resource scarcity due to excessive energy exploitation by industry.

Based on the above description, it can be understood that the implementation of environmental taxes will provide significant benefits for environmental preservation if the government can implement environmental taxes as envisioned objectively and fairly, both conceptually and in practice.

### **3.2 Discussion**

Environmental legal provisions for preventing environmental pollution through environmental tax instruments are regulated in Articles 42 and 43 of the Environmental Management and Management Law, which is part of the implementation of Environmental Economic Instruments. Furthermore, the implementation of environmental economic instruments is regulated in Article 31 letter c of Government Regulation Number 16 of 2017 concerning Environmental Economic Instruments, which stipulates that the implementation of Environmental Economic Instruments is carried out through environmental taxes, levies and subsidies. Environmental tax instruments play a dual role in addressing environmental pollution crimes, serving as both incentives and disincentives for environmental management. From an economic perspective, the implementation of environmental taxes is considered a permanent incentive levy aimed at reducing pollution and the costs of mitigating it. Criminal law policies to address environmental pollution crimes through environmental tax instruments have not yet been implemented due to significant opposition from businesses and concerns regarding tax over-leverage.

#### **4. CONCLUSION**

This study shows that relying mainly on conventional administrative and criminal sanctions has not produced a strong deterrent against environmental pollution in Indonesia. Environmental tax instruments (green taxes) offer a more forward-looking alternative because they internalize pollution costs into business decisions and operationalize the polluter-pays principle as a permanent incentive for reducing environmental harm. In Indonesia's development-law context, such taxes are not merely fiscal tools; they are preventive and corrective legal mechanisms that can steer economic actors toward compliance and accountability.

Normatively, Indonesia already has a basis for environmental economic instruments through Law No. 32/2009 and Government Regulation No. 46/2017, which open space for environmental taxes, levies, and subsidies as part of environmental governance. Environmental taxes, therefore, fit Indonesia's constitutional and statutory direction for sustainable development, linking economic growth with environmental justice.

In short, environmental taxes are legally and conceptually urgent for combating pollution crimes, but they will only work if the government strengthens the legal design and implementation: clarifying taxable impacts and rates, preventing double-charging with existing environmental obligations, ensuring transparency in using revenues for restoration, and integrating green taxes with broader penal and non-penal enforcement. With this kind of reset, environmental taxation can become the backbone of Indonesia's sustainable development law instead of a stalled proposal.

#### **Ethical Approval**

Ethical approval was not required for this study.

#### **Informed Consent Statement**

This study did not involve human participants; therefore, informed consent was not required.

#### **Disclosure Statement**

No potential conflict of interest was reported by the author(s).

#### **Data Availability Statement**

The data presented in this study are available on request from the corresponding author due to privacy reasons.

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## Notes on Contributors

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Viski Umar Hajir Nasution is affiliated with Universitas Sumatera Utara

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