Environmental Law Enforcement Governance Based on Sustainable Development Principles in East Java Province

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Abstract

This study analyzes how environmental law enforcement operates in East Java and proposes a transformation pathway consistent with sustainable development. The research pursues two aims: to assess current practice and to design reforms that align ecological protection with social equity and economic viability. A qualitative approach with quantitative support was employed, combining legal and policy review, time-series analysis of the Environmental Quality Index and its components for 2020–2024, desk research on administrative and judicial cases from 2022–2024, and interviews and focus group discussions with government, and civil society.

The analysis shows that administrative sanctions function as an effective first line because they are fast, preventive, and scalable, yet their impact is constrained by fragmented mandates, uneven supervisory and laboratory capacity, and the absence of binding timelines from inspection to decision and from decision to ecological restoration. Water quality remains the most persistent drag on aggregate environmental performance, indicating weak links between enforcement outputs and ecological outcomes. The study concludes that a responsive and smart regulatory mix is required, centered on administrative sanctions tied to measurable restoration, proportionate civil and criminal escalation, and a provincial bylaw that fixes coordination architecture, service levels, public participation.

***Keywords**: Environmental law enforcement; Sustainable development; Administrative sanctions; East Java*

I. Introduction

As citizens of the Republic of Indonesia, we possess the right to enjoy a safe and healthy environment, a right that is expressly regulated under Article 28H paragraph (1) of the 1945 Constitution of the Republic of Indonesia (hereinafter referred to as the "1945 Constitution"), and which, by its very articulation in that fundamental charter, imposes upon the state a correlative obligation to ensure the continuity of a good quality of life for all its citizens through policies, institutions, and concrete measures that secure environmental well-being. Accordingly, the right to a healthy environment is to be vindicated through firm and effective law enforcement so that the fulfillment of that right can be assured by maintaining an ideal and high-quality environmental condition and Article 28H paragraph (1) of the 1945 Constitution thus stands as a specific manifestation of the protection afforded by the state with respect to the right of every person within Indonesia to obtain a good and healthy environment as well as adequate, quality health services (Asshiddiqie, 2009).

Development that is continually pursued, in its very essence, gives rise to disturbances in the environmental balance, since development constitutes a conscious human endeavor to alter that equilibrium; therefore, within this undertaking, safeguards must be maintained so that the environment remains capable of supporting the quality of life through environmentally sound and sustainable development (Suparni, 1994). Development activities, particularly in the utilization and management of natural resources carried out by the government and the private sector, can give rise to disturbances to ecosystems in the form of environmental pollution and disruptions of a fundamental nature to ecosystem processes.

Article 33 paragraph 4 of the 1945 Constitution of the Republic of Indonesia states that "The national economy is organized based on economic democracy with the principles of togetherness, efficiency with justice, sustainability, environmental awareness, independence, and with the maintenance of a balance between progress and the unity of the national economy." On the basis of that provision, the government is obligated to ensure that every business actor gives due regard to the safety and health of the public and to the surrounding environment in the conduct of its business activities, as part of broader efforts to protect environmental sustainability (Rahmawati & Handayani, 2025).

The proliferation of practices involving environmental pollution and or environmental destruction constitutes a matter of significant concern, because the environment forms an inseparable part of human life. This phenomenon signals that the violations occurring have not been addressed properly and optimally, which in turn results in the continual recurrence of acts of pollution and or environmental destruction. Therefore, in an effort to prevent damage to the environment arising from development processes, the government has provided a legal umbrella in the body of legislation concerning the environment. One such instrument is Law Number 32 of 2009 concerning Environmental Protection and Management, hereinafter referred to as the EPML, which stands as evidence of Indonesia's progress in recognizing the importance of environmental conservation.

EPML places greater emphasis on administrative sanctions, because the statute underscores the aspect of environmental management, while management is invariably linked to authority, and authority itself is the principal focus of administrative law. Consequently, in many environmental cases the provisions of the EPML tend to require the prior application of administrative sanctions, whereas criminal sanctions are imposed only when administrative sanctions are considered

ineffective or insufficiently deterrent (Mardhatillah, 2016). This condition gives rise to questions regarding the configuration of law enforcement provisions, in particular the regime of administrative sanctions in the environmental field, as well as the obstacles encountered in their implementation. Administrative sanctions constitute a legal instrument that plays a significant role in the enforcement of environmental law, because such sanctions are intended to restore environmental conditions that have suffered damage or pollution.

In practice, the application of administrative sanctions often encounters a variety of challenges. One challenge that is faced is the absence of adequate human resources within the relevant agencies to carry out supervision of the implementation of administrative sanctions. This is because the effectiveness of administrative sanctions depends to a great extent on supervisory capacity and on the commitment of the law enforcement apparatus itself. Yet administrative sanctions are viewed as an instrument that is more flexible and that has its own advantages when compared with criminal and civil sanctions, which relatively require a longer period of time and entail greater financial costs.

The urgency of research on the governance of environmental law enforcement based on sustainable development principles in East Java Province lies in the province's positioning of law enforcement as a governance instrument that is deliberately designed to safeguard ecological sustainability, social justice, and economic sustainability simultaneously. The constitutional right to a good and healthy environment serves as the basic premise, while sustainable development functions as the normative framework as well as the evaluative criterion. Within this framework, law enforcement does not stop at the prevention and cessation of violations; rather, it directs behavior, strengthens prevention, and ensures remediation, so that environmental functions continue to uphold quality of life and

the competitiveness of the region.

Building on this introduction, the research is directed toward formulating a model of governance for environmental law enforcement that is grounded in sustainable development principles while aligned with the needs of regional economic growth, achieved by optimizing administrative sanctions as a rapid and graduated front line together with the orderly and proportional escalation to criminal and civil measures; by designing institutional arrangements that close coordination gaps among the central, provincial, and regency or city levels..

2. Research Method

This research employs a normative juridical method of legal research, that is, doctrinal research, which places emphasis on an in depth analysis of the legal norms related to environmental law enforcement in East Java Province; the normative juridical approach is chosen because the study seeks to examine the consistency and coherence of the Indonesian legal system in enforcing environmental law, and it adopts an analytical descriptive approach grounded in the perspective of legal positivism, which regards law as an autonomous system of norms.

The primary data sources in this research consist of legislation that governs environmental law enforcement, particularly as it applies within East Java Province, with one of the most central sources being EPML; the secondary data sources include court decisions concerning cases of environmental law violations in East Java Province, together with a range of relevant scholarly literature.

The data collection technique relies on a method of library research carried out in a systematic and comprehensive manner across various legal sources and pertinent literature through targeted searches on environmental law enforcement, and the collection process is conducted using purposive sampling of legal sources that bear direct relevance to the research problem, based on criteria that include topical suitability, the credibility of the source, the currency of the information, and representativeness with respect to the issues under study.

The data analysis in this research utilizes a qualitative normative method that focuses on the interpretation and construction of the legal norms governing environmental law enforcement through techniques of grammatical interpretation and systematic interpretation in order to ascertain the meaning and purpose of the provisions under examination, beginning with the inventory and classification of the relevant legal norms, continuing with an analysis of consistency and coherence among those norms, and extending to the identification of normative conflicts or gaps in the law that influence the effectiveness of law enforcement.

3. Results and Discussion

A. Practices of Environmental Law Enforcement in East Java Province

The juridical definition of the environment is set out in Article 1 of the EPML, which states: "The environment is a unified space together with all objects, forces, circumstances, and living creatures, including human beings and their behavior, that affect nature itself, the continuity of life, and the welfare of human beings and other living creatures." From this it can be concluded that the environment encompasses every aspect of human life and constitutes the key to all existing forms of sustainability. Therefore the environment must be protected, and whenever persons, whether intentionally or unintentionally, cause damage to the environment, enforcement of the environmental laws that have been violated shall be undertaken (Trisnawaty & Wirawan, 2024).

Environmental law enforcement in East Java Province represents a complex policy arena, in which the dynamics of regulation, institutional arrangements, juridical proof, and social and political factors interact with one another and shape a configuration of problems that cannot be reduced to a single dimension alone. In East Java, in aggregate, the Environmental Quality Index IKLH shows a trend of incremental improvement, with a cumulative increase of 2.8 points over five years,

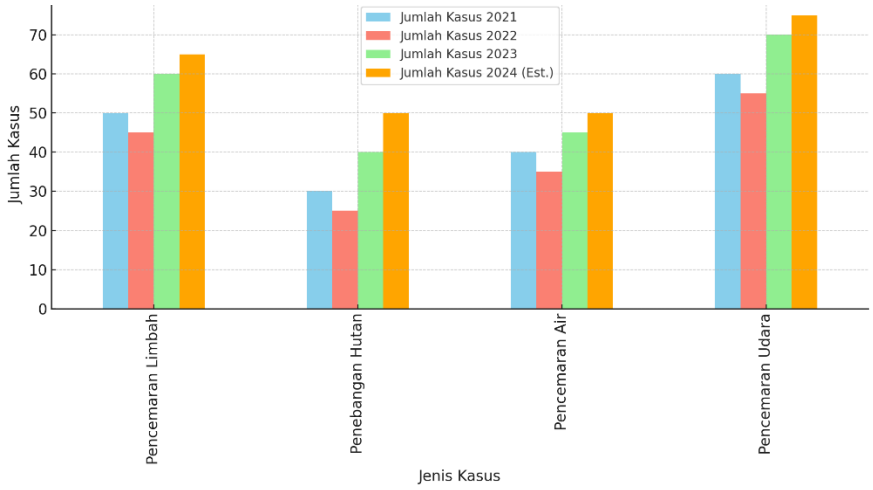
rising from 67.54 in 2020 to 70.34 in 2024. Although this increase in the IKLH is steady and has surpassed the threshold of 70, the entirety of the achievement still falls within the Moderate Category (Dinas Lingkungan Hidup Provinsi Jawa Timur, 2024).

The range of environmental issues that arise each year, including water pollution, deforestation, air pollution, and illegal mining, continues to dominate reported cases, with a consistent tendency to increase from year to year. The chart below illustrates shifts in the proportion of cases over time, for example the share of water pollution that remains high compared with other components, followed by surges in deforestation incidents in areas experiencing an expansion of land use, as well as fluctuations in air pollution that correlate with episodes of prolonged dry seasons and activity in energy intensive industries. At the same time, cases of illegal mining display a distinctive spatial pattern in resource rich pockets with limited oversight, indicating strong economic incentives, supply chains that are not fully traceable, and a deterrent effect of policy that has not yet reached an optimal level. This configuration clarifies that the burden of environmental control is not uniform across regions; industrial coastal zones and growth corridors tend to account for a larger share of complaints and findings, while upstream areas contribute to the degradation of land cover and the decline in the quality of water bodies, which ultimately affects composite indicators downstream.

The pattern of increase also indicates gaps in three main links, namely prevention, detection, and remediation. In the area of prevention, licensing instruments, environmental approvals, and technical obligations are often not fully internalized into the operational practices of business actors, particularly in the management of wastewater, the control of emissions, and post mining reclamation practices. In the area of detection, limitations in the frequency of risk based

inspections, laboratory capacity, and data integration lead to certain violations being identified only after they have caused wide ranging impacts. In the area of remediation, the interval from supervisory recommendations to administrative decisions, and from decisions to remedial action, still leaves pauses that weaken deterrence while postponing improvements in ecological conditions.

Picture 1. Chart of Environmental Case Types with the Highest Numbers in East Java Province, 2021 to 2024



Source: Compiled by the author, 2025.

From this chart it can then be seen that there are quite significant variations in the number of cases across those years. Waste pollution, forest logging, water pollution, and air pollution all display fluctuations that depict the dynamics of environmental problems in the province. From the chart it appears that in 2024 there will be a projected surge in the number of cases, particularly in water pollution and air pollution, as indicated by projections that are higher than in the preceding year. This trend reflects a growing seriousness of pollution problems, with air pollution standing out as one of the most prominent categories by showing a consistent increase each year. This condition may be attributable to a number of factors, including increased industrial and transportation activity that

produces air pollution, as well as suboptimal waste management in various sectors that results in the contamination of rivers.

Table 1. Dominant Environmental Case Types and Causal Factors in East Java Province, 2023 to 2024

Case Type	Causal Factor 1	Causal Factor 2	Causal Factor 3	Percentage (%)
River Pollution	Industrial waste	Agricultural waste	Domestic waste	26.32
Deforestation and Land Use Conversion	Agricultural expansion	Infrastructure development	Illegal mining	21.05
Air Pollution	Vehicle emissions	Industrial pollution	Open burning	35.09
Drought and Flooding	Degradation of water recharge areas	Climate change	Conversion of forest land	17.54

Source: WALHI, 2024.

This increase in the number of pollution cases indicates that, despite ongoing environmental management efforts, the problems arising are becoming more complex and require more intensive attention from the authorities (Rosyadi & Wulandari, 2021). Cases of environmental pollution have experienced a quite significant increase from year to year. One case that has drawn substantial public attention in East Java Province concerns pollution allegedly committed by PT SS. In this matter, PT SS is an enterprise operating in the textile weaving industry, specifically spinning, printing, and dyeing, producing greige fabric and printed fabric. In conducting its business, PT SS is known to use raw and auxiliary materials in the form of yarn, greige fabric, inks that is colorants, starch, bleaching agents, cartons, and plastic packing, which fall within the category of hazardous and toxic waste B3. In addition, its production process generates residuals that take the form

of wastewater and hazardous and toxic waste B3 in the form of sludge deposits from the Wastewater Treatment Plant hereinafter referred to as IPAL, which are dangerous in nature and contain heavy metals.

On 17 May 2016, the Environmental Agency of Pasuruan Regency conducted a field inspection of the Respondent for the purpose of supervising and controlling environmental impacts, and during this supervision the inspectors found, as a matter of fact, the dumping of hazardous and toxic waste B3 in the form of fly ash behind residential houses as well as the dumping of hazardous and toxic waste B3 in the form of fly ash, bottom ash, and sludge from the Wastewater Treatment Plant hereinafter referred to as IPAL on land owned by residents along the village road. In response, the Environmental Agency of Pasuruan Regency issued Decision Number 660.3/788/424.078/2016 concerning the Imposition of an Administrative Sanction in the Form of Government Coercive Measures upon the Respondent, requiring the Respondent to comply with seventeen obligations as set forth in that government coercive administrative sanction. However, upon subsequent supervision up to 09 May 2017 with respect to the Respondent's compliance in implementing the administrative sanction, it was found that the Respondent had not fulfilled all of the obligations stipulated in the aforementioned administrative sanction.

In Decision of the Bangil District Court Number 462/Pid.Sus/LH/2018/PN Bil, dated 08 October 2018, PT SS, was declared to have committed dumping of waste and or materials into the environmental media without a permit and was sentenced to imprisonment for a term of one year. However, the custodial sentence shall not be served unless at a later time there is a further order in a judicial ruling because the defendant, before the expiry of a probationary period of two years, commits an act that is punishable, and the defendant was also fined in the amount

of twenty five million rupiah, with the stipulation that if the fine is not paid it shall be replaced by confinement for a period of two months.

Following the criminal judgment, on 3 January 2024, Siti Nurbaya Bakar, in her capacity as the Minister of Environment and Forestry acting on behalf of the Ministry of Environment and Forestry, filed a civil lawsuit against PT SS, and upon that lawsuit the panel of judges of the Surabaya District Court adjudicated the matter through Decision Number 20/Pdt.G/LH/2024/PN Sby and ordered PT SS to pay environmental damages to the Plaintiff in the amount of Rp 48,030,291,929.00 (forty eight billion thirty million two hundred ninety one thousand nine hundred twenty nine rupiah). Thereafter, against the operative part of that decision PT SS pursued an appeal, and the Surabaya High Court in Decision Number 829/Pdt.Sus LH/2024/PT SBY dated 20 November 2024 affirmed the decision of the Surabaya District Court. Subsequently, against the appellate decision PT SS filed a petition for cassation, and the ruling was to reject the cassation petition of PT SS in Decision Number 2802 K/Pdt/2025 dated 10 September 2025.

That case is only one among several matters involving the enforcement of environmental law through criminal and civil proceedings. In that case it is evident that administrative sanctions had been imposed upon PT SS requiring compliance with seventeen obligations as set forth in the government coercive administrative sanction, yet PT SS failed to heed those requirements and the matter culminated in criminal and civil sanctions. It is therefore necessary to examine more deeply the effectiveness of administrative sanctions in the enforcement of environmental law. The character of administrative sanctions is reparatoir, meaning that they are aimed at restoring conditions to their original state (Hadjon et al., 1994). Therefore, without diminishing the significance of other forms of legal sanction, the application of administrative sanctions in environmental cases plays a very

important role in efforts to prevent and to address the occurrence of environmental pollution, and the conferral of authority upon the government to impose administrative sanctions in environmental cases should be regarded as the logical consequence of the government's powers in the field of environmental management.

The authority to impose administrative sanctions remains insufficiently supported by the presence of adequate human resources within the relevant agencies to supervise the implementation of administrative sanctions, and this constitutes one of the obstacles to the enforcement of environmental law. This condition arises because the effectiveness of administrative sanctions depends to a very great extent on supervisory capacity and on the commitment of the law enforcement apparatus itself. At present, weak oversight and low compliance on the part of business actors stand as the principal challenges in the implementation of administrative sanctions. Accordingly, there is a need to strengthen systems of supervision and decision making that are grounded in managerial efficiency so that law enforcement can proceed in an optimal and sustainable manner. Without the firm application of administrative sanctions, spatial planning and environmental regulations tend to be easily disregarded, and this will culminate in deterioration in social conditions, spatial order, and environmental quality in urban areas (Az-Zahra & Isyqina, 2025).

Accordingly, there is a need for regional level legal rules that then set out in greater detail the procedures for supervision, for enforcement action, and for the mechanism by which objections may be submitted against administrative sanctions that are imposed. In this way, the legal basis for administrative sanctions against unauthorized buildings in Indonesia is highly comprehensive and encompasses multiple tiers of legislation that complement and reinforce one another.

The optimization of law enforcement and the application of administrative sanctions is in fact of very high importance, given that administrative sanctions function as the principal instrument for ensuring compliance with spatial planning and environmental regulations in urban areas. Administrative sanctions, as set forth in Article 1.99 of the Government Regulation Number 22 of 2021, are defined as a legal means of administration which is in the nature of imposing obligations/orders and/or withdrawing state administrative decisions imposed on those responsible for Businesses and/or Activities on the basis of non-compliance with the provisions stipulated in laws and regulations in the field of Environmental Protection and Management as well as Business Licensing or Government Approval. The types of administrative sanctions are regulated in Article 508 as follows:

a. Written warning;
b. Government coercive measures;
c. Administrative fines;
d. Suspension of the business permit, or
e. Revocation of the business permit.

These administrative sanctions are designed to halt violations and to restore environmental conditions and spatial order that have been disrupted. This mode of administrative enforcement enables the government to act swiftly and effectively without having to pass through the lengthy processes of criminal adjudication, thereby making it more efficient in addressing violations associated with unauthorized urban development. In addition, administrative enforcement offers several strategic advantages when compared with civil or criminal enforcement, namely (Machmud, 2012) :

a) Administrative enforcement in the environmental field can be optimized

as a preventive instrument.

b) Administrative enforcement which is preventive in character can be more efficient in terms of financing when compared with criminal enforcement and civil enforcement. The costs for administrative enforcement include the expenses of routine field supervision and laboratory testing, which are lower when compared with the efforts required for evidence collection, field investigations, and the engagement of expert witnesses to prove causality in criminal and civil cases.

c) Administrative enforcement has a greater capacity to invite public participation. Public participation is undertaken beginning with the permitting process, continuing through monitoring and supervision of compliance, and extending to participation in submitting objections and requesting that state administrative officials impose administrative sanctions.

The existence of tiered administrative sanctions does not automatically influence business actors' behavior without strong political commitment to enforcement, supported by public understanding and credible participatory channels. In practice, the absence of clear provisions on environmental remediation planning has resulted in sanctions under Government Regulation No. 22 of 2021 being limited to written warnings and government coercive measures, without linkage to measurable restoration obligations. Likewise, the imposition of administrative fines under Ministerial Regulation No. 14 of 2024 remains hampered by the lack of uniform technical guidelines, generating uncertainty in calculation and evidentiary standards.

The introduction of administrative fines following the Job Creation Law further creates interpretive ambiguity. Articles 513 and 514 of Government Regulation No. 22 of 2021 illustrate that the term "fine" is used in two distinct senses: Article 513 regulates fines for delays in implementing government coercive measures, whereas Article 514 regulates administrative fines imposed concurrently with such measures. Conceptually, administrative fines serve a punitive and deterrent function, while fines for delay are reparatory in nature, resembling *dwangsom*. Clarification of terminology is therefore necessary to prevent inconsistent interpretation.

Article 514 provides criteria, amounts, characteristics, and procedures for imposing administrative fines pertaining to violations such as the absence of environmental approvals, non-compliance with quality standards, neglect of permit obligations, and preparation of environmental impact assessments (Amdal) without proper certification. However, the regulation does not guarantee that revenues collected through administrative fines will contribute to environmental remediation, particularly in regions experiencing direct ecological harm.

Amendments to Law No. 32 of 2009 reflect a shift toward facilitating business licensing, accompanied by a reorientation of environmental safeguards toward strengthened compliance monitoring. This underscores the need to enhance administrative environmental enforcement, not only for corrective and controlling purposes, but also to prevent pollution and degradation before violations occur. Enforcement effectiveness can be improved through risk-based monitoring, prioritizing activities with high environmental impact or poor compliance records. Relevant information may be obtained from complaint mechanisms, self-monitoring, and community oversight. For low-risk activities, random inspections, strengthened indirect monitoring, and risk analysis may

suffice. Community-based monitoring and integrated supervision information systems further support this effort.

Sanction implementation may be optimized by strengthening government coercive measures with clear timeframes, informed by compliance history and potential environmental harm. Administrative fines should generate deterrence and, where economic incentives outweigh legal risk, may be combined with other administrative sanctions. In certain circumstances, cumulative enforcement—such as escalation to criminal proceedings or suspension and revocation of permits—may be warranted, based on explicit criteria and time limitations. To safeguard environmental functions, regulatory frameworks should also prioritize the allocation of administrative fine revenues toward ecological restoration.

B. Transformation of Environmental Law Enforcement toward Sustainable Development in East Java Province

In the classic Brundtland theory, sustainable development is understood as a process of meeting the needs of the present generation without sacrificing the ability of future generations to meet their own needs; this conception gives rise to a set of operational principles that are relevant for enforcement, including the precautionary principle, the principle of prevention, the polluter pays principle, intra and intergenerational justice, the integration of environmental policy with economic and social policy, meaningful public participation, transparent and accountable governance, and the internalization of environmental costs in decision making (Holden et al., 2014).

The transformation of environmental law enforcement in East Java Province needs to be formulated with reference to documented data and findings. Records from WALHI indicate that in 2022 there were one hundred and twenty-one

environmental problems in East Java distributed across issues of spatial planning, mining, forests and plantations, as well as other categories that include river pollution, air pollution, and waste management problems. These data indicate the diversity and complexity of violations and underscore the constitutional mandate of the state to take firm, fair, and transparent action against every violation in order to guarantee the right to a good and healthy environment (WALHI, 2022).

At the same time, according to the environmental quality measurement framework through the Environmental Quality Index, the dynamics are not uniform across regions. The aggregate provincial achievement is a composite of district or city achievements, and in 2024 there were thirty districts or cities in the moderate category and eight in the good category, with wide variation between industrial coastal areas and other areas that are relatively green. This picture, including the selection of six research areas with diverse development characteristics, portrays the need for enforcement policy that is not merely reactive but proactive, adaptive, and grounded in indicators that can be verified by the public (Dinas Lingkungan Hidup Jawa Timur, 2024).

As a reinforcement of the argument for transformation, the theories of responsive regulation and smart regulation provide a systematic justification for positioning administrative sanctions as the first layer instrument within the compliance pyramid. Responsive regulation teaches that the state should begin with instruments that are the lightest and most educative, then escalate in a proportional manner according to the pattern of compliance displayed by the actor, while smart regulation emphasizes a mix of instruments that complement one another, combining command and control with incentives, transparency, disclosure of information, and partnership (Nafi Bs, 2024).

Reinforced by composite environmental quality data, there is a

demonstrated need for a sharper and standardized approach across instruments. The provincial Environmental Quality Index for the period two thousand twenty to two thousand twenty-four moved from 67.54 in the moderate category to 70.34 while remaining in the moderate category. At the same time, the Air Quality Index rose consistently from 83.20 to 90.17 and stayed within the good category throughout the period, whereas water indicators remained within a moderately polluted range with a value of about 60 in the year two thousand twenty four. The Land Cover Quality Index was in the good category and tended to improve from 60.00 to 64.00, indicating that the greatest pressure on the Environmental Quality Index originates more from the water quality component.

This configuration of data demands enforcement that positions administrative sanctions as a rapid instrument to halt sources of pollution, to restore water conditions, and to close gaps that enable opportunistic behavior before any escalation to criminal or civil avenues (Wibisana, 2020). Without orderly coordination from complaint intake to administrative decisions and onward to remediation, strong performance in air quality will not offset the deficit in water quality, and as a result the aggregate Environmental Quality Index will remain trapped in the moderate category. The indicators for the Air Quality Index, the Water Quality Index, and the Land Cover Quality Index should be made the basis for spatial and sectoral prioritization in supervision and in the imposition of administrative sanctions whose effects on the improvement of the components of the Environmental Quality Index can be measured from year to year.

The urgency of sustainable development in law enforcement in East Java can be understood through normative, policy, and operational rationalities. At the normative level, sustainable development that integrates ecological, economic, and social objectives requires cross sector and cross level integration of government,

and mandates the internalization of environmental costs and intergenerational justice as parameters for enforcement action (Collins et al., 2021). At the policy level, the principles of precaution, prevention, and polluter pays are translated into obligations of remediation, guarantees for the financing of remediation, and transparency of performance so that the benefits and burdens of development are shared fairly. At the operational level, the principles of participation and accountability require a process design that ensures public input influences the design of instruments, oversight, and evaluation, while the principle of integration directs that enforcement decisions should always be situated within the planning horizon of the Strategic Environmental Assessment, the Provincial Environmental Protection and Management Plan, and the targets of the Agenda two thousand thirty (Baldwin et al., 2024).

In the array of enforcement instruments, administrative sanctions possess advantages because they are rapid, preventive, graduated, and entail lower social costs when compared with the litigation route. The structure of the Environmental Protection and Management Law positions administrative enforcement as a strategic effort to prevent pollution and damage through supervision and sanctions, while criminal and civil avenues function when administrative efforts are no longer adequate. These advantages do not eliminate the factual weaknesses encountered in the field. The principles of sustainable governance require improvements in design to restore continuity from detection to decision and from decision to remediation, so that the burden of proof in civil or criminal proceedings does not sever the momentum of remediation that ought to be implemented promptly through administrative instruments (Anugrah, 2015).

The fragmentation of authority among the central, provincial, and district or city levels results in supervisory recommendations not automatically culminating

in administrative decisions within a relevant time frame, and in several illustrative cases such as damage to coral reefs caused by vessels and the disposal of hazardous and toxic waste B3 into former excavation pits, the advantage of ecological loss calculations has not been matched by administrative execution powers within the technical agencies. The limited execution authority of the Law Enforcement Center creates intervals that diminish deterrence while shifting the burden of deterrence to the criminal stage as an ultimum remedium. The rapid changes in the regulatory landscape following the Job Creation Law together with its implementing regulations have created a need for a redesign of processes that has not been fully addressed, so that coordination among agencies depends on personal relationships and is not safeguarded by binding standards for service timelines. Other challenges include shortages of human resources, laboratories, and an integrated data system, all of which culminate in enforcement that is slow, inconsistent, and costly in terms of inter organizational coordination (Tando & Hindriadita, 2019).

At the level of norms, provincial authority is set forth in Article 63 of the EPML, which mandates that provincial governments establish province level policies, implement the Strategic Environmental Assessment and the Environmental Protection and Management Plan, coordinate the control of pollution and or damage that spans multiple districts or cities, conduct guidance and oversight of compliance, develop and apply environmental instruments, issue environmental permits at the provincial level, and carry out environmental law enforcement at the provincial level. This mandate positions the province as a coordination node across regions and as the guardian of continuity among policy making, supervision, and enforcement (Ostrom, 2020).

The absence of a Provincial Regulation on Environmental Protection and Management creates a structural gap, even as a number of sectoral instruments

such as regional waste management and technical quality standards are already available. In the theory of polycentric governance, a gap at the provincial node will produce variation in implementation, redundancy, and incoherence among centers of decision making. Accordingly, optimization through a provincial regulation becomes the key institutional means to bind sustainability principles into procedures that can be executed. The Provincial Regulation on Environmental Protection and Management needs to affirm an architecture for coordination across regions with standards for timelines, to set out a graduated scale of administrative sanctions from warnings to license revocation accompanied by mechanisms for remediation based on calculations of ecological loss and options for the appointment of third parties at the expense of the violator, to integrate the Strategic Environmental Assessment, the Provincial Environmental Protection and Management Plan, and instruments of incentives and disincentives, and to build an environmental data system that functions as a single source of truth open to public accountability (Nielsen & Parker, 2009).

Based on interviews with informants from the East Java Provincial Environmental Agency, it is confirmed that there remains a gap in the form of the absence of a province level Regional Regulation on Environmental Protection and Management, even though at the same time sectoral instruments are already available, such as the Regional Regulation on Regional Waste Management and derivative governor regulations concerning ambient air quality standards and wastewater quality standards. The absence of an umbrella regional regulation results in weak standardization of coordination pathways, weak deadlines for the follow up of supervisory recommendations, and weak consistency in the escalation from technical findings to effective administrative decisions. The shift of authority following the reform of risk based licensing has likewise created regulatory gaps at

the regional level that require an immediate regulatory response.

Institutional optimization through regional regulation is one of the keys to transformation. This report recommends the establishment of a Provincial Regulation on Environmental Protection and Management for East Java that does not merely restate national norms, but rather articulates the principles of precaution, sustainability, and intergenerational justice into operational procedures that are contextually attuned to the ecology of East Java. The regional regulation should affirm an architecture for coordination across districts and cities together with binding standards for service timelines from supervisory recommendations to administrative decisions, so that the advantages of administrative sanctions as the front line of compliance are fully realized.

Administrative sanctions need to be formulated in a progressive manner beginning with warnings, government coercive measures, and the suspension of permits up to the revocation of permits, accompanied by remediation mechanisms based on calculations of ecological loss that can be executed by regional government. The authority to appoint third parties to carry out remediation at the expense of the person in charge of the business should be affirmed so that the interval between findings and remediation can be reduced. In addition, the umbrella regional regulation must integrate sustainable development instruments such as the Strategic Environmental Assessment, the Provincial Environmental Protection and Management Plan, and instruments of incentives and disincentives, and it must organize a public data system in the form of a dashboard of environmental, social, and economic indicators that links to the achievements of districts and cities (Handayani, 2010).

A design for meaningful participation and for data transparency needs to be institutionalized in line with the provisions on participation in the formation of

legislation, so that the process of formulating derivative regulations in the form of gubernatorial regulations, decisions, and standard operating procedures gains social legitimacy and policy accountability. With such a construction, the regional regulation functions as a policy instrument that combines command and control with facilitative regulation, encourages innovation and collaboration across stakeholders, and bridges economic interests with ecology in accordance with the orientation of the Agenda twenty thirty (Masyitah Meliyana et al., 2025).

The strengthening of policy design likewise requires procedures for the formation of regulations that are participatory and of high quality so that they are effective as instruments of transformation. Public participation in the formation of regional regulations has a clear juridical basis and must be accommodated from the planning stage through mechanisms such as public hearings, working visits, outreach, seminars, workshops, and channels for the submission of written inputs that are then processed by the relevant bodies of the Regional House of Representatives within firm time limits. This inclusive procedure is not merely a formality, but rather a means to gather public knowledge and empirical experience so that the draft provisions address real problems and foster a sense of ownership and accountability for implementation (Corvino, 2023).

The quality of regulatory drafting becomes crucial in light of national experience with the annulment of thousands of regional regulations by the Ministry of Law and Human Rights for failing to meet applicability standards. Accordingly, the participatory procedures set out in Law Number 12 of 2011 must be applied in a substantive manner so that the legal products that emerge are not only formally valid but also sociologically valid and capable of supporting the sustainable development agenda at the provincial level. The relationship between the strengths and weaknesses of administrative sanctions can be managed effectively only if the

umbrella regional regulation restores continuity from supervision to decision and from decision to remediation.

In theoretical terms, a rapid and graduated administrative position serves as a crucial instrument for day-to-day compliance, whereas criminal and civil avenues function as escalations when there is gross negligence, repeated noncompliance, or wide ranging impacts. In empirical terms, examples of civil environmental cases that have produced judgments ordering remediation and large amounts of damages underscore the importance of coherence among enforcement pathways so that policy learning flows back into supervision and permitting. That coherence must be institutionalized through standards for service timelines, protocols for coordination among agencies, and an integrated information system, so that the heavy burden of scientific proof in court does not cause the administrative trajectory to lose the momentum of remediation. Without such a framework, field findings and calculations of ecological loss risk failing to culminate in timely remediation, while expectations of compliance among business actors weaken due to variability in handling and high institutional transaction costs (Fortnam et al., 2022)

It is affirmed that the transformation of environmental law enforcement in East Java requires a repositioning of enforcement within the frame of sustainable development and the strengthening of institutions through regional regulation. Environmental problem data, the dynamics of Environmental Quality Index achievements, the mandate of authority under Article 63, the sectoral instruments already in place, and concrete case examples converge on the conclusion that the absence of a provincial regulation on Environmental Protection and Management constitutes a structural impediment to the alignment of policy, supervision, and enforcement. By establishing a Provincial Regulation on Environmental Protection

and Management that engraves the architecture of coordination, the ladder of sanctions leading to remediation, the integration of planning and sustainable development instruments, and meaningful participation, East Java Province has the opportunity to move from a pattern of handling matters on a case by case basis toward enforcement governance that is proactive, consistent, and capable of exerting leverage toward the ecological, economic, and social objectives that have been set (Wahyudi & Zaman, 2021).

The transformation agenda likewise requires the integration of the normative structure already in place with the design of an umbrella regional regulation that is comprehensive and adaptive. At the level of the regional head, technical instruments already exist in the form of East Java Governor Regulations on ambient air quality standards, wastewater quality standards, and implementing regulations for regional waste management. The draft regional regulation on Environmental Protection and Management needs to position those technical instruments as operational derivative regulations while at the same time responding to changes in risk-based licensing governance following the Job Creation Law that have created regulatory gaps at the regional level (Meidodga et al., 2023).

4. Conclusion

The practice of environmental law enforcement in East Java Province remains situated within a complex policy landscape, with aggregate environmental performance rising only gradually while still remaining within a moderate category, and the yearly dynamics of cases such as water contamination, air pollution, deforestation, and illegal mining revealing that the existing instruments and procedures have not fully produced changes in the behavior of business actors

or officials, even as the coordination burden among institutions remains high. Within this frame, the advantages of administrative sanctions as a relatively efficient and participatory preventive device are indeed evident, yet their effectiveness is often hampered by gaps in detailed post finding regulation, by the lack of uniformity in technical guidelines, and by weak time binding between supervisory recommendations and final decisions, so that the momentum for remediation is easily lost and the deterrent effect diminishes; further structural obstacles in the form of disharmony among regulations across sectors, overlaps in authority following the shift to risk based licensing governance, and limitations in human resource capacity and regional laboratory facilities underscore the need for improvements in institutional design so that the path from detection to decision to remediation proceeds in a consistent and measurable manner.

In the course of a transformation toward sustainable development, this research affirms that governance of enforcement should be overhauled through the adoption of a responsive regulatory framework and smart regulation that places administrative sanctions as the first layer of the compliance pyramid, followed by proportionate escalation to criminal or civil measures, and guided by the principles of precaution, prevention, polluter pays, public participation, and accountability; the key institutional node is the establishment of a Provincial Regulation on Environmental Protection and Management as an umbrella to affirm an architecture for coordination across regions together with standards for service timelines, to set out a graduated scale of sanctions ranging from warnings to license revocation along with mechanisms for remediation based on calculations of ecological loss and options for the appointment of third parties, to integrate Strategic Environmental Assessment and the Provincial Environmental Protection and Management Plan with instruments of incentives and disincentives, and to

build an environmental data system that functions as a single source of truth open to public oversight

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