



**NAVIGATING THE ABYSS: BRIDGING THE GULF BETWEEN
ENVIRONMENT LAWS AND PUBLIC COMPLIANCE IN KENYA**

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By

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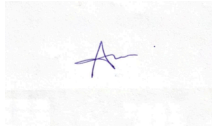
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DECLARATION

I, KIOGORA QUEENSOPHIE NKATHA, do hereby declare that this research is my original work and that to the best of my knowledge and belief, it has not been previously, in its entirety or in part, been submitted to any other university for a degree or diploma. Other work cited or referred to are accordingly acknowledged.

Signed:

A rectangular box containing a handwritten signature in blue ink. The signature is stylized and appears to be the initials 'KQNK'.

Date: 7th April 2025.

This dissertation has been submitted for examination with my approval as University Supervisor.

Signed:

Macharia Kaguru.

LIST OF CASES

Kibos Sugar and Allied Industries v NEMA (2019), eKLR.

LIST OF INTERNATIONAL LEGAL INSTRUMENTS

Constitution of Kenya (2010).

Environmental Management and Coordination Act, 1999, Cap 387.

The Swedish Environmental Code (Miljöbalken), (1998).

United States Congress, "Clean Air Act Amendments of 1990.

LIST OF ABBREVIATIONS

Environmental Management and Coordination Act- EMCA

National Environment Management Authority-NEMA

Sustainable Development Goals-SDGs

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ABSTRACT

This dissertation investigates the connection between the intensity of sanctions and adherence to environmental laws, using Kenya as a case study. Often, inadequate enforcement mechanisms and lenient penalties are pointed out as factors that contribute to this issue. This research seeks to assess how effective current sanctions are in preventing violations and to suggest methods for enhancing their effectiveness. Through a comparative examination of Kenya's regulatory framework and global best practices, this study uncovers significant deficiencies and potential reforms. The results aim to add to the international discussion on improving compliance with environmental regulations to promote sustainable development.

CHAPTER 1: INTRODUCTION

1.1 Background

The enforcement of environmental laws has historically been a fundamental part of worldwide efforts to address environmental harm and encourage sustainable development.¹ However, the issue of non-compliance with these regulations persists, particularly in developing nations such as Kenya.² The right to a clean and healthy environment is established in Kenya's constitution and echoed in environment legislations.³ However, continuous violations of this right hinder sustainability goals, leading to extensive pollution, destruction of habitats, and negative effects on the climate.

In Kenya, the Environmental Management and Coordination Act (EMCA) established in 1999 offers a thorough legal foundation for environmental safeguarding. It emphasizes the right to a clean and healthy environment as stated in the constitution.⁴ Nonetheless, the disparity between the legislation and its actual enforcement is quite evident. Industries and businesses frequently take advantage of systemic flaws, including weak enforcement, corruption, and lenient penalties.⁵ For instance, incidents like the Kibos Sugar pollution case demonstrate how companies continue to perpetrate environmental infringements, viewing fines merely as a manageable business expense rather than a serious deterrent.⁶

Sanctions, which can include penalties and jail time, are essential for promoting adherence to environmental regulations.⁷ In theory, they reflect the "polluter pays" principle, asserting that those who violate laws should be responsible for both restoring the environment and preventing

¹ Kariuki Muigua and Company Advocates, 'Enforcing the right to clean and healthy environment in Kenya through the polluter pays principle' 2023, 1.

² Museo E, 'Compliance With Kenya's Environmental Regulations In Kenya' AMM Law, 25 September 2023 <https://ammlaw.co.ke/compliance-with-kenyas-environmental-regulations-in-kenya/> on 28 April 2025.

³ Article 42, *Constitution of Kenya* (2010).

⁴ Section 3, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

⁵ Abdurafiu N, Adhikari P, 'Corporate environmental accountability in Nigeria: An example of regulatory failure' 11 *Journal of Accounting in Emerging Economies* 1, 2021, 7.

⁶ *Kibos Sugar and Allied Industries v NEMA* (2019), eKLR.

⁷ Rousseau S, 'Empirical analysis for sanctions for environmental offenses' 3 *International Review of Environmental and Resource Economics* 3, 2009, 161.

future harm.⁸ However, the imposed fines are frequently inadequate compared to the extent of environmental damage inflicted and the financial means of the offenders.⁹

Research comparing different nations indicates that countries with strict and consistently implemented sanctions see greater compliance rates.¹⁰ For example, nations within the European Union utilize escalating fines, restoration directives, and imprisonment, alongside robust enforcement systems, to ensure that environmental laws are followed.¹¹ These approaches highlight the significance of equitable and enforceable sanctions in reducing non-compliance.

This study explores how sanctions can deter environmental violations in Kenya, emphasizing their severity and proportionality. Through a comparative examination of Kenya's regulatory framework alongside international best practices, this research aims to pinpoint feasible strategies for improving Kenya's environmental governance and increasing compliance rates. Implementing these reforms is crucial for Kenya to meet global sustainability objectives and safeguard its distinct and fragile ecosystems.

1.2 Problem statement

Despite having a strong legal framework for environmental protection, the level of compliance with environmental regulations in Kenya is still low. The severity of penalties, such as fines and imprisonment, often fails to discourage non-compliance, particularly among large corporations with substantial financial means. This will be evident in Kenyan laws, with a specific focus on section 93, 138,141,142 of the Environmental Management and Coordination Act (EMCA). Ineffective enforcement measures and uneven application of penalties further weaken the impact

⁸ European Court of Auditors, *Making the polluters pay*, 2021, 4.

⁹ Justice Rachel Pepper, 'Recent developments in sentencing for environmental offences' Australasian Conference of Planning and Environment Courts and Tribunals, Perth, 28 August 2012, 5.

¹⁰ Russell C, Bell R, 'Environmental policy for developing countries' 18 *Issues in science and technology* 3, 2002, 66.

¹¹ Campa P, Etingin-Frati G, 'Environmental enforcement in the EU: Insights from administrative cases in the US' Free Network, 23 May 2023

<https://freepolicybriefs.org/2023/05/23/environmental-enforcement-european-union/> on 28 April 2025.

of these sanctions. This shortcoming results in widespread environmental damage, underscoring the critical need to evaluate and reform the penalty systems to ensure they are adequate, discouraging, and enforceable. Tackling this issue is essential for fostering sustainable environmental management in Kenya and other developing nations experiencing similar difficulties.

1.3 Research objectives

1. To examine how the severity of sanctions influences adherence to law;
2. To analyse and critique Kenya's environmental legal framework on sanctions;
3. To perform a comparative study of Kenya's environmental sanctioning processes alongside those in other nations; a focus on Sweden.
4. To suggest approaches for improving the efficiency of sanctions in preventing non-compliance.

1.4 Research questions

1. How does the severity of sanctions relate to high compliance rates with laws?
2. How is Kenya's approach to sanctioning environmental non-compliance structured?
3. How does Kenya's framework compare to international best standards set in Sweden?
4. What approach can be implemented to strengthen the deterrent effect of sanctions in Kenya's environmental regulatory framework?

1.5 Hypothesis

Enhancing the intensity and unwavering application of penalties for environmental infractions is likely to result in improved compliance rates and better environmental results in Kenya. More rigorous fines are expected to act as a more effective deterrent against detrimental practices, promoting adherence to environmental laws. Additionally, consistent enforcement guarantees that every offender is held responsible, cultivating a sense of accountability and sustainability throughout various sectors.

1.6 Significance of the study

This study is significant because it addresses a critical gap in our understanding of how the severity of sanctions affects Kenyan environmental law compliance. It adds to the greater discussion about environmental governance by emphasizing the significance of punitive measures in encouraging adherence to legal systems. The findings have practical consequences for politicians, enforcement agencies, and environmental advocates who want to improve compliance and prevent environmental damage. Furthermore, this study provides comparative insights by examining Kenya's sanctioning procedures alongside worldwide best practices, laying the groundwork for reforms adapted to Kenya's particular socioeconomic and regulatory setting.

By exploring the deterrent effect of severe sanctions, the study supports the achievement of SDGs, particularly Goal 13 (Climate action) and Goal 15 (Life on land). Moreover, it provides actionable recommendations to strengthen the enforcement of the EMCA, thereby fostering accountability among corporations and other stakeholders.

1.7 Theoretical framework

This dissertation's theoretical basis is centered on deterrence theory, which asserts that the fear of punishment discourages individuals and organizations from partaking in illegal activities.¹² This core theory indicates that prospective offenders perform a rational cost-benefit evaluation, comparing the possible rewards of disobedience with the anticipated consequences of being apprehended and penalized.¹³ In the realm of environmental regulation, deterrence theory suggests that companies are more likely to comply with environmental legislation if the financial, legal, and reputational repercussions of infractions, such as hefty fines and imprisonment, outweigh any economic benefits gained from unlawful actions. Within this framework, sanctions act as the concrete costs that help prevent environmental offenses.

Expanding on deterrence theory is rational choice theory, which enhances the understanding of compliance by focusing on the deliberate decision-making used by potential offenders.¹⁴

¹² Raskolnikov A, 'Deterrence Theory: Key Findings and Challenges' in Rooij B and Sokol D (eds) *Cambridge handbook of compliance*, Cambridge University Press, 2021, 180.

¹³ Raskolnikov A, 'Deterrence Theory: Key Findings and Challenges' 180.

¹⁴ Perera Ayesha, 'Rational choice theory of criminology' *Simply Psychology*, 13 February 2024 <https://www.simplypsychology.org/rational-choice-theory-of-criminology.html> on 28 April 2025.

Stringent penalties are integral to this theory as they elevate the perceived cost of environmental violations, thereby shifting the calculations of rational actors. By enforcing penalties that are reliably applied and significantly greater than the potential rewards of non-compliance, regulatory systems can promote a preference for adherence among rational economic entities.¹⁵ Consequently, the deterrent effect of sanctions is strengthened when potential violators believe that the likelihood of detection and the imposition of severe and unavoidable penalties are high.¹⁶

Additionally, the theoretical framework incorporates social learning and normative enforcement theory, which emphasizes that significant penalties not only deter through direct punishment but also reinforce societal expectations and norms concerning environmental protection.¹⁷ Widely publicized punitive measures highlight the seriousness of environmental legislation and can create a ripple effect, fostering compliance not only among those directly facing penalties but also among others observing the enforcement actions.¹⁸ From this perspective, sanctions play a role in establishing and upholding a social norm of environmental accountability, rendering non-compliance less acceptable and subject to both internal and external regulation.

To gain a broader understanding of the organizational context of compliance, institutional theory offers important perspectives. This viewpoint suggests that firms are more inclined to adhere to legal requirements when they view the regulatory environment as robust and credible.¹⁹ When environmental regulations are well-articulated and consistently enforced, along with credible penalties for violations, businesses acknowledge that the potential consequences—including financial fines, damage to reputation, and legal repercussions—are significant enough to justify a commitment to compliance.²⁰ Thus, the presence of sanctions within a trustworthy regulatory

15 Perera Ayesah, 'Rational choice theory of criminology' *Simply Psychology*, 13 February 2024 <https://www.simplypsychology.org/rational-choice-theory-of-criminology.html> on 28 April 2025.

16 Perera Ayesah, 'Rational choice theory of criminology' *Simply Psychology*, 13 February 2024 <https://www.simplypsychology.org/rational-choice-theory-of-criminology.html> on 28 April 2025.

17 Cherry K, 'How social-learning theory works' *Verywellmind*, 15 July 2024 <https://www.verywellmind.com/social-learning-theory-2795074> on 28 April 2025.

18 Teraji S, 'A theory of norm compliance: punishment and reputation', *The Journal of socio-economics*, 2013, https://www.researchgate.net/publication/271609962_A_theory_of_norm_compliance_Punishment_and_reputation/citations on 28 April 2025.

19 David R, Tolbert P, Boghossian J, 'Institutional theory in organisational studies', *Oxford research encyclopedia of business and management*, 2019, <https://oxfordre.com/business/display/10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-158?p=emailAapbIFZP5i49.&d=10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-158> on 25 April 2025.

20 Gunningham N, 'Enforcing environmental regulation' 23 *Journal of environmental law* 2, 2011, 170.

framework not only establishes behavioral expectations but also influences corporate practices over time, making adherence a strategic imperative for long-term business success.²¹

The fundamental reasoning behind environmental sanctions is also grounded in the "polluter pays" principle, which maintains that those who breach environmental regulations should be held accountable for both remedying environmental damage and preventing future harm.²² Consequently, sanctions exist not only to deter subsequent violations but also to ensure that polluters internalize the external costs associated with their actions.²³ This principle emphasizes that environmental stewardship is not solely a collective responsibility but also a direct accountability of those whose activities threaten the environment.²⁴

1.8 Importance of the theoretical framework to the research

The multifaceted theoretical framework is particularly pertinent to this dissertation as it collectively establishes a solid basis for assessing the effectiveness of Kenya's environmental sanctions and guiding potential reforms. The fundamental ideas of deterrence and rational choice theories underpin the investigation of whether the current lenient penalties in Kenya sufficiently deter violations by outweighing possible economic benefits, highlighting the necessity for more effective sanctions. In addition, the dissertation's inquiry into improving environmental responsibility and corporate conduct is guided by social learning and institutional theories, which examine how strict and consistently applied sanctions can influence norms and regulatory frameworks, making comparisons with successful examples like Sweden. The examination of ineffective enforcement and corruption in Kenya, along with the proposed recommendations for institutional enhancement, is directly aligned with the routine activities theory, which stresses the importance of having a capable guardian. Lastly, the "polluter pays" principle forms the basis of the dissertation's critique regarding inadequate penalty levels in Kenya that do not guarantee environmental accountability and the internalization of costs by offenders.

21 Campbell J, 'Why would corporations behave in socially responsible ways? An institutional theory on corporate social responsibility', 32 *The academy of management review* 3, 2007, 949.

22 European Court of Auditors, *Making the polluters pay*, 2021, 4.

23 European Court of Auditors, *Making the polluters pay*, 2021, 6.

24 European Court of Auditors, *Making the polluters pay*, 2021, 7.

1.9 Literature review

The relationship between sentence harshness and compliance has been thoroughly investigated in legal and environmental research. Existing research emphasizes the importance of punitive measures in deterring infractions and guaranteeing obedience to the law.

Harrison and Antweiler's research on global environmental enforcement presents strong evidence that countries that impose harsh penalties and uphold consistent enforcement strategies tend to experience markedly lower pollution levels.²⁵ Their findings indicate that when fines are significant and applied uniformly, they generate a strong financial disincentive for potential offenders, which reduces the chances of environmental violations and prevents repeat offenses.²⁶ The research highlights that the deterrent effect relies not only on the presence of punitive measures but also on the dependability and predictability of enforcement;²⁷ in other words, it is the combination of severe legal penalties and the assurance of their implementation that drives both industries and individuals to invest in cleaner technologies and embrace more sustainable practices.

By implementing fines and penalties that are appropriate to the extent of environmental damage and the financial gains resulting from non-compliance, governments can alter the cost-benefit analysis to promote adherence, ensuring that the financial consequences of breaching environmental regulations are substantial enough to surpass any immediate advantages from polluting actions. In addition, Harrison and Antweiler contend that such stringent penalties are especially effective in discouraging repeat offenders, as the accumulating financial strain from multiple violations becomes unmanageable for businesses, leading to a reduction in persistent non-compliance and promoting a culture of environmental accountability.²⁸ This study emphasizes the important function of thorough and consistently applied environmental

²⁵ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage: Evidence from trade and competitiveness in acid rain programs,' *87 Journal of Public Economics* 7, 2003, 1301.

²⁶ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage', 1302.

²⁷ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage', 1302.

²⁸ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage', 1302.

legislation in lowering pollution levels and demonstrates how specific legal reforms—like the adoption of increasing fines and restorative justice initiatives—can encourage industries to actively reduce their environmental effects.

Braithwaite provides an alternative viewpoint, highlighting the idea of responsive regulation as a more comprehensive method for enforcing environmental laws.²⁹ He suggests that while stringent penalties can effectively establish immediate deterrence, their greatest effectiveness is realized when combined with restorative practices that focus on long-term behavior modification.³⁰ From this perspective, punitive actions like large fines and legal repercussions are inadequate by themselves; they should be supported by efforts that educate stakeholders about environmental concerns and encourage corporate accountability.

Braithwaite argues that initiatives focused on environmental education, public awareness, and corporate social responsibility can foster a better understanding of the ecological and social impacts of non-compliance, motivating companies and individuals to voluntarily embrace more sustainable practices.³¹ This combined approach not only penalizes detrimental behavior but also equips offenders with the resources and encouragement needed to enhance their practices, ultimately promoting a culture of compliance and long-term environmental stewardship.³² By integrating strict enforcement with initiatives aimed at rehabilitating behavior, responsive regulation meets the immediate demand for deterring violations while also pursuing the broader aim of systemic change, making it a notably effective strategy in situations where conventional punitive methods have fallen short.³³

In the context of Kenya, Kamau's examination of the country's environmental enforcement system uncovers a complex array of systemic flaws that hinder adherence to environmental regulations. His study shows that one of the key obstacles is the consistently low penalties assigned to offenders, which do not outweigh the financial advantages that companies obtain

²⁹ Braithwaite J, 'Restorative justice and responsive regulation,' Researchgate, 2002, 19

³⁰ Braithwaite J, 'Restorative justice and responsive regulation', Researchgate, 2002, 19.

³¹ Braithwaite J, 'Restorative justice and responsive regulation', Researchgate, 2002, 21.

³² Braithwaite J, 'Restorative justice and responsive regulation', Researchgate, 2002, 21.

³³ Braithwaite J, 'Restorative justice and responsive regulation', Researchgate, 2002, 22.

from failing to comply.³⁴ This shortcoming results in fines being perceived as trivial operational expenses rather than effective deterrents, allowing for repeated violations without significant repercussions.³⁵ This relates to the environmental sector in that big companies that contribute majorly to the degradation of the environment often get penalties that do not equate to the level of degradation they cause.³⁶ It is more often a slap on the wrist than a severely punitive penalty.

Moreover, Kamau emphasizes the issue of inconsistent enforcement, where regulatory bodies like NEMA impose sanctions inconsistently—sometimes strictly in one case and carelessly in another—leading to a decline in public trust in the system and fostering a culture of impunity among influential corporate entities.³⁷ When these factors are considered collectively, they create an enforcement atmosphere that not only fails to discourage environmental violations but also exacerbates ongoing ecological harm and hinders sustainable development.³⁸ To tackle these issues, Kamau’s research highlights the pressing need for thorough reforms that adjust sanctions to more closely match the financial capabilities of offenders, ensuring that penalties are commensurate with the damage done and adaptable to changing economic circumstances.³⁹ By utilizing international best practices—where penalty frameworks are routinely reviewed, adjusted for inflation, and intensified for repeat offenders—Kenya could greatly enhance its regulatory system, improve corporate responsibility, and ultimately achieve greater compliance rates that safeguard the environment for future generations.⁴⁰

³⁴ Kamau J, ‘Enforcing Environmental Laws in Kenya: Challenges and Opportunities’, *Nairobi Law Journal*, 7(2), 2017, 211.

³⁵ Kamau J, ‘Enforcing Environmental Laws in Kenya,’ 211.

³⁶ Gupta A, Gupta N, ‘Environment practices mediating the environmental and firm performance : An institutional theory perspective from emerging economies’, 22 *Global journal of flexible systems management* 1, 2021,162.

³⁷ Kamau J, ‘Enforcing environmental laws in Kenya’, 211.

³⁸ Kamau J, ‘Enforcing environmental laws in Kenya’, 211.

³⁹ Kamau J, ‘Enforcing environmental Llws in Kenya’, 212.

⁴⁰ Kamau J, ‘Enforcing Environmental Laws in Kenya’, 212.

Okoth highlights the essential importance of public-private partnerships in enhancing enforcement mechanisms related to regulatory compliance in East Africa.⁴¹ He suggests that establishing collaborative ties between government bodies and private sector firms allows both sides to utilize their distinct resources and knowledge to tackle environmental issues more efficiently.⁴² Public organizations, like NEMA, frequently encounter limitations regarding funding, technological capabilities, and workforce resources; however, by collaborating with private companies that have superior monitoring technologies, data analytics skills, and specialized expertise, these challenges can be significantly alleviated.⁴³ These collaborations not only improve the likelihood of identifying violations through more effective and ongoing monitoring systems but also guarantee that enforcement measures are backed by accurate, timely, and dependable data.⁴⁴

Additionally, by combining resources, these partnerships can enhance the creation and execution of innovative compliance tactics, such as real-time monitoring, remote sensing, and predictive analytics, which significantly strengthen the deterrent impact of sanctions.⁴⁵ When potential offenders recognize that there is a synchronized, multi-stakeholder initiative to oversee and uphold environmental regulations, the financial and reputational threats linked to non-compliance are greatly heightened.⁴⁶ Consequently, companies are more inclined to invest in sustainable practices and take proactive steps to prevent penalties. This comprehensive method, utilizing the advantages of both public and private sectors, not only results in more efficient and effective enforcement but also fosters a culture of accountability and ongoing enhancement in environmental governance.⁴⁷

⁴¹ Okoth P, 'Public-Private Partnerships in Enhancing Environmental Compliance in East Africa', 5 *African Regulatory Journal* 1, 2019, 89.

⁴² Okoth P, 'Public-Private Partnerships in Enhancing Environmental Compliance in East Africa', 89.

⁴³ Tialal C, 'Challenges facing the implementation of rapid results initiative strategy at NEMA' Published LLM Thesis, University of Nairobi, Nairobi, 2010, 33.

⁴⁴ Okoth P, 'Public-Private Partnerships in Enhancing Environmental Compliance in East Africa', 89.

⁴⁵ Okoth P, 'Public-Private Partnerships in Enhancing Environmental Compliance in East Africa', 90.

⁴⁶ Okoth P, 'Public-Private Partnerships in Enhancing Environmental Compliance in East Africa', 90.

⁴⁷ Okoth P, 'Public-Private Partnerships in Enhancing Environmental Compliance in East Africa', 90.

2.0 Methodology

This research utilizes a doctrinal approach to explore how strict penalties, especially in the context of environmental regulations, promote higher levels of compliance. The main source of data comes from a comprehensive analysis of literature and academic resources such as books, journals, and articles, which serve as secondary data. The study incorporates an in-depth doctrinal examination that includes an assessment of pertinent case law along with a review of international statutes and guidelines, like treaties and conventions, together with their interpretations. Considering the limited existing literature regarding the relationship between the severity of sanctions and compliance, especially in Kenya, this study will adopt a comparative research methodology. This approach will involve analyzing a Nordic jurisdiction and its legal frameworks to gain a deeper insight into how stringent sanctions affect compliance. By establishing meaningful comparisons, the research aims to enhance the understanding of how appropriately punitive measures can lead to a higher adherence to environmental regulations in Kenya.

2.1 Limitations

The 13-week semester was a considerable obstacle for this research. The limited period hindered the scope and depth of investigation. Due to timing limitations, the subject matter's intricacies and the need for extensive investigation were jeopardised. This might lead to inadequate investigation of the issue and insufficient depth and detail in research results.

2.2 Chapter breakdown

Chapter 1 offers background information on environmental law enforcement in Kenya, identifies the issue of weak penalties, outlines the objectives and questions of the research, presents the hypothesis and its significance, and introduces the theoretical framework that will underpin the study.

Chapter 2 investigates theoretical viewpoints that support the connection between harsher penalties and adherence, provides case studies from both developed and developing countries as

empirical support, and evaluates statistical evidence illustrating this connection across various regulatory domains.

Chapter 3 examines Kenya's Environmental Management and Coordination Act (EMCA) along with its sanction provisions, offers a critique that points out shortcomings such as inadequate penalties and lack of proportionality, and presents Sweden's Environmental Code as a standard for international comparison.

Chapter 4 performs a thorough comparison of penalty systems, utilizes case studies to highlight discrepancies, explores individual accountability, and addresses the issues of corruption and enforcement in Kenya in contrast to Sweden's effective system.

Lastly, chapter 5 suggests reforms aimed at enhancing Kenya's regulatory system, concentrating on improving penalty frameworks, increasing individual accountability, fortifying enforcement mechanisms, and stressing the importance of ongoing review and involvement from stakeholders.

CHAPTER 2: RELATIONSHIP BETWEEN SEVERITY OF SANCTIONS AND COMPLIANCE WITH LAWS.

2.1 Introduction

The idea that the severity of sanctions has a direct impact on compliance rates has gained popularity in scholarly discussions and policy implementation. Severe penalties, such as substantial fines or lengthy jail sentences, are frequently used to prevent infractions, especially in areas where noncompliance might result in significant harm, such as environmental legislation. This chapter investigates the theoretical basis and empirical evidence for the claim that severe punishments result in high compliance rates. It investigates how the severity of punishments discourages noncompliance, lowers recurrent violations, and promotes responsibility.

2.2 Theoretical perspectives supporting severity of sanctions to ensure compliance

Deterrence theory is the foundation of the concept that severe consequences encourage compliance. Becker's "Economic Theory of Crime" contends that people and organizations make rational decisions based on cost-benefit analysis. Individuals are less inclined to participate in illegal action when the cost of noncompliance ; high fines, jail, or other penalties; outweighs the possible advantages.⁴⁸ In environmental situations, the idea says that corporations would follow rules if the financial or reputational consequences of violating them are too high to ignore.

Rational choice theory broadens deterrence by highlighting the importance of intentional decision-making in compliance. Severe fines increase the perceived cost of infractions, changing the calculus of future offenders. Regulatory systems can ensure that rational actors prefer compliance over infractions by implementing penalties that outweigh the benefits of noncompliance.⁴⁹

Severe consequences not only serve as a deterrent, but also reinforce society norms and expectations. Gunningham contends that punitive actions, when widely publicized, indicate the gravity of laws and deter similar behavior in others. This is in line with the theory of social learning and normative enforcement. Severe fines have a knock-on effect, encouraging

⁴⁸ Becker GS, 'Crime and punishment: An economic approach', 76 Journal of political economy 2, 1968, 169.

⁴⁹ Becker GS, "Crime and punishment", 169.

compliance not just among those penalized but also among those monitoring enforcement efforts.⁵⁰

2.3 Case studies from developed and developing nations

Empirical research from developed nations shows a substantial link between harsh fines and improved compliance with environmental regulations. Stringent enforcement methods, such as high fines and criminal penalties, provide financial and legal incentives for corporations to follow environmental rules. Gray and Shimshack performed a thorough analysis of environmental enforcement in the United States, finding that facilities exposed to hefty fines for pollution infractions dramatically improved regulatory compliance.⁵¹ Their findings imply that when firms face significant financial penalties, they are more inclined to invest in pollution control technology and adopt sustainable practices to reduce future hazards.⁵² This demonstrates the effectiveness of punitive actions in influencing business behavior and instilling a culture of regulatory compliance.

Furthermore, Gray and Shimshack (2011) discovered a "spillover effect," in which businesses near penalized facilities proactively improved their compliance to avoid comparable fines.⁵³ This occurrence demonstrates the larger impact of strong enforcement, as industry monitor and learn from the costs encountered by offenders.⁵⁴ A significant example of this impact is the 1990 Clean Air Act Amendments, which imposed hefty fines for noncompliance with air pollution regulations in the United States.⁵⁵ These changes resulted in measurable reductions in air pollutants and improved adherence to environmental standards across a variety of businesses.

⁵⁰ Gunningham N, Grabosky P, and Sinclair D, *Smart regulation: Designing environmental policy*, Oxford University Press, 1998, 41.

⁵¹ Gray WB and Shimshack JP, 'The effectiveness of environmental monitoring and enforcement: A review of the empirical evidence', 5 *Review of Environmental Economics and Policy* 1, 2011, 8.

⁵² Gray WB and Shimshack JP, 'The effectiveness of environmental monitoring and enforcement', 9.

⁵³ Gray WB and Shimshack JP, 'The effectiveness of environmental monitoring and enforcement', 9.

⁵⁴ Gray WB and Shimshack JP, 'The effectiveness of environmental monitoring and enforcement', 9.

⁵⁵ United States Congress, 'Clean Air Act Amendments of 1990', Public Law No. 101-549, 15 November 1990.

Companies not only altered their operations to comply with the legislation, but also developed proactive steps to reduce future regulatory concerns.⁵⁶ The effectiveness of such rules demonstrates how strong fines may operate as both a deterrent and a motivator for proactive environmental management, encouraging firms to choose compliance above the costs of noncompliance.

In the European Union, the Environmental Liability Directive requires not only significant fines but also required environmental remediation.⁵⁷ For example, in Germany, corporations guilty for large-scale pollution accidents have faced fines of more than €10 million, as well as rigorous restoration requirements.⁵⁸ These proceedings have established a standard for accountability, with firms investing in pollution-control systems to prevent future penalties. Similarly, in the Netherlands, tough sanctions paired with improved monitoring systems resulted in a 70% drop in industrial pollution over two decades, indicating the long-term benefits of stringent enforcement.⁵⁹ These techniques have helped to ensure compliance with environmental rules, particularly in polluting industries like manufacturing and mining.

Empirical studies support the notion that stringent enforcement can yield measurable improvements in compliance rates.⁶⁰ Clarke highlights that the combination of targeted enforcement in high-risk regions and the imposition of substantial penalties resulted in a 35% decline in illegal mining activities over five years.⁶¹ The study attributes this success to a multi-pronged approach, where increased surveillance, stricter regulatory oversight, and

⁵⁶ United States Congress, 'Clean Air Act Amendments of 1990', Public Law No. 101-549, 15 November 1990.

⁵⁷ European Union, 'Directive 2004/35/CE on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage', 21 April 2004, Article 14.

⁵⁸ European Union, 'Directive 2004/35/CE on Environmental liability with regard to the prevention and remedying of environmental damage', 21 April 2004, Article 14.

⁵⁹ Netherlands Ministry of infrastructure and water management, "Policy on industrial pollution control and sanctions," 2010.

⁶⁰ Clarke J, 'Targeted enforcement and environmental outcomes in South Africa' 3 *Environmental law review* 20, 2018, 201.

⁶¹ Clarke J, 'Targeted enforcement and environmental outcomes in South Africa', 201.

consistent application of legal sanctions worked in tandem to deter offenders.⁶² Moreover, public awareness campaigns regarding the environmental and economic consequences of illegal mining have reinforced these legal measures, making it clear that non-compliance carries significant risks.⁶³ However, while these efforts have shown promise, experts caution that sustained deterrence requires continuous investment in regulatory agencies, judicial efficiency, and corruption mitigation strategies to prevent offenders from exploiting loopholes in the system.⁶⁴

The implementation of the Environmental Guidelines and Standards for the Petroleum Industry (EGASPIN) in Nigeria demonstrates how severe fines can be effective in resource-driven economies.⁶⁵ Companies found in breach of oil spill regulations face fines of up to \$1 million per occurrence, as well as mandated cleanup and restoration activities. Since its implementation, reports of oil leaks have decreased by 25%, indicating better compliance.⁶⁶

2.4 Statistical evidence

Numerous studies in quantitative research provide strong evidence for the link between the intensity of penalties and compliance rates in diverse regulatory areas, such as taxation, environmental protection, and corporate governance. The core concept of this relationship is grounded in deterrence theory, which suggests that individuals and organizations assess the risks and benefits associated with non-compliance before making their choices.⁶⁷ Elevated penalties heighten the perceived cost of violations, resulting in a lower likelihood of engaging in rule-breaking actions.⁶⁸ Alm et al. carried out an experimental study on tax compliance,

⁶² Clarke J, 'Targeted enforcement and environmental outcomes in South Africa', 201.

⁶³ Clarke J, 'Targeted enforcement and environmental outcomes in South Africa', 201.

⁶⁴ Clarke J, 'Targeted enforcement and environmental outcomes in South Africa', 205.

⁶⁵ Federal ministry of environment, Nigeria, 'Environmental guidelines and standards for the petroleum industry in Nigeria (EGASPIN)', 2002, 45.

⁶⁶ Federal ministry of environment, Nigeria, 'Environmental guidelines and standards for the petroleum industry in Nigeria (EGASPIN)', 2002, 45.

⁶⁷ Raskolnikov A, 'Deterrence Theory: Key Findings and Challenges' 180.

⁶⁸ Alm J, Jackson BR, and McKee M, 'Estimating the determinants of taxpayer compliance with experimental data,' 1 *National tax journal* 45, 1992, 112.

revealing that a 50% increase in penalty rates led to a 20% boost in compliance rates.⁶⁹ Their results indicate that when the financial consequences of violations are significant, both individuals and corporations modify their behavior to sidestep punitive repercussions. This concept applies beyond taxation and has been extensively implemented in regulatory frameworks such as environmental law, workplace safety, and corporate responsibility.

Shimshack carried out a meta-analysis of 25 studies regarding environmental enforcement across different jurisdictions, providing one of the most detailed assessments of how penalty severity correlates with compliance rates.⁷⁰ The research indicated that increasing the fines by 100% typically results in a 30% rise in compliance, especially within industries that pose significant pollution risks, such as manufacturing, mining, and chemical processing.⁷¹ These sectors, owing to their extensive operations and the potential for environmental damage, are more likely to react to strict financial penalties, as the cost of failing to comply becomes too substantial to overlook.⁷² Companies in industries known for heavy pollution tend to conduct cost-benefit evaluations when making compliance decisions, which means that penalties need to be high enough to surpass any potential profits gained from non-compliance.⁷³ The study reinforced the impactful nature of economic sanctions, illustrating that corporations are more inclined to invest in pollution control technologies and adopt sustainable practices when confronted with the threat of financial penalties.⁷⁴

A study conducted by the World Bank in 2019 explored the impact of environmental sanctions in Southeast Asia, a region facing significant environmental issues due to rapid industrialization, such as air and water pollution, deforestation, and improper hazardous waste management.⁷⁵ The research evaluated how effective stringent financial penalties were in encouraging regulatory

⁶⁹ Alm J, Jackson BR, and McKee M, 'Estimating the determinants of taxpayer compliance with experimental data', 112.

⁷⁰ Shimshack JP, 'Empirical studies of environmental enforcement' 1 *Annual review of resource economics* 12, 2020, 73.

⁷¹ Shimshack JP, 'Empirical studies of environmental enforcement', 73.

⁷² Shimshack JP, 'Empirical studies of environmental enforcement', 73.

⁷³ Shimshack JP, 'Empirical studies of environmental enforcement', 73.

⁷⁴ Shimshack JP, 'Empirical studies of environmental enforcement', 73.

⁷⁵ World Bank, 'Strengthening environmental enforcement in Southeast Asia', 2019, 21.

compliance among industries known for high pollution levels, including textile manufacturing, chemical production, and large-scale agriculture. A major finding indicated that countries implementing fines greater than 5% of the violators' yearly revenues saw compliance rates increase by as much as 40% over three years.⁷⁶ This result highlights the importance of penalty severity in influencing corporate behavior, as steeper financial consequences motivate businesses to prioritize compliance with environmental regulations. Conversely, countries with lower fines or ineffective enforcement continued to experience violations, as companies deemed it more cost-effective to cover penalties rather than invest in expensive pollution reduction measures.⁷⁷

The overwhelming evidence supports the claim that the severity of punishments influences compliance rates. Severe fines raise the perceived cost of non-compliance, discouraging infractions and enforcing society norms. However, their effectiveness is contingent on strong enforcement mechanisms, fairness, and contextual considerations. By addressing these issues, governments can use severe punishments to increase compliance rates and promote sustainable environmental practices. These ideas will be used to analyze Kenya's enforcement structure in later chapters.

⁷⁶ World Bank, 'Strengthening environmental enforcement in Southeast Asia', 2019, 21.

⁷⁷ World Bank, 'Strengthening environmental enforcement in Southeast Asia', 2019, 21.

CHAPTER 3: CRITIQUING KENYA'S ENVIRONMENTAL SANCTION FRAMEWORK AGAINST INTERNATIONAL BEST STANDARDS: A FOCUS ON SWEDEN

3.1 Introduction

Environmental governance is essential for achieving sustainable development objectives and reducing environmental harm. The effective implementation of environmental laws fosters accountability, deters infractions, and encourages adherence. Kenya's Environmental Management and Coordination Act (EMCA), enacted in 1999, establishes a framework for overseeing environmental practices and enforcing penalties for non-compliance. Nonetheless, there are ongoing critiques regarding its enforcement and the sufficiency of its penalties. Conversely, Sweden's Environmental Code (Miljöbalken), introduced in 1998, is praised for its robust provisions and enforcement strategies, serving as a benchmark for effective environmental governance.

This chapter analyzes Kenya's methods for penalizing environmental infractions, including particular aspects of EMCA. Through examining both the parallels and distinctions, along with recognizing the enforcement difficulties faced by Kenya, this section underscores potential reform opportunities and insights that Kenya may adopt from Sweden's approach.

3.2 Kenya's environmental legal framework in relation to sanctions

Kenya's approach to environmental management is structured around a network of institutions primarily guided by the EMCA of 1999. This significant legislation lays the groundwork for environmental governance in Kenya by outlining comprehensive regulations aimed at protecting natural resources, managing pollution, and fostering sustainable development across various sectors. The EMCA has played a crucial role in establishing clear guidelines for environmental protection and forms the foundation of the nation's environmental legal framework. A pivotal aspect of this act is its function in establishing and empowering NEMA, which is responsible for a wide array of duties. NEMA acts as the primary regulatory body in charge of enforcing environmental laws, issuing restoration mandates, monitoring compliance, and ensuring that both industries and individuals follow environmental standards.⁷⁸

⁷⁸ Section 7, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

The act outlines a structured system of penalties, with Section 138 stipulating specific consequences for environmental violations. These penalties can involve fines of up to Kshs. 2 million or imprisonment for a maximum period of two years, depending on the seriousness of the offense. The sanctions are designed to address a wide range of environmental violations, including pollution, destruction of ecosystems, and failure to comply with environmental directives.⁷⁹ By integrating such punitive measures along with obligatory restoration orders, the EMCA embodies Braithwaite's responsive regulation theory, which posits that sanctions should be coupled with restorative actions to promote long-term behavioral change rather than just serving as a punitive measure.⁸⁰

The EMCA also features specific clauses that tackle a range of environmental offenses, showcasing Kenya's thorough legal framework for environmental management. For example, Section 93 of the Act clearly prohibits the discharge of hazardous waste, chemicals, and oils into land or water bodies, aiming to avert the harm caused by industrial and agricultural pollutants to ecosystems and the health of nearby communities. According to this provision, offenders must cover the entire cost of cleaning up any pollution and restoring the affected environment to its previous condition, ensuring that companies are responsible for the environmental damage they inflict.⁸¹ Additionally, Section 141 of the Act lays out penalties for violations involving hazardous waste, requiring a minimum fine of Kshs. 1 million, imprisonment for no less than two years, or both.⁸² These strong measures are designed to deter the negligent disposal of toxic substances and to compel companies to account for the costs associated with environmental harm. Nonetheless, critics contend that even these rigorous measures might fall short, as major industrial polluters often regard such fines as trivial in comparison to their substantial financial resources and annual profits.

⁷⁹ Section 138, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

⁸⁰ Braithwaite J, 'Restorative justice and responsive regulation', Researchgate, 2002, 19.

⁸¹ Section 93(1), *Environmental Management and Coordination Act* (Act No. 8 of 1999).

⁸² Section 141, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

Additionally, Section 142 of the EMCA specifically addresses offenses related to pollution, setting a maximum penalty of Kshs. 500,000 or imprisonment for up to 24 months, or both. This provision applies to situations where pollutants are released into the air, water, or soil, leading to substantial ecological harm. In addition to financial penalties and jail time, the courts also have the authority to mandate that polluters pay for the complete costs of environmental restoration and compensate affected communities.⁸³ This element of the legislation aims to provide reparative justice to those adversely affected by pollution, including health issues like respiratory diseases and contaminated water supplies. However, a significant flaw in the existing framework is that the fines imposed do not correspond to the financial status of the offenders. In reality, companies that commit serious environmental violations receive the same punishment as those guilty of minor infractions, which may weaken the deterrent effect of the penalties.⁸⁴ This consistency in penalties underscores the necessity for a more refined approach that considers the extent and economic implications of the offense, guaranteeing that environmental wrongdoers face repercussions proportional to the damage they inflict.

3.3 Critique of Kenya's framework

One of the major weaknesses in Kenya's environmental sanctions framework under the EMCA is its insufficient monetary penalties. The fines outlined in the Act are disproportionately low compared to the economic advantages that companies gain from failing to comply. Section 141 of the EMCA, which pertains to offenses related to the discharge of hazardous substances, limits fines to Kshs. 1 million or imprisonment for a maximum of two years, while general pollution offenses under Section 142 come with fines of Kshs. 500,000. These sums are trivial for corporations in high-pollution sectors such as manufacturing, mining, and agribusiness, which frequently earn millions annually. In these sectors, the costs associated with compliance, including investments in pollution control technologies or responsible waste disposal practices, often significantly exceed the penalties stipulated under EMCA. As a result, many companies perceive environmental fines not as punitive actions but as minor operational costs that can be

⁸³ Section 142, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

⁸⁴ Shimshack JP, 'Empirical studies of environmental enforcement', 73.

easily managed. This ineffective deterrent encourages corporations to continue non-compliant actions, favoring short-term profits over lasting environmental stewardship.

A notable instance of this flaw is seen in the *Kibos Sugar and Allied Industries Ltd v. NEMA* (2019) case. As per the polluter pays principle, Kibos Sugar company was liable to pay for the dumping of industrial wastes into the river. The company however continued polluting the Kibos River despite facing multiple penalties. The fines levied were outmatched by the economic benefits gained from non-compliance, highlighting how firms take advantage of gaps in the regulatory system.⁸⁵ Without sufficiently high penalties that surpass the profits from non-compliance, Kenya's environmental sanctions do not succeed in their primary aim—to avert ecological damage by making violations financially impractical.⁸⁶

The shortcomings of penalty thresholds are especially alarming when considering the magnitude of environmental damage resulting from infractions. EMCA establishes fixed penalties that do not reflect the gravity of the offense, meaning that businesses causing significant environmental harm face the same maximum fine as those committing minor violations. This leads to a situation where the financial consequences of breaching environmental regulations remain unchanged, irrespective of the level of damage incurred.⁸⁷ For instance, companies releasing toxic waste into important water bodies, resulting in severe loss of aquatic biodiversity and threats to public health, encounter the same Ksh 1 million penalty as smaller businesses with far less environmental impact.⁸⁸ This uniform approach to penalties undermines the effectiveness of Kenya's regulatory system and conveys a message that even major environmental damage incurs minimal financial penalties. In contrast, other regions, like the European Union, have implemented a more advanced penalty structure where fines correspond to the extent of environmental harm caused, promoting enhanced accountability.⁸⁹

⁸⁵ *Kibos Sugar and Allied Industries v NEMA* (2019), eKLR.

⁸⁶ *Kibos Sugar and Allied Industries v NEMA* (2019), eKLR.

⁸⁷ Shimshack JP, 'Empirical studies of environmental enforcement', 73.

⁸⁸ Section 141, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

⁸⁹ European Union, 'Directive 2004/35/CE on Environmental liability with regard to the prevention and remedying of environmental damage', 21 April 2004, Article 14.

Another significant concern is that Kenya's penalty limits under EMCA are not adjusted for inflation, which diminishes their real effectiveness over time. When fines stay constant for extended periods, their deterrent impact lessens as economies grow and the expenses for environmental restoration increase. For example, fines that may have served as strong deterrents two decades ago are now largely ineffective when considered alongside the financial resources of contemporary corporations. Consequently, companies that persistently violate environmental regulations can incorporate these unchanging fines as expected expenses in their financial planning. Researchers like Harrison and Antweiler have emphasized the necessity of regular reviews of penalties, indicating that regions with inflation-adjusted fines generally observe higher compliance rates.⁹⁰ This is because offenders face penalties that maintain their economic relevance despite fluctuating financial conditions. Kenya's reluctance to implement such adjustments weakens its regulatory framework over time, enabling corporations to sidestep compliance by including penalties in their budget plans, thus undermining the intended deterrent effect of EMCA.

In addition to financial penalties, the lack of proportionality of environmental sanctions in Kenya raises broader issues regarding fairness and justice. Communities impacted by environmental violations often endure the adverse effects, facing deteriorating air and water quality, loss of livelihoods, and increased health hazards. Nevertheless, the existing regulatory structure under EMCA falls short in addressing the need for environmental justice, as penalties levied on violators seldom lead to significant restitution for affected communities. Incidents of industrial pollution in areas like Lake Victoria⁹¹ and the Nairobi River Basin⁹² have had severe consequences for local inhabitants, particularly those who rely on fishing for their income and sustenance, which has been jeopardized by rampant pollution. Despite the clear socio-economic and environmental repercussions, the fines assigned to offending industries do not adequately

⁹⁰ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage', 1304.

⁹¹ Odada, E. O., Olago, D. O., and Kulindwa, K., 'Pollution impacts and the future of Lake Victoria basin,' *Ambio*, 33, 2, 2004, 50.

⁹² National Environment Management Authority (NEMA), 'Status of pollution in Nairobi River basin', *Environmental Compliance Report*, 2019.

reflect the extensive damage caused, leaving victims with minimal options for compensation or remediation.

CHAPTER 4: COMPARATIVE ANALYSIS OF KENYA'S ENVIRONMENTAL LEGAL FRAMEWORK AND THAT OF SWEDEN.

4.1 Introduction

Sweden is globally recognized for its strong and efficient environmental regulations, a reputation that has developed over decades of policy advancements and strict enforcement practices. The regulatory system is structured with a dual emphasis on deterrence and accountability, ensuring compliance with environmental standards through the imposition of hefty financial penalties and proactive monitoring measures. This thorough legal framework is anchored by Sweden's Environmental Code (Miljöbalken), a unified piece of legislation that consolidates all environmental laws into a single coherent document. By establishing strict liability for environmental harm, the Code guarantees that violators are held accountable irrespective of their intent or knowledge, thus closing loopholes and removing ambiguities in enforcement. This approach to accountability not only strengthens environmental preservation but also fosters trust among the public and investors that environmental management is prioritized at every level of government.

4.2 Comparison of the Swedish and Kenyan legal frameworks.

Swedish businesses face a system of financial penalties that are carefully designed to align with their yearly revenue, which makes non-compliance not only illegal but also financially impractical. For instance, violations concerning emission rules can lead to fines surpassing €10 million, an amount so significant that disregarding compliance is nearly impossible for any serious enterprise.⁹³ In 2014, Sweden's environmental authority established a precedent by imposing a €5 million penalty on Stora Enso AB, a prominent paper manufacturer, after it was determined that the company had exceeded limits for wastewater discharges. In addition to the monetary penalty, Stora Enso AB was mandated to make significant investments in sophisticated wastewater treatment technologies to avert future violations, highlighting the dual approach of Sweden's penalties: punitive actions combined with corrective measures.⁹⁴ This situation

⁹³ Chapter 29, Section 1(3), *The Swedish Environmental Code*, (1998)

⁹⁴ Naturvårdsverket v Stora Enso AB (2014) District court in Sweden.

demonstrates that tough sanctions and required improvements not only discourage environmental breaches but also foster ongoing enhancement in industrial practices.

In stark contrast, a major weakness in Kenya's environmental laws, especially within the Environmental Management and Coordination Act (EMCA), is the inadequacy of penalty thresholds for those who violate environmental regulations. A provision like Section 142 of EMCA, establish fines that are alarmingly low in relation to the financial capabilities of large corporations. For example, industries responsible for pollution face a maximum fine of Ksh 500,000—an amount that is trivial compared to the multi-million-dollar earnings of numerous industrial companies operating in Kenya. Even in situations of severe violations, like those related to the release of hazardous materials mentioned in Section 141, the maximum fine of Ksh 1 million does not create a substantial financial impact on major offenders, especially multinational corporations with considerable economic power. This difference in penalty structures underscores a significant flaw in the Kenyan regulatory framework, where punitive actions do not adequately correspond to the extent of environmental damage and the financial strength of the violating organizations.

The inadequacy of Kenya's penalty system is further highlighted by prominent legal cases such as *Kibos Sugar and Allied Industries Ltd v. NEMA* (2019). In this instance, the company faced multiple fines for its ongoing pollution of the Kibos River. Despite these sanctions, Kibos Sugar persisted in non-compliant operations because the penalties were insignificant compared to their considerable profits from pollution.⁹⁵ Scholars like Kamau have pointed out that such minimal fines effectively lead companies to perceive environmental penalties not as a deterrent but rather as a cost of doing business.⁹⁶ This view is echoed by researchers such as Harrison and Antweiler, who argue that in order for fines to serve as adequate deterrents, they must surpass the economic benefits obtained from non-compliance.⁹⁷ The situation with Kibos Sugar highlights the urgent

⁹⁵ *Kibos Sugar and Allied Industries Ltd v. NEMA*, (2019), eKLR.

⁹⁶ Kamau J, 'Enforcing environmental laws in Kenya', 211.

⁹⁷ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage', 1301.

necessity for Kenya to reassess and enhance its penalty framework to more effectively tackle the economic realities associated with industrial pollution.⁹⁸

In contrast, Sweden's Environmental Code (Miljöbalken) presents a framework where sanctions are not only stringent but also proportionate to the offender's financial capability, resulting in enhanced compliance levels. For instance, following the Nordstream pipeline incident in 2022, the fines imposed totaled SEK 15 million, a sum that was carefully calibrated to take into account both the seriousness of the environmental violation and the size of the business involved.⁹⁹ This adaptive strategy stands in stark contrast to Kenya's rigid and uniform punishment system, which does not consider differences in the financial situations of offenders. The Swedish model illustrates how a flexible, economically responsive penalty system can act as an effective deterrent to violations and promote proactive compliance, ultimately leading to a more effective framework for environmental governance.

One significant limitation of Kenya's penalty system is its fundamental lack of proportionality in fines. According to Section 141 of EMCA, penalties for releasing harmful substances are uniformly set at Ksh 1 million, irrespective of the actual damage inflicted on the environment.¹⁰⁰ This uniform approach sharply contrasts with Sweden, where penalties for hazardous waste infractions can easily surpass €10 million. The Swedish framework, particularly as described in Chapter 10, Section 2 of the Environmental Code, not only enforces substantial fines but also requires offenders to engage in rehabilitation efforts.¹⁰¹ These provisions ensure that the penalties are both punitive and restorative, promoting a setting where deterrence is coupled with environmental recovery.¹⁰² This proportionality in penalties is essential for aligning the costs of non-compliance with the genuine harm caused to the environment, a principle that is largely overlooked in the Kenyan legal system.

⁹⁸ *Kibos Sugar and Allied Industries Ltd v. NEMA*, (2019), eKLR.

⁹⁹ Chapter 29, section 1(3), *The Swedish Environmental Code*, (1998).

¹⁰⁰ Section 141, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

¹⁰¹ Chapter 10, section 2, *The Swedish Environmental Code*, (1998).

¹⁰² Braithwaite J, 'Restorative justice and responsive regulation,' Researchgate, 2002, 19

Additionally, the penalty thresholds in Kenya are not adjusted for inflation or overall economic progress, which diminishes their effectiveness over time. Currently, fines remain static over time, which means that as economic conditions evolve, the real deterrent value of these penalties erodes significantly. Research has shown that in dynamic market conditions, fixed penalties lose their impact as companies become financially stronger and can easily absorb these costs.¹⁰³ For example, studies by Shimshack and colleagues have indicated that adaptive penalty mechanisms—where fines are regularly adjusted to reflect current economic realities—are essential to maintain an effective deterrent effect.¹⁰⁴ This static approach not only undermines the intent of the law but also creates a loophole that large corporate offenders can exploit, effectively treating environmental fines as a minor business expense rather than a significant financial deterrent.

On the other hand, Sweden’s Environmental Code employs a dynamic strategy for penalty evaluations, consistently reviewing and updating fine thresholds to ensure they retain their deterrent effectiveness. This adaptive approach guarantees that penalties stay pertinent and sufficiently strong amid fluctuating economic conditions, thus continuously holding offenders accountable. Kenya’s inability to implement a comparable adaptive strategy significantly weakens its ability to prevent ongoing environmental violations, underscoring a vital area in need of reform.

Sweden has established a stringent legal framework that holds individuals accountable in addition to the corporate entities they manage. According to Swedish law, corporate executives may face personal repercussions for violations of environmental laws, highlighting the significance of individual responsibility.¹⁰⁵ This approach acts as a strong deterrent, compelling executives to prioritize sustainable practices, as failure to meet environmental regulations can lead to severe personal repercussions, including hefty fines and possible criminal charges. A prominent case that emphasized this issue involved the prosecution of eleven people, including the former CEO of the recycling firm Think Pink, for unlawfully disposing of hazardous

¹⁰³ World Bank, ‘Strengthening environmental enforcement in Southeast Asia’, 2019, 21.

¹⁰⁴ Shimshack JP, ‘Empirical studies of environmental enforcement’, 73.

¹⁰⁵ Hedwall M, ‘Corporate liability in Sweden’, Global Compliance News, 2025, <https://www.globalcompliancenews.com/white-collar-crime/corporate-liability-in-sweden/> on 25 April 2025.

waste.¹⁰⁶ This instance illustrates the efficacy of enforcing personal liability in environmental offenses, thereby enhancing the overarching regulatory framework. In contrast, Kenya's EMCA, while thorough in addressing corporate obligations, does not adequately focus on individual accountability. The legislation mainly imposes penalties on the corporate body, thus permitting senior executives to avoid personal responsibility for crucial environmental decisions.¹⁰⁷ This absence of individual accountability contributes to weaker enforcement and continues to allow violations. Strengthening individual accountability within Kenya's regulatory structure could lead to considerable improvements in compliance, as it would make decision-makers directly responsible for environmental offenses.

A further dimension of the difficulties in Kenya's environmental governance is the widespread problem of corruption¹⁰⁸ and irregular enforcement by regulatory bodies.¹⁰⁹ Numerous documented cases and scholarly research indicate that environmental agencies in Kenya frequently face issues such as insufficient funding and vulnerability to corrupt activities, leading to selective and inconsistent application of penalties.¹¹⁰ This lack of transparency and accountability not only diminishes public confidence in the regulatory system but also fosters an environment of impunity among those who pollute. In contrast, Sweden's strong institutional framework features stringent oversight mechanisms, thorough internal controls, and a transparent enforcement process that reduces the chances of corruption.¹¹¹ In Sweden, independent oversight organizations¹¹² and periodic external audits help guarantee that environmental laws are enforced

¹⁰⁶ Bryant M, 'Queen of trash' among 11 on trial in Sweden's largest environmental crime case' The Guardian, 3 September 2024, <https://www.theguardian.com/world/article/2024/sep/03/queen-of-trash-bella-nilsson-think-pink-11-sweden-biggest-environmental-trial?> on 24 January 2025.

¹⁰⁷ Section 142, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

¹⁰⁸ Open Society Foundations, *State of corruption in Kenya; Effectiveness of anti-corruption agencies in East Africa: Kenya*, 2016,3

¹⁰⁹ Korir W, 'Environmental crime management in Kenya' Published LLM thesis, University of Nairobi, Nairobi, 2014, 141.

¹¹⁰ Korir W, 'Environmental crime management in Kenya' Published LLM thesis, University of Nairobi, Nairobi, 2014, 141.

¹¹¹ Bergh A, Sjölin M, Öhrvall R, *A Clean House? : Studies of corruption in Sweden*, Casemate Group, Havertown USA, 2016, 80.

¹¹² Swedish environmental protection agency, *Swedish environmental law: An introduction to the Swedish legal system for environmental protection*, 2017, 28.

consistently and justly, significantly enhancing compliance rates.¹¹³ These notable disparities highlight the urgent need for Kenya to reform its penalty systems and tackle wider systemic problems, ensuring that enforcement agencies are empowered, properly funded, and shielded from corrupt practices to achieve a genuinely effective environmental governance system.

In summary, Kenya's penalty limits established by the Environmental Management and Coordination Act are significantly inadequate to discourage environmental offenses, particularly among corporate entities. The absence of proportionality, neglect to account for inflation, and general misalignment with the magnitude of environmental damage all play a role in a regulatory system that fails to fulfill its intended aim. In sharp contrast, Sweden's Environmental Code demonstrates a strong framework wherein strict, economically adjusted penalties, alongside measures for individual accountability, effectively deter such violations. This comparative study highlights that for Kenya to enhance its environmental governance, it should contemplate incorporating aspects from the Swedish model like adaptive penalty adjustments and individual responsibility, to develop a more efficient and sustainable legal framework for environmental safeguarding.

¹¹³ Swedish environmental protection agency, *Swedish environmental law: An introduction to the Swedish legal system for environmental protection*, 2017, 29.

CHAPTER 5: REFORMS TO STRENGTHEN THE DETERRENT EFFECT OF SANCTIONS IN KENYA’S ENVIRONMENTAL REGULATORY FRAMEWORK.

5.1 Introduction

The efficacy of sanctions in enforcing compliance with environmental laws is a crucial element of sustainable governance, underpinning the capacity of nations to safeguard natural resources and protect the welfare of their populations. In Kenya, despite having a thorough legal structure, most prominently the Environmental Management and Coordination Act (EMCA) of 1999, the effectiveness of penalties is insufficient to foster significant changes in behavior among polluters. By drawing on comparative insights from global best practices, particularly the Swedish model, the analysis proposes a series of specific reforms. These suggestions aim not just to enhance rates of compliance but also to establish a more resilient system for environmental protection that adapts to both the seriousness of environmental harm and the changing economic context. The ensuing discussion is structured to identify significant flaws in Kenya’s present system while also recommending practical, implementable strategies that consider a wide range of factors: economic, institutional, and social. By adopting these reforms, Kenya can greatly enhance its regulatory framework, aligning its environmental policies with international standards and ensuring that the penalties enforced effectively deter non-compliance, ultimately fostering a more sustainable future.

5.2 Overview of existing challenges

5.2.1 Insufficient penalty thresholds

The existing penalty system outlined in the Environmental Management and Coordination Act (EMCA) in Kenya reveals fines that are significantly inequitably aligned with the financial capabilities of large corporate offenders. For instance, the maximum penalty of Ksh 500,000 for general pollution offenses¹¹⁴ and Ksh 1 million for violations associated with hazardous waste management¹¹⁵ appear insignificant when compared to the multi-million-dollar profits earned by

¹¹⁴ Section 142, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

¹¹⁵ Section 141, *Environmental Management and Coordination Act* (Act No. 8 of 1999).

industrial companies. This glaring difference between the penalties and the financial power of the violators makes these fines largely ineffective as deterrents. Corporations frequently perceive such fines as merely a nominal expense of doing business, an operational cost that can easily be integrated into their overall budget.¹¹⁶

5.2.2 Lack of proportionality and inflation-adjustment

The penalties do not sufficiently reflect the seriousness of the environmental damage caused by violators, nor do they account for inflation or changes in the wider economic context. As time goes on, fines that may have once been significant become less impactful as fixed amounts due to increased economic activity and higher corporate profits.¹¹⁷ In addition, this inflexible system does not distinguish between minor offenses and serious violations, leading to an enforcement model that is fair in its consistent application but ineffective at preventing substantial environmental harm.

5.2.3 Limited individual accountability

Currently, the Environmental Management and Coordination Act (EMCA) mainly targets corporations as entities, imposing fines and other penalties on the business itself while failing to address the accountability of individual decision-makers adequately. Therefore, corporate leaders may continue to pursue profit-oriented strategies without fear of direct consequences, which reduces the motivation to implement stringent environmental protections within their companies.

5.2.4 Weak enforcement and corruption

Agencies like the National Environment Management Authority (NEMA), which are tasked with essential roles, often encounter issues such as insufficient funding, outdated technology, and inconsistent enforcement of penalties. These issues are further exacerbated by the widespread susceptibility of these organizations to corrupt activities, which diminishes their ability to enforce environmental laws effectively. The inconsistency and perceived randomness in enforcement undermine public confidence in the regulatory system and foster a situation in which major polluters can operate with relative impunity.

¹¹⁶ *Kibos Sugar and Allied Industries Ltd v. NEMA*, (2019), eKLR.

¹¹⁷ Harrison K and Antweiler W, 'Environmental regulation and competitive advantage', 1301.

5.3 Proposed reforms for strengthening the deterrent effect of sanctions

By reforming both the structure of penalties and the mechanisms of enforcement, these recommendations seek to transform Kenya's regulatory landscape into one that robustly discourages non-compliance and effectively protects the environment.

5.3.1 Improving penalty structures

I) Proportional and adaptive fines

An essential reform is the implementation of a penalty system that flexibly adjusts fines according to the offender's financial capacity and the degree of environmental damage inflicted. This necessitates the creation of a responsive framework in which fines are variable and linked to important economic metrics such as inflation rates, corporate income, and the level of ecological impact. For instance, a system akin to Sweden's Environmental Code could be adopted, whereby fines are aligned with the annual revenue of the infringing entity.¹¹⁸ This approach ensures that penalties remain financially impactful, making non-compliance economically impractical irrespective of a company's scale. By correlating fines with both market factors and the seriousness of the infraction, this flexible strategy guarantees that penalties remain effective over time. It prevents large corporations from easily treating fines as mere costs of doing business and upholds the idea that taking care of the environment entails a genuine economic responsibility.

II) Graduated sanctions

An important reform to consider is the implementation of a graduated sanctions system that differentiates between minor violations and major environmental offenses. This system would adjust the severity of penalties according to the extent of ecological damage and the offender's previous record of non-compliance. For example, first-time violations could result in a moderate fine coupled with required remedial actions, while repeat offenders would encounter significantly tougher penalties, such as increased fines and longer periods of possible incarceration. This graduated approach not only discourages initial violations by indicating that even minor lapses will lead to corrective actions, but it also greatly lowers the chances of ongoing environmental damage by applying increasingly severe consequences to habitual offenders. Such a tiered system would motivate companies to develop long-term compliance

¹¹⁸ Chapter 29, Section 1(3), The Swedish Environmental Code, (1998)

strategies and invest in sustainable practices, understanding that the financial and reputational repercussions of repeated violations will escalate over time.

5.3.2 Enhancing individual accountability

I) Personal liability for corporate leaders

A significant reform that could revolutionize corporate conduct is the establishment of personal accountability for corporate leaders. At present, the legal system primarily targets corporate entities, which allows individual decision-makers to evade direct repercussions. By revising EMCA to incorporate clauses that hold top executives personally responsible for environmental violations, Kenya could ensure that those in leadership positions are directly motivated to adopt sustainable practices. This might entail imposing personal fines, criminal sanctions, or a mix of both on decision-makers accountable for significant infractions. Taking cues from the Swedish model, where individual accountability is fundamental to environmental regulations, Kenya can cultivate a culture in which corporate leaders not only recognize the environmental consequences of their decisions but are also personally accountable for them.¹¹⁹ Such a transformation would likely promote more responsible decision-making and elevate standards of corporate governance.

II) Incentives for ethical corporate governance

In addition to enforcing punitive actions, introducing rewards for ethical corporate conduct can also be advantageous. Acknowledging and rewarding businesses that surpass environmental benchmarks can foster a positive feedback loop, motivating companies to proactively invest in sustainable initiatives. Such rewards could include tax incentives, public acknowledgment, and favorable considerations in government contracting. By establishing a framework that celebrates and honors excellence in environmental management, the regulatory system can encourage companies to implement best practices, thereby decreasing the chances of violations. These rewards are intended to complement punitive actions, ensuring that the overall framework focuses not only on punishment but also on encouraging long-term environmental stewardship and corporate accountability.

¹¹⁹ Bryant M, 'Queen of trash' among 11 on trial in Sweden's largest environmental crime case' The Guardian, 3 September 2024, <https://www.theguardian.com/world/article/2024/sep/03/queen-of-trash-bella-nilsson-think-pink-11-sweden-biggest-environmental-trial?on=24+January+2025>.

5.3.3 Enhancing enforcement mechanisms

I) Institutional capacity building

To enhance the deterrent impact of sanctions, it is crucial to bolster the institutional capacity of enforcement agencies like the National Environment Management Authority (NEMA). This reform necessitates a comprehensive approach: augmenting budget allocations to ensure sufficient funding, modernizing technological resources for environmental supervision, and improving training programs for enforcement personnel. With better resources and advanced surveillance technology, NEMA could carry out more comprehensive inspections, monitor in real-time, and react quickly to environmental infringements. Enhancing institutional capacity not only boosts the efficiency of enforcement but also strengthens the credibility of the legal framework. Well-resourced and well-trained agencies are more capable of applying sanctions consistently and transparently, thereby reinforcing public confidence and ensuring strict adherence to environmental regulations.

II) Anti-graft measures

Alongside strengthening capacity, it is vital to establish rigorous anti-corruption measures to guarantee that enforcement agencies function with integrity and accountability. This reform entails the creation of independent oversight bodies responsible for conducting regular audits and overseeing the activities of environmental regulators. Transparent reporting mechanisms must be put in place, facilitating public scrutiny and accountability. Furthermore, strict disciplinary measures should be enforced against any officials caught engaging in corrupt activities. By diminishing corruption within enforcement agencies, Kenya can ensure that penalties are applied impartially and consistently, thereby boosting the overall deterrent effect of the sanctions. An environment free from corruption in enforcement will also cultivate a culture of trust and reliability among stakeholders, resulting in more consistent adherence to environmental laws.

5.3.5 Periodic review and stakeholder engagement

I) Regular policy reviews

To guarantee that the reform measures maintain their effectiveness over time, it is crucial to establish a solid process for the regular evaluation of Kenya's environmental regulatory

framework. This undertaking should be thorough and methodical, incorporating consistent reviews of penalty amounts, enforcement practices, and general compliance rates. Such evaluations must consider the rapid shifts in economic circumstances, technological progress, and changing environmental issues that could influence the efficiency of the regulatory system. By establishing a responsive review procedure, policymakers will be able to pinpoint gaps and deficiencies in the existing framework as they arise and modify strategies as needed to uphold the deterrent impact of penalties.

A responsive review procedure would involve forming a specialized task force or regulatory body that systematically gathers and examines data from various sectors affected by environmental regulations. This task force ought to comprise specialists in environmental law, economics, and policy analysis, who can offer evidence-based suggestions for adjusting fines, enhancing enforcement strategies, and updating compliance standards. Moreover, regular audits and performance assessments should be integrated into the process to ensure that penalties remain pertinent and adequately punitive in light of inflation and market fluctuations. This adaptable approach not only preserves the integrity of the environmental regulatory framework but also guarantees that punitive measures continue to effectively discourage violations, even as the economic landscape changes.

II) Inclusive stakeholder engagement

Involving a wide array of stakeholders is vital for the success and sustainability of any reform initiative within the environmental regulatory framework. Stakeholder involvement should be thorough and inclusive, engaging government agencies, industry stakeholders, environmental NGOs, local communities, academic experts, and other relevant entities. This multifaceted approach guarantees that the reform process benefits from a variety of perspectives and expertise, which is essential for tackling the intricate challenges of environmental governance.

Inclusive consultations with stakeholders yield valuable insights into the practical issues associated with executing new regulatory measures. For instance, industry representatives can provide firsthand accounts regarding the operational effects of current sanctions, while environmental NGOs and impacted communities can shed light on the socio-economic and

ecological repercussions of non-compliance. These varied inputs are critical for fostering consensus on necessary reforms, ensuring that the proposed measures are not only theoretically sound but also practically applicable. An inclusive engagement strategy also bolsters the legitimacy of the reforms, as stakeholders are more inclined to support and comply with changes when they have played an active role in their development. Regular stakeholder forums, public hearings, and feedback sessions should be established as institutional practices, creating an ongoing dialogue that informs continuous policy modifications and facilitates a cooperative framework for sustainable environmental management.

5.4 Implementation challenges

Although the suggested reforms provide a way to enhance Kenya's environmental regulatory system, it is crucial to recognize several obstacles to their implementation. Significant challenges include institutional resistance to change, limited budgets, and possible opposition from influential corporate entities. Additionally, it will necessitate a steadfast commitment from the government and international collaborators to ensure that enforcement agencies are protected from corruption and political meddling.

Tackling these challenges will necessitate a comprehensive approach that involves legislative changes, capacity-building efforts, and strong engagement with stakeholders. Furthermore, international collaboration and technical support can significantly contribute to assisting Kenya in updating its enforcement systems and adopting effective practices from countries with proven success in environmental governance.

To enhance the deterrent impact of sanctions within Kenya's environmental regulatory framework, it is essential to implement thorough reforms that tackle both structural and operational shortcomings. By improving penalty systems with fines that are proportional, adaptable, and adjusted for inflation; strengthening enforcement mechanisms with greater institutional capacity and transparency; boosting individual responsibility; and utilizing public-private partnerships along with technological advancements, Kenya can establish a more effective and sustainable legal structure for protecting the environment.

CONCLUSION

Analyzing the regulatory systems of top countries like Sweden offers a crucial reference point for enhancing Kenya's environmental regulatory framework. Sweden's model is highly regarded as a benchmark in environmental governance because it features a blend of rigorous, economically adjusted penalties alongside a flexible system that frequently modifies fines in relation to inflation, corporate income changes, and the increasing scale of environmental effects. This methodology guarantees that penalties stay economically relevant and appropriate over time, thus establishing a strong deterrent against non-compliance. The Swedish example demonstrates that the efficacy of environmental regulation relies not solely on the harshness of penalties but also on the adaptability and responsiveness of the enforcement system to current economic realities. The framework includes independent oversight agencies and routine audits that ensure enforcement actions are consistently and equitably applied across all industries. Regular external audits and publicly accessible reports on enforcement outcomes have led to high compliance rates and a robust culture of environmental responsibility across the nation.

By taking inspiration from these global best practices, Kenya has a distinct opportunity to revamp its environmental regulatory framework. Implementing comparable measures such as establishing proportional fines that correspond to the financial capacity of offenders, introducing adaptive penalty systems that adapt to economic circumstances, and enhancing personal accountability for corporate leaders could significantly fortify the deterrent impact of penalties in Kenya. Incorporating these elements would not only increase the severity and effectiveness of sanctions but also improve overall fairness in enforcement. Ultimately, by drawing on the successful tactics utilized in Sweden, Kenya can develop a more dynamic, transparent, and efficient environmental governance system that fosters sustainable development and safeguards its natural resources for generations to come.

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