

Comparing Environmental Financial Guarantee Schemes in Kenya and South Africa

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Abstract

Kenya and South Africa have enacted some laws that inculcate economic incentives schemes as key elements of their environmental regulatory terrain. While Kenya has advanced the use of Environmental Performance Deposits (EPDBs), South Africa has adopted the use of the Financial Provisioning Regulations, applied specifically for the upstream mining sector. This article reviews the use of financial assurance schemes in environmental management and their specific application to the upstream mining sectors in the two countries. The data used in the analysis is from literature review, key informant interviews, interview schedules, and focus group discussions. Results indicate that while the use of financial provisioning is a well-established practice in South Africa, in Kenya only one company has deposited funds to the environmental regulator as a security for good environmental practices. A comparative analysis of the regulatory framing for financial assurance instruments in Kenya and South Africa demonstrates some similarities in terms of requirement for public participation, requirement for periodic review of the bonds, use of the bonds for environmental rehabilitation; and some differences such as requirement for use of cash and/or financial instruments, how to treat the accrued interest from the deposited funds, and how the deposit bond amounts are set. Largely, both countries acknowledge the importance of economic incentives in their environmental management frameworks. The article recommends strengthened regional cooperation to enhance the application of financial assurance in the law for effective environmental management in Africa.

Keywords: environmental performance deposit bonds, financial provisioning, economic incentives

1. Introduction

This article analyses the regulation and application of financial assurance tools and instruments for environmental management, specifically in the upstream mining sector. It focuses on Kenya's Environmental Performance Deposit Bonds (EPDBs) and South Africa's Financial Provisioning Regulations and their utility for managing environmental impacts from upstream mining, especially at mine closure for rehabilitation, reclamation, and remediation of mines. A deep dive into the South African financial provisioning regulations juxtaposed against Kenya's nascent regulations on performance deposit bonds provides interesting results on how both regimes integrate financial assurance schemes to anticipate and manage environmental impacts from upstream mining. It is also interesting to observe how both jurisdictions tackle some of the key complexities in regulating the financial assurance schemes.

1.1 Background: Environmental Management Principles in South Africa and Kenya

Both Kenya and South Africa have strong environmental laws and regulations, anchored in equally progressive constitutions that have incorporated both sustainable development and ecological sustainability as critical governance yardsticks. At the outset, the position of the environment in the South African constitution is acknowledged to be sacrosanct¹. The Constitution specifically provides universal rights to citizens to an environment that's not harmful to their health or well-being, and to protect the environment the benefit of the current and future generations. This is done through reasonable legislative and other measures to stop pollution and ecological degradation, promote conservation and secure ecologically sustainable development and use of

¹ Glazewski, J. (1991). The environment, human rights and a new South African Constitution. *South African Journal on Human Rights*, 7(2), 167-184.

natural resources that promote justifiable economic and social development². Article 24 (a) of the South African Constitution entitles everyone in South Africa to an “environment that is not harmful to their health or well-being” as well as to have the environment protected for the benefit of present and future generations, as the State is required to come up with reasonable legislative and other measures to “prevent pollution and ecological degradation, enhance conservation, and secure ecologically sustainable development in the use of natural resources while promoting justifiable economic and social development.”³ Article 152 (d) specifically sets out the promotion of a safe and healthy environment as one of the key objectives of the local government.

Effective environmental regulation in South Africa is acknowledged to be critical for sustainable mining that adheres to both ecological sustainability principles, and economic development⁴. An in-depth analysis of South Africa’s legal and regulatory framework for environmental management reveals a complex interplay of environmental legislations including green and white papers, bills at various stages of parliamentary review, acts and their regulations, international agreements and obligations recognized in the law, guidelines, standards, gazette notices as well as appeals⁵ that are guiding environmental management to achieve the aspirational ecologically sustainable development ideals⁶. These swaths of legislation also incorporate elements of the globally recognized normative sustainable development principle, such as public participation, polluter-pays, the precautionary principle, environmental impact assessment, and environmental management, among many others⁷. Ecologically sustainable development as framed in South Africa’s laws is a powerful statement that goes beyond the normative sustainable development in that it places the ecosystem at the very center of all the actions, on a pedestal far higher than the balance envisaged by the Brundtland Commission’s exposition of Sustainable Development⁸.

Like Kenya, South Africa’s National Environmental Management Act (NEMA), 1998, is the principal framework law that ‘provides for co-operative, environmental governance by establishing principles for decision-making on environmental matters, institutions that will promote cooperative governance, and procedures for coordinating environmental functions exercised by organs of state; and to supply for matters connected therewith’⁹. Section 2 (2) (3) of the NEMA Act, 1998, requires environmental management to prioritize people and their needs, equitably serving their physical, developmental, cultural, and social interests. The act then outlines a robust set of environmental management statements that cover environmental management, including upstream mining, including a raft of other Specific Environmental Management Acts (SEMAs) that need to guide decision-making throughout the mining life cycle¹⁰. Key impacts such as pollution, degradation of the environment, ecosystems disturbance, waste, loss of biodiversity, as well as measures to protect sites that constitute the nation’s cultural heritage are to be avoided, minimized, rehabilitated, restored or as a final option offset¹¹.

Kenya’s 2010 Constitution is equally quite progressive, as it includes Sustainable Development as a key governance principle in Article 10. (d), as well as ecological sustainability in Article 69 (2) as a key lens for all economic activities. A comprehensive set of environmental rights is also incorporated into Article 42 of the Constitution’s Bill of Rights, specifically the right to a clean and healthy environment, which includes the right “to have the environment protected for the benefit of present and future generations through legislative and other measures.” Article 69 outlines the main environmental obligations, including the requirement for the state to “establish systems of environmental impact assessment, environmental audit, and environmental monitoring.”. Article 70 of the Constitution additionally empowers the citizenry to actively seek the enforcement of the

² Brunch, C., Coker, W., & VanArsdale, C. (2001). Constitutional environmental law: Giving force to fundamental principles in Africa. *Colum. J. Envtl. L.*, 26, 131.

³ Constitution of the Republic of South Africa, (1996). Article 24.

⁴ SphiweEmmanuel Mhlongo, Francis Amponsah-Dacosta & Armstrong Kadyamatimba | Sanjay Kumar Shukla (Reviewing editor) (2019) Development and application of a methodological tool for prioritization of rehabilitation of abandoned tailings dumps in the Giyani and Musina areas of South Africa, *Cogent Engineering*, 6:1, DOI: 10.1080/23311916.2019.1619894

⁵ The Ministry of Environment and Forestry has outlined all this rubric of legal tools and instruments that seek to breath life into the Constitutional provisions for environmental management. These are all available on the website at <https://www.environment.gov.za/legislation/actsregulations>;

⁶ Humby, T. L. (2015). ‘One environmental system’: aligning the laws on the environmental management of mining in South Africa. *Journal of Energy & Natural Resources Law*, 33(2), 110-130.

⁷ Constitution of the republic of South Africa 200 of 1993

⁸ Hattingh, J., & Attfield, R. (2002). Ecological sustainability in a developing country such as South Africa? A philosophical and ethical inquiry. *The International Journal of Human Rights*, 6(2), 65-92.

⁹ *Ibid* (51)

¹⁰ National Environmental Management Act (No. 107 of 1998)

¹¹ Section 2 (2) of the NEMA Act 1998

environmental rights through legal redress in the courts. The courts are empowered in Article 70 (2) to make any order, or give directions to prevent, stop or discontinue any act or omission harmful to the environment, compel any public officer to take measures to prevent or discontinue acts or omissions that are harmful to the environment, or provide compensation for any victim of a violation of the right to a clean and healthy environment.

1.2 Use of Financial Assurance Schemes in Kenya and South Africa's Laws

As a comparator to Kenya, South Africa provides interesting insights, particularly because it has similarly integrated financial provisioning tools and instruments within its environmental regulatory framework¹². Both countries show promise in terms of embedding economic incentives in environmental management laws, as they have regulations governing the use of financial assurance schemes. Kenya's Environmental Management and Coordination Act, 2015, includes the requirement for environmental performance deposit bonds, whereas South Africa's Environmental Management Act, 1998 recognizes the importance of financial provisioning. The environmental framework law in Kenya sets the ground for the use Environmental Performance Deposits Bonds¹³ as a financial assurance scheme designed to provide an economic disincentive to firms that willfully fail to adhere to best available environmental management practices. The EMCA 1999 requires that refundable deposits, as set by the Cabinet Secretary in charge of Finance, be paid into a Restoration Fund and treated as such until refunded to the compliant entities. The act also controversially transfers all accrued interest on deposit bonds to the regulating authority, NEMA. To provide regulatory clarity on Section 32 of the EMCA, the Draft EMCA (Deposit Bonds Regulations) 2015 defines deposit bonds as "economic instruments, an environmental financial assurance where refundable payments are made to the Authority NEMA before a potentially environmentally damaging activity is undertaken, constituting appropriate security for good environmental practices"¹⁴.

This definition is consistent with the global understanding, whereby "bonding is a mechanism for enforcing contractual and regulatory provisions (where the term bond refers to financial instruments such as surety bonds, performance bonds, fidelity bonds, and letters of credit)."¹⁵. "Bonding is a mechanism for enforcing contractual and regulatory provisions (where the term bond refers to financial instruments such as surety bonds, performance bonds, fidelity bonds, and letters of credit)."¹⁶. In instances where the firm fails to comply with established environmental management agreements, the forfeited collateral is immediately available to compensate for the firm's performance failure¹⁷. Bonding therefore transfers the burden of proof from the regulator proving that harm was done to the firm to prove that compliance criteria were met¹⁸. Through this, the public sector is protected up to the amount of the bond posted¹⁹. If the firm remains solvent, regulators can seek a remedy through the courts²⁰. As a result, the environmental performance bond requires significant synergy across all relevant regulatory bodies. Failure to effectively regulate performance bonds would be counterproductive, as it would provide numerous opportunities for the various players to shirk on their environmental protection responsibilities, exposing the fragile ecosystems to further harm.

South Africa enacted regulations in November 2015 relating to the financial provision for prospecting, exploration, mining, or production operations as a means of ensuring sound environmental management at mine closure²¹. These regulations are critical for South Africa due to the country's rich mining history, as well as the significant environmental challenges that continue to plague upstream mining in this rainbow nation.

¹² Government of South Africa (2015). Regulation pertaining the Financial Provision for Prospecting Exploration, mining, or Production Operations.

¹³ Draft EMC (Deposit Bonds) Regulations 2016... It is important to highlight that the environmental deposit bond will not just cover extractives, but the full register as outlined in the First Schedule of the Regulations includes industrial plants (breweries, distilleries, steel mills, sewerage reticulation systems, tanneries, cement industries, chemical and petrochemical industries, petroleum depots and refineries). Other areas to be covered include transportation of petroleum products, infrastructure projects, pipelines, and even management of waste products, alien species introduction and refugee camp

¹⁴ National Environment Management Authority. "The Environmental Management and Coordination (Deposit Bonds) Regulations, 2014." (2014)

¹⁵ Gerard, David. "The law and economics of reclamation bonds." Resources policy 26.4 (2000): 189-197.

¹⁶ Gerard, David, and Elizabeth J. Wilson. "Environmental bonds and the challenge of long-term carbon sequestration." Journal of Environmental Management 90.2 (2009): 1097-1105.

¹⁷ Gerard, David, and Elizabeth J. Wilson. 10

¹⁸ Gerard, David, and Elizabeth J. Wilson. 10

¹⁹ Gerard, David, and Elizabeth J. Wilson. 10

²⁰ Gerard, David, and Elizabeth J. Wilson. 10

²¹ Government of South Africa 2015, National Environmental Management Act, 1998, Regulations Pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production Operations, Available at <https://www.environment.gov.za/legislation/actsregulations>;

1.3 Analyzing Environmental Impacts Associated with Upstream Mining in Kenya and South Africa

Upstream mining exacerbates environmental challenges in both countries, depending on a number of factors, particularly the mining site area (forests, off-shore, river beds, wetlands, agricultural lands, etc), types of mine technologies used among others²². Upstream mining necessitates the deployment of sophisticated equipment and tools, all of which are unleashed onto some virgin territories in order to harvest the rare riches hidden deep within the earth's strata²³. The equipment used ranges from simple tools used in artisanal mining to heavy machinery used in large-scale mining operations. As a result, such mines eventually cause soil erosion, chemical contamination of surface and ground water, the release of other non-chemical contaminants, mineral leaching (acid drainage), and land-use disruptions attributed to mining activities²⁴. Table 1 below summarizes some of the key environmental impacts associated with the upstream mining cycle in Kenya and South Africa. These likely impacts extend from geological mapping, soil sampling, trenching, and pitting to full-scale drilling with various technologies (auger, air-core, reverse circulation drilling, or diamond drilling)²⁵. This is the case for the key minerals currently being mined in Kenya, including fluorspar, diatomite, cement, soda ash, salt, gold, and titanium, among others²⁶.

Table 1. Some key environmental impacts across the key mining value chain (Study)

Mining Value Chain	Key Environmental & Social Considerations
1. Reconnaissance	Invasive species are introduced because of bush clearing and earth movement, as are vegetation and animal habitats destroyed, soil pollution, dust and exhaust emissions, community re-settlement, and so on.
2. Exploration	Mapping of the area, bush clearing, and the establishment of a site office results in vehicle and truck movement, soil disturbance, habitat destruction, soil and water pollution, solid waste, dust, and exhaust emissions, and so on.
3. Construction	River damming, earth clearing, heavy machinery and equipment movement, increased human traffic, noise, vibration, biodiversity loss, pollution, dust and exhaust emissions, effluent discharge, drill sludge sippage, leakages of hazardous chemicals and waste, oil and fuel spills, water resource pollution, resettlement, and compensation of landowners
4. Mining	Mine development is linked to the destruction of vegetation and animal habitats, soil pollution, solid and effluent waste discharge into the atmosphere, dust and exhaust emissions, drill sludge, chemical leakages into the atmosphere, increased waste release, accumulated drill sludge, pollution of water sheds, soil contamination, noise and vibration, biodiversity loss, oil spills, water resource pollution, health effects on locals, and so on.
5. Mine Closure and Rehabilitation	Tailing dams collapse, air/soil/water pollution, chemical seepage into the environment, contamination of food systems, biodiversity loss, radioactive waste, drastic change in landscapes, abandoned mine pit
6. Post-Closure	Long-term biodiversity loss, ecosystem disruption, and the presence of radioactive or carcinogenic substances in mine areas are all concerns.

It is worth noting that similar problems have been reported in Nigeria, and Ghana, among other emerging resource-rich countries.²⁷ Mining operations in Ghana have resulted in significant contamination of the local environment with heavy metals.²⁸ A sediment core profile study to evaluate heavy metal contamination in Lake Amponsah in Bibiani, Ghana's major mining township, discovered significant deposits of heavy metals such as mercury, lead,

²² Albert K. Mensah, Ishmail O. Mahiri, Obed Owusu, Okoree D. Mireku, Ishmael Wireko, and Evans A. Kissi, "Environmental Impacts of Mining: A Study of Mining Communities in Ghana." *Applied Ecology and Environmental Sciences*, vol. 3, no. 3 (2015): 81-94. doi: 10.12691/aees-3-3-3

²³ Ibid

²⁴ Kibugi, Robert., 'Mineral Resources and the Mining Industry in Kenya' in Kameri Mbote et al *Environmental Governance in Kenya: Implementing the Framework Law, 2008*, East African Publishers, Nairobi;

²⁵ EIA Report, (2019). Kakamega Gold Mining Exploration.

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²⁷ Olawuyi, D. S. (2018). *Extractives Industry Law in Africa*. Springer International Publishing.

²⁸ Hogarh, J.N., Adu-Gyamfi, E., Nukpezah, D. et al. Contamination from mercury and other heavy metals in a mining district in Ghana: discerning recent trends from sediment core analysis. *Environ Syst Res* 5, 15 (2016). <https://doi.org/10.1186/s40068-016-0067-0>

cyanide, and cadmium.²⁹ Soil contamination is another major issue that has been reported in mine areas.³⁰ Mercury and arsenic pollution traces have been discovered near the Obuasi and Tarkwa gold mine regions in Ghana.³¹ More dangerous are some carcinogenic substances that occasionally seep from mines and have the potential to remain in the ecosystem for more than 30 years.³² Examples of this have been reported in Brazil³³ and Ghana, particularly in the mining towns of Obuasi, Amansie, and Adansi Districts, where arsenic contamination of the soils and water was discovered using various scientific analysis.³⁴

1.4 Importance of the Use of Financial Assurance Schemes in Upstream Mining

Clearly, for many resource-rich countries, unsustainable mining practices continue to leave indelible footprints and permanent impacts on the health of ecosystems, and in some critical cases, contribute to the release of harmful carcinogenic substances into the environment³⁵. Even with well-thought-out plans and laws, the worst must be anticipated and properly planned for in a complex industry like mining, where a plethora of unknown variables are all at play. For good reason, financial security is at the center of this debate. A strong financial assurance scheme for environmental compliance is expected to encourage innovation throughout the entire production value chain. The reality of mine failure causing massive environmental and community impacts is an inherent risk that must be anticipated, accounted for, and resolved at all stages of the mining value chain. Upstream mining is expected to manifest a variety of risks, including risks associated with preventing and managing pollution-related environmental damage, as well as costs associated with mine closure, where restoration, rehabilitation, reclamation, and remediation are always prohibitively expensive. The purpose of this article is to examine the use of environmental performance deposit bonds for upstream mining management in Kenya and South Africa, specifically how the regulatory instruments governing the use of financial assurance for upstream mining compare to one another.

2. Methodology

The study applied key informant interviews, questionnaires, focus group discussions, and literature reviews. A set of research questions covering environmental deposit bond management and bond features were administered to key informants through a structured interview. In addition, content analysis of the environmental deposit bonds for the extractive resources as stipulated in the various legal and regulatory instruments in Kenya and South Africa and how this compares to evolving knowledge on the subject of regulating environmental bonds.

3. Results and Discussion

3.1 Deep Dive into South Africa's Financial Provisioning Regulations 2015

The regulations pertaining to the financial provisioning for prospecting, exploration, mining, or production operations, released by the Minister of Environmental Affairs on November 20th, 2015, are among South Africa's rich collage of environmental regulations, strengthening the ideals enshrined in the Constitution of 1996 and the NEMA Act 1998. These regulations add to the National Environmental Management Act of 1998's quest for social, environmental, and economic sustainability. This novel regulation aims to supplement the mine closure provisions in the Mineral and Petroleum Resources Development Act of 2002³⁶ and the Mineral and Petroleum Resources Development Regulation 2004; specifically, the closure certificate envisioned in Section 43, as well as reclamation processes for mines in South Africa³⁷.

The 2015 Financial Provisioning Regulations begin by defining financial provisioning, then outline the purpose of the regulations, and finally detail some specific elements required for the successful application of financial

²⁹ Ibid

³⁰ Antwi-Agyei P, Hogarh JN, Foli G (2009) Trace elements contamination of soils around gold mine tailings dams at Obuasi, Ghana. *Afr J Environ Sci Technol* 3(11):353–359

³¹ Asante KA, Agusa T, Subramanian A, Ansa-Asare OD, Biney CA, Tanabe S (2007) Contamination status of arsenic and other trace metals in drinking water and residents from Tarkwa, a historic mining township in Ghana. *Chem-osphere* 66:1513–1522

³² Bempah, C.K., Ewusi, A. Heavy metals contamination and human health risk assessment around Obuasi gold mine in Ghana. *Environ Monit Assess* 188, 261 (2016). <https://doi.org/10.1007/s10661-016-5241-3>

³³ Carmo, Flávio F.; Lanchotti, Andressa O.; Kamino, Luciana H.Y. 2020. "Mining Waste Challenges: Environmental Risks of Gigatons of Mud, Dust, and Sediment in Megadiverse Regions in Brazil" *Sustainability* 12, no. 20: 8466. <https://doi.org/10.3390/su12208466>

³⁴ Collin, K, Tay et al (2019), Human Exposure Risks assessment of Heavy Metals in Groundwater within the Amansie and Adansi Districts in Ghana using Pollution Evaluation Indices, *West African Journal of Applied Ecology*, Vol. 27 (1), (23-41), University of Ghana

³⁵ Mwaura, F. (2019). An audit of environmental impact assessments for mining projects in Kenya African Institute of Mining and Metallurgy Journal, 119(5), 484-493. <https://dx.doi.org/10.17159/2411-9717/143/2019>

³⁶ Mineral and Petroleum Resources Development Act of 2002, Government of South Africa.

³⁷ Government of South Africa 2002, Mineral and Petroleum Resources Development Regulation of 2004

provisioning in South African upstream mining. These are as follows: i) the determination of the financial provision; ii) the scope of the provision; iii) the method for calculating the provision; iv) the availability of the financial provision; v) vehicles for the financial provision; vii) the requirements for financial provision; viii) mechanisms for the review of financial provision for assessment or adjustment purposes; and ix) the reporting requirements. The final chapters of the regulations (Chapters 4 and 5) cover transitional arrangements as well as general matters such as offences, penalties, and commencement³⁸.

The purpose of the regulations is provided as:

*“.....to regulate and determine the making of financial provision as contemplated in the NEMA ACT for the costs associated with undertaking of management, rehabilitation, and remediation of environmental impacts from prospecting, exploration, mining or production operations through the lifespan of such operations and latent or residual environmental impacts that may become known in future...”*³⁹

To ensure ecologically sustainable development, this regulation requires all holders or applicants for mining rights to determine and provide financial provision to ensure the availability of sufficient financial resources to undertake rehabilitation of any adverse environmental impacts of prospecting, exploration, mining, or production to the satisfaction of the mining minister. The regulation's scope includes all rehabilitation and remediation works, decommissioning and closure activities, and, most importantly, the remediation and management of future unknown latent or residual environmental impacts, including the treatment of polluted or extraneous water. Regarding the proposed method for calculating the financial provisions, the regulations require the applicant to determine the costs through detailed itemization of all activities based on actual costs for rehabilitation as outlined in the mine rehabilitation plans, final rehabilitation and decommissioning plan, and introduce some precautionary element to cover future unknown impacts reflected in the environmental risk assessment report. Section 7 of the regulations requires all applicants to immediately ensure that the financial provision amount is equal to the actual costs of implementing the plans for a period of at least 10 years. However, it is unclear whether the 10 years refer to after the mine has been closed or at the time of applying for mining rights, as some mining operations have been known to last longer than the 4 years stipulated in the regulations.

The South African regulations are also quite comprehensive in terms of the financial vehicles that applicants must use to make the financial provision. Section 8 includes a list of three key instruments for the provision. i) A financial guarantee from a bank duly registered under the Banks Act 1990 or a financial institution registered by the Financial Services Board to perform insurance or underwriting; ii) a financial deposit into an account administered by the mining minister; and iii) a contribution to a trust fund if the funds are not used for purposes other than those specified in the NEMA Act 1998. The template for the financial guarantor is provided in Appendix 1 of the Financial Guarantee. In this letter, the guarantor agrees to pay the agreed-upon guaranteed sum unconditionally no later than 2 working days after receiving a written claim from the government stating the applicant's failure to execute the rehabilitation and reclamation plans, as well as failure to begin execution of the final rehabilitation, decommissioning, and mine closure plans within 10 days (excluding weekends and public holidays) on the required date. The claim can also be submitted to the guarantor if the applicant has begun the mine rehabilitation, decommissioning as per the set-out plan, but is deemed to have failed to make adequate progress on such rehabilitation and decommissioning as per the independent assessment report. The guarantee is also invoked by the state when the applicant is subject to a court order that places him/her in sequestration, liquidation, or bankruptcy.

According to the regulations, if the guarantee provider intends to withdraw, the provider must notify the minister four months in advance, and the mining applicant must provide an alternative provider within 60 days, failing which, the mining minister will call in the financial guarantee and deposit it in an account administered by the ministry until the alternative guarantee is properly provided. To strengthen the integrity of the evaluation and review processes, the regulations mandate the engagement of independent professionals. It also prohibits the corporation from deferring financial liabilities related to mine closure against assets at mine closure, mine infrastructure, or salvage value. The Financial Provisioning Regulation makes it an offense for any applicant for a mining right or permit to violate or fail to comply with the regulations and imposes a penalty of a fine not exceeding 10 million Rand or imprisonment for a period not exceeding ten years, or both such fine and imprisonment. This rule expressly provides for enforcement measures, and relevant authorities are expected to apply them, implying that the South African case views financial provisioning via a Command-and-Control perspective. With South

³⁸ Government of South Africa 2015, Regulation Pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production Operations, Available at <https://www.environment.gov.za/legislation/actsregulations>; (Accessed on 8th June 2021)

³⁹ Section 2 of the Regulation Pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production Operations 2015.

Africa having established such a stringent piece of legislation to manage financial provisioning in the mining sector, poor execution as a result of weak enforcement remains a major challenge.

3.2 Analysis of Complexities of Regulating Environmental Bonds in Kenya

Unlike South Africa, Kenya has struggled to establish a credible environmental performance bond framework. While environmental bonding mechanisms were first codified in Section 28 of Kenya's Environmental Management and Coordination Act Cap 387 laws, over 23 years later, the National Treasury has approved the Draft Environmental Management Coordination (Deposit Bonds) Regulations (EMC: DP) 2014⁴⁰, which is awaiting gazette by the Attorney General⁴¹. These are the rules that will bring Section 28 of the EMCA's deposit bond provisions to life. The weak underbelly of Kenya's otherwise robust environmental legal and policy framework for deposit bonds is a deteriorating operating environment typified by weakening of the Polluter-Pays Principle and a culture of systemic capture driven by strong private sector interests that outweigh environmental good. Section 28 of Kenya's main environmental framework law, EMCA Cap 387, introduced environmental performance deposit bonds. It characterized the bonds as environmental management financial assurance schemes designed to offer an economic disincentive for enterprises that willfully fail to comply with best available environmental management standards. The Act requires that refundable deposits, as determined by the Cabinet Secretary in charge of Finance, be placed into a Restoration Fund and treated as such until repaid to the conforming organizations. Section 28 requires the National Environment Management Authority to create a register of those activities, industrial plants, and undertakings that have or are most likely to have significant adverse effects on the environment when operated in a manner that is not in accordance with good environmental practices in order to provide some clarity on the means of realizing the bonds.

Clearly, the fact that, more than 23 years later, none of the tools for establishing a functioning performance deposit bonding mechanism have been realized indicates the country's regulatory conundrum with deposit bonds. The unfortunate reality is that there is currently no deposit bonds registry, no deposit bond amounts have been set, and there is little if any demonstrated capacity or public awareness of this important environmental assurance scheme in place, even as a plethora of production, exploration, and extraction activities continue in the Business-As-Usual (BAU) mode. Many Kenyan stakeholders are unaware of the statutory requirements for an environmental performance deposit bond stipulated in both the EMCA and the Mining Act 2016. In fact, only Base Titanium, out of all the extractive businesses operating in Kenya to date, has deposited money as bonds to pay for environmental restoration. This has occurred in the absence of a clear regulatory framework. In addition to a lack of understanding about performance deposit bonds, there is considerable evidence of regulatory ambiguity in the formulation of Kenya's laws governing environmental deposit bonds. This is due to the fact that environmental bonding mechanisms for extractives are specified in four legal instruments, including two statute laws and two draft regulations. Section 28 of Kenya's Environmental Management and Coordination Act, Cap 387, mandates the establishment of the National Environment Management Authority to "...create a register of those activities and industrial plants and undertakings which have or are most likely to have significant adverse effects on the environment when operated in a manner that is not in conformity with good environmental practices.."⁴²

Interestingly, another statute law with provisions for environmental deposit bonding is the Mining Act of 2016, where section 180 subsection 1 stipulates that the Cabinet Secretary responsible for mining "...shall not grant a prospecting license, a retention license or a mining license to an applicant; unless the applicant has submitted a site mitigation and rehabilitation or mine-closure plans for approval.." while sub section 2 of the Act stipulates the mining "Cabinet Secretary may prescribe Regulations for site rehabilitation and mine-closure obligations"⁴³. The Act in section 181 also stipulates that no license will be issued without an environmental protection bond whose requirements will be prescribed by the same Cabinet Secretary⁴⁴.

If urgent action is not taken to unify these legislative documents and only one agency is authorized to administer such a bonding mechanism, they are bound to generate an unmitigated quagmire at the implementation stage. All of the stakeholders examined agreed that such a situation does not foster investor confidence, will result in investors paying several bonds for the same purpose, and could lead to institutional conflict. It is also likely to open the door to noncompliance and maladministration, as well as non-reporting or misreporting. The majority of stakeholders agreed that NEMA should be in charge of environmental deposit bonds as mandated. Nonetheless,

⁴⁰ National Environment Management Authority. Draft Deposit Bonds Regulations, 2014

⁴¹ Geoffrey Omedo, Interview with Mr. Zephaniah Ouma, 'Performance Deposit Bonds' (2018).

⁴² Section 25, Kenya Environmental Management Coordination Act Cap 387

⁴³ Section 95, Kenya Mining Act, 2016

⁴⁴ Ibid.

the Ministry of Mining has some overall authority over mine closures, as they evaluate and approve mine closure plans submitted by extractive corporations prior to the issuance of exploration and extraction licenses. As a result, mine closure is a role that necessitates collaboration between both organizations, acting in tandem for the greater good. Institutional rivalry for the environmental performance or protection bond is thus a challenge that would severely impede Kenya's extractive industry's bonding mechanisms.

3.3 Comparative Analysis of Financial Assurance Instruments in Kenya and South Africa

This article has identified eight fundamental challenges that must be addressed to effectively regulate environmental performance deposit bonds. These complexities include i) the legal scope of the bonds; ii) bond amounts; iii) cash or financial tools for bonding; iv) public participation; v) bond payment terms; vi) bond review; vii) accrued interest; and viii) bond liability period. Table 2 summarizes the findings of a comparative examination of the regulatory measures advancing environmental performance deposit bonds in Kenya and South Africa, focusing on how they address the 8 significant complications. South African and Kenyan legal systems are similar in four aspects while different in others.

Table 2. Analysis of Kenya and South African deposit bond and financial provisioning regulations

Complexity	Kenya's Deposit Bonds Regulatory Framework	South Africa's Financial Provisioning Framework	Comparison
1. Time Value of Deposited Bonds	Interest accrues to the regulator (NEMA) introducing the moral hazard dilemma	Interest accrues to the investor after defray bank charges, as they are added to the principal amount of the guarantee	Differs significantly
2. Scope of Environmental Deposit Bonds	EPDB's only for environmental reclamation with social impacts left out from draft regulations	Financial provision for rehabilitation and remediation in the decommissioning, closure, and future unknown latent/residual impacts	Similar provisions
3. Binding Instrument: Cash or Financial Instrument	Regulation specifically require cash with bank and insurance sector left out	Provides three means for guarantees (bank or insurance guarantee, cash deposits and trust funds)	Differs significantly
4. Deposit Bond Size and Amounts	Law is unclear only proposing that bond amounts that " <i>may constitute appropriate security for good environmental practice</i> "	Summation of all rehabilitation activities in the Mine Closure Plans, with some risk component as determined in the risk assessment	Differs significantly
5. Terms of Payment	Bond should be paid before Licensing process, and release of bond amounts after completion of mining process.	Bond should be paid before license or permit issue to applicant	Similar provisions
6. Liability Period	Draft Bonds regulation has 24 months for application of release of bonds by developer, while the primary EMCA has 6 months.	10 years after closure or commencement of rehabilitation or remediation process	Differs significantly
7. Public Participation	No clear entry point for public in financial provision, only through the EIA process or audits	No clear entry point for public in financial provision, only through the EIA process or audits	Similar provisions
8. Review of Bonds	Regulator can increase or reduce the bond after review of compliance by independent auditor	Annual reviews and final rehabilitation review backed by independent auditor	Similar provisions

(Study 2021)

3.4 Similarities Between Kenya and South Africa's Deposit Bond Regulations

a) Terms of Payment of the EPDBs

Both the South African and Kenyan statutes require upstream mining applicants to provide a financial provision or deposit bond prior to the actual initiation of exploration or exploitation of mineral resources, specifically during the licensing phase. Both countries also include strong links between the fundamental environmental framework laws and the primary acts controlling mining, emphasizing the necessity for synergy, particularly by emphasizing the importance of Environmental Management Plans (EMPs) in the rehabilitation process. In Kenya, however, both the primary mining statute (Mining Act 2016) and the key framework environmental law act (EMCA 1998) seem to introduce two distinct sets of deposit bonds, one supervised by the Cabinet Secretary in charge of the Treasury and the other (environmental protection bond) by the Cabinet Secretary in charge of mining. The financial provisioning requirements in South Africa refer to both the NEMA 1998 and the Mineral and Petroleum Resources Development Act (No. 28 of 2002). According to expert opinions, deposit bond law/regulation should offer clarity on the terms of payment of financial guarantees. Prospective investors should be fully informed about when the deposit bond should be deposited, whether before a license is issued, during the official licensing period, after licensing and before the mining stage begins, during the mining stage following an analysis of the potential environmental impacts, or at what rates if the payments are structured. Most stakeholders interviewed agreed that deposit bonds should be deposited before a license is provided to an extractive resource industry investor because, in their opinion, most investors are never eager to uphold environmental duties once they have obtained the appropriate licensing.⁴⁵

b) Public Participation in Environmental Deposit Bonds Processes

The similarities between Kenyan and South African regulations governing deposit bonds and/or financial provisioning are that both fail to provide clear entry points for members of the public in the decision-making process, particularly on the management and discharge of resources set aside for environmental management. The existing regulations governing public participation, particularly in the performance of EIAs and EAs, are inferred, but some specific reference to the role of the public in this area would have substantially improved the two pieces of legislation. It is important to highlight that, whereas Kenya's Draft Environmental Performance Deposit Bonds Regulations 2014 have yet to be promulgated, they all began around the same time in South Africa with the Financial Provisioning Regulations. The South African regulations went into effect in November 2015. Kenya's regulations have been delayed owing to private states takeover of the process, citing the need to improve the ease of doing business as the reason.

Expert respondents, on the other hand, are highly categorical and specific. Because the "public carries the risk of absorbing the environmental expenses not covered by an inadequate or prematurely issued" bond, public engagement is essential in "setting a bond amount and before any decision on whether to release a bond."⁴⁶ While the statute laws on the environment and mining in both Kenya and South Africa do not make specific reference to public participation, they both require the use of independent bond auditors or assessors, implying that independent experts would be required to undertake public consultations. This is perhaps the reason why most members of the community interviewed in the four Focus Group Discussions in Kakamega and Kwale were not even aware of the existence of the deposit bonds in the law and the procedure for triggering their use for management of environmental challenges that are likely to result from upstream mining.

c) Guidance on Periodic Review of EPDB's

The need for frequent evaluation of the financial provisions by the regulator is emphasized in Kenya's and South Africa's rules. Following initial baseline assessments conducted by independent specialist experts, both legislation agrees that the governments' regulatory authorities retain the authority to examine the amounts of bonds set aside by the developers. The independent auditors are vital in this process, as stated clearly in both acts, and the governments would rely on their assessment reports in deciding on changes to the bond amounts based on the project proponents' level of compliance with sound environmental standards. In the South African case, Section 17 (16) (a) states that if the review and assessment reveal a shortfall in the financial provision, the holder of the license or permit must "...increase the financial provision to meet the reviewed, assessed, and audited financial provision within 90 days from the date of auditor's report and must provide proof of increasing the financial provision to the Minister responsible."...

According to expert comments from survey respondents and a review of literature on deposit bonds and financial

⁴⁵ Focus Group Discussion with the EGP Project Technical Committee, March 2018.

⁴⁶ Sassoon, (2009). "Financial surety," 4th Ed.

provisioning reviews, the flexibility of the instrument is critical to realizing the benefits of economic incentives used for environmental management in a system thinking approach. The two statutes that govern environmental bonding in Kenya delegate the examination of the bonds to drafted regulations. The rule specifies three methods for the environmental regulatory authority to perform an assessment of the environmental deposit bond. The first incident is referred to as a deposit bond re-assessment⁴⁷. The second instance in which a review of the deposit bond will be conducted is known as the "annual adjustment notice," in which annual changes will be made taking into account the inflation rate⁴⁸ while the third type of bond review is the classic bond review, which is known as the "periodic audit of the deposit bond fund."

d) Scope of the Activities Covered by EPDBs

The similarity between Kenya and South Africa is in how the deposit bonds address the social repercussions of mining. In both nations, the deposit bonds are only intended to address environmental rehabilitation and restoration, with no process or path for resolving social issues associated with mining operations. In the instance of South Africa, the regulations are intended to address environmental remediation connected with financial provisioning for prospecting, exploring, mining, or production operations. Under the Mining Act 2016, Kenyans will be able to address social issues through distinct channels, specifically the social heritage assessment and the Community Development Agreement enshrined in Sections 42 (1) (c) and 47 (2) (g), as well as corporate social responsibility, which is not protected by any law yet, but is left to the discretion of private companies.

Kenya's environmental framework law (Environmental Management and Coordination Act Cap 387) does not specify which activities should be covered by the environmental deposit bond. To that end, the Draft Environmental Management Coordination (Deposit Bonds) Regulations (EMCA: DP) 2014 were drafted.⁴⁹, approved by the National Treasury, but awaiting gazette by the Attorney General⁵⁰ details the importance of compliance to good environmental practices in mine closure and seeks to ensure the availability of funds for remediation⁵¹. The findings from the two FGD's with the local community in Kwale from the area neighbouring the project was however contrary to the picture painted by the management and the government regulators, as analysed in the Table below.

3.5 Differences Between Kenya and South Africa's Deposit Bond Regulations

a) Deposit Bonding Instruments: Cash or Financial Instruments?

According to content analysis, numerous instruments, such as cash payments, "financial guarantees such as certificates of deposit, irrevocable letters of credit, etc.; or guarantees by an institution such as a bank," and insurance firms can act as environmental deposit bonds⁵². On a case-by-case consideration, it is also possible to have a composite system consisting of variable forms of bonds⁵³. One of the main differences between South African and Kenyan deposit bond regulations is that, while the South African provisioning regulations recognize the important role and place of banking, insurance, and trust funds in deposit bond management, the Kenyan regulations require cash deposits to the regulator. In Kenya, the Environmental Management Coordination (Deposit Bond) Regulations of 2014 strongly favor cash deposits. The cash deposit is intended to avoid the issue of firms declaring insolvency during the mining process, ensuring that the government always has the finances for swift environmental reclamation and restoration operations. One of the key recommendations of this study is for Kenya to consider amending the principal environmental framework legislation, EMCA 1998 Cap 387, to allow for such progressive instruments to be applied.

b) Time Value of Deposited Bonds

The second distinction between Kenyan and South African deposit bond legislation is how they deal with the interest that accrues on the deposited cash. Section 9 (5) states expressly, "... any income received on the deposit shall first be utilized to offset bank charges in respect of that account, and then accumulate and constitute part of the financial provision." In essence, the South African rule allows all interest accruing on the principle sum of the financial provision to be paid to the investor only after any bank-related charges have been deducted. According to Kenyan law, the accrued interest must be returned to the regulator. In this situation, Kenya intends to use deposit

⁴⁷ National Environment Management Authority. Draft Deposit Bond, 2014. 9

⁴⁸ Ibid

⁴⁹ National Environment Management Authority. Draft Deposit Bonds Regulations, 2014.

⁵⁰ Geoffrey Omedo, Interview with Mr. Zephaniah Ouma, "Performance Deposit Bonds" (2018).

⁵¹ Ibid

⁵² Intarapravich, Duangjai, and Allen L. Clark. 1995

⁵³ United Nations. Policies, Regulatory Regimes, 1998.

bonding requirements to raise funds for environmental management, but South Africa intends to use this tool just to enforce strong environmental management practices in upstream mining. In Kenya's case, the moral hazard challenge is real, especially if the environmental regulator becomes cash-strapped, as the incentive to release the deposit bonds to the complaint developers would be diminished, given the financial benefits accruing to the regulator. This is especially true if these companies are in default. In this circumstance, a strong systemic approach would reduce the challenges associated with moral hazard. Many of the experts interviewed for this study believed that, if properly designed and implemented, environmental deposit bonds will promote environmental protection in the sector as compared to policing instruments that require the regulator's whole physical presence to verify compliance⁵⁴. Indeed, expert results show that prices, markets, and governmental fiscal and economic policies all have a role in shaping attitudes and behavior toward the environment.

c) Setting Environmental Deposit Bond Size and Amounts

Third, how the charges for the deposit bond are to be computed differs between the two countries' rules. While South Africa's regulations in Section 6 advance a technique for determining the sums to be deposited as “...a detailed itemization of all activities and costs, calculated based on the actual costs of implementing the annual rehabilitation plan and the final rehabilitation plan, as well as any future unknown latent or residual impacts...”, Kenya does not provide a clear mechanism for calculating bond amounts. Kenyan legislation only has confusing wording stating that bond amounts “may provide suitable security for good environmental management.” It is unclear what this means or how it may be accomplished, and interviews with the majority of important players reveal disagreement on how to calculate the appropriate bond size amount. Some suggested a proportion of all mine development expenditures, while others suggested using South Africa's model, which is a total of all rehabilitation costs. Base Titanium, which is an important partner as it has already deposited some environmental reclamation bonds with the regulator in Kenya, yet they did not use any method to calculate this, due to the lacunae in the law in this area.⁵⁵

Kenya has some good instances of mines that have been decommissioned and turned into recreation parks, such as the Bamburi Nature Park in Mombasa, but earlier mining operations have mostly left the mine regions in poor condition. A number of respondents suggested that the bond's cost be a sum of the likely costs of clean-up and post-closure monitoring plans rather than the overall cost of environmental management plans as outlined in the Environmental Impact Assessment reports

d) Liability Period and Release of Environmental Deposit Bonds

Finally, the two regulations advanced by Kenya and South Africa differ in the time it takes for mining businesses to request bond release after mining activities are completed. The Draft Deposit Bonds Regulations in Kenya provide a 24-month timeframe, which differs from the primary EMCA Act of 1998, which envisaged a 6-month period instead, after which the mine developer would petition for bond release. Section 7 of the South African legislation provides for a 10-year term during which the developer will be accountable for reclamation, particularly for potential latent or residual effects such as pumping and treating contaminated or extraneous water. In Finland, regardless of whether the “closure operations were completed adequately, the liability of the mining company regarding the environment will continue to a period of at least 30 years”⁵⁶. Such a long liability period is useful since some of the impacts on the environment take a very long time to manifest.

4. Conclusions and Recommendations

The spirit of international environmental governance acknowledges the transboundary nature of natural resources as well as the significance of preserving them for future generations. A well-regulated EPDB structure would go a long way toward ensuring the Polluter-Pays Principle's fulfillment. This is critical in order to make the would-be-polluter face severe financial consequences for their actions and, as a result, devote some effort to resolving the problem. Many countries have gone farther to codify these into national legislation and are enforcing their adoption through a variety of tactics and procedures. Section 2 of the EMCA in Kenya states that the polluter must pay for the cost of the damage, the cost of restoration and the opportunity cost where applicable.⁵⁷ The draft regulations on performance deposit bonds provide more information on how to put the EPDBs into action. They fall short, however, particularly in the eight complexity categories described in this study. For Kenya to reap the benefits of the EPDBs, a complete rewrite of the regulations is required and urgently. Along with the revision of the EPDB

⁵⁴ Geoffrey Omedo, Interview with Mr. Zephaniah Ouma, "Environmental Impact Assessments" (2018).

⁵⁵ Interview with Dr. Georgina Jones, Base Titanium, 2018.

⁵⁶ Ibid.

⁵⁷ Section 2, EMCA No 25 of 2015

frameworks, public awareness is critical.

Many of the respondents in this survey were unaware of the Environmental Performance Deposit Bonds⁵⁸, but they agreed that such a rule would be highly significant, not just in the extractive sector, but across the entire development spectrum. Respondents were surprised that the process of developing the EMC (Deposit Bonds) had taken so long, and they expressed their desire that the regulations be finalized, capacity building and awareness raised, and immediate enforcement implemented to protect Kenya's natural resources from further harm. South Africa is one of the countries in Africa that has a robust environmental protection bonds regime, and much of the efforts to build Kenya's deposit bond registry would borrow from the lessons and experiences in the rainbow nation.

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⁵⁸ Key Informant Interviews, June 2018

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