

Environmental Management and Auditing; Kenyan Public Sector Perspective

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Abstract- Environmental auditing is currently one of the requirements that have been adopted by nations because of the rising awareness of the need for sustainability to protect the earth from the risk of failing to replenish natural resources in a sustainable manner. The issue of global warming has particularly played a major role in influencing the international community to adopt rules that govern the utilization of natural resources and conservation activities. Following this, developed economies have stepped in with their vast resources to develop entities and mechanisms through which environmental auditing will be actualized. This research was conducted through a systematic analysis of documents and semi structured interviews. The results of the research conducted revealed that; nearly all companies that have carried out environmental audits intend to continue the practice in the future. Secondly, there are no generally accepted auditing standards on Environmental auditing that have been developed and thirdly the accounting profession is only slightly involved in environmental audit due to the fact that this type of audit is an activity that is not mandatory, being used for the entity's own use as opposed to financial audit, which is mandatory. Developed nations like the United States have effective policy enforcement processes, but developing economies like Kenya lack the resources to effectively conduct environmental audits. The lack of experts in the accounting field with knowledge in the scientific and technical areas associated with environmental auditing makes it difficult for nations like Kenya to accurately report on company activities, as well as the local government initiatives toward facilitating audits.

Index Terms- *Environmental audit, environmental management, office of auditor general, accounting regulations.*

I. INTRODUCTION

One of the negative consequences of the modern industrial technology is the fact that it has influenced a high level of environmental degradation; thus, fostering undesirable economic, social, and health outcomes. This is one of the reasons that many organizations have embarked on a course to align their corporate social responsibility (CSR) programs with the requirement for sustainable development in technology. Governments are also actively focusing on the development of policies that are geared toward compelling companies to focus on sustainable business process to safeguard the environment. Following this, many

entities have embraced the need to provide voluntary disclosure of their initiatives toward protecting the environment, especially in their annual corporate reports and through their websites and social media avenues.

The Kenya national Audit Office focuses on evaluating the environmental impact of various entities by focusing on their business processes, in terms of the direct and indirect impacts to the environment, using an international standard checklist. This approach can be effectively leveraged to ensure that the nation is being steered toward a paradigm where economic and social growth attains parallelism with environmental health. Corporations in Kenya are constantly being compelled to ensure that their activities consider the environmental impact. This can be attained through the adoption of management approaches that focus on sustainable use of the locally available resources.

The National Environmental Management Authority (NEMA) is an institution charged with the responsibility of implementing laws that focus on conservation. NEMA emphasizes on the development of regular documentation of the evaluations made by entities on their management practices focusing on the environment. This approach is appropriate for ensuring that companies are regularly reminded of their role in solving the environmental crisis in the region. All audits concerning the environmental impact of business processes in corporations have to be impartial, objective, and within the relevant standards at the national and international levels.

It is apparent that the Kenyan administration has been relying on self-reported audits from the corporations operating in various industrial sectors. The companies reveal that the audits are mainly focused on providing clarity on their approaches toward embracing sustainability for the positive effects on their reputation, finding a basis for competitive advantage, and highlighting the gaps that need to be sealed to achieve a higher level of compliance to the existing environmental laws. Previous studies looking into the matter have also traditionally utilized primary data provided by the companies, but this study looks into the engagement with the Kenya Office of the Auditor General (OAG) as an independent function with its reliable data. The study looks into identifying the approaches used by the government to influence auditing standards and their application within different industries. This approach is relevant because there are no clear auditing standards for environmental factors within the nation.

The prevailing issue in this field is that many developing nations like Kenya do not have nationally accepted standards of auditing for environmental factors. The nations rely on the

international standards, which are mainly influenced by the developed economies in the international community. Nations like Kenya also lack the financial basis required to execute objective environmental auditing on a regular basis, which implies that there is likelihood that the governmental agencies charged with the responsibility only utilize data reported by corporations in their annual corporate magazines. This paper looks into the experience of the small developing

nations, in terms of environmental auditing approaches, using Kenya as the mirror for this information.

Current Trends in Environmental Auditing

Most of the developed economies across the world have embraced environmental auditing as an information-based approach toward developing laws to protect the environment. The United States is one of the leading nations in the application of environmental auditing, and this is facilitated by the availability of resources, knowledge, and the relevant technology for the process. Other developed and developing nations have attempted to embrace this tool for highlighting activities that are environmentally hazardous. However, there is a clear picture that the international standards are yet to be properly edited because environmental auditing is a relatively new practice, which many nations apply without the enforcement of strict laws. Current trends also reveal a certain commitment by nations to continue enhancing professionalism in the application of relevant laws. The result will be the adoption of standardized approaches toward enforcing environmental laws across the world. Corporations will require a higher level of adherence to the laws that are going to take effect in both the developing and developed nations as standardization occurs in environmental auditing.

Need for Automation

Growth in technology has influenced the development of the capabilities to automate the collection of data in organizations and across governmental agencies. This has presented a unique opportunity for companies to and governments to pursue the automation of auditing. This is particularly feasible because it is based on the enhancement of the control systems, as well as boosting quality control in organizations that have traditionally provided doctored information on their audit reports. Automation also eliminates the need to send many professionals to the field for the purpose of data collection.

Auditors have benefited from the presence of numerous data collection and analytical tools. Current systems not only facilitate data collection on an automated platform, but they are also linked to databases that facilitate regular reporting and ad hoc analysis and reporting needs for the associated entities. The governmental agencies charged with the responsibility of auditing companies should set up these tools in the relevant positions to increase the accuracy of data collection.

The elimination of the interruptions by humans in the auditing process is likely to have a positive impact on the validity of the results because there is limited bias in data collection and analysis, as well as in the reporting process. The automated systems collect data objectively according to specific parameters set by the users. The standardization of auditing approaches will be reliant on the ability to facilitate automated systems that transmit data to specific databases for unbiased analysis of the

performance of the concerned entities in their environmental management processes.

The current approaches in auditing for environmental management have focused on the production of reports that are relatively general and only useful to the entities charged with the development of policies. This implies that the data being used is only being processed through a one-sided analytical model that benefits the law enforcers. It is imperative to focus on the adoption of analytical models that are beneficial to different entities, and this will be facilitated by technology, whereby companies could benefit from audit reports that objectively highlight their strengths and weaknesses. The databases developed through the automated data collection systems should be analyzed using different models that will be instrumental in the application of relevant changes at the organizational level for future improvements in environmental sustainability.

Environmental auditing is a requirement for the mitigation of risks in the developing economies. This is because the cost of pollution and the destruction of the environment for economic development has been established to be unsustainable in some of the developed economies. It is necessary for the developing states to actively embrace this approach toward regulating growth and ensuring that the environment is conserved to prevent future costs. Most importantly, the current issues associated with the degradation of the environment, such as global warming and adverse climatic changes needs to be addressed through preventive avenues like the control of pollution. The integration of the relevant databases will enhance the capabilities of the respective nations to manage compliance on the part of the corporations in different industries.

Scope of Environmental Auditing

The traditional approach of running environmental audits entails the adoption of keen scrutiny on the compliance to national laws. This has been the case in most developing nations; hence, there is a limited focus on matters like environmental management systems efficiency in corporations, as well as sustainability. There is a need for nations across the world to actively embrace the need to focus on sustainability issues and to adopt policies that streamline the decision-making process of companies in their adoption of environmental management systems.

The role of legislation

Social and environmental sustainability is gradually becoming a legal requirement for companies across different nations because of the globalization concept. The availability of information to the society has led to communities requiring companies to use natural resources in a sustainable manner, and the consumers across different markets are showing loyalty to companies that demonstrate a high level of respect for environmental conservation. In this light, many nations have developed legal requirements that compel the investors to concentrate on sustainable business processes. This provides a platform through which environmental auditing should be applied. However, in the developing economies like Kenya, the presence of legislations to guide corporations in environmental management does not translate to a higher compliance level. This is mainly caused by the fact that the agencies enforcing the law are ineffective and unaccountable. Nations should focus on developing laws that compel the adoption of positive behavior in

environmental management, rather than the traditional legislations that compel corporations to look for ways to avoid penalties.

The Role of Accountants

The accounting profession has only recently been involved in the development of environmental auditing. The traditional process only entailed general audits that could be easily executed by professionals from other fields. However, the current system has seen accountants playing an integral role in the collection of data, manipulating it, and tabulating it for recommendations to the law enforcers and the corporations in question. The inclusion of these professionals in the auditing processes has further increased the accuracy of the findings in EMS reports and the recommendations are grounded in accounting frameworks that are evidence-based.

The main role for accountants in the field is to provide financial auditing, but they are actively being used by corporations and the governmental agencies to conduct environmental auditing. While this is plausible, there is a clear indication that the accountants require help from experts in the field of environmental science and actuarial science to establish reasonable reports and recommendations for the concerned entities. As the world shifts to a period where environmental auditing will be a major requirement, there is a need for scientific experts in the environmental field to learn the technical processes that entail auditing so that there will be accuracy and reliability in the data collected and the findings from the auditing process.

It is apparent that there is a need for the auditing process to include technical and scientific experts when it comes to environmental management. The entities providing these audits ought to have multi-disciplinary platforms so that the process can be objective and reliable. The accounting field could also provide curriculums that steer toward providing professionals with the scientific and technical skills to boost the efficiency of handling environmental auditing. Accountants can provide labor in the auditing process while other experts in environmental science help in the implementation of relevant solutions.

Required Standards

Current accounting standards do not align with the role of environmental auditing in Kenya. The ICPAK has not been successful in the provision of guidelines for accounting auditors to provide the service in the environmental management field. The cost of environmental degradation can only be highlighted by an expert with scientific knowledge and accounting skills. Accounting firms that have been actively involved in the provision of services for environmental auditing need to improve their professional basis to handle the task comprehensively. Moreover there is a need for the firms to have the relevant expertise to embrace the standardized environment auditing paradigms that are gradually being developed. Current general standards incline toward embracing accounting guidelines, which lack substance from a scientific perspective.

II. THEORETICAL FRAMEWORK

The legitimacy model and the institutional theories seem to provide the main framework on which environmental auditing is transforming. From legitimacy perspective, lobbying to change and pushing the government to focus on the adoption of stricter policies that have to be considered by corporations seems to be a

favorite approach by the society in both the developing and developed economies (Angwenyi, 2004). Governments seem to be inclined toward facilitating guidance and platforms that encourage corporations to volunteer information about their social and environmental sustainability initiatives. The concept of globalization has forced entities conducting business in the emerging markets to consider giving back to the society and being responsible because their scores in environmental and social responsibility determine the sizes of their market share.

Moreover, there is a high inclination toward the institutional theory in environmental sustainability mechanism. The society has actively embrace requirements for sustainability as a norm that is propagated from the knowledge that the society has more power than corporations. The development of environmental auditing at a local level is based on the discovery that the society expects corporations to be sustainable. Many entities are yielding to the demand for the embracement of sustainability to enhance their competitive power. The initiative is based on the need to achieve partisan interests (Angwenyi, 2004). As far as the institutional theory is concerned, the environmental auditing process has no clear general standards that should be used, but as the current approaches become the norm, governments are embracing them as the required standards. This means that as more rules start being observed by the companies voluntarily, the stronger the legal framework will get. This is because the standardization of environmental auditing relies on the generation of routines and schemes that will be voluntarily embraced by the concerned entities.

Institutional theory affirms that rivalry for political influence and institutional legitimacy stimulates organizations to acclimatize norms that attain parallelism. This creates institutional isomorphism, which may be coercive, normative, or mimetic. Coercive isomorphism arises when more powerful establishments force the smaller corporations to embrace general standards of operation. Being dependent on the financial support of the larger companies influences a higher likelihood for the smaller ones to comply with their rules (Akech, 2006).

Mimetic isomorphism is mainly seen in situations with a high level of uncertainty. It is apparent that organizations are actively involved in the development of responses to environmental challenges based on the lead of other companies. This leads to all companies embracing similar changes and observing similar laws in the quest for competitive advantage in cases where uncertainty takes over the market. The best practices emerge from this type of response to uncertainty. This is one of the reasons that nations across the world seem to be adopting the same approach toward developing the standards of accounting auditing.

Normative isomorphism is dependent on the development of professionalism. There is no doubt that the training and development programs associated with professionals in the same field is similar in different companies; hence, they are likely to embrace similar approaches toward handling their tasks (Angwenyi, 2004). The interactions between the professionals yields new schemes of handling tasks, and this gradually becomes the rules of engagement in the profession. This is seen in environmental auditing as more accountants encounter similar challenges in handling the technical and scientific work. Their

attitude toward the challenges and their chosen approaches toward solving the challenges are similar.

While many companies seem to be embracing the norms and schemes of environmental auditing, it is also apparent that decoupling is rampant, especially in the developing economies. This refers to a scenario where companies seem to be actively engaging in applying mechanisms to support their responsibility to protect the environment, while in essence they are not implementing the ideas they present to the society. This is one of the ways that companies have been getting away with doctored environmental audit reports. For this reason, governments should continue pressing for the standardization of the process, while also increasing the strictness of the enforcement of laws and ensuring that accountability prevails.

Office of the Auditor General

Section 29(i) of the Public Audit Act 2003 gives the Kenya National Audit office (KENAO) stipulates that the agency has the right to conduct audits on sustainability of the economic growth processes in the nation. This applies to the corporations in the nation, as well as the local authorities. The focus on the economy, the efficiency of utilizing resources, and the effectiveness of management or the environment enhance the sustainability function of the nation. KENAO is committed to continuously enhance its capabilities to compel the society and the corporations to embrace sustainable growth.

The main role of the KENAO is to audit the strategies being used by the government in the quest for controlling the risks associated with the environment. The agency also audits the available standards of practice within the local government in the control of environmental risks. All the mechanisms placed by the government, with respect to the enforcement of accountability frameworks are also reviewed by this agency to ensure that policy development aligns with the existing gaps. Non-compliance on any of the parties involved in the process is reported to the environmental agencies that enforce policies to ensure that the relevant targets are attained. The agency is also charged with the responsibility of reviewing the work of the environmental auditors to determine their efficiency in handling their tasks.

National Environment Management Authority

The National Environment Management Authority (NEMA) has been placed in charge of reviewing matters concerning the environment (Okello, Beevers, Douven, & Leentvaar, 2009). The agency was commissioned as a strategy to ensure that there is a party that is constantly reviewing the activities of various corporations and local government agencies to mitigate environmental risks as soon as they are detected.

NEMA has traditionally been responsible for undertaking scrutiny of the environmental management systems adopted by corporations and entities that need to assume a high level of compliance with the government laws because of the nature of their business processes. For instance, the transportation and manufacturing industries in the nation are highly monitored by NEMA to ensure there is a high compliance on the standards of environmental management. NEMA also conducts regular surveys on the ground in the quest for identification of new environmental issues that should be addressed by the law enforcers (Mwenda, Bregt, Ligtenberg, & Kibutu, 2012). The agency reviews all the projects that are bound to have an impact on the environment, with

the aim of ensuring that there is risk mitigation. The agency has numerous technical and scientific experts whose main role is to provide guidance and recommendations to project managers so as to have the minimum negative impact on the environment, especially in the mega projects. The agency is also keenly involved in reviewing the use of natural resources across the nation, and its primary aim in the involvement is to build a nation that embraces sustainability in the exploitation of resources.

III. RESEARCH METHODS

This research was conducted through a systematic analysis of documents and semi structured interviews. The sources of primary and secondary data included corporation's data charts, the applicable laws (mainly the Environmental Management Act and the Public Audit Act), Corporate, agency, and local government websites and publications. These facilitated information on the mandate of various entities in environmental auditing. The websites also highlight the international standards that are gradually being developed. A semi structured interview was conducted with participants from the OAG (Angwenyi, 2004).

The focus of the interviewer was to engage with participants in senior positions in the OAG, as well as the experienced experts. Senior government officials (Cabinet Secretaries) were part of the interview as it was necessary to focus on retrieving information from the management functions involved in the implementation of policies and auditing the performance of various entities in terms of compliance to the law (Angwenyi, 2004). The selected participants were adequately versed with the complexities of the financials, and resource development in the respective entities. The experience held by the participants was instrumental in instituting historical standpoints and chronological processes. The majority of the participants had served in their respective agencies for more than a decade. Experts from the Institute of Certified Public Accountants of Kenya (ICPAK) provided an analysis of the standards of auditing in use.

IV. FINDINGS

Human resource capacity

The office of the auditor general has established a separate unit of Environmental Audit consisting of five senior auditing professionals to handle the relevant tasks. Two of the professionals trained with INTOSAI development initiative (International Organization of Supreme Audit Institutions) and AFROSAI-E (The organization of English Speaking African Supreme Audit Institutions) are fully engaged in environmental audit (the branch head and sub-divisional head).

In-house environmental audit training is being provided to four other professionals by INTOSAI development initiative trained experts.

Two staff members contributed in a meeting held for working group on environmental audit (WGEA) in Moscow in November 2005, and they actively contributed to the environmental audit. Two members of the staff have been involved in collaborative audit involving five African countries whose findings were presented on a meeting of AFROSAI-E Auditor General's in Cape Town in 2005.

The OAG has been forced to train the professionals because there are no current educational programs that are developing experts in the field of environmental auditing. The situation requires the agencies to train accountants and other experts so that they can help in producing relevant reports.

Establishing legislation

The OAG is empowered by the Public Audit Act 2003. Section 29 bears the power to conduct performance audits to define compliance levels. Public Audit Act (2003) highlights precise powers associated with the handling of environmental audits. Section 29 (i) empowers the auditor general to carry out audits on economy, efficiency and effectiveness with which the various entities handle their processes.

Audit topics and scope

Table 1 highlights recent OAG audits.

Hospital waste management	Management of medical waste	Main government hospitals
Water bodies	Causes and effects of water hyacinth	Lake Victoria
	Nairobi river Athi river	Nairobi City

Standards

The ICPAK is yet to highlight the relevant standards of environmental auditing; hence, the OAG has relies on INTOSAI standards for the task. These are general guidelines that are applicable in a wide range of fields.

External constraints

Several external constraints were identified through interviews: Effective audits are crippled by the lack of documentation from the clients. Globally, insufficient data on the state of the environment was the second barrier identified by SAIs, while deficient controlling and reporting systems ranked third (INTOSAI-WGEA, 2007a).

The efficacy of Public Audit Act (PAA) is constrained by the lack of regulations to make it operative. For instance, the Act denotes a system of National Resource Accounting, which is yet to be designed. Interviewees were unclear on how it will be actualized and there is a little global guidance on the challenge (Omanga, Ulmer, Berhane, & Gatari, 2014). Several government departments have committed the required human resources to create Environmental Management Units (EMUs). This is challenging because effective EMUs are indispensable for the formulation and implantation of environmental policies; without them, the process will be crippled. It is also apparent that the initiatives for lobbying are relatively low in Kenya.

V. DISCUSSION

The development of environmental auditing in Kenya is influenced by the current trends across the world. The OAG has witnessed this (through the INTOSAI and WGEA). It is apparent that the adoption of environmental auditing enables government to maintain legitimacy within the nation, while OAG maintains lawfulness within INTOSAI.

The OAG must utilize its global networks for bearings and standards because the current situation reveals that it cannot rely on ICPAK for guidance for environmental auditing. For example, WGEA guidance have been used to conduct environmental audits. Another example refers to South African audit on medical waste, which was regarded as the best practice.

INTOSAI has established several mechanisms, which perpetuate best practices. This include meetings, training workshops and knowledge sharing through case studies and detailed audit reports. These media have exposed OAG staff to the importance of environmental auditing and equipped them with the necessary skills to conduct such assignments. Therefore, they are likely to espouse the same values and display similar behavior to their colleague in other SAIs. This illustrates normative isomorphism.

On Capacity building; There is an urgent need to fortify the capacity of Environmental Audit Unit (EAU) by recruiting additional staff. This is critical for several reasons. First, it will enable more audits to be conducted each year. Second, without steering follow-up audits it is problematic to assess the impact and effectiveness of previous audit. Third, previous studies suggest that implementation of EAU will necessitate and increase the number of annual audits. This demand cannot be met through the available human resources.

Conclusions

The current research looked into identifying the reasons for establishment of EAU within OAG. The research has highlighted some limitations, which are influenced by issues like the fact that reports revealing the required environmental audits are not available in the public domain. Therefore, it was challenging to authenticate the scope of the audits, expansively assess audit findings, and to gauge audit opinions. There was also no basis to conduct follow-up interviews with audit clients.

It is apparent that audits are not inspired by the OAG or the organizations being audited. In its place, the adoption of environmental auditing is strongly motivated by membership of INTOSAI. This shows that the reasons, which inspire environmental auditing in the public sector, may be very different to those which apply in the private sector. Nevertheless, there is some common ground insofar as audits enable organizations to manage their public image.

The current research also looked into the standards and measures engaged in the environmental audits. In this concern, the OAG has relied on standards developed by INTOSAI while ICPAK has not presented any direction. This reveals how accounting technology is conveyed to small developing countries through mimetic and normative means.

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