

# Enhancing Corporate Environmental Management Through Environmental Management Systems

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Current environmental management aims to minimize the negative impacts of firms throughout their life cycle, and involves some tasks. Popular strategies such as Corporate Social responsibility (CSR) and Environmental Stewardship (ES) are being carried out with challenges, hence the need for Environmental Management Systems (EMSs). EMS shows adherence to a sustainable environmental policy, the meeting of appropriate environmental objectives, and the ability to demonstrate to a wide-range of interested parties that the system objectives are met. Implementing EMS consists of a cyclical management process, aimed to achieve continual environmental improvement. The International Standard Organization (ISO) has published ISO 14000 series of standards, with a view to providing organizations worldwide with the structure for managing environmental impacts of their activities, products and services, and to have a uniform EMS for use as an environmental management tool for sustainable development. The series is made up of documents related to EMS and those related to environmental management tools. However, in spite of the industrial popularity and business benefits of the ISO series, their impacts are not felt in Nigeria. NESREA, the enforcement agency in Nigeria is recommended to strengthen regulatory frameworks, especially by enhancing CSR and ES with EMSs to help improve organizational environmental compliance.

**Key words:** Corporate Environmental Management, Corporate Social Responsibility, Environmental Stewardship, Environmental Management System, ISO Series, Environmental Regulation.

## INTRODUCTION

Since the dawn of civilization, man has been engaged in developmental activities, most of which have a detrimental effect on the environment in varying degrees. So in order to maintain a balance between the developmental activities and their corresponding negative impacts on the environment, a need for suitable mechanism was felt. Some companies saw opportunities for commercial gain - building a green image and marketing environmentally friendly products as well as providing services for environmental management. Unfortunately, in some cases, this has been a charade. There was a realization that "end of pipe" solutions, clearing up rather than prevention, were more costly, and that environmental management could be a way of cutting costs to gain a 'competitive edge' (Tailor, 1992, Winter 1994). Corporate environmental management is defined as efforts to minimize the negative environmental impact of the firm's products throughout their life cycle (Klassen and McLaughlin, 1996). A number of factors have prompted business interest in environmental management, and according to Barrow (2006), include globalization, concern for environmental issues,

requirements for EIA by funding organizations/agencies, genuine sense of responsibility, avoidance of litigation, and the promotion of integrated systems for environmental management.

It therefore means that the adoption of environmental management implies concern for a wide range of stakeholders – the public, employees, consumers, and the regional and global environment. This, however, has widened the tasks of a corporate environmental manager, which, according to Barrow (2006) include;

- I. Education of employees to be aware of environmental issues.
- II. Updating management on relevant environmental regulations, laws and issues.
- III. Selecting specialists and checking that environmental management tasks contracted out to consultants have been satisfactorily conducted, and are properly acted upon.

- IV. Ensuring that waste management is satisfactory, avoiding legal costs, reducing insurance premiums, risks and hazard assessment, and
- V. If necessary, correcting mistakes of the past.

Environmental management must therefore address its objectives within the context of company practices, and those practices may be modified to help environmental management. The growth of corporations and the emergence of globalization mean that increasingly, businesses operate a company-wide environmental management policy and set of principles worldwide. Along with the development of environmental management since the late 1990s, there has been a spread of support for corporate social responsibility and environmental stewardship. These have, over the years, been carried out, but insufficient and challenging, by today's standards, hence the need to enhance them with Environmental Management Systems (EMSs).

### **CORPORATE SOCIAL RESPONSIBILITY**

In recent years, there has been increased consensus that corporate social responsibility (CSR) is significant for the sustainable development of companies and society as a whole. This explains why CSR is increasingly incorporated into mission statements and prioritized in strategic configurations of modern organizations (Mersereau and Mottis 2011). Consequently, business would embrace responsibility for the impact of its activities on the environment, customers, employees, communities, stakeholders and all other members of the public sphere. CSR is the latest concept in a long line of philosophies aimed at ensuring that companies and corporations accept the notion of being responsible to society beyond merely providing goods or services that benefit the public on a functional level. Put more broadly, CSR generally refers to transparent business practices that are based on ethical values, compliance with legal requirements, and respect for people, communities and the environment. The world business council on sustainable development adds that CSR is the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well.

Equally known as corporate responsibility, corporate citizenship, responsible business, sustainable responsible business or corporate social performance, it is a form of corporate self-regulation integrated into a business model. Ideally, CSR policy should function as a built-in self regulating mechanism whereby a business would monitor and ensure its adherence to law, ethical standards, and international norms. According to Piotr (no date) the drivers of CSR are a mix of incentives directed at companies to improve standards, and are indicated in Table 1.

There are different perspectives of the concept of CSR among the private sector, governments and civil society organizations. Piotr (no date), outlines three of such perspectives. The first perspective includes ensuring good corporate governance, product responsibility, workers' rights, training and education. The second includes corporate compliance with relevant legislation, and the company's responsibility as a taxpayer. The third is a multi-layered and involve the company's relations with the people and the environment of the communities in which it operates. Companies and corporations invest in various CSR programs to improve their relationships with society and the environment,

not only because they want to be good corporate citizens, but also because they believe that doing so is good for business (Mersereau and Mottis 2011). Porter and Kramer (2006) argue that the lack of coordination and control of these CSR programs tends to diffuse company's actions. They contend that company's social agenda must be responsive to stakeholder requirements (i.e. Fulfilling responsive CSR), but these agenda must also move beyond simply meeting CSR activities to improve their competitive advantages (i.e. Developing strategic CSR).

Too often, attaining CSR is understood from the perspective of business generosity to community projects and charitable donations, but this fails to capture the most valuable contributions that a company has to make (Reyes and Twose 2002). Since the 1980s, there has been a considerable shift in thinking with regard to how to improve the social and environmental performance of companies (UNRISD 2002). So far, there have been over 300 CSR codes, principles, performance standards, and management stewards developed by governments, business associates, etc. (UNRISD 2002). All these create confusions among businesses, governments or consumers. The big question plaguing CSR is whether it really is a movement dedicated to social change and welfare, or merely more of the same 'PR' (Public Relations). Other criticisms cover the various methods sometimes used by corporations to effect a CSR attitude without actually engaging in CSR. The most recent example of this is called 'green washing'. Essentially, green washing is the act of literally pretending to be an environmentally friendly organization or of producing products or services beneficial to the environment. However, a closer collaboration of initiatives, addressing specific aspects of the implementation of the CSR agenda could lead to the emergence of the global commonly accepted CSR framework. .

### **ENVIRONMENTAL STEWARDSHIP**

Beyond the CSR, there has always been an underlying belief that organizations should also act in a responsible manner in other areas such as environmental stewardship. Environmental stewardship refers to responsible use and protection of the natural environment through conservation and environmental practices. Aldo Leopold (1887-1949) championed environmental stewardship, based on a land ethic 'dealing with man's relation to land and to the animals and plants which grow upon it'. In other words, environmental stewardship means applying our corporate values – integrity, responsibility, collaboration and innovation – to every integration with the environment. The employees must be deeply invested in environmental stewardship in the communities where the firms operate, because this is where they live and work too. Firms must be committed to reducing the impact of their operations on the environment. This commitment must be manifested in their various recycling procedure, strict energy-efficiency schemes and effective waste minimization practices.

According to Thea, Kim and Anne (2003), environmental stewardship is therefore practiced to

- i. Protect people's health and the environment
- ii. Pollute less
- iii. Support an environmentally focused economy
- iv. Secure valuable resources
- v. Share and enhance environmental values and
- vi. Comply with regulations and requirements

**Table 1: Drivers of CSR**

<b>Economic</b>	<b>Social</b>	<b>Political</b>
Company image/reputation	Pressure from NGOs/CSOs	Improved standing with government
Improve risk management	License to operate	Legal, regulatory drivers
Competitive advantage	Pressure from local communities	Political pressure
Pressures from partners	Research	License to operate
Pressure from consumers		
Pressure from investors		
Competitiveness		

In an ideal world, regulation is replaced by stewardship – an inherent respect for the environment. In this concept of stewardship, everyone takes responsibility for their actions and the use of resources for the benefit of the community. Although many companies that are practicing legitimate environmental stewardship, both as CSR and more, directly through their products and services, the fear among most critics is that the incentive is more bottom line than altruistic, and that some are paying only lip service to it with small but splashy public relations and advertising campaigns (Crs network, no date). This technique is sometimes called hedging and wedging. The theory, originally developed by Keith Stamm and James Grunig, plays off the notion that public relations programs are often used to change attitudes, usually from negative to positive. The CSR messages must accurately reflect the reality of the activities they are supposed to represent.

#### **EMERGENCE OF ENVIRONMENTAL MANAGEMENT SYSTEMS (EMSs)**

The concept of EMS emerged in early 1990s and its genesis could be traced back to 1972, when the United Nations organized a conference on the human environment in Stockholm, Sweden, and subsequently launched the United Nation Environment Program. This set the ball rolling for the establishment of the World Commission on Environment and Development and the adoption of the United Nations Conference on Environment and Development (UNCED), popularly known as the Earth Summit in 1992, in Rio de Janeiro. All these initiations led to the evolution of the concept of Sustainable Development and Environmental Management system.

Environmental Management Systems are that aspect of the total management structure of the organization which addresses the immediate as well as the long term impact of its products, services and processes on the environment (Siddiqui and Zianddi 2008). In today's competitive world, the International Standard Organization specifies requirements for an environmental management system, to enable an organization to formulate policies and objectives that takes into account legislative requirements and information about significant environmental impacts. It applies to those environmental aspects which the organization can control and over which it can be expected to have an influence.

An EMS is a management tool that an organization uses to manage environmental risks and fulfills environmental goals (Thea, Kim and Anne 2003). Barrow (2006) defines EMS as an organized approach to managing the environmental effects of an organization's operations, which involves integrating environmental aspects and awareness with economy and quality of production. The EMS tool works by creating internal rules and organizational structures and importantly, by fostering new behavioral norms within an organization. Thus

EMS is defined as 'formal structures of rules and resources that managers adopt to establish organizational routines that help achieve corporate environmental goals' (Nash and Ehrenfeld 2001). While public regulation imposes on organizations from the outside, an EMS constitutes a regulatory structure that arises from within an organization and it is comprised of a collection of internal efforts at policy making, planning and implementation that yields benefits for the organization as well as potential benefits for society at large (Coglianese and Nash 2001).

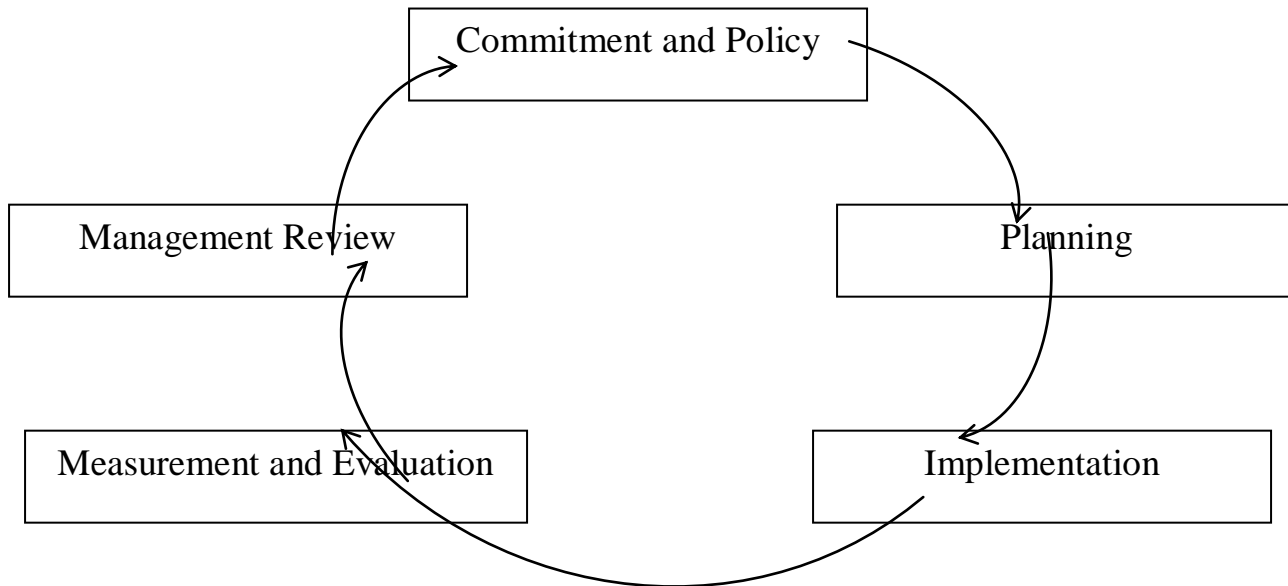
EMSs show adherence to a suitable environmental policy, the meeting of appropriate environmental objectives, and the ability to demonstrate to a wide range of interested parties that the system requirements and objectives are met. EMSs usually require that a company or body publishes and regularly updates an environmental policy statement. An EMS provides an organizational structure, procedures and resources for implementing environmental policy. It also provides a language of performance and quality that may be understood by management. So far, adoption of EMS has been mainly voluntary by rapid growth of interest and continuing modification and improvement.

Today, most of the industries involving environmental aspects are looking forward to 'Eco – friendly technologies' or 'Green technologies', so that there would be no harmful effect on the environment during the various operations carried out in an industry. This change in approach by industries from 'production-oriented technology' to 'eco-friendly technology' is only possible due to the adoption of EMS (Siddiqui and Zianddin 2008). Moreover, environmental awareness programs can also be undertaken so as to inculcate information to the general public regarding the use of products from industries having ISO certification, thereby taking a step towards 'green consumerism'.

#### **ELEMENTS OF ENVIRONMENTAL MANAGEMENT SYSTEMS**

Michelle (1999) enumerates 5 elements of an EMS to include;

1. An environmental policy specifying the organization's commitment to compliance with environmental legislation, to pollution prevention and to continual improvement.
2. Planning, including objectives and targets, incorporated into a management program that is consistent with the environmental policy and that specifies responsibilities, resources, and a timeframe.
3. Mechanisms for implementation of the environmental management programme.
4. Procedures for checking and corrective action, and
5. Periodic management review of the EMS to ensure its continued effectiveness.



**Fig 1:** The EMS cycle for continual environmental improvement

**Source:** Baker and Boland (2000) adapted from Standards Australia AS/NZS ISO 14004

**Table 2:** Roles of ISO 14000 Series

SERIES	ROLES
ISO 14001 ISO 14010 ISO 14011 ISO 14012 ISO 14031	Conduct of EMS audit, monitor and measure the environmental performance of activities, products and services. Consider the environmental aspects of its products and services.
ISO 14040	Identify and analyze the environmental aspects of products and services.
ISO 14020	Provide information on the environmental aspects of products and services through labels and declarations.
ISO 14001 ISO 14004 ISO 14031	Provide guidance on identifying significant environmental aspects.
ISO 14040	Identify opportunities to improve the environmental aspects of products and services at various points using Life Cycle Assessment (LCA), Providing guidance on reporting and communicating the results of an LCA study.
ISO 14001 ISO 14004	Provide guidance on reporting and communicating information on the environment aspects and the EMS of an organization.
ISO 14020	Provide guidance for environmental declarations and claims through environmental reporting or communication.

**Source:** Adopted from Siddiqui and Zianddi (2008).

## EMS IMPLEMENTATION

All EMS are cyclical and interactive management processes designed to achieve continued environmental improvement. An EMS may only be implemented by an organization to improve the management of environmental impacts over which it has control. Prior to implementing an EMS, an organization identifies its legal and regulatory obligations which may include compliance against minimum standards, and also identifies environmental aspects, impacts and risks of its operations. Implementation of EMS consists of a cyclical management process; as Thea, Kim and Anne (2003) identifies the steps in which an organization;

-First, define its environmental policy and makes a commitment to work towards specified environmental goals.

-Second, establishes a plan to work towards its environmental goals.

-Third, implements the plan by assigning responsibilities, allocating resources and acquiring new skills, and.

-Fourth, reviews its progress and acts to correct problems.

The organization then returns to the first step and revisits its environmental policy with a view to improving it and to committing itself to working towards improved environmental goals, and so on. Thus, EMS is designed to achieve continual environmental improvement. Importantly, an EMS requires an internal audit to be made with external auditing being optional. Fig. 1 shows the cyclical management process by Baker and Boland (2000).

Sometimes the EMS is conducted 'in house' but it is most likely to be undertaken by an accrediting body or a subcontractor. The ISO 14000 series is becoming established as the most

widespread in use. The EMS process should be one of continuous, ongoing improvement, with a cycle of the goals set, checks conducted and results published. Thus, the process should take a body beyond mere compliance and encourage it to become proactive and stimulate good practice.

### GROWTH OF ISO SERIES EMS

The environmental Management system is a tool which is used by organizations world over to facilitate the implementation policy of the respective governments. It is a very effective management tool which comprises of provisions for organizational structures, responsibilities, practices, procedures, processes and resources for determining and implementing environmental policy. According to Siddiqui and Zianddin (2008), it is a problem-identification and problem-solving tool, which can be implemented in an organization in different ways depending on the needs and objectives of the organization. United Kingdom brought out BS 7750 as the first toward on Environment Management System in 1992. A technical committee was set up to develop ISO 14000 series of international standards as the 'level playing fields' as required by international trade agreement in 1995 and this culminated in the development of the ISO 14000 series (Siddiqui and Zianddin 2008).

The International Standard Organization (ISO) has published ISO 14000 series of standards, with a view to providing organization world-wide with the structure for managing environmental impacts of their activities, products and services, and to have a uniform international environmental management system (EMS) for use as an environmental management tool for achieving sustainable development. Today, ISO management system standards have acquired a very prominent place in the global market, and are meant to deal with various respective areas. These series are made up of documents related to EMS, i.e ISO 14001, and ISO 14004, and documents related to environmental management tools (EMT), i.e all other ISO 14000 series documents. While the document establishing and implementing an organization's EMS determine its environmental policy, objectives and targets, EMS assists the organization in realizing its environmental policy objectives and targets. In other words, the ISO 14000 series is made up of documents which are generally applied at the organizational level (documents for EMS, environmental audit, and environmental performance evaluation), and documents which are generally applied to products and services (documents for environmental declarations, and claims and documents for life cycle assessment). Table 1 shows the various roles of the ISO 14000 series.

ISO has a two-pronged approach to meeting the needs of business, industry, governments and consumers in the field of the environment. According to Siddiqui and Zianddi (2008), on one hand, it offers a wide range of portfolios of standardized sampling, testing, and analytical methods to deal with specific environmental challenges. On the other hand, ISO is leading a strategic approach by developing environmental management standards that can be implemented in either public or private sector.

ISO has developed more than 350 international standards for the monitoring of environmental aspects such as the quality of air, water, and soil. These standards are a means of providing business and government with scientifically valid data on the environmental effects of economic activity. They also serve in

a number of countries as the technical basis for environmental regulations.

### POPULARITY OF ISO 14001 FOR INDUSTRIES

ISO 14001 is a certification for adoption of Environmental Management System which helps to build a 'green image' and serves the business interest. This standard can be audited against, and involuntary in nature. It has already become a de-facto pre-requisite for export market. Driven by the trade considerations and benefits of green image, ISO 14001 Certification has gained image throughout the world (Siddiqui and Zianddi 2008). To derive the benefits of ISO 14001 and to ensure compliance of regulatory norms for pollution control, it is necessary to adopt ISO 14001 plus approach. Alongside, it is necessary to create or designate a National Accreditation Body in the country and enlist competent groups of Environmental Auditors and Certifying Agencies. For instance, Nigeria is one of the countries that has developed environmental institutions and regulatory frameworks as well as created national agencies and adopted standards and regulations. This has led the Federal Government of Nigeria to establish the National Environment Standards and Regulations Agency (NESREA), as a parastatal of the Federal Ministry of Environment, Housing and Urban Development. NESREA is charged with the responsibility of enforcing environmental laws, regulations and standards, policies and guidelines in deterring people, industries and organizations from polluting and degrading the environment. It also enforces compliance with the provision of international agreements, protocols, conventions and treaties on the environment. NESREA also has the responsibility of recruiting Environmental Auditors, who are people certified, among others, to assess the management of operations in all types of businesses to ensure that corporate and government standards of environmental control are being met (Okeowo 2011). Regrettably, these policies, programs and guidelines are on paper, but their impact and practical implementation in Nigeria leaves much to be desired, as no prosecution has been carried out on erring defaulters.

There are a number of reasons for choosing and implementing ISO 14001 in industries. The most common ones, according to Siddiqui and Zianddi (2008) include:

- i. Cost containment and cost savings.
- ii. Environmental improvements.
- iii. Regulatory compliance.
- iv. Improvement of corporate image.
- v. Fulfillment of business requirement.
- vi. Competitive advantage.
- vii. Top management commitment to the environment.
- viii. As an ethical and social commitment, and
- ix. Improvement in employee environmental awareness.

### BUSINESS BENEFITS OF ISO SERIES

Avoiding pollution or doing only just enough to keep the company out of trouble with the government is a rather weak and reactive approach to business in today's increasingly environment-conscious world. There is a better way – the ISO 14000 Series way. The ISO 14000 standards are practical tools for the manager as it makes good business sense to implement an EMS in our world. The benefits that accrue from it include, but not limited to, protection of the environment, cost saving for the company, and brings a return on investment in environment-related measures. Implementing an ISO 14000-based EMS and other tools from ISO 14000 Series ensures

that all areas where a business has an environmental impact are considered, and this systematic approach can lead to benefits including reduced cost of waste management, lowering distribution costs through savings in consumption of energy and materials, improve corporate image among regulators, customers and the public for continuous improvement of environmental performance.

The ISO 14000 standards are management tools that will help business achieve environmental goals. Publicizing ISO 14000 certification aims to help ISO 14000 Certificate Holders avoid the pitfalls of false, misleading or confusing claims in advertisements, promotional material, including videos and other media.

ISO 14001 is a tool that you are in control of your processes and activities having an impact on the environment, employee in turn, may be happier that they are working for an entirely responsible organization. It can also be used for external purposes to provide assurance to interested parties/stakeholders such as customers, the community and regulatory agencies. In other words, conformance to ISO 14001 can be used to support organizations' claims about their environmental politics, rules and actions. It is suitable for both supplier's declarations of conformity, assessment of conformity by an external stakeholder (such as a business client) and for certification conformity by an independent certification body.

## CONCLUSION AND RECOMMENDATION

For Nigeria to achieve sustainable corporate environmental management, there is need to embrace the emerging concept of EMS that addresses both the immediate and long term impacts of the organization's products, services and processes on the environment. This would facilitate the change in approach from production-oriented to eco-friendly technology. ISO series of EMS has benefits using the documents that relate to environmental management tools, and establishment and implementation of organization's EMS for developing environmental management standards and monitoring of environmental aspects such as air, water and soil. This paper therefore recommends the strengthening of institutional and regulatory frameworks that would enhance the implementation of EMS by operating organizations. Also, NESREA should

come up with innovative approaches based on collaboration and cooperation between the public and private sectors to help improve organizational environmental compliance.

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