FACTORS INFLUENCING COMPLIANCE TO ENVIRONMENT IMPACT ASSESSMENT / ENVIRONMENT AUDIT REGULATION 2003 IN KENYA, A CASE OF GARISSA CENTRAL DIVISION

By

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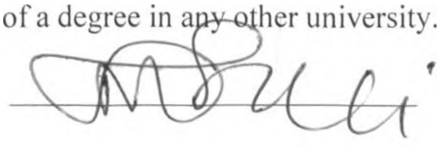
DECLARATION

This research project report is my original work and has not been presented for any award of a degree in any other university.



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DEDICATION

I dedicate this work to my mother Abshira Ismail Hassan who has since passed away, my family and children for their patience and understanding during my absence and busy schedule through out the time of my course and project work.

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ABBREVIATIONS AND ACRONYMS

AMCEN	African Ministerial conference on the Environment
CEAA	Canadian Environmental Assessment Agency
DEC	District Environment Committee
DEC	District Environment Officer
EIA	Environment Impact Assessment
EA	Environmental Audit
EHS	Environment Health and Safety
EMS	Environmental Management System
EMCA	Environmental Management and Coordination Act
IAIA	International Agency for Impact Assessment
IAIA	International Association of Impact Assessment
UON	University of Nairobi
UN	United Nations
UNEP	United Nations Environment Programmee
UNFCC	United Nations Framework for Climate Change
NCST	National Council for Science and Technology
NEAP	National Environment Action Plan
NEPAD	New Partnership for African Development
NEPA	National Environment Policy Act
NEMA	National Environment Management Authority
NES	National Environment Secretariat
PEC	Provincial Environment Committee

PPCSCA Permanent Presidential Commission on Soil Conservation and Afforestation

SPSS Statistical Package for Social Sciences

ABSTRACT

Environmental Impact Assessment (EIA) is an essential policy instrument for achieving sustainability in development. The enactment of the Environmental Management and Co-ordination Act, 1999 and the current changes in Environmental Policy in Kenya requires institutions and organizations carrying out development projects to carry out Environmental Impact Assessment (EIA) and Environmental Auditing (EA). The purpose of this study was to establish factors influencing compliance to Environment Impact Assessment (EIA) / Environment Audit (EA) 2003 regulations in Kenya, a case of Garissa Central Division. Four research objectives were formulated to guide the study. The research objectives sought to establish the extent to which technical factors influence compliance to the EIA/EA regulations 2003; examining the extent to which developers' level of awareness influence compliance to the EIA/EA regulations 2003; examine the influence of capacity of lead agencies to implement the EIA/EA regulations 2003 and lastly to examine the influence of capacity of NEMA to implement the EIA/EA regulations 2003 in Garissa Central Division. The study used descriptive survey research design. The sample size was 50 developers, 30 lead agencies, 10 DEC members and the District Environment officer (1) of NEMA. Questionnaires and interview schedule were used to collect data for the study. Findings indicated that technical factors influenced the compliance to the EIA/EA regulations 2003. Findings also revealed that developers' level of awareness influenced the compliance to the EIA/EA regulations 2003. Findings also showed that developers had the capacity to implement the EIA/ EA Regulation 2003. It was lastly revealed that the capacity of NEMA affected the compliance to the regulation. Based on the findings of the study it was concluded that technical factors influenced the compliance of the EIA/EA Regulation 2003. The study also concluded that developer's level of awareness influenced the compliance of the EIA/EA Regulations 2003. The study also concluded that the developers had the capacity to implement the regulation. Based on the findings it was recommended that there is need to raise the level of awareness of the developers so that they can comply with the requirements in the EIA/EA Regulation 2003. It was also recommended that NEMA should certify some centers within the lead agencies to undertake EIA/EA in order to increase compliance to the regulation and lower the cost of writing EIA/EA Reports. The Government should allocate some financial resources to facilitate the lead agencies to review EIA/EA project reports. NEMA and the Ministry of Environment and Mineral Resources should sensitize the lead agencies and developers on the EIA/EA process to increase compliance to the regulation and to safeguard the environment and the support should be in the form of more staffing, equipment, better office space for environment officers and more funding for the environment agency. The study suggested that A similar study should be carried out on factors influencing compliance to EIA/EA Regulation 2003 in North Eastern province and Kenya in general. A study on how to raise compliance to the EIA/EA Regulation 2003 with the aim of reducing the negative impacts of projects on the environment for sustainable development should be conducted.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

There is a growing concern in Kenya and at global level that many forms of development activities cause damage to the environment. This has been aggravated by lack of awareness and inadequate information amongst the public on the consequences of their interaction with the environment. In addition there is limited local communities' involvement in participatory planning and management of the environment and natural resources. Recognizing the importance of natural resources and the environment in general, the Kenyan Government has put in place wide range of policy, institutional and legislative framework to address the major causes of environmental degradation and negative impacts on ecosystems emanating from industrial and economic development programmes (Abul-Azm, (2004).

Environmental Impact Assessment (EIA) is an essential policy instrument for achieving sustainability in development. Commitments to the application and institutionalization of EIA are enshrined in the international sustainable development agenda (including the Rio Principles, Agenda 21, and the Johannesburg Plan of Action), in the African Development agenda, the African Ministerial Conference on the Environment (AMCEN) ministerial declarations of 1995 and 2006), the Environment Initiative of New Partnership for Africa's Development (NEPAD)), and in the Paris Declaration on Aid Effectiveness. Environmental audit (EA) is described as one of the more successful policy innovations of the 20th Century. Thirty years ago, it did not exist. Today, it is a

formal process used in more than 100 countries and organizations to help decision makers consider the environmental consequences of ongoing actions. The question is whether EA can remain a relevant and effective tool into the 21st Century, responding to the demands of a changing world (UNFCC (2004).

The International Study of the Effectiveness of Environmental Audit was established to review this question. With the theme, "evaluating practice to improve performance," the study was launched in 1993 as a joint initiative of the Canadian Environmental Assessment Agency (CEAA) and the International Association for Impact Assessment (IAIA). It was taken forward under the direction of an international steering committee consisting of partner countries and organizations (UNFCC (2004).

In recent years, the world-wide adoption of EIA has significantly expanded the theatre of practice, added new roles and professional responsibilities, and brought changing perspectives to what constitutes sound performance. Two trends stand out in the advances made to date in EIA process development and application. First is the widespread establishment of EIA systems by many developing countries and by countries in transition. Second, is the emergence in several industrialized nations of a second- One of the most important and rapidly-evolving trends in EIA practice is the recent progress with the application of EIA to policies, plans, and programmes (SEPA, 2002). This approach, called strategic environmental assessment, or SEA, is viewed as a promising avenue for incorporating environmental considerations into the highest levels of development decision making. However, SEA systems are still at a relatively early, formative stage. Many practical questions remain about procedures, methods and institutional

frameworks. EIA is acknowledged as an important tool for giving effect to sustainable development objectives in planning and decision making (SEPA, 2002).

In practice, the use of EIA as a sustainability mechanism depends on the scope and integrity of the EIA process, the larger mix of environmental and economic policy and planning instruments that are used for decision making, and the degree of policy commitment to sustainable development. Opportunities exist for applying these concepts within emerging policy responses to climate change, biodiversity loss and other global environmental changes. The use of EIA has the advantage of providing an established "entry point" for incorporating global change considerations in the mainstream of development planning and decision making. Many practical questions remain, however (SEPA, 2002). A "quick start" agenda for applying EIA to global change is proposed, focusing on the United Nations conventions on climate change and biological diversity as policy references and legal commitments. Supporting actions include the development of national guidance and interpretation as to the use of EIA as an implementing mechanism for the conventions, and the use of existing EIA methods to the fullest extent possible (Appah-Sampong, 2003).

In recent years, EIA reached a number of milestones. Most notably, 1995 marked the quarter centenary of the pioneering US National Environmental Policy Act (NEPA, 1970) which introduced the EIA process as a formal policy requirement. The subsequent world-wide adoption of EIA, within a relatively short period of time, makes it one of the more successful policy innovations. Nationally and internationally, the record of use and acceptance points to the value of EIA as an instrument for decision making and problem

solving. Other benefits documented in this report confirm the value and contribution of EA to meeting the challenge of sustainable development (NEPA, 1970).

Environmental Impact Assessment (EIA) is a critical examination of the effects of a project on the environment. An EIA identifies both negative and positive impacts of any development activity or project, how it affects people, their property and the environment. EIA also identifies measures to mitigate the negative impacts, while maximizing on the positive ones. EIA is basically a preventive process. It seeks to minimize adverse impacts on the environment and reduces risks. If a proper EIA is carried out, then the safety of the environment can be properly managed at all stages of a project- planning, design, construction, operation, monitoring and evaluation as well as decommissioning (WAMITAB, 2005).

Until late 1999, there was no framework environmental legislation. There were however, about 77 statutes relating to the conservation and management of environment. These include: Forestry legislation, Land Tenure and Land Use legislation, Wildlife Legislation, Agriculture e.t.c. To address this weakness, on the 15th December 1999, Parliament enacted the Environmental Management and Coordination Act, 1999 that received Presidential Assent on the 6th Jan 2000 and came into effect on 14th Jan 2000 (WAMITAB, 2005).

This type of legislation is a critical component for sustainable environmental management in that it establishes national environmental principles and also provides guidelines and coherence to good environmental management. It further deals with cross-sectoral issues such as overall environmental policy formulation, environmental planning,

protection and conservation of the environment, Environmental Impact Assessment, Environmental Audit and monitoring, Environmental Quality Standards, Environmental protection Orders, Institutional Coordination and conflict resolution. This Act establishes a specific link between environmental protection and the right of all individual citizens to a clean and healthy environment (sec 3). This derives from the fact that it combines the aspirations of the society with those of the individual (Ecaat, 2004).

This is an important provision as it gives every Kenyan a right to bring an action to stop environmental damage without the need to show that the environmental damage has caused or is likely to cause him or her any personal loss or injury. The world is being driven to the brink of ecological disaster, not by a singular fault that some clever scheme can correct, but by a plethora of powerful economic, political and social forces (Regulation 48 of the Environmental (Impact Assessment and Audit) Regulations (2003). The Environmental Management and Coordination Act aims at fulfilling the responsibilities of each generation as Trustee of the environment for succeeding generations (CLEIAA, 2002).

The National Environment Management Authority (NEMA) is mandated by the Environmental Management and Coordination Act EMCA) no 8 of 1999 to administer the EIA. EIA as legal requirement states that a proponent or investor shall not implement a project likely to have a negative environmental impact, or for which an EIA is required by the Environmental Management and Coordination Act or regulations issued under it unless an EIA has been concluded and approved in accordance with the law. It also requires that no licensing authority under any law in force in Kenya shall issue a trading,

commercial or development permit or license for any project for which an EIA is required or for a project/ activity likely to have cumulative significant negative environmental impacts unless the applicant produces an EIA license issued by the Authority. In essence there is a co-ordination gap that should be bridged in EIA/ Audit enforcement between users of buildings, the owners, service provision and planning authorities. We therefore recommend that all government players to register with NEMA to curb unnecessary duplication and to give section 148 the teeth to bite since (Sampong, 2004).

According to Republic of Kenya, (1999), the first step in managing compliance with environmental legal requirements is to know which requirements are applicable to an organization's activities, products and services. Public notice should be made in both print and electronic media every end of the month by NEMA to remind the public about undertaking an annual audit study in compliance with section 34 of the Environmental (Impact Assessment and Audit) Regulations of 2003. Apparently these regulations have not been complied with in many instances.

1.2 Statement of the problem

A number of academic studies (UNEP, 1993, USAID, (2001), Southern African Institute for Environmental Assessment, (2003), CLEIAA, (2002) have indicated that an EMS does not in itself guarantee legal compliance and good environmental performance. The regulatory approach to any organisation will always be informed by the observed standards of environmental protection and management, including the results of environmental and compliance monitoring, permit breaches, incidents and complaints

from the public. An organisation may choose to implement an environmental management system (EMS) for a variety of reasons; for example to manage legal compliance; demonstrate environmental commitment and achieve environmental improvements; satisfy customer expectations; reduce risks with regard to the environment; and improve commercial performance and enhance reputation (Sampong, 2004).

Environmental Impact Assessment (EIA) is a critical examination of the effects of a project on the environment. The goal of an EIA is to ensure that decisions on proposed projects and activities are environmentally sustainable (United Nations, ECE, 1992).. An EIA is conducted in order to identify impacts of a project on the environment, predict likely changes on the environment as a result of the development, evaluate the impacts of the various alternatives on the project and propose mitigation measures for the significant negative impacts of the project on the environment.

It is now accepted that development projects must be economically viable, socially acceptable and environmentally sound. It is a condition of the Kenya Government to conduct Environmental Impact Assessment on development Projects. EIA assesses the impacts of a proposed project before commencement of implementation. In addition to helping formulate proper development policy, EIA provides for public participation in the decision making process in respect of a given proposed project. The enactment of the Environmental Management and Co-ordination Act, 1999 (Republic of Kenya, 1999) and the current changes in Environmental Policy in Kenya requires institutions and organizations carrying out development projects to carry out Environmental Impact

Assessment (EIA) and Environmental Auditing (EA). Many of the individuals working in these organisations and institutions are not aware of how to carry out an EIA and EA or its importance. Apparently, a number of developers do not comply to the EIA / EA regulation 2003. This study therefore aims at establishing the factors influencing compliance to environment impact assessment (EIA) /environment audit (EA) regulations 2003 in Kenya, a case of Garissa Central Division.

1.3 Purpose of the study

The purpose of this study was to establish factors influencing compliance to Environment Impact Assessment (EIA) / Environment Audit (EA) 2003 regulations in Kenya, a case of Garissa Central Division.

1.4 Objectives of the study

The study was guided by the following objectives:

1. To establish the extent to which technical factors influence compliance to the EIA/EA regulations 2003 in Garissa Central Division
2. To examine the extent to which developers' level of awareness influence compliance to the EIA/EA regulations 2003 in Garissa Central Division
3. To examine the influence of capacity of lead agencies to implement the EIA/EA regulations 2003 in Garissa Central Division
4. To examine the influence of capacity of NEMA to implement the EIA/EA regulations 2003 in Garissa Central Division

1.5 Research questions

The study was guided by the following research questions

1. To what extent do technical factors influence compliance to the EIA/EA regulations by developers in Garissa central division?
2. To what extent do developer's levels of awareness influence compliance to the EIA/EA regulations 2003 in Garissa central division?
3. To what extent does the capacity of Lead Agencies influence compliance to the EIA/EA regulations in Garissa Central Division?
4. To what extent does the capacity of NEMA influence compliance to the EIA/EA regulations in Garissa Central Division?

1.6 Significance of the study

The findings of this study may be important in a number of ways; the study findings may establish technical factors that influence compliance to the EIA/EA Regulation by developers. One would be appalled at how unaware Kenyans are, of the existence of the 1999, Environmental Management and Coordination Act, let alone that of NEMA, as the main government body for the general supervision, coordination and implementation of all policies relating to the environment. The findings may therefore assist in seeking ways of addressing such technical factors that hinder compliance. There is great need to inculcate a culture of sensitivity to basic environmental care within the Kenyan population. The findings may also raise the levels of awareness to the EIA/EA Regulation

2003 so that as many as possible developers are able to adhere to the regulation. The study findings may also establish the capacity that the lead agencies and NEMA have in implementing the EIA/EA Regulation 2003 and hence seek for ways that these lead agencies could be in the front line in complying with the regulation. Lastly the study findings will come up with interventions that could help rising the levels of compliance to the EIA/EA Regulation 2003.

1.7 Limitations of the study

The study faced by a number of limitations. Researches on the factors influencing compliance of the EIA/EA Regulation are scarce especially in Kenya. The researcher relied on primary data in the field. Another limitation of this study was that that the respondents may not be fully aware of the policy guidelines on the EIA/EA Regulation 2003. Another limitation was that the respondents may give socially acceptable responses which may affect the validity of the study.

1.8 Delimitations of the study

Delimitations are boundaries of the study. One of delimitations of this study was that the study will be carried out in one administrative division hence the findings may not be generalized to other areas. Another delimitation was that the researcher may not have been able to get information from every stakeholder of the EIA/EA Regulation 2003 due to time and financial resource factors hence some of the crucial information may be left out.

1.9 Assumptions of the study

The following were the assumptions of the study;

The study assumed that the respondents are aware of the EIA/EA Regulation 2003 and hence are able to provide information on the same. It was also assumed that developers have been complying with the EIA/EA Regulation 2003. The study also assumed that the respondents will be honest in responding to the study questions.

1.10 Definition of Significant Terms

Compliance rating refers to the permit conditions, driven by the number and significance of permit breaches, classified using the Common Compliance Scheme (CCS).

Environmental Audit (EA) refers to the systematic documented, periodic and objective evaluation of how well an environmental organization, management and equipment is performing in conserving or preserving the environment

Environmental Impact Assessment (EIA) refers to a critical examination of the effects of a project on the environment

Environmental management systems refer to the tools by which organisations can manage, amongst other things, their regulatory compliance and improve their regulatory performance.

Lead agencies refer to the organizations that are on the front line in addressing environmental issues like Public Health, Medical Services etc.

Operator performance refers to the extent and effectiveness of the operator's environmental management system – covering compliance history, operation and maintenance, competence and training, emergency planning, performance evaluation and external reporting

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on literature review on Environment impact Assessment / Environment Audit Regulation 2003. The chapter specifically addresses the background to the Environment Impact Assessment / Environment Audit Regulation 2003, and the factors that influence compliance to Environment Impact Assessment / Environment Audit Regulation 2003. The chapter further presents the theoretical and conceptual framework of the study.

2.2 Background to the Environment Impact Assessment / Environment Audit Regulation 2003.

Many definitions of EIA embody the following elements; the assessment of impacts at the conceptual / planning stage to be able to influence decisions in a timely manner; the evaluation of the environmental and social impacts as well as other relevant issues depending on the nature and scope of projects and actions; the application of participatory and consultative principles. And the evaluation and exploration of alternatives and mitigating measures. According to The World Bank Operational Directive, (World Bank 1989) Environmental Impact Assessment is a flexible procedure, which can vary in breadth, depth, and type of analysis, depending on the project (World Bank, 1989). It may be carried out at one point in time, stretched over a year to account

for seasonal variations, or done in discrete stages. Further Goodland et al., (1996) defines it as the process of evaluating the direct and indirect environmental and social implications of a proposed development project. It is meant to be a flexible process and can employ a large number of evaluation methods and techniques. U.S. Environmental Protection Agency (U.S. EPA, 1998) defines it as a decision-making process, and a document that provides a systematic, reproducible, and interdisciplinary evaluation of the potential effects of a proposed action and its practical alternatives on the physical, biological, cultural and socio- economic attributes of a particular geographical area (Goodland, 1996).

International Association for Impact Assessment (IAIA) and Institute of Environmental Assessment (IEA, 1999) defines it as the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made. United Nations Environment Programme (UNEP, 2002) defined it as systematic processes to identify, predicts and evaluates the environmental effects of proposed actions and projects. This process is applied prior to major decisions and commitments being made. A broad definition of environment is adopted. Whenever necessary, social, cultural and health effects are considered as an integral part of EIA. Particular attention is given in EIA practice to preventing, mitigating and offsetting the significant adverse effects of proposed undertaking (UNEP, 2002).

EIA identifies potential problems and opportunities and is thus an essential part of the project cycle. A part from the results of the environmental assessment, the economic and

financial analysis helps in deciding among possible options and eliminating or reducing negative environmental effects in a cost-effective manner. Difficult decisions have to be made on how to balance costs and benefits; private and public considerations. In some cases, environmental and economic analysis leads to the abandonment of a proposed project; most times, however, a compromise is possible whereby development proceeds, but in a more environmentally sound manner (Dixon et al. 1994).

In Kenya the EMCA,1999 requires that during the EIA process a proponent shall in consultation with the Authority seek views of persons who may be affected by the project or activity through posters, newspaper, radio and hold at least three public meetings with the affected parties and communities. The Project proponent pays for the entire EIA process. The fee payable to NEMA is 0.05% of the project cost or a minimum of Kshs. 10,000 for projects costing up to 20m and a maximum of Kshs 1,000,000 for projects costing more than 20 million.

Environmental Audit (EA) is the systematic documentation, periodic and objective evaluation of activities and processes of an ongoing project. The goal of EA is to establish if proponents are complying with environmental requirements and enforcing legislation. The purpose of EA is to determine the extent to which the activities and programs conform to the approved environmental management plan. A comprehensive EA ensures a safe and healthy environment at all stages of project operations and decommissioning (Wamukoya, & Ludeki, 2002)

Kenya's environmental law is contained in various sectoral laws. The enactment of the Environmental Management and Coordination Act (EMCA) of 1999 provided broad

framework legislation dealing with institutional and legal issues relating to a myriad of 17 environmental issues. Section 58 (1) (4) and second schedule of EMCA requires certain projects to undergo EIA studies before implementation. Environmental Impact Assessment and Audit Regulation 2003 were promulgated pursuant to Sections 58 and 147 of EMCA 1999.

2.3 Environmental Policy, Legal and Institutional Framework governing Environmental Management in Kenya

Kenya's environmental policy and legislation are scattered in a multiplicity of resource and sector specific laws and policy papers. The institutions and departments that deal 306 with environmental issues are equally numerous. Sector specific laws are deficient in that they are characterized by fragmented and uncoordinated sectoral legal regimes that are developed to facilitate resource allocation and to deal with environmentally adverse effects of resource exploitation. The sectoral institutions under these laws often find themselves in regulatory competition.

2.4 Constitution of Kenya

The Constitution of Kenya in spite of being the supreme law of the land does contain specific provisions regarding the environment. Section 70 however lists the right to life as one of the fundamental rights an individual is entitled to. The right life guaranteed by the Constitution can be interpreted to include the right to a clean and healthy environment. Environmental Management and Coordination Act of 1999 (EMCA) was enacted to provide an appropriate legal and institutional framework for the management of the

environmental and for matters connected therewith and incidental thereto (Republic of Kenya. 1999). EMCA does not repeal the sectoral legislation but seeks to coordinate the activities of the various institutions tasked to regulate the various sectors. These institutions are referred to as Lead Agencies in EMCA 1999. Lead Agencies are defined in Section 2 of the Act as any Government ministry, department, parastatal, and State Corporation or local authority in which any law vests functions of control or management of any element of the environment or natural resource.

2.5 EIA process in Kenya

Development can have major impacts on the environment by degrading soils and waterways, altering landscape and destroying biodiversity and habitat. Other problems associated with development and human activity include land use conflicts, human and animal conflicts, water management and environmental pollution. In addition to harming the environment, these impacts can and do have significant economic costs and negatively affect human health. Environmental Impact Assessment (EIA) is a tool that assists in the anticipation and minimization of the adverse effects of development. Undertaken in the early stages of project planning and design, EIA seeks to help shape development in a manner that best suits the local environment and is most responsive to human needs. The concept of EIA arose from the pollution and degradation of natural resources caused by rapid population growth, industrialization, agricultural development and technical progress. EIA recognizes that natural resources are finite and incapable of absorbing the unchecked demands of modern society (PoK, 1999).

As is evident that the Kenyan EIA process follows international norms in that it incorporates the traditional screening, scoping, study and review stages. An important start to this process is the preparation by the proponent of a Project Report (PR) which provides the authorities with basic information about the project and enables a first approximation of the possible impacts. An advantage is that the PR must be completed by a certified environmental impact assessment /audit expert registered with NEMA and not merely by the proponent as is the case in most other countries. To be certified, a practitioner must be registered either as a Lead Expert, Associate Expert or a Firm of Experts. Section 14 of the Regulation stipulates the academic and experience requirements for each category. Importantly in the context of the Nairobi Convention is that section 44 of the Regulation specifically requires an EIA for activities likely to have a trans-boundary impact and in section 42, there is a specific requirement for SEA. A weakness of the regulation is the fact that public participation appears to be limited to affected parties only, thus reducing the opportunity for non-affected but interested parties, from influencing decision making. The public may appeal against a decision by the authorities and they can request the authorities to initiate an environmental audit anytime after project implementation has commenced. This means that the public can provide some sort of watchdog role if they so wish – an important aspect of good governance. The penalty for offences related to pollution or dumping of hazardous waste is a fine of not less than one million Kenya shillings or imprisonment for a period not exceeding 2 years or both fine and imprisonment.

2.6 Factors influencing compliance to Environment Impact Assessment /Environmental Audit Regulations 2003

This section covers the factors that influence compliance to environmental impact assessment and environmental audit regulation 2003.

2.6.1 Technical factors influencing compliance to the EIA/EA Regulations 2003

Management of environmental has received attention from the government of Kenya in recent years. The country has an environmental and health surveillance system that incorporates both health and environmental issues. The surveillance system is coordinated by the Ministry of Environment and Mineral Resources through the National Environment Management Authority (NEMA) as mandated by the Environmental Management and Coordination Act (EMCA, 1999). NEMA creates a consultative forum for all the lead agencies involved in health and environment matters (EMCA, 1999).

Most African countries with legal frameworks for EIA have guidelines in place for the review. However, many capacity issues affect the quality of the review. The review of the report is usually carried out by one or a combination of the following: the technical staff of the EIA administrative institution; an intergovernmental committee; a multi-stakeholder committee; and external reviewers depending on the complexity of the study and expertise available. Performance at country level is varied. For example, Cameroon's review system is grossly undermined by capacity constraints. The significant number of reports being submitted for review in Tunisia has resulted in initiatives aimed at rationalizing EIA requirements. Meanwhile, Ghana's tiered review system, based on

scale and type of project, has proved to be very effective in handling the large volumes of documents received. The project proponent normally funds the EIA study and, in the case of donor-supported projects, the cost is usually factored into project funds. While in some countries, the schedule of EIA fees relative to project costs is provided for in legislation, in others, it is left to the developer to decide. In reality, the cost of the EIA is subject to negotiation between the developer and the consultant. Fees charged are generally within expected limits and have not been considered a deterrent to the conduct of EIA. While the legislation of many countries provide for defined timeframe for the review, there are usually no time limits for undertaking studies or compiling reports (EMCA, 1999).

2.6.2 Levels of awareness to the EIA/EA Regulation 2003

Inadequate public awareness about environmental issues, the importance of the coastal and marine environments, and the links between these and human livelihoods and development need to be clearly understood. The low level of public awareness of environmental concerns, and limited expertise, experience and lack of coherent legal frameworks and guidelines has compromised EIA quality in Africa (CLEIAA, 2003).

The quality of EIA reports produced by consultants is of particular concern. Quite often, the significance of impacts is not adequately qualified, making it difficult for assessments to focus on issues, and interventions, on significant impacts. To ensure high quality of study reports, EIA administrators have defined minimum qualifications required for membership to EIA study teams. In some countries, the registration, certification and accreditation of EIA professionals are legal requirements. Financial institutions are also insisting on EIA and the quality of reports produced (CLEIAA, 2003).

Increasingly, countries are enacting legislation that provide for engaging and involving the public throughout the EIA process including the review of the study report. There are several forms of engaging the public. In many countries, the media are instrumental in eliciting public comments on the EIA report, publicizing public hearings, notifying stakeholders of decisions and informing stakeholders about the appeal process. Local communities and other interest groups routinely demand evidence of EIA on new projects in their neighborhoods. Yet, public participation in the EIA process is, in most cases, inadequate due to many factors such as time, money, literacy, language, public presentation, education, cultural differences, gender, physical remoteness and political/ institutional culture of decision-making. Case studies on public participation in the EIA process have concluded that it is essential and can lead to substantial benefits for both the proponent and affected community. Where it is ignored, it can lead to conflicts and problems for project implementation, acceptability and sustainability.

2.6.3 Capacity of NEMA in implementing the EIA/EA Regulation 2003

The Kenya government attaches great value to issues of environmental governance and the general policy of the government is that development of economic activities such as tourism, agriculture, fisheries and mining be sustainable. In response, the commitments stipulated under Agenda 21, Kenya's environment and development policies continue to develop taking into consideration the scarce resources and the various parameters that contribute to environmental degradation such as rapid population growth, high poverty levels, and inadequate capacity in national and local authorities. Priority has been given to developing policies, strategies, and action plans geared towards protection of the

natural resources. There is a policy of pursing sustainable development in all sectors of the Kenyan economy spearheaded by National Environment Management Authority (NEMA), the Ministry of Environment and Mineral Resources and other relevant ministries such as those responsible for agriculture, tourism, fisheries and mining. Kenya has also developed a number of action plans including National Environmental Action Plan (NEAP) and the National Environmental Management Authority (NEMA) has formulated EIA and EA regulations in Legal Notice No. 101 of June 2003. These regulations clearly spell out the importance of EIA and EA. The successful implementation of EIA and EA Regulations 2003 depends on the availability of a pool of experts who are capable of carrying out .Environmental Impact Assessment and Environmental Auditing (NEMA, 2003).

NEMA was established under the Environmental Management and Coordination Act (EMCA) No. 8 of 1999, as the principal instrument of government in the implementation of all policies relating to the environment. The Authority became operational on 1st July 2002 following the merger of the National Environment Secretariat (NES) and the Permanent Presidential Commission on Soil Conservation and Afforestation (PPCSCA). NEMA's mandate is defined in Section 9 (1) of EMCA 1999: "The object and purpose for which the Authority is established is to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment.

2.6.4 Capacity of Lead Agencies in Implementing the EIA/EA Regulation 2003

The Rio Declaration on Environment and Development underscores the important inter-linkages between the social, economic and environmental pillars of sustainable development, all of which are underpinned by good health (Agenda 21, 1992). Kenya's efforts to domesticate Agenda 21 are addressed in Sessional Paper No. 6 on Environment and Development of 1996. This paper recognizes linkages as well as the complexities inherent in ecosystem dynamics and their interface with human health and livelihoods. This was later legislated in the Environmental Management and Coordination Act (1999) which recognizes the National Environmental Management Authority (NEMA) as the principal agent to coordinate environmental management in Kenya.

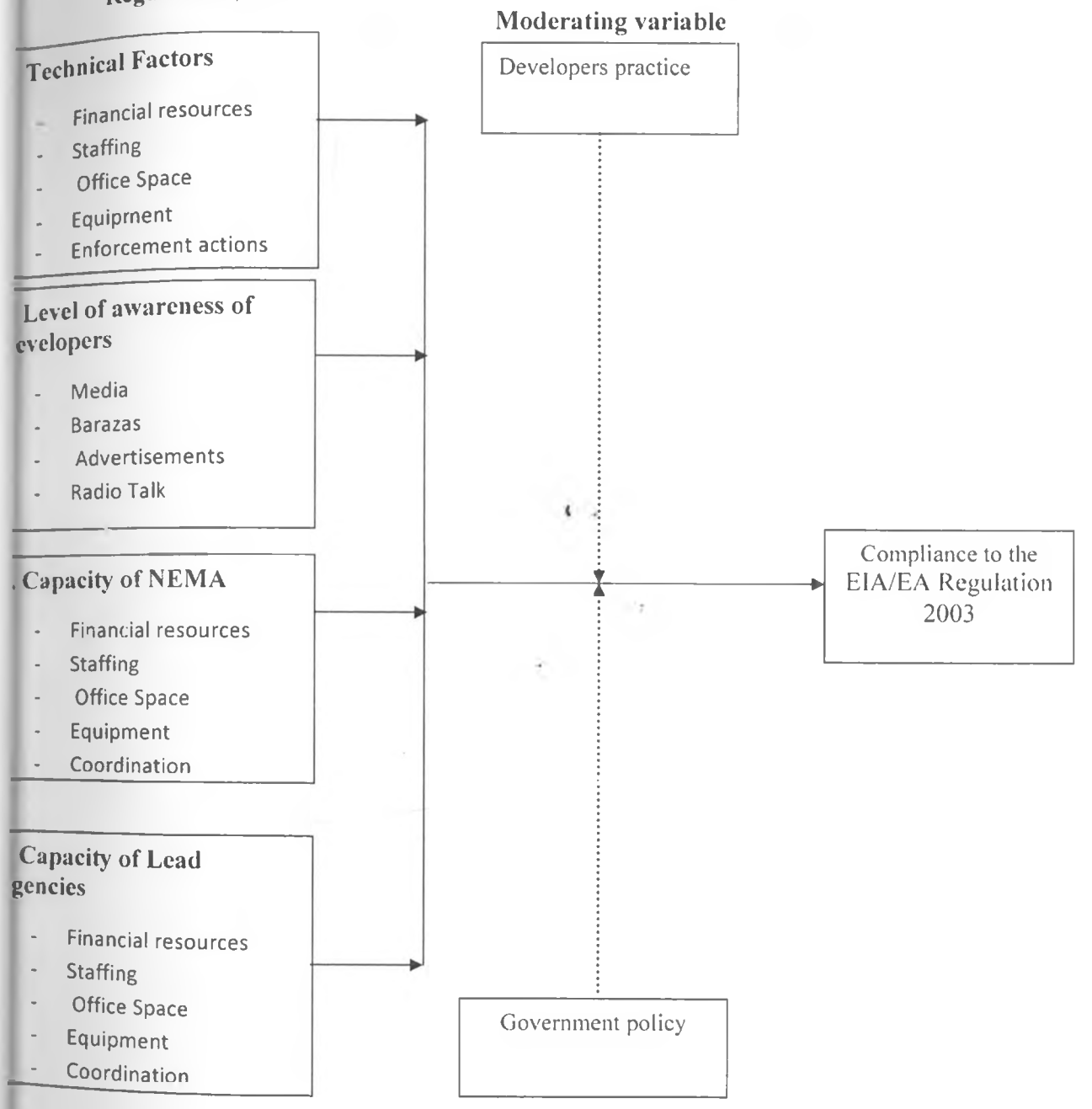
Some of the challenges faced by NEMA are enforcement of law by lead agencies. NEMA undertakes most of its work through the lead agencies. The collaboration at times poses a major challenge, especially when dealing with weak enforcement structures within some institutions. Resistance and evasiveness by proponents or developers to Comply Staffing and facilities: The Authority is thinly spread at the grassroots, where most provincial and district offices lack essential facilities such as office space and vehicles. Provincial and District Environment Committees Under section 29 (1) of EMCA, the Minister shall by notice in the gazette appoint Provincial and District Environment Committees of NEMA in respect of every province and district respectively. These committees assist NEMA in effectively carrying out its function of proper management of the environment at these levels.

The lead agencies also implement a number of sectoral legislations such as the agriculture act, water act 2003, forest act 2005, charcoal guidelines 2010 that affect the environment is used and managed. These agencies also include the United Nations, International, National and Local NGOs. They implement projects and programmes that touch on people's livelihoods and affect the environment either in a positive or a negative way. The capacity in terms of resources, staffing, equipment and coordination of these institutions will influence the compliance to the EIA/EA Regulations 2003.

2.7 Conceptual framework

The dependent variable which is compliance to the EIA/EA Regulation 2003 is influenced by moderating variables like the developers practice and intervening variables like government policies to meet the independent variables such as the technical factors, level of awareness on the EIA/EA regulations 2003 and the capacity of lead agencies and NEMA to implement the EIA/EA Regulation 2003.

Figure 1: Conceptual Framework on factors influencing compliance to the EIA/EA Regulations, 2003



Source: Researcher, 2012

The conceptual framework for the study illustrates the factors that influence developer compliance to EIA/EA Regulation 2003. The framework shows that for the effective compliance to the EIA/EA variables such as technical factors, level of awareness to the EIA/EA Regulation, capacity of lead agencies and capacity of NEMA influence the compliance to the regulations. When these inputs (independent variables) are put in place then moderated by developers practice, and the government policy, there will be effective compliance to the EIA/EA Regulation 2003.

2.8 Literature Review Summary

The chapter discusses the adoption of the EIA and EA at the global arena by the United Nations Environment Programme (UNEP), the US Environment Protection Agency (USEPA), The World Bank, and the International Association for Impact Assessment (IIAIA) and the Institute of Environmental Assessment (IEA).

This chapter also presented the review of literature on factors influencing compliance to the EIA/EA Regulation, 2003 in Kenya, a case of Garissa Central Division. The main areas of discussion are the environmental policy and legal framework governing environmental management in Kenya, the National Environmental Action Plan (NEAP) and the Enactment of EMCA (1999) which led to the establishment of the National Environment Management Authority (NEMA).

The factors that influence the compliance to the EIA/EA Regulation of 2003 are also discussed. These factors are the capacity of lead agencies and the National Environment Management Authority, technical factors and the level of awareness of the different

stakeholders that are to implement and expected to comply with the regulation. It also gave a comprehensive assessment of the conceptual framework for the research indicating the different variables as they relate to the research questions formulated.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a way to systematically solve a research problem. It may be understood as science of studying how research is done scientifically (Kothari 1985). In other words it refers strategic, approaches, technique and logical organizations of observing data and information required to solve a problem in hand. In this study the research methodology involved the following sub topics: research design, target population, simple size and sampling procedures, research instruments, data collection procedure and data analysis techniques.

3.2 Research Design

Mugenda and Mugenda (2003) define research design as the plan structure and strategy of investigations concerned so as to obtain answers to research questions and control variance. In this study descriptive survey research design was used in its both qualitative and quantitative approaches. Descriptive studies aim at giving an accurate account about a specific aspect to situation, of a person or community. It is also used to determine causes and reasons for current situation which is being studied. This design was therefore used to investigate factors influencing compliance to Environment Impact Assessment) / Environment Audit Regulation 2003 by developers in Garissa Central Division.

3.3 Target Population

Mugenda and Mugenda (2003) defined population as a complete set of individual cases or objects with same common observable characteristics. The study involved the developers (50), the DEC (10), Lead Agencies (30), District Environment Officer (1) as the stakeholders in the purpose of this study in order to establish factors influencing compliance to Environment Impact Assessment / Environment Audit Regulation 2003 in Kenya, a case of Garissa Central Division.

3.4 Sample Size and Sampling Procedure

Sampling may be defined as the selection of some part of an aggregate or totality on the basis of information about entire population by examining only a part of it (Kothari, 2004). The sample size was 50 developers out of 88, 30 lead agencies out of 45, 10 DEC members out of 10 and the District Environment officer (1) of NEMA. The source of the sample size was the District Development Officer and the District Environment Officer, Garissa, 2012.

3.5 Research Instruments

According to Mugenda and Mugenda (2003), the most commonly used instruments in social science research are questionnaire, interview schedule, observation and standardized test. In this study various instruments were used to establish factors influencing compliance to Environment Impact Assessment / Environment Audit Regulation 2003 by developers in Garissa Central Division. This included questionnaires and interview schedule.

3.5.1 Interview schedule for District Environment Officer and District Environment Committee

According to Berg (1999) interview schedule is preserved means of data collection because it is a social encounter. In this study interview schedule was used to collect data from the representatives of the District Environment Officer and the District Environment Committee. This collected qualitative data and quantitative data.

3.5.2 Questionnaire for Lead Agencies and Developers

Questionnaire is an instrument of research which is used to collect information from a bigger population who can read and write. This allowed them to provide quantitative as well as qualitative data for the study in a structured manner. In this study questionnaire were used for the Lead Agencies, and Developers or proponents of projects.

3.6 Piloting

Pilot study was conducted to determine the validity of the research instruments, the relevance and the clarity to show any an appropriate question so that the questionnaires can be rephrased. The pilot study was done in another division which was not used in the real study.

3.6.1 Instrument Validity

Validity is defined as the accuracy and meaningfulness of inferences, which are based on the research result (Mugenda and Mugenda, 1999) Validity according to Borg and Gall (1989) is the degree to which a test measures what it purports to measure. The pilot study

helped to improve face validity and content of the instruments. Face validity was determined by a review of the items which means anyone who looks over the test, including examinees and other stakeholders, may develop an informal opinion as to whether or not the test is measuring what it is supposed to measure. Content validity on the other hand is a logical process where connections between the test items and the objectives are established. The supervisor who is experts in the area of study validated the instruments. The internal validity which involved controlling the extraneous variables in the structure As such, the researcher sought assistance from the supervisors in order to help improve content validity of the instrument.

3.6.2 Instrument Reliability

Reliability is a measure of the degree to which research instrument gives constructive results after it is repeated several times. Instrument reliability enhances dependability, accuracy and clarity. The split-half method was used. This entails separating the questionnaire into two sets using the odd numbered questions for one set and the even-numbered questions for the other half (Nachmais and Nachmias, 1996). Each of the two sets will be treated separately and scored accordingly.

3.7 Data Collection Procedure

Before the start of the data collection the researcher went to the National Council for Science and Technology (NCST) to obtain permit to carry out the research. The researcher then visited the area of study and made arrangements with the respondents on when to conduct the study. Questionnaires and interview guide schedules were then prepared and administered on respondents.

3.8 Data Analysis Techniques

After the data had been collected it was cross-examined to ascertain their accuracy, competences and identify those items wrongly responded to, spelling mistakes and blank spaces. Quantitative data was then entered into the computer for analysis using the Statistical Package for Social Sciences (SPSS) (Version 17). This processed the frequencies and percentages which were used to discuss the findings. The findings from the study were presented using tables showing frequencies, percentages, means, and standard deviations to illustrate the differences between dependent variables. Regression and correlation analysis were used to test the relationships between the independent and dependent variables.

3.9 Ethical Considerations

Kabiru and Njenga (2009) states that a research is governed by rules and regulations which help to reduce conflicts and misunderstanding among researchers and respondents. To take care of ethical considerations, the researcher first ensured that complete confidentiality of the information collected. This was done by not revealing the identities of the respondents. Secondly, the researcher respected the respondents' decisions on what information to give. In this case, the researcher will not coerce the respondents to give certain information or doctor their feedback. Thirdly, the researcher avoided cases of plagiarism by ensuring that all data obtained from secondary sources were acknowledged herewith. Fourthly, the researcher ensured that respondents were free to participate in the study. Finally, the researcher will be more than willing to share or give feed back of the research findings to the respondents.

3.9 Operational Definition of Variables

Indicators were denoted by the main variables under the study in order to render them measureable as shown in table 1 below.

Table 3.1: Operational Definition of Variables

OBJECTIVE	INDEPENDENT VARIABLE	INDICATORS	MEASURE	SCALE OF MEASUREMENT	TOOL OF ANALYSIS
To establish the extent to which technical factors influence compliance to the EIA/EA regulations 2003 in Garissa Central Division	Technical factors	Level of compliance	Use of technical knowledge	Nominal ordinal	Descriptive Regression analysis
To examine the extent to which developers' level of awareness influence compliance to the EIA/EA regulations 2003 in Garissa Central Division	Level of awareness	Level of compliance	Application of compliance aspects	Nominal ordinal	Descriptive/ Regression analysis
To examine the influence of capacity of lead agencies to implement the EIA/EA regulations 2003 in Garissa Central Division	Capacity of lead agencies	Level of compliance	Level of practice	Nominal ordinal	Descriptive/ Correlation analysis
To examine the influence of capacity of NEMA to implement the EIA/EA regulations 2003 in Garissa Central Division	capacity of NEMA	Level of compliance	Level of involvement	Nominal ordinal	Descriptive/ Regression analysis

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

4.1 Introduction

This chapter focuses on the questionnaire return rate, presentations, interpretation and discussions of findings. The presentations were done based on the research questions. Items addressing the same research question were grouped and discussed together. Tables were used to present data while frequencies (f) and percentages (%) were used to discuss the findings. The research was guided by the following objectives: To establish the extent to which technical factors influence compliance to the EIA/EA Regulation 2003; to examine the extent to which developers' level of awareness influence compliance to the EIA/EA Regulation 2003; to examine the influence of capacity of lead agencies to implement the EIA/EA Regulation 2003 and to examine the influence of capacity of NEMA to implement the EIA/EA Regulation 2003 in Garissa Central Division

4.2 Demographic data of the developers

The developers were asked to indicate their gender. Data shows that majority 35(71.4%) of the developers were male while 14(28.6%) of the developers were female. Data on the qualifications of the developers is presented in table 4.1.

Table 4.1 Distribution of developers by qualifications

Qualifications	Frequency (F)	Percentage (%)
Certificate	4	8.2
Diploma	20	40.8
Degree	18	36.7
Masters	7	14.3
Total	**49**	**100.0**

Table shows that 20(40.8%) of the developers had diploma, 18(36.7%) of developers had degree, 7(14.3%) of developers Masters while an insignificant number 4(8.2%) had certificate education level. The findings imply that the developers had a considerable level of education which could enable them understand the regulation. When asked to indicate their age, they responded as table 4.2.

Table 4.2 Distribution of the developers by age

Age	F	%
Below 20 years	1	2.0
21 -25 years	11	22.4
26 - 30 years	15	30.6
31 - 35 years	10	20.4
36 - 40 years	7	14.3
41 - 45 years	4	8.2
Above 51 years	1	2.0
Total	**49**	**100.0**

Data on developers age showed that 15(30.6%) were aged between 26 and 30 years, 11(22.4%) of developers were aged between 21 and 25 years, 10(20.4%) of developers

were aged between 31 and 35 years, 7(14.3%) of developers were aged between 36 and 40 years. The findings indicated that the developers were relatively young between 21 and 30 years old as indicated by 53%. The young developers may be more interested in adhering to the environmental issues. They were also asked to indicate their experience of working in the organization. The data is presented in table 4.3.

Table 4.3 Experience working in the organization by Developers

Experience	F	%
1 - 5 years	28	57.1
6 - 10 years	14	28.6
11 - 15 years	4	8.2
Over 15 years	3	6.1
Total	**49**	**100.0**

Table shows that majority 28(57.1%) of developers had worked in the organization for between 1 and 3 years, 14(28.6%) had worked for between 6 and 10 years, 4(8.2%) of developers had worked for between 11 and 15 years while 3(6.1%) of developers had worked over 15 years in the organization. The findings indicate that the developers had a considerable experience and hence it is important to establish how they have been applying the regulation.

4.2.1 Demographic data of lead agencies

To determine the gender of the lead agencies, they were asked to indicate the same. Data shows that majority of lead agencies 22(73.3%) were male while only 8(26.7%) of lead agencies were female. Data indicating the lead agencies qualification is tabulated in table 4.4.

Table 4.4 Distribution of the lead agencies by qualification

Qualification	F	%
Certificate	2	6.7
Diploma	12	40.0
Degree	10	33.3
Masters	6	20.0
Total	**30**	**100.0**

Table 4.4 shows that 12(40.0%) of lead agencies had diploma, 10(33.3%) of lead agencies had degree, 6(20.0%) of lead agencies had masters education while 2(6.7%) of lead agencies had certificate education. The level of educational qualification of the lead agencies is important since lead agencies are expected to implement the regulation as per the environment management and coordination act. They will therefore be expected to have some level of education for proper implementation of the regulation.

Table 4.5 presents the age distribution of the lead agencies.

Table 4.5 Distribution of lead agencies by age

Age	F	%
21 -25 years	1	3.3
26 - 30 years	5	16.7
31 - 35 years	8	26.7
36 - 40 years	8	26.7
46 - 50 years	6	20.0
Above 51 years	2	6.7

Total	**30**	**100.0**

Findings shows that 8(26.7%) of the lead agencies were aged between 31 and 35 years, the same number were aged between 36 and 40 years, 6(20.0%) of the lead agencies were aged between 46 and 50 years, 5(16.7%) of lead agencies were aged between 26 and 30 years, 2(6.7%) of lead agencies were aged above 51 years. The data indicates that most of the lead agencies were relatively young and hence energetic in their profession which translates to their keenness in the implementation of the regulation.

4.2.2 Demographic data of District Environment Committee

The district environment committee members were asked to indicate their working experience. The data is presented in table 4.6.

Table 4.6 Working experience in the organization for the District Environment Committee

Working experience	F	%
1 - 5 years	3	30.0
6 - 10 years	2	20.0
11 - 15 years	3	30.0
Over 15 years	2	20.0
Total	**10**	**100.0**

Findings shows that 3(30.0%) of the DEC had worked in the organization for between 1 and 5 years, the same number for between 11 and 15 years, 2(20.0%) of DEC had worked for between 6 and 10 years and the same number had worked for over 25 years. The demographic information of the District Environmental officer shows that he had Masters Education level and was between 36 and 40 years. He had worked in the organization for

between 1 and 5 years and also indicated that he had between1 and 5 members in the office. The data shows that they had been in office for a relatively long time and hence have played their roles in environmental management. They could therefore provide reliable information on the factors that have affected the implementation of the regulation.

4.3 Influence of technical factors on the compliance to the EIA/EA Regulation 2003

To determine how technical factors influenced the compliance to the EIA/EA Regulation 2003, the developers were asked whether they were provided appropriate personal protective equipment (PPE) to your staff while implementing projects in line with the regulations. Their responses indicated that majority 37(75.5%) of the developers said that they provide appropriate personal protective equipment (PPE) to their staff while implementing projects in line with the regulation while 12(24.5%) of developers did not provide. Those who responded to the negative indicated that 18(36.7%) did not provide appropriate personal protective equipment (PPE) to their staff while implementing projects in line with the regulations was because they dealt with youth programs on education and work, 10(20.4%) of developers said that the organization was not funded.

The researcher further sought to establish whether they complied with other existing legislations being implemented by lead agencies. Data show that majority 47(95.9%) of developers complied with other existing legislations. The developers who did not comply with other existing legislations being implemented by lead agencies said that they were not aware of other agencies. The developer's responses on whether NEMA was playing its coordinating role well is presented in table 4.7

Table 4.7 Responses to whether NEMA is playing its coordinating role well by Developers

Rating	F	%
Very Effective	9	18.4
Effective	10	20.4
Not Effective	30	61.2
Total	**49**	**100.0**

Majority 30(61.2%) of developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation, 10(20.4%) of developers said it was effective while 9(18.4%) of developers said that NEMA was effective in its roles. Those that indicated that NEMA did not play its role well indicated that it was due to inadequate staffing and financial challenges.

The developers were also asked whether they had ever received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003. Findings showed that 27(55.1%) of developers had never received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003 while 22(44.9%) of developers had received.

The developers who had received compliance letters from NEMA indicated that they had received as indicated in table 4.8

Table 4.8 Number of times Developers received compliance letters from NEMA

Number of times	F	%
Once	32	65.3
Twice	7	14.3
Thrice	4	8.2
Four times	3	6.1
Five times	2	4.1
Total	**49**	**100.0**

Data shows that majority 32(65.3%) of developers said that they had received once, 7(14.3%) of developers had received twice, 4(8.2%) of developers had received thrice, 3(6.1%) of developers had received 4 times while 2(4.1%) of developers had received five times. The findings indicate that majority of developers received compliance letter from NEMA once or twice. This suggests that the capacity of NEMA to enforce the regulation was limited.

They were also asked whether officers from NEMA ever inspected facilities in the area. Data showed that majority 29(59.2%) of developers facilities had not been inspected. This confirms the above findings where majority of the developers had received compliance letters only once. Once facilities have been inspected the officers are supposed to give compliance letters to the developers.

Asked whether they considered allocating funds for complying with the EIA/EA Regulation 2003 when planning for project implementation, data indicated that majority 31(63.3%) considered allocating funds for complying with the EIA/EA Regulation 2003.

The lead agencies were asked whether they received any funds for implementing the EIA/EA Regulation 2003. Data showed that majority 19(63.3%) did not receive funds in implementing the EIA/EA Regulation 2003 while 11(36.7%) of lead agencies received the fund. When asked to explain their responses, 3(10.0%) of lead agencies did not have such projects, the same number said that AIE is tied to specific expenditure framework while 2(6.7%) of lead agencies said that there was no communication that was received and they same number said they failed to receive as there was lack of cooperation.

To establish the lead agencies relationship with NEMA in implementing the EIA/EA Regulation 2003, the lead agencies were asked to respond to the same. Data showed that majority 23(76.7%) of lead agencies said that they had a good relationship with NEMA in implementing the EIA/EA Regulation 2003, 6(20.0%) of lead agencies said that the relationship was poor as most activities are promoted by NGOs in North Eastern Province and there was no communication while only an insignificant number 1(3.3%) of lead agencies said that the relationship was very good. Good working relationship implies that the parties will work towards a common goal of ensuring effective implementation of the EIA/EA Regulation 2003 so long as NEMA does its work effectively.

They were also asked to indicate whether NEMA was playing its coordinating role well to which they responded as indicated in table 4.9.

Table 4.9 Lead agencies responses to whether NEMA played well its role

Rating	F	%
Very effective	3	10.0
Effective	7	23.3
Not Effective	20	66.7
Total	**30**	**100.0**

Majority 20(66.7%) of lead agencies said that the coordinating role of NEMA was not effective, 3(10.0%) of lead agencies said it was very effective while 23.3% of lead agencies said it was effective. These findings agree with the responses on the developer that NEMA coordination role was not effective.

The researcher asked the lead agencies on how the coordinating role of NEMA could be effective. Their indicated that 6(20.0%) of lead agencies suggested that more staff should be posted to the field, 2(6.7%) of lead agencies suggested that companies to sponsor activities within the catchment, 1(3.3%) of lead agencies suggested that the funds to be increased in the budget for the NEMA, 2(6.7%) of lead agencies said that workers should be committed and it should play a key role in their departments. Other lead agencies said that NEMA should collaborate with their key partners and public to be educated on the regulation.

Asked whether they had received a compliance letter from NEMA on the implementation of the EIA/EA Regulation 2003, 23 (75.0%) of lead agencies had not received a compliance letter from NEMA on the implementation of the EIA/EA Regulation 2003 while 7(25.0%) of lead agencies had received. This is in line with responses of the

developers whose majority had not received compliance letters. This further asserts the low compliance to the regulation.

The District Environment committee members were asked whether they had financial allocation from NEMA to implement the EIA/EA Regulation 2003. Data showed that they had not received anything in 2008, and 2009 but had received Kshs10,000 in 2010 and same amount in 2011. Asked whether the funds were enough, majority 8(80.0%) of District Environment Committee Members said that the funds was not enough, while 1(10.0%) of District Environment Committee Members said that the fund was very enough, the same rate said that it was enough.

They were also asked to indicate their relationship with the lead agencies in implementing the EIA/EA Regulation of 2003. Data shows that 5(50.0%) of District Environment Committee Members said that they had good relationship with lead agencies in implementing the EIA/EA Regulation 2003 while the same number had poor relationship. The response of the DEC on whether NEMA was playing its coordinative role well is given in table 4.10 below.

Table 4.10: Response by the DEC on whether NEMA was playing its coordinative role well

Rating	F	%
Very effective	1	10
Effective	8	80
Not Effective	1	10
Total	**10**	**100.0**

Asked whether NEMA was playing its coordinating role well, majority 8(80.0%) of District Environment Committee Members said that the role was effective while 1(10.0%) of District Environment Committee said it was very effective. This contradicts earlier responses by lead agencies and developers as they are independent of NEMA while the DEC is a committee coordinated and facilitated by NEMA.

Asked to indicate whether the District Environment Officer received funds for the implementation of the regulation, he responded that he did not receive adequate funds to implement the EIA/EA Regulation. This implies that the capacity of the DEO to implement the regulation is limited by financial challenges.

The study further sought to establish whether the District Environment Officer had various facilities in their station to implement the EIA/EA Regulation 2003. Data shows that there were no vehicles and office space was inadequate. They also lacked GPS and communication equipment. This inadequacy of equipment hampers the implementation of the regulation by the office.

The researcher further sough to establish from the DEO the number of enforcement actions they had taken for the last five years to enforce the regulations in Garissa Central Division. The table 4.11 shows response of the District Environment Officer on Enforcement action taken by the office in the last five years.

Table 4.11: Enforcement actions taken by the DEO office in the last five years;

Year	Inspections	Improvement Orders	Cessation Orders
2008	15	15	10
2009	12	12	10
2010	10	10	7
2011	20	20	11
2012	25	25	20
Total	**82**	**82**	**58**

The data in the table above shows that he had taken 15 inspections, 15 improvements of orders actions and 10 cessation orders in year 2008. In the year 2009, The DEO further indicated that he had taken 12 inspections and 12 improvements of orders and 13 cessation orders while in the year 2010, The DEO further indicated that he had taken 10 inspections and 10 improvements of orders actions and 7 cessation orders.

In the year 2011, he had under taken 20 inspections and 20 improvements of orders actions and 11 cessation orders. Data further indicated that the DEO had taken 15 inspections, 15 improvements of orders actions and 10 cessation orders in year 2008.In the year 2009, the DEO further indicated that he had taken 12 inspections and 12 improvements of orders actions. In the year 2010, The DEO further indicated that he had taken 10 inspections and 10 improvements of orders actions and 7 cessation orders. In the year 2011, he had taken he had taken 20 inspections and 20 improvements of orders actions and 11 cessation. In the year 2012, he had taken he had taken 25 inspections and 25 improvements of orders actions and 20 cessation.

The study further sought to establish the number of EIA Project Reports and EA reports that were received and processed for the last five years for developers in Garissa Central Division. The response is indicated in table 4.12 below;

Table 4.12: EIA and EA Reports received Developers in the DEO's Office

Year	No. of EIA Reports	No. of EA Reports
2008	5	1
2009	8	3
2010	12	5
2011	10	4
2012	15	5
Total	**52**	**18**

The responses indicated that in the year 2008, the DEO had received 5 EIA Project Reports and 1 EA reports, in year 2009 he had received 8 EIA Project Reports and 3 EA reports, in year 2010 he received 12 EIA Project Reports and 5 EA reports, in the year 2011 DEO received 10 EIA Project Reports and 4 EA reports while in 2012 he had received 15 EIA Project Reports and 5 EA reports. This means that both the number of EIA and EA reports received at the DEO office is on the increase.

The DEO said that his relationship with lead agencies in implementing the EIA/EA Regulation of 2003 was good. He also said that NEMA was not effective in playing its coordinating role well.

To statistically analyze whether technical factors influenced the compliance to the EIA/EA Regulation 2003, regression analysis was carried out. In doing this, the researcher selected the factors that he deemed very important among the factors in availability of resources which was " Are you provided with appropriate personal protective equipment (PPE)" and regressed with compliance to the EIA/EA Regulation 2003. This aimed at comparing results from the independent variable technical factors and implementation of the regulation. The results are presented in Table 4.13.

Table 4.13 Model summary for relationship between technical factors and compliance to the EIA/EA Regulation 2003

	R	R squared	R adjusted	Std. Error of estimate	Change statistics	
Model 1					R Square Change	F statistic
	0.521	0.381	0.231	2.59900	0.381	12.158

Predictor (constant) Are *you provided with appropriate personal protective equipment (PPE)*

The results in Table 4.13 indicate that the R-square, as computed using the regression, was 0.521 showing that the predictor variable, represented by technical factor (Are you provided with appropriate personal protective equipment (PPE)?), contributes less than a half (51.1%) to the compliance to the EIA/EA Regulation 2003. The regression coefficient (R) is 0.521 or 52.1%. There is thus a strong relationship between technical factors and compliance to the EIA/EA Regulation 2003.

4.3.1 Influence of developers' level of awareness on compliance to the EIA/EA Regulations 2003 in Garissa Central Division

In order to examine the extent to which developers' level of awareness influence compliance to the EIA/EA Regulation 2003, the developers were asked to indicate whether they were aware of the EIA/EA Regulation 2003. Their responses are indicated in the table 4.14 below;

Table 4.14: Response on awareness of developers on the regulation

Rating	F	%
Very Aware	8	16.3
Aware	23	46.9
Not Aware	18	36.7
Total	**49**	**100.0**

That shows that 23(46.9%) were aware of the EIA/EA Regulation 2003, 18(36.7%) of developers were not aware while 8(16.3%) of developers were very aware. Asked how they had come to know of the Regulation, 11(22.4%) said they knew in when EIA was being conducted for the organization, 3(6.1%) of developers through internet, the same rate was through during recent visit to NEMA office and through media, 1(2.0%) of developers said through NEMA show exhibition, NEMA fliers during public service work, others said was through local dailies and NEMA meetings.

The study established from developers used media, baraza, documentaries and talks programs should be implemented by NEMA in order to sensitize proponents on the EIA/EA Regulation 2003. Their responses showed that 39 (79.6%) agreeing that media

awareness programs should be implemented by NEMA in order to sensitize proponents on the EIA/EA Regulation 2003. Slightly more than half 28 (57.1%) indicated that baraza awareness programs should be implemented by NEMA in order to sensitize proponents on the EIA/EA Regulation 2003.

However, 26 (53.1%) were opposed that documentaries awareness programs should be implemented by NEMA in order to sensitize proponents on the EIA/EA Regulation 2003. Majority 32 (65.3%) indicated that talks awareness programs should be implemented by NEMA in order to sensitize proponents on the EIA/EA Regulation 2003.

They were also asked to indicate the challenges that they faced as proponent in creating awareness on the Regulation. Their responses are presented in table 4.15.

Table 4.15 Challenges faced by the developers in creating awareness on the Regulation

Challenge	Yes		No	
	F	%	F	%
Political interference	23	46.9	26	53.1
Financial challenges	35	71.4	14	28.6
Technical skills	27	55.1	22	44.9
Staffing challenges	23	46.9	26	53.1
Equipment challenges	21	42.9	28	57.1

Data indicated that 23 (46.9%) faced political interference in creating awareness on the regulation, 35 (71.4%) faced financial challenges, 27 (55.1%) faced technical skills related challenges, 23 (46.9%) faced staffing challenges while 21 (42.9%) faced equipment related challenges in creating awareness on the regulation.

The lead agencies were asked whether they were aware of the EIA/EA Regulation 2003. Data indicated that 23 (76.7%) were aware while only 7 (23.3%) were not aware. Among those who were not aware indicated that they were new in the service. They were further asked to indicate whether they used media programs, baraza programs, documentaries and talks as a lead agency in order to sensitize proponents on the EIA/EA Regulation 2003. Data showed that only 11 (36.7%) used the media programmes, the same number used barazas, half 15 (50%) used documentaries and only 8 (26.7%) used talks as a lead agency implement in order to sensitize proponents on the EIA/EA Regulation 2003.

They were also asked to indicate the challenges that they faced as lead agencies in creating awareness on the regulation. Their responses are presented in table 4.16.

Table 4.16 Challenges faced by lead agencies in creating awareness

Challenge	Yes		No	
	F	%	F	%
Political interference	3	10	27	90
Financial challenges	16	53.3	14	46.7
Technical skills	17	56.7	13	43.3
Staffing challenges	13	43.3	17	56.7
Equipment challenges	11	36.7	19	63.3

Data showed that only 3 (10%) faced political interference in creating awareness on the regulation, 16 (53.3%) faced financial challenges, 17 (56.7%) faced technical skills challenges, 13 (43.3%) faced staffing challenges while only 11 (36.7%) faced equipment related challenges in creating awareness on the regulation.

The District Environment Committee were asked to indicate whether they were aware of the EIA/EA Regulation of 2003.Data from the committee members indicated that 9 (90%) were aware of the EIA/EA Regulation 2003. They were also asked whether they used media, baraza, documentaries and talks programs in order to sensitize proponents on the EIA/EA Regulation of 2003. Their findings indicated that only 1 (10%) used media awareness programs, 6 (60%) used baraza awareness programs, 3 (30%) used documentaries while 7 (70%) used talks as awareness programs in order to sensitize proponents on the EIA/EA Regulation 2003.

They were also asked to indicate what challenges that they faced as DEC in creating awareness on the regulation. Their responses are presented in table 4.17.

Table 4.17 Challenges faced by the DEC in creating awareness on the regulation

Challenge	Yes		No	
	F	%	F	%
Political interference	1	10	9	90
Financial challenges	9	90	1	10
Technical skills	8	80	2	20
Staffing challenges	7	70	3	30
Equipment challenges	9	90	1	10

Data showed that majority 9 (90%) faced financial challenges in creating awareness on the regulation, majority 8 (80%) faced technical challenges, majority 7 (70%) faced staffing challenges while majority 9 (90%) faced equipment challenges in creating awareness on the regulation.

Data from the District environment officer indicated that he was aware of the EIA/EA Regulation 2003; he used media awareness, baraza awareness programs, documentaries awareness and talks in order to sensitize proponents on the EIA/EA Regulation 2003. He indicated that he did not face political interference in awareness creation of EIA/EA Regulation 2003, He however faced financial and staffing challenge in awareness creation of EIA/EA Regulation 2003. He did not face equipment challenge.

To analyze whether developers level of awareness influenced the compliance to the EIA/EA Regulations 2003, regression analysis was carried out. In doing this, the researcher selected variables on level of awareness "are you aware of the EIA/EA Regulation 2003" and regressed with compliance to the EIA/EA Regulations 2003. This finding was necessary to compare results from the independent variable and those from the exogenous variables so as to determine whether the variable had a greater influence on compliance to the EIA/EA Regulations 2003. The results are presented in Table 4.18

Table 4.18 Model summary for relationship between developer's level of awareness and compliance to the EIA/EA Regulation 2003

	R	R squared	R adjusted	**Std. Error of estimate**	**Change statistics**	
Model 1					**R Square Change**	**F statistic**
	0.615	0.328	0.241	2.6770	0.328	11.168

Predictor (constant) *Are you aware of the EIA/EA Regulation 2003*

The results in Table 4.18 indicate that the R-square, as computed using the regression, was 0.328 showing that the predictor variable, represented by level of awareness, contributes less than a half (32.8%) to the compliance of the regulation. There is thus a strong relationship between developers' level of awareness and compliance to the EIA/EA Regulation 2003. In other words, compliance to the EIA/EA Regulation 2003may be explained by the level of awareness.

4.3.2 Influence of capacity of lead agencies on the implementation of the EIA/EA Regulation 2003 in Garissa Central Division

The study sought to examine the influence of capacity of lead agencies to implement the EIA/EA Regulation 2003 in Garissa Central Division. The lead agencies were therefore asked to indicate the number of staff in their organizations. Their response is presented in table 4.19 below;

Table 4.19 Number of staff in lead agencies

Number staff	F	%
1 – 5	7	22.4
6 – 10	8	28.6
11 – 15	4	12.2
16 – 20	4	12.2
21 – 30	4	12.2
31 – 35	2	8.2
41 and above	1	4.1
Total	**30**	**100.0**

Data indicated that 7 (22.4%) had between 1 and 5 staff members, 8 (28.6%) had between 6 and 10 staff members, 4 (12.2%) had between 11 and 15 staff members while the same

number had between 16 and 20, 21 and 30, 2 (8.25) had between 31 and 35 while insignificant number 1 (4.1%) had above 41 staff members.

Asked whether their organization had the capacity to implement the EIA/ EA Regulation 2003, majority 21 (70. %) indicated that they had the capacity. Those who indicated that they did not have the capacity indicted that their projects were donor funded project that dealt with youth. Others also indicated that they did not have the necessary materials and also lacked of skills and financed to implement the regulation. In order to make the organization able to implement the regulation, they suggested that there was need for allocation of funds for the proper assessment, creation on awareness about EIA/ EA, sensitizing the staff on the regulations and training on environment regulations by NEMA.

The lead agencies were also asked to indicate the challenges that they faced in implementing the EIA/EA Regulation. Their responses are presented in table 4.20

Table 4.20 Challenges in implementing the EIA/EA Regulation 2003 by lead agencies

Challenge	Yes		No	
	F	%	F	%
Political interference	2	6.7	28	93.3
Financial challenges	16	53.3	14	46.7
Technical skills	10	33.3	20	66.7
Staffing challenges	8	26.7	22	73.3
Equipment challenges	12	40.0	18	60.0

Data on the challenges in implementing the EIA/EA Regulation 2003 showed that only 2 (6.7%) faced political interference, 16 (53.3%) faced financial challenges, 10 (33.3%)

faced technical challenges, 8 (26.7%) faced staffing challenges while 12 (40%) lacked the necessary equipment meant to implement the regulation.

Regression analysis was carried out to establish whether capacity of lead agencies influenced the compliance to the EIA/EA Regulation 2003. The capacity of lead agencies factor selected by the research in this aspect was the number of staff. This was regressed with compliance to the EIA/EA Regulation 2003. The findings are presented in table 4.21.

Table 4.21 Model summary for relationship between capacity of lead agencies' influence on compliance to the EIA/EA Regulation 2003

	R	R squared	R adjusted	Std. Error of estimate	Change statistics	
Model 1					R Square Change	F statistic
	0.623	0.343	0.234	2.7432	0.312	10.217

Predictor (constant) Number of staff

The results in Table 4.21 indicate that the R-square, as computed using the regression, was 0.343 showing that the predictor variable, number of staff contributes less than a half (34.3%) to compliance to the EIA/EA Regulation 2003. The regression coefficient (R) is 0.623 or 62.3%. There is thus a strong relationship between capacity of lead agencies' factors and compliance to the EIA/EA Regulation 2003.

They lead agencies were also asked whether they had facilities in their organizations to assist in the implementation of the EIA/EA Regulation 2003. Their responses are presented in table 4.22

Table 4.22 Availability of facilities in the lead agencies

Facility	Yes		No	
	F	%	F	%
Vehicle	11	36.7	19	63.3
Motorbike	9	30.0	21	70.0
Bicycles	1	3.3	29	96.7
Desktop computer	12	40.0	18	60
Laptop	8	26.7	22	73.3
Printers	13	43.3	17	56.7
GPS	5	16.7	25	83.3
TV	3	10.0	27	90.0
Radio	3	10.0	27	90.0

Data indicated that majority of the respondents 19 (63.3%) did not have a vehicle, 21 (70%) did not have motorbike, 29 (96.7%) did not have bicycles, 18 (60/0%) did not have desktop computers, 22 (73.3%) did not have laptops, 17 (56.7%) did not have printers, majority 25 (83.3%) did not have GPS, 27 (90%) did not have TV while 27 (90%) did not have radios. The data implied that the lead agencies had inadequate facilities for implementing the EIA/EA Regulation 2003. This implies the lead agencies capacity to implement the regulations is limited as at least over 50% of them lack the necessary equipment to implement the regulation.

They were also asked to indicate whether they considered allocating funds for complying with the EIA/EA Regulation 2003 when planning for project implementation. In this

item, 19 (63.3%) indicated that they did not consider allocating funds. The researcher further asked the lead agencies the number of EIA reports they had submitted to NEMA in the previous years (2008 – 2012). Data showed that majority 25 (83.3%) had not submitted any report in those years. However, only 1 report was submitted by 2008, 5 reports in 2009, 1 report in 2010, 3 in 2011 and 3 in the current year. Since 63.3% of them did not consider allocating funds for complying with the EIA/EA Regulation 2003, hence the low number of EIA reports the lead agencies submitted to NEMA between the years 2008 -2012. The submission of EIA and EA reports to NEMA is therefore influenced negatively by their willingness not to consider funds for undertaking activities meant to comply with the regulations.

4.3.3 Influence of capacity of NEMA to implement the EIA/EA Regulation 2003 in Garissa Central Division

The study also sought to establish the influence of capacity of NEMA to implement the EIA/EA Regulation 2003. The respondents were therefore required to respond to statements that sought to establish the same. The district environment officer was therefore asked to indicate the number of staff members in his office. Data showed that he had between one and five staff members. Asked the financial allocation received from NEMA from 2009 to implement the EIA/EA Regulation 2003, his response indicated that he had not received any funds to implement the regulations from NEMA. Asked whether the office space provided by NEMA was adequate, he indicated that it was inadequate. He further indicated that he faced political interferences in implementing the EIA/EA Regulation 2003. He did not experience technical skills as a challenge in implementing

the regulation. However he faced challenges in the field of staffing as he is the only NEMA employee to man the whole district in order to implement the EIA/EA Regulation 2003.

To further examine the influence of capacity of NEMA to implement the EIA/EA Regulation 2003, the District Environment Committee which is a committee coordinated and facilitated by NEMA was asked to indicate how many times they meet in a year. Data showed that 1 (10%) indicated that they met once, 1 (10%) indicated that they met twice, 2 (20%) indicated that they met thrice while 6 (60%) indicated that they met 4 times a year.

Asked whether they received good sitting allowance, half indicated they did while half indicated that they did not. Asked to explain they indicated that the allowance they received was only supposed to cater for transport, that it was very low and that they did not know how much they were supposed to receive.

The District Environment Committee was also asked to indicate the challenges that they faced in implementing the EIA/EA Regulation 2003. Their response is indicated in table 4.23.

Table 4.23 Challenges faced by the DEC in implementing the EIA/EA Regulation 2003

Challenge	Yes		No	
	F	%	F	%
Political interference	1	10.0	9	90.0
Financial challenges	8	80.0	2	20.0
Technical skills	6	60.0	4	40.0
Staffing challenges	3	30.0	7	70.0

Data indicated that majority of the respondents 8 (80%) indicated that they faced financial challenges, 6 (60%) faced technical challenge while 3 (30%) faced staffing challenges. Only 1 (10%) indicated that they faced political interference.

To further analyze whether the capacity of NEMA influenced the compliance to the EIA/EA Regulation 2003, Pearson Product Moment Correlation Coefficient was used to analyze the relationship between capacity of NEMA and compliance to the EIA/EA Regulation 2003. The data is presented in table 4.24.

Table 4.24 Correlations for Capacity of NEMA and Compliance to the EIA/EA Regulation 2003

		Mean scores	Age
Pearson Correlation	Capacity of NEMA	1.000	-0.65
		-0.65	1.000
Sig (1-tailed)	Mean score	1.000	
		-0.65	
N	**100**	**100**	

Table 4.25 indicates the Pearson Product Moment Correlation Coefficient results for the relationship between capacity of NEMA and compliance to the EIA/EA Regulation 2003.

From the analysis it is clear that capacity of NEMA negatively influenced (-0.65) the implementation of the EIA/EA Regulation 2003. This implies that the more NEMA is empowered the more effective will be the compliance to the EIA/EA Regulation 2003.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study, discusses the findings of the study and presents conclusions, recommendations and suggestions for further research.

5.2 Summary of Findings

The purpose of this study was to establish factors influencing compliance to Environment Impact Assessment / Environment Audit Regulation 2003 in Kenya, a case of Garissa Central Division.

Research objective one: Influence of technical factors on the compliance to the EIA/EA Regulation 2003

Findings of this research question revealed that technical factors influenced the compliance of the EIA/EA Regulation 2003. For example majority 37(75.5%) of the developers said that they were not provide appropriate personal protective equipment (PPE) to their staff while implementing projects in line with the regulation. Majority 47(95.9%) of developers indicated that they complied with other existing legislations. However, majority 30(61.2%) of developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation. The data also revealed that 27(55.1%) of developers had never received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003. Majority 32(65.3%) of developers said

that they had received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003once. This suggests that the capacity of NEMA to enforce the regulation was limited. Majority 19(63.3%) did not receive funds in implementing the EIA/EA Regulation 2003. Majority 20(66.7%) of lead agencies said that the coordinating role of NEMA was not effective, findings which were confirmed by the lead agencies. A regression analysis revealed a strong relationship between technical factors and compliance to the EIA/EA Regulation 2003.

Research objective two: Influence of developers' level of awareness on compliance to the EIA/EA Regulations 2003 in Garissa Central Division.

Findings on this research objective revealed that developer's level of awareness influenced the compliance of the EIA/EA Regulations 2003. For example, almost half the developers 23(46.9%) were aware of the EIA/EA Regulation 2003. It was also revealed that 23 (76.7%) of the lead agencies were aware. Majority 9 (90%) of the District Environment Committee indicated that they were aware of the EIA/EA Regulation 2003. A regression analysis on whether developers level of awareness influenced the compliance to the EIA/EA Regulations 2003, revealed a strong relationship between developers' level of awareness and compliance to the EIA/EA Regulation 2003. In other words, compliance to the EIA/EA Regulation 2003 may be explained by the level of awareness.

Research objective three: Influence of capacity of lead agencies on the implementation of the EIA/EA Regulation 2003 in Garissa Central Division

Findings in this research objective showed that the organizations had the capacity to implement the EIA/ EA Regulation 2003. For example majority 21 (70.0%) of the lead agencies indicated that they had the capacity. Those who indicated that they did not have the capacity indicted that their projects were donor funded project that dealt with youth. Others also indicated that they did not have the necessary materials and also lacked of skills and financed to implement the regulation. In order to make the organizations able to implement the regulation, they suggested that there was need for allocation of funds for the proper assessment, creation on awareness about EIA/ EA, sensitizing the staff on the regulations and training on environment regulations by NEMA.

Since 63.3% of them did not consider allocating funds for complying with the EIA/EA Regulation 2003, hence the low number of EIA reports the lead agencies submitted to NEMA between the years 2008 -2012. The submission of EIA and EA reports to NEMA is therefore influenced negatively by their willingness not to consider funds for undertaking activities meant to comply with the regulations.

A regression analysis was carried out to establish whether capacity of lead agencies influenced the compliance to the EIA/EA Regulations 2003. It revealed a strong relationship between capacity of lead agencies' factors and compliance to the EIA/EA Regulation 2003.

Research objective four: Influence of capacity of NEMA to implement the EIA/EA Regulation 2003 in Garissa Central Division

Findings on this research objective revealed that capacity of NEMA affected the compliance to the regulation. For example, majority 20(66.7%) of lead agencies said that the coordinating role of NEMA was not effective. Majority 30(61.2%) of developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation. Majority 27(55.1%) of developers had never received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003 while 22(44.9%) of developers had received. Majority of developers received compliance letter from NEMA once or twice. This suggests that the capacity of NEMA to enforce the regulation was limited. Majority 29(59.2%) of developers indicated that their facilities had not been inspected. This confirms the above findings where majority of the developers had received compliance letters only once. Pearson Product Moment Correlation Coefficient revealed that the capacity o NEMA negatively influenced (-0.65) the implementation of the EIA/EA Regulation 2003. This implies that the more NEMA is empowered the more the effective the compliance to the EIA/EA Regulation 2003.

5.3 Discussion of Findings

Findings revealed that technical factors influenced the compliance of the EIA/EA Regulation 2003. For example majority 37(75.5%) of the developers said that they do not provide appropriate personal protective equipment (PPE) to their staff while implementing projects in line with the regulation. Majority 47(95.9%) of developers indicated that they complied with other existing legislations. However, majority

30(61.2%) of developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation. The data also revealed that majority 27(55.1%) of developers had never received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003. While 23(45.0 %) of developers said that they had received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003once. This suggests that the capacity of NEMA to enforce the regulation was limited. Majority 19(63.3%) did not receive funds in implementing the EIA/EA Regulation 2003. Majority 20(66.7%) of lead agencies said that the coordinating role of NEMA was not effective, findings which were confirmed by the lead agencies. A regression analysis revealed a strong relationship between technical factors and compliance to the EIA/EA Regulation 2003. The International Association for Impact Assessment (IAIA) and Institute of Environmental Assessment (IEA, 1999) defines it as the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made. United Nations Environment Programme (UNEP, 2002) defined it as systematic processes to identify, predicts and evaluates the environmental effects of proposed actions and projects. This process is applied prior to major decisions and commitments being made. A broad definition of environment is adopted. Whenever necessary, social, cultural and health effects are considered as an integral part of EIA. Particular attention is given in EIA practice to preventing, mitigating and offsetting the significant adverse effects of proposed undertaking (UNEP, 2002).

Findings revealed that developer's level of awareness influenced the compliance of the EIA/EA Regulations 2003. For example, almost half the developers 23(46.9%) were aware of the EIA/EA Regulation 2003. It was also revealed that 23 (76.7%) of the lead agencies were aware. Majority 9 (90%) of the District Environment Committee indicated that they were aware of the EIA/EA Regulation of 2003. A regression analysis on whether developers level of awareness influenced the compliance to the EIA/EA Regulations 2003, revealed a strong relationship between developers' level of awareness and compliance of the EIA/EA Regulations 2003. In other words, compliance of the EIA/EA Regulation 2003 may be explained by the cost level of awareness. According to Wamukoya, and Ludeki, (2002), Environmental Audit (EA) is the systematic documentation, periodic and objective evaluation of activities and processes of an ongoing project. The goal of EA is to establish if proponents are complying with environmental requirements and enforcing legislation. The purpose of EA is to determine the extent to which the activities and programs conform to the approved environmental management plan. A comprehensive EA ensures a safe and healthy environment at all stages of project operations and decommissioning.

Findings showed that organization had the capacity to implement the EIA/ EA Regulation 2003. For example majority 36 (73.5%) of the developers indicated that they had the capacity. Those who indicated that they did not have the capacity indicted that their projects were donor funded project that dealt with youth, others indicated that the core business of the organization was relief distribution, they also indicated that they did not have the necessary materials and also lacked of skills and financed to implement the

regulation. In order to make the organization able to implement the regulation, they suggested that there was need for allocation of funds for the proper assessment, creation on awareness about EIA/ EA, sensitizing the staff on the regulations and training on environment regulations by NEMA. A regression analysis was carried out to establish whether capacity of developers influenced the compliance to the EIA/EA Regulations 2003revealed a strong relationship between capacity of developer's factors and compliance to the EIA/EA Regulations 2003. Kenya has also developed a number of action plans including National Environmental Action Plan (NEAP) and the National Environmental Management Authority (NEMA) has formulated EIA and EA regulations in Legal Notice No. 101 of June 2003. These regulations clearly spell out the importance of EIA and EA. The successful implementation of EIA and EA Regulations 2003 depends on the availability of a pool of experts who are capable of carrying out Environmental Impact Assessment and Environmental Auditing (NEMA, 2003).

Findings also revealed that capacity of NEMA affected the compliance of the regulation. For example, majority 20(66.7%) of lead agencies said that the coordinating role of NEMA was not effective. Majority 30(61.2%) of developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation. Majority 27(55.1%) of developers had never received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003 while 22(44.9%) of developers had received. Majority of developers received compliance letter from NEMA once or twice. This suggests that the capacity of NEMA to enforce the regulation was limited. Majority 29(59.2%) of developers indicated that their facilities had not been inspected. This

confirms the above findings where majority of the developers had received compliance letters only once. Pearson Product Moment Correlation Coefficient revealed that the capacity o NEMA negatively influenced (-0.65) the implementation of the EIA/EA Regulations 2003. This implies that the more NEMA is empowered the more the effective the compliance to the EIA/EA Regulations 2003.

The Rio Declaration on Environment and Development underscores the important inter-linkages between the social, economic and environmental pillars of sustainable development, all of which are underpinned by good health (Agenda 21, 1992). Kenya's efforts to domesticate Agenda 21 are addressed in Sessional Paper No. 6 on Environment and Development of 1996. This study recognizes linkages as well as the complexities inherent in ecosystem dynamics and their interface with human health and livelihoods.

Most African countries with legal frameworks for EIA have guidelines in place for the review. However, many capacity issues affect the quality of the review. The review of the report is usually carried out by one or a combination of the following: the technical staff of the EIA administrative institution; an intergovernmental committee; a multi-stakeholder committee; and external reviewers depending on the complexity of the study and expertise available. Performance at country level is varied.

5.4 Conclusions

Based on the findings of the study it was concluded that technical factors influenced the compliance of the EIA/EA Regulation 2003. For example developers said that they do not provide appropriate personal protective equipment (PPE) to their staff while

implementing projects in line with the regulation. The developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation. The fact that the majority of developers received a compliance letter only once from NEMA on the implementation of the EIA/EA regulation 2003 implied that the capacity of NEMA to enforce the regulation was limited. Lack of funds was another major technical factor that influenced the compliance of the EIA/EA Regulation 2003.

The study also concluded that developer's level of awareness influenced the compliance of the EIA/EA Regulations 2003. For example, the developers were aware of the EIA/EA Regulation 2003. It was also revealed that lead agencies were aware. Majority of the District Environment Committee indicated that they were aware of the EIA/EA Regulation 2003. A regression analysis on whether developers level of awareness influenced the compliance to the EIA/EA Regulations 2003, revealed a strong relationship between developers' level of awareness and compliance of the EIA/EA Regulations 2003. In other words, compliance of the EIA/EA Regulations 2003 may be explained by the cost level of awareness.

The study also concluded that the developers had the capacity to implement the regulation. Those who indicated that they did not have the capacity indicted that their projects were donor funded project that dealt with youth. They also indicated that they did not have the necessary materials and also lacked skills and finances to implement the regulation. In order to make the organization able to implement the regulation, they suggested that there was need for allocation of funds for the proper assessment. creation on awareness about EIA/ EA, sensitizing the staff on the regulations and training on

environment regulations by NEMA. A regression analysis was carried out to establish whether capacity of developers influenced the compliance to the EIA/EA Regulation 2003revealed a strong relationship between capacity of developer's factors and compliance to the EIA/EA Regulation 2003. The study revealed that NEMA capacity hindered the implementation of the regulation. For example, majority of lead agencies and the developers indicated that the coordinating role of NEMA was not effective. Majority of the developers indicated that NEMA was not effective in playing its coordinating role to implement the regulation. The capacity of NEMA to enforce the regulation was limited. Majority 29(59.2%) of developers indicated that their facilities had not been inspected.

5.5 Recommendations

There is need to raise the level of awareness of the developers so that they can comply with the requirements of the EIA/EA Regulation 2003. This is expected to improve the quality of the environment as there will be less pollution from projects being implemented.

NEMA should certify some centers within the lead agencies to under take EIA and EA reports in order to increase compliance to the regulation and lower the cost of writing EIA and EA Reports. This will be possible as most lead agencies have qualified staff who can write EIA and EA Reports.

The Government should allocate some financial resources to facilitate the lead agencies to review EIA and EA project reports so that NEMA makes informed decisions when approving EIA and EA reports.

NEMA and the Ministry of Environment and Mineral Resources should sensitize the lead agencies and developers on the EIA/EA process to increase compliance to the regulation and to safeguard the environment for the public good and in order not to deplete resources for the future generations.

There is also need to build the capacity of NEMA to play its coordinative and supervisory role in the environment sector. The support should be in the form of more staffing, equipment, better office space for environment officers and inspectors and more funding for the environment agency.

5.6 Suggestions for Further Research

A similar study should be carried out on factors influencing compliance to EIA/EA Regulation 2003 in North Eastern province and Kenya in General.

The study should focus on how to raise compliance to the EIA/EA Regulation 2003 with the aim of reducing the negative impacts of projects on the environment for sustainable development.

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APPENDICES

APPENDIX A: TRANSMITTAL LETTER

Dear respondent,

RE: FACTORS INFLUENCING COMPLIANCE TO EIA/EA REGULATION 2003, IN KENYA, A CASE OF GARISSA CENTRAL DIVISION

I am a post graduate student at the University of Nairobi. As part of my course work I am undertaking a research project on the factors influencing compliance to the EIA/EA Regulation 2003 in Kenya, a case of Garissa Central Division.

You are requested to participate in this study by filling in this questionnaire. I kindly request you to complete the questionnaire. You are assured that all the information you provide will be used for the purpose of the study and your identity will remain confidential. Please respond to all the items in the questionnaire.

Thank You.

Mohamud Hashir Ali

APPENDIX B: QUESTIONNAIRE FOR PROPONENTS (DEVELOPERS)

This questionnaire aims at establishing factors influencing compliance to Environment Impact Assessment / Environment Audit Regulations 2003 in Kenya, a case of Garissa Central Division. You are requested to participate in this study by filling in this questionnaire. You are assured that all the information you provide will be used for the purpose of the study and your identity will remain confidential.

Section A: Personal information

1. What is your gender?

   Male [ ] Female [ ]

2. What is your qualification?

   (a) Certificate [ ]

   (b) Diploma [ ]

   (c) Degree [ ]

   (d) Masters [ ]

   (e) Others [ ]

3. What is your age?

   (a) Below 20 years [ ]

   (b) 21 -25 years [ ]

   (c) 26 – 30 years [ ]

   (d) 31 – 35 years [ ]

   (e) 36 – 40 years [ ]

   (f) 41 – 45 years [ ]

   (g) 46 – 50 years [ ]

   (h) Above 51 years [ ]

4. What is your experience in working in this organisation?

   (a) 1 – 5 years [ ]

   (b) 6 – 10 years [ ]

   (c) 11 – 15 years [ ]

(d) Over 15 years [ ]

Section B: Capacity of proponents (Developers) in the implementation of the EIA/EA Regulation 2003.

1. **How many staff members do you have in your organization?**

   (a) 1 – 5 [ ]

   (b) 6 – 10 [ ]

   © 11 – 15 [ ]

   (d) 16 – 20 [ ]

   (e) 21 – 30 [ ]

   (f) 31 – 35 [ ]

   (g) 36 – 40 [ ]

   (h) 41 and above [ ]

2. What is their qualification?

Qualification	**Number**
Certificate	
Diploma	
Degree	
Masters	
Others	

3. Does your organization have the capacity to implement the EIA/EA Regulation 2003.

   (a) Yes [ ]

   (b) No [ ]

4. If no please explain your answer

5. What would you suggest to be done in making the organization able to implement the regulations?

6. What challenges does the organization face in the implementation of the regulations

Challenges	**Tick Where appropriate**
Political Interference	
Financial	
Technical Skills	
Staffing	
Equipment	
Any other (Specify)	

Section C: Awareness of proponents (developers) on the EIA/EA Regulation 2003

7. Are you aware of the EIA/EA Regulation 2003?
   (a) Very Aware [ ]

(b) Aware [ ]

© Not Aware [ ]

If aware, state how you come to know of the Regulation

_____

_____

_____

8. What awareness programs do you think should be implemented by NEMA in order to sensitize proponents on the EIA/EA Regulation 2003

Intervention	**Tick Where appropriate**
Media	
Baraza	
Documentaries	
Talks	
Any Other (Specify)	

9. Are there challenges that you face as a proponent in implementing the EIA/EA Regulation 2003?

Challenges	**Tick Where appropriate**
Political Interference	
Financial	
Technical Skills	
Staffing	
Equipment	

Any other (Specify)	

Section D: To establish technical factors that influence compliance to the EIA/EA Regulation 2003

10. Do you provide appropriate personal protective equipment (PPE) to your staff while implementing projects in line with the regulation?

(a) Yes [ ]

(b) No [ ]

If no, please explain

_____

11. Do you comply with other existing legislations being implemented by lead agencies?

(a) Yes [ ]

(b) No [ ]

If no, please explain

_____

13. Do you think NEMA is playing its coordinating role well?

(a) Very Effective [ ]
(b) Effective [ ]
© Not Effective [ ]

If not effective explain

_____

_____

14. Have you ever received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003?

(a) Yes [ ]

(b) No [ ]

If Yes how many in the last 5 years? .....

15. Have Officers from NEMA ever inspected your facilities in this area?

(a) Yes [ ]

(b) No [ ]

If Yes how many times in the last 5 years? .....

16. Do you consider allocating funds for complying with the EIA/EA Regulation 2003 when planning for project implementation?

(a) Yes [ ]

(b) No [ ]

If Yes how many EIA Project Reports and EA Reports have you submitted to NEMA in the last 5 years?

Year	No. of EIA Reports	No. Of EA Reports
2008		
2009		
2010		
2011		
2012		

APPENDIX C: QUESTIONNAIRE FOR LEAD AGENCIES

This questionnaire aims at establishing factors influencing compliance to Environment Impact Assessment / Environment Audit Regulation 2003 in Kenya, a case of Garissa Central Division. You are requested to participate in this study by filling in this questionnaire. You are assured that all the information you provide will be used for the purpose of the study and your identity will remain confidential.

Respond to all the items

Section A: Personal data

1. What is your gender?

Male [ ] Female [ ]

2. What is your qualification?

(f) Certificate [ ]
(g) Diploma [ ]
(h) Degree [ ]
(i) Masters [ ]
(j) Others [ ]

3. What is your age?

(i) Below 20 years [ ]
(j) 21 -25 years [ ]
(k) 26 – 30 years [ ]
(l) 31 – 35 years [ ]
(m)36 – 40 years [ ]
(n) 41 – 45 years [ ]
(o) 46 – 50 years [ ]
(p) Above 51 years [ ]

4. What is your experience in working in this organisation?

(e) 1 – 5 years [ ]
(f) 6 – 10 years [ ]

(g) 11 – 15 years [ ]
(h) Over 15 years [ ]

Section B: Capacity of Lead agencies in the implementation of the EIA/EA Regulation 2003.

5. Are there challenges that you face in implementing the EIA/EA Regulation 2003?

Challenges	**Tick Where appropriate**
Political Interference	
Financial	
Technical Skills	
Staffing	
Equipment	
Any other (Specify)	

6. What type of equipment do you have in your organization in this station to implement the EIA/EA Regulation 2003?

i. Vehicle [ ]
ii. Motor bike [ ]
iii. Bicycles [ ]
iv. Desktop Computer [ ]
Iv. Laptop [ ]
v. Printers [ ]
vi. GPS [ ]
vii. TV [ ]
viii. Radio [ ]
ix. Any other (please specify) .....

7. Do you think these equipments are enough for you to implement the regulation?

i. Very enough

ii. Enough

iii Not enough

If not enough what other equipment do you require? .....

8. Do you consider allocating funds for complying with the EIA/EA Regulation 2003 when planning for project implementation?

(a) Yes [ ]

(b) No [ ]

If Yes how many EIA Project Reports and EA Reports have you submitted to NEMA in the last 5 years?

Year	No. of EIA Reports	No. Of EA Reports
2008		
2009		
2010		
2011		
2012		

Section B: Awareness of lead agencies on the EIA/EA Regulation 2003

9. Are you aware of the EIA/EA Regulation 2003?

(a) Very aware [ ]

(b) Aware [ ]

(c) Not Aware [ ]

If Not aware give reasons?

_____

_____

_____

_____

10. What awareness programs do you as a lead agency implement in order to sensitize proponents on the EIA/EA Regulation 2003?

Intervention	Tick Where appropriate
Media	
Baraza	
Documentaries	
Talks	
Any Other (Specify)	

11. What are the challenges that you face in awareness creation of EIA/EA Regulation?

Challenges	Tick Where appropriate
Political Interference	
Financial	
Technical Skills	
Staffing	
Equipment	
Any other (Specify)	

Section C: To establish technical factors that influence compliance to the EIA/EA Regulation 2003

12. Do you receive any funds as a lead agency in implementing the EIA/EA Regulation 2003?

(a) Yes [ ]

(b) No [ ]

Please explain your answer

_____

_____

_____

13. What is your relationship with NEMA in implementing the EIA/EA Regulation of 2003?

(a) Very good [ ]

(b) Good [ ]

(c) Poor [ ]

If poor, explain why

_____

_____

15. Do you think NEMA is playing its coordinating role well? Tick where appropriate

(a) Very effective [ ]

(b) Effective [ ]

(c) Not Effective [ ]

In your opinion how will it be more effective?

_____

_____

16. Have you ever received a compliance letter from NEMA on the implementation of the EIA/EA regulation 2003?

(a) Yes [ ]

(b) No [ ]

If Yes how many in the last 5 years? .....

17. Have Officers from NEMA ever inspected your facilities in this area?

(a) Yes [ ]

(b) No [ ]

If Yes how many times in the last 5 years? .....

18. Do you consider allocating funds for complying with the EIA/EA Regulation 2003 when planning for project implementation?

(a) Yes [ ]

(b) No [ ]

If Yes how many EIA Project Reports and EA Reports have you submitted to NEMA in the last 5 years?

Year	No. of EIA Reports	No. Of EA Reports
2008		
2009		
2010		
2011		
2012		

APPENDIX D: INTERVIEW GUIDE FOR DISTRICT ENVIRONMENT OFFICER

This Interview guide aims at establishing factors influencing compliance to Environment Impact Assessment / Environment Audit Regulation 2003 in Kenya, a case of Garissa Central Division. You have been chosen to provide information which will enable the objectives of this study to be achieved. The findings of this study will be used for academic purpose only. Confidentiality will be ensured throughout the process.

Section A: Personal data

1. What is your gender?

   Male [ ] Female [ ]

2. What is your qualification?

   (k) Certificate [ ]

   (l) Diploma [ ]

   (m) Degree [ ]

   (n) Masters [ ]

   (o) Others [ ]

3. What is your age?

   (q) Below 20 years [ ]

   (r) 21 -25 years [ ]

   (s) 26 – 30 years [ ]

   (t) 31 – 35 years [ ]

   (u) 36 – 40 years [ ]

   (v) 41 – 45 years [ ]

   (w) 46 – 50 years [ ]

   (x) Above 51 years [ ]

4. What is your working experience in this organisation?

   (i) 1 – 5 years [ ]

   (j) 6 – 10 years [ ]

   (k) 11 – 15 years [ ]

(l) Over 15 years [ ]

Section A: Capacity of NEMA in the implementation of the EIA/EA Regulation 2003.

5. What financial allocation have you received from NEMA in the last 5 years to implement the EIA/EA Regulation 2003?

Year	Financial allocation (Kshs)
2008	
2009	
2010	
2011	
2012	

6. Are these funds enough?

i. Very Enough

ii. Enough

iii. Not Enough

If Not enough please give reasons

7. Is the office space provided by NEMA for you adequate to support the staff under you?
   a) Yes [ ]
   b) No [ ]

If no explain why

19. Are there challenges that you face in implementing the EIA/EA Regulation 2003?

Challenges	Tick Where appropriate
Political Interference	
Financial	
Technical Skills	
Staffing	
Equipment	
Any other (Specify)	

Section B; Awareness of proponents on the EIA/EA Regulation 2003

8. Do you think proponents are aware of the EIA/EA Regulation 2003?

   a) Very aware [ ]
   b) Aware [ ]
   c) Not Aware [ ]

   Please explain your answer

10. What awareness programs do you implement in order to sensitize proponents on the EIA/EA Regulation 2003?

Intervention	Tick Where appropriate
Media	
Baraza	
Documentaries	
Talks	
Any Other (Specify)	

9. Are there challenges that you face in awareness creation of EIA/EA Regulation 2003?

Challenges	Tick Where appropriate
Political Interference	
Financial	
Technical Skills	
Staffing	
Equipment	
Any other (Specify)	

Section C: To establish technical factors that influence compliance to the EIA/EA Regulation of 2003

10. Do you receive adequate funds to implement the EIA/EA Regulation 2003?

a) Yes [ ]
b) No [ ]

If no explain

---

12. What type of equipment do you have in your organization in this station to implement the EIA/EA Regulation 2003?

x. Vehicle [ ]
xi. Motor bike [ ]
xii. Bicycles [ ]
xiii. Desktop Computer [ ]
Iv. Laptop [ ]
xiv. Printers [ ]
xv. GPS [ ]
xvi. TV [ ]
xvii. Radio [ ]
xviii. Any other (please specify) .....

13. Do you think these equipments are enough for you to implement the regulation?

i. Very enough
ii. Enough
iii Not enough

If not enough what other equipment do you require? .....

14. How many compliance actions have you taken to enforce the regulations in the last 5 years in Garissa Central Division?

Year	No. of Inspections	No. of improvement Orders	No. of cessation Orders
2008			
2009			
2010			
2011			
2012			

14. How many EIA Project Reports and EA Reports have you received and processed in the last 5 years for developers in Garissa Central Division?

Year	No. of EIA Project Reports received and processed	No. of EA Reports Received and processed
2008		
2009		
2010		
2011		
2012		

15. What is your relationship with lead agencies in implementing the EIA/EA Regulation of 2003?

a) Very Good [ ]

b) Good [ ]

c) Poor [ ]

If Poor explain

_____

_____

16. Do you think NEMA is playing its coordinating role well?

a) Very Effective [ ]
b) Effective [ ]
c) Not Effective [ ]

If Not effective please explain .....

APPENDIX E: INTERVIEW GUIDE FOR DISTRICT ENVIRONMENT COMMITTEE

This Interview guide aims at establishing factors influencing compliance to Environment Impact Assessment/Environment Audit Regulation 2003 in Kenya, a case of Garissa Central Division. You have been chosen to provide information which will enable the objectives of this study to be achieved. The findings of this study will be used for academic purpose only. Confidentiality will be ensured throughout the process.

Respond to all the items

Section A: Personal data of the respondents

1. What is your experience in working in this organisation?
   a. 1 – 5 years [ ]
   b. 6 – 10 years [ ]
   c. 11 – 15 years [ ]
   d. Over 15 years [ ]

Section B: Capacity of NEMA in the implementation of the EIA/EA Regulation 2003

2. How many members do you have in your committee? _____

3. How many times do you meet per year? _____

4. Do you think you receive good sitting allowances in your meetings?

   a) Yes [ ]
   b) No [ ]

   If no explain

   _____

   _____

5. Are there challenges that you face as a committee in implementing the EIA/EA Regulation 2003?

Challenges	**Tick Where appropriate**
Political Interference	

Financial	
Technical Skills	
Staffing	
Equipment	
Any other (Specify)	

Section C: Awareness of proponents on the EIA/EA Regulation 2003

6. Do you think proponents are aware of the EIA/EA Regulation 2003?
   a) Very Aware [ ]
   b) Aware [ ]
   c) Not Aware [ ]

7. What awareness programs does your committee implement in order to sensitize proponents on the EIA/EA Regulation 2003

Intervention	**Tick Where appropriate**
Media	
Baraza	
Documentaries	
Talks	
Any Other (Specify)	

8. What are the challenges that your committee face in awareness creation of EIA/EA Regulation 2003?

Challenges	**Tick Where appropriate**
Political Interference	
Financial	
Technical Skills	

Staffing	
Equipment	
Any other (Specify)	

Section D: To establish technical factors that influence compliance to the EIA/EA Regulation 2003

9. What financial allocation have you received from NEMA in the last 5 years to implement the EIA/EA Regulation 2003?

Year	**Financial allocation (Kshs)**
2008	
2009	
2010	
2011	
2012	

10. Are these funds enough?

    iv. Very Enough

    v. Enough

    vi. Not Enough

If Not enough please give reasons

_____

_____

11. What is your relationship with lead agencies in implementing the EIA/EA Regulation 2003?

    a) Good [ ]

    b) Poor [ ]

    If Poor explain

_____

_____

12. Do you think NEMA is playing its coordinating role well?

a) Very Effective [ ]
b) Effective [ ]
c) Not Effective [ ]

d) If not effective explain

_____

_____

Figure 1: Garissa District Administrative Boundaries

SOURCE: DDOS OFFICE, GARISSA 2012

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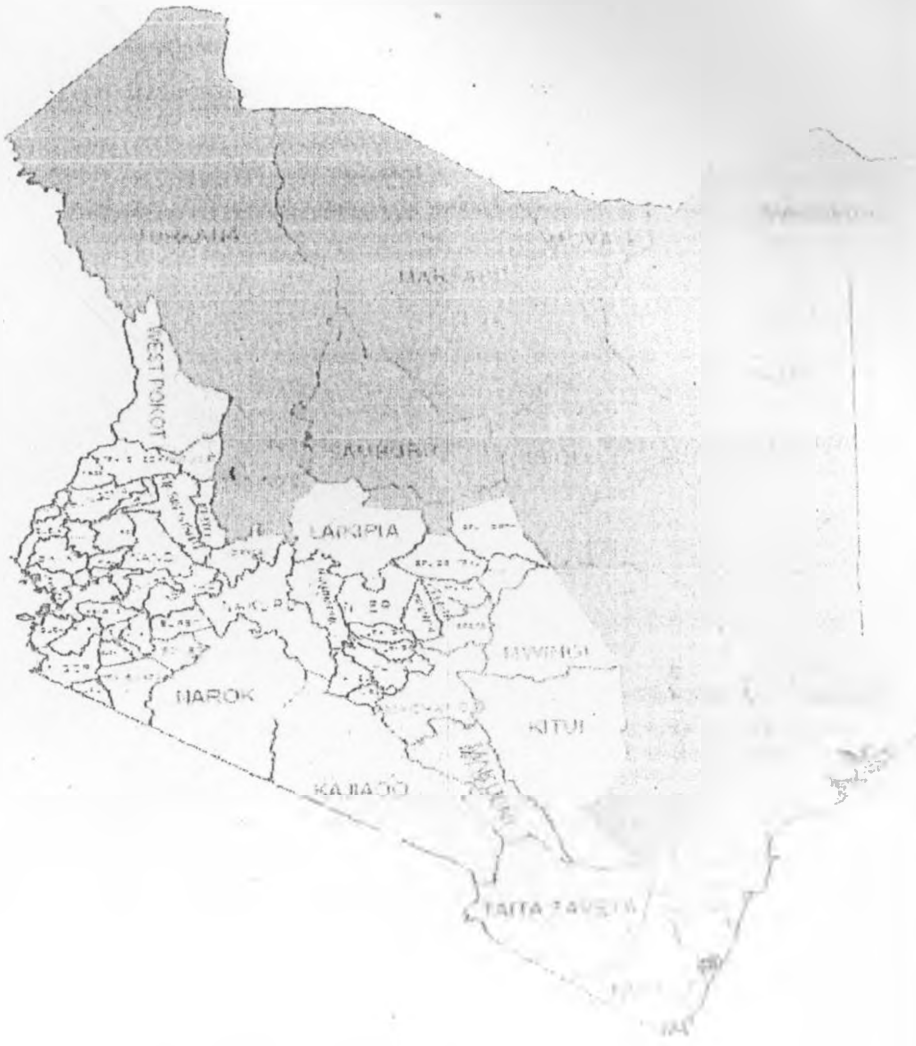
MAP OF KENYA SHOWING ARID AND SEMI ARID DISTRICTS



RED ARE ARID DISTRICTS
YELLOW ARE SEMI ARID DISTRICTS

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