

**FACTORS INFLUENCING COMPLIANCE TO  
ENVIRONMENTAL IMPACT ASSESSMENT (EIA), CASE OF  
KITUI CENTRAL SUBCOUNTY**

**BY**

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**Research Project Report Submitted in Partial Fulfillment of the  
Requirement for the Award of Master of Art in Project Planning and  
Management of the University of Nairobi**

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**DECLARATION**

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

SIGN..... DATE.....

Rachael katumi

L50/78866/2015

This research project report has been submitted for examination with my approval as a university supervisor ‘

SIGN..... DATE.....

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## **DEDICATION**

This work is dedicated to my husband, Boniface Mutinda, my loving children: Moses Mutinda, Keith Mumo and Japheth Muathime, for supporting me in the course and my parents: Katumi Mutyango and late Mary Mue and my uncle, Fredrick Mutyango who laid the groundwork for my education.

## **ACKNOWLEDGEMENT**

My sincere gratitude goes to my supervisor Consolata Mueni for her guidance and advice in carrying out this research. I wish to acknowledge the support I got from fellow colleagues during this study. I thank them for their understanding and patience during the study period. I also feel greatly indebted to husband and children for their encouragement and moral assistance. My sincere gratitude goes to the respondent who willingly helped in the research. Finally, special thank go to my God for His provision, good health and energy to carry out my studies.

## **ABSTRACT**

.The purpose of this study was to establish factors influencing compliance to Environment Impact Assessment in Kenya, a case of Kitui central sub county. The study was guided by the following objectives: establishing the extent to which technical factors influence compliance to the Environmental Impact Assessment in Kitui central sub county, examine the extent to which developers level of awareness influence compliance to the Environmental Impact Assessment in Kitui central sub county, examine the influence of capacity of lead agencies in implementing the environmental impact assessment in Kitui central sub-county, examine the influence of capacity of National environment management authority in implementing the Environmental Impact Assessment Purposive sampling was used to select the respondent to be included in the study. Descriptive survey research method was used. Kitui central sub county was purposely sampled for the purpose of the study .basing on accessibility, 49 developers, 10 DEC members, 30 lead agencies, 1 county environment officer,1county director of environment .Data for this study was collected using questionnaire, interviews, field observations, focus group discussions, and photographs. The questionnaire was administered to 91 respondents. The collected data was analyzed using both descriptive and inferential statistics. Findings indicated that technical factors influenced the compliance to the Environmental impact assessment. Data from the County Environment officer indicated that he was aware of the Environmental impact assessment Findings also revealed that the capacity of lead agencies influenced the implementation of the Environmental Impact Assessment. It was revealed that the capacity of National Environment Management Authority influenced compliance to Environmental Impact Assessment. For example the County Environment Officer indicated that he had not received funds for ensuring compliance to Environmental Impact Assessment. He further indicated that he did not face political interference challenge in complying with Environmental Impact Assessment Based on the findings of the study, it was concluded that technical factors influenced the compliance to the EIA. From the research findings, the researcher made the following recommendation: that there is need to raise the level of awareness of the developers so that they can comply with the requirements of Environmental Impact Assessment

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AMCEN</b>	African Ministerial Conference on the Environment
<b>CEAA</b>	Canadian Environmental Assessment Agency
<b>DEC</b>	District Environment Committee
<b>EIA</b>	Environmental Impact Assessment
<b>EA</b>	Environmental Audit
<b>EHS</b>	Environment Health and Safety
<b>EMS</b>	Environment Management System
<b>EMCA</b>	Environmental Management and Co-ordination Act
<b>IAIA</b>	International Agency for Impact Assessment
<b>IAIA</b>	International Association of Impact Assessment
<b>UN</b>	United Nation
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	United Nation framework for Climate Change
<b>NEAP</b>	National Environment Action plan
<b>NEPA</b>	National Environment Policy Act
<b>NEMA</b>	National Environment Management Authority
<b>NES</b>	National Environment Secretariat
<b>PEC</b>	Provincial Environment Committee

# CHAPTER ONE

## INTRODUCTION

### **1.1 Background of the Study**

Environmental Impact Assessment was formally introduced in the United States through the National Environmental Policy Act (NEPA) of 1969. According to Goodland et al. (1996), forms of what later became known as environmental assessment had started under town planning, land use and other policies prior to this period. Environmental Impact Assessment regulations rapidly spread to other, mainly industrialized, countries of the world (Harrison, 1987 in Steyl, 2000). Today, they are applied in more than 100 countries, and by all development banks and most international aid agencies. However, more strategic, sustainability-based approaches (SEAs) are still at a relatively early stage of development (UNEP, 2002).

The Environmental Impact Assessment (process, which originated in the United States in the late 1960s and early 1970s, has been adopted extensively in the rest of the world.

The U.S. model and that of other developed countries share basic principles and reflects commonly Agreed-upon approaches to similar problems. While EIAs in developing countries are based on the same set of principles; their Implementation often falls considerably short of international standards. They frequently suffer from insufficient consideration of impacts, alternatives, and public participation. In the Worst case, they are not conducted at all.

This is particularly troubling given that environmental impact.

In Africa, many countries have instituted Environmental Impact Assessment, albeit relatively recently. The adoption of EIAs in Africa is the result of a number of recent initiatives, including the 1995 African Ministerial Conference on Environment that committed African environment ministers to formalize the use of EIAs, an EIA stakeholders meeting in Nairobi in 1998, and the work of the Pan-African Initiative for Capacity Development and Linkages for Environmental Impact Assessment in Africa (CLEIAA). In general, however, Environmental Impact Assessment in Africa still appear plagued by a lack of trained personnel, inadequate budgets and the concern that EIAs

might hold back economic development (Kakonge, 1999). When EIAs are implemented in time, an underestimation of social and environmental costs has been the norm, which in turn has led many local communities, NGOs, and academics to mistrust and question the validity of EIAs in the region (Manorom 2007). This underestimation is at least in part the outcome of insufficient incorporation of local perspectives on anticipated costs and benefits of projects. Public consultation and information All countries in South and Central America have environmental protection legislation that includes requirements for at least some aspects of EIAs. Specifically, in South America the Development of EIAs has been hampered by political instability, inefficient bureaucracy, Economic stagnation, and external debt (Brito and Verocai 1999). According to Glasson and Salvador (2000),

EIA in South America often is carried out after a project has been authorized and with little or no public participation. The former communist states in central, eastern, and southeastern Europe and the republics .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 interactions 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.

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 worldwide 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 of several industrialized nations of a second one of the most important and rapidly evolving trends in practice Environmental Impact Assessment is the recent progress with the application of Environmental impact assessment is an essential policy instrument for achieving sustainability in development. Commitments to the application and institutionalization of Environmental impact assessment 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 (A.M.C.E.N) ministerial declarations of 1995 and 2006), the Environment initiative of new partnership for Africa's development (N.E.P.A.D), and in the Paris declaration of Aid effectiveness. Environmental audit (E.A) is described as one of the more successful policy innovations, of the 20<sup>th</sup> 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 21<sup>st</sup> century, responding to the demands of a changing world (UNFCCC, 200).

The Environmental Impact Assessment process has several important purposes. It is first and foremost a decision-making aid to prevent projects with strongly negative environmental impacts from going forward. The Emphasis in EIAs, in contrast with other mechanisms for environmental protection such as a Cost-effectiveness analysis, is on a systematic, holistic, and multidisciplinary assessment of the Potential impacts of specific projects on the environment. EIAs also are meant to help inform Development decisions by mandating a consideration of alternatives (including alternative Project locations, scales, processes, layouts, operating conditions, or in some cases, the option of desisting from implementing a project) and ways to prevent, mitigate, and control potential Negative environmental and social impacts. The process generally involves a number of

steps, including project screening, scoping, an Environmental Impact Assessment report (consideration of alternatives

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. Environmental Impact Assessment 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 Environmental Impact Assessment as a sustainability mechanism depends on the scope and integrity of the Environmental Impact Assessment as a sustainability mechanism depends on the scope and integrity of the Environmental Impact Assessment 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 Environmental Impact Assessment as an implementing mechanism for the conventions, and the use of existing Environmental Impact Assessment methods to the fullest extent possible.

Environmental impact assessment is an essential policy instrument for achieving sustainability in development. Commitments to the application and institutionalization of Environmental impact assessment 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 (A.M.C.E.N) ministerial declarations of 1995 and 2006), the Environment initiative of new partnership for Africa's development (N.E.P.A.D), and in the Paris declaration of Aid effectiveness. Environmental audit (E.A) is described as one of the more successful policy innovations, of the 20<sup>th</sup> 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 21<sup>st</sup> century, responding to the demands of a changing world (UNFCCC, 200).

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In recent years, Environmental Impact Assessment 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 Environmental Impact Assessment process as formal policy requirement. The subsequent worldwide adoption of Environmental Impact Assessment, 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 value Environmental Impact Assessment as an instrument for decision making and problem solving. Other benefits documented in this report



confirm and value and contribution of EA to meeting the challenge of sustainable development (NEPA, 1970).

Environmental impact assessment is a critical examination of the effects of a project on the environment. An Environmental Impact Assessment identifies both negative and positive impacts of any development activity or project, how it affects people, their property and the environment. Environmental Impact Assessment also identifies measures to mitigate the negative impacts, while maximizing on the positive ones. Environmental Impact Assessment is basically a preventive process. It seeks to minimize adverse impacts on the environment and reduces risks. If a proper Environmental Impact Assessment 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 use legislation, wildlife legislation, Agriculture etc to address this weakness, on the 15<sup>th</sup> December 1999, parliament enacted the environmental management and coordination Act, 1999 that received presidential assent on the 6<sup>th</sup> Jan 2000 and came into effect on 14<sup>th</sup> 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. This derives from the fact that it combines the aspirations of the society with those of the individual.

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. The national environment management authority is mandated by the environmental management and coordination act (EMCA) no 8 of 1999 to administer the Environmental Impact Assessment. Environmental Impact Assessment 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 Environmental impact assessment is an essential policy instrument for achieving sustainability in development. Commitments to the application and institutionalization of Environmental impact assessment 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 (A.M.C.E.N) ministerial declarations of 1995 and 2006), the Environment initiative of new partnership for Africa's development (N.E.P.A.D), and in the Paris declaration of Aid effectiveness. Environmental audit (E.A) is described as one of the more successful policy innovations, of the 20<sup>th</sup> 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 21<sup>st</sup> century, responding to the demands of a changing world (UNFCCC, 200).

The Environmental Impact Assessment process has several important purposes. It is first and foremost a decision-making aid to prevent projects with strongly negative environmental impacts from going forward. The Emphasis in EIAs, in contrast with other mechanisms for environmental protection such as a Cost-effectiveness analysis, is on a

systematic, holistic, and multidisciplinary assessment of the Potential impacts of specific projects on the environment. EIAs also are meant to help inform Development decisions by mandating a consideration of alternatives (including alternative Project locations, scales, processes, layouts, operating conditions, or in some cases, the option of desisting from implementing a project) and ways to prevent, mitigate, and control potential Negative environmental and social impacts. The process generally involves a number of steps, including project screening, scoping, an Environmental Impact Assessment report (consideration of alternatives is required by the environmental management and coordination act or regulations issued under it unless and 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 Environmental impact assessment is an essential policy instrument for achieving sustainability in development.

Commitments to the application and institutionalization of Environmental impact assessment 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 (A.M.C.E.N) ministerial declarations of 1995 and 2006), the Environment initiative of new partnership for Africa's development (N.E.P.A.D), and in the Paris declaration of Aid effectiveness. Environmental audit (E.A) is described as one of the more successful policy innovations, of the 20<sup>th</sup> 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 21<sup>st</sup> century, responding to the demands of a changing world (UNFCC, 200).

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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 enforcement between users of buildings .the owners, service provision and planning authorities. We therefore recommend that all government players to register with National Environment Management Authority to curb unnecessary duplication and to give section 148 the teeth to bite since.

The first step in managing compliance with environmental legal requirements is to know which requirements are applicable to an organizations 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) .Apparently these regulations have not been complied to in many instances.

## **1.2 Statement of the Problem**

A number of academic studies have indicated that an EMS does not in itself guarantee legal compliance and good environmental performance EMS requires enforcement .the national environment management authority officers in charge of inspection should do a follow up activity to ensure compliance .however there are has been minimal follow up . An organization may choose to implement an environmental management system 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.

Environmental impact assessment is a critical examination of the effects of a project on the environment. The goal of EIA is to ensure that decisions on proposed projects and activities are environmentally sustainable. An Environmental Impact Assessment 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. Environmental Impact Assessment assesses the impacts of 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 and the current changes in environmental policy in Kenya requires institutions and organizations carrying out development projects to carry out environmental impact assessment many of the individuals working in these organizations and institutions are not aware of how to carry out an Environmental Impact Assessment or its importance. Apparently, a number of developers do not comply with the Environmental Impact Assessment. This study therefore aims at establishing the factors influencing compliance to environment impact assessment in Kenya, a case of Kitui Central sub-county.

### **1.3 Purpose of the Study**

The purpose of this study was to establish factors influencing compliance to environment impact assessment in Kenya, a case Kitui Central sub-county.

### **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 Environmental Impact Assessment in Kitui central sub county

2. To examine the extent to which developers level of awareness influence compliance to the EIA in Kitui central sub county
3. To examine the influence of capacity of lead agencies to implement the Environmental Impact Assessment in Kitui Central Sub-county.
4. To examine the influence of capacity of Nema in ensuring compliance the Environmental Impact Assessment in Kitui Central Sub-County.

### **1.5 Research Questions**

The study was guided by the following research questions:

1. To what extend do technical factors influence compliance to the Environmental Impact Assessment s by developers in Kitui Central Sub-County?
2. To what extend to developers levels of awareness influence compliance to the Environmental Impact Assessment in Kitui Central Sub-County?
3. To what extend does the capacity of lead agencies influence compliance to the Environmental Impact Assessment in Kitui Central Sub-County?
4. To what extend does the capacity of NEMA influence compliance to the Environmental Impact Assessment Kitui Central Sub-County?

### **1.6 Limitations of the Study**

The study was faced by a number of limitations. Researchers on the factors influencing compliance of the EIA regulations are scarce especially in Kenya. The researcher relied on secondary data in the field. Another limitation of this study was that the respondents may not be fully aware of the policy guidelines on the Environmental Impact Assessment. Another limitation was that the respondents may give socially acceptable responses which may affect the validity of the study.

### **1.7 Delimitations of the Study**

Delimitations are boundaries of the study. One of delimitations of this study was that the study was carried out in one administrative sub county hence the findings will not be generalized to other areas. Delimitation was that the researcher was not able to get information from every stakeholder in Environmental impact assessment is an essential

policy instrument for achieving sustainability in development. Commitments to the application and institutionalization of Environmental impact assessment 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 (A.M.C.E.N) ministerial declarations of 1995 and 2006), the Environment initiative of new partnership for Africa's development (N.E.P.A.D), and in the Paris declaration of Aid effectiveness. Environmental audit (E.A) is described as one of the more successful policy innovations, of the 20<sup>th</sup> 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 21<sup>st</sup> century, responding to the demands of a changing world (UNFCC, 200).

The Environmental Impact Assessment process has several important purposes. It is first and foremost a decision-making aid to prevent projects with strongly negative environmental impacts from going forward. The Emphasis in EIAs, in contrast with other mechanisms for environmental protection such as a Cost-effectiveness analysis, is on a systematic, holistic, and multidisciplinary assessment of the Potential impacts of specific projects on the environment. EIAs also are meant to help inform Development decisions by mandating a consideration of alternatives (including alternative Project locations, scales, processes, layouts, operating conditions, or in some cases, the option of desisting from implementing a project) and ways to prevent, mitigate, and control potential Negative environmental and social impacts. The process generally involves a number of steps, including project screening, scoping, an Environmental Impact Assessment report (consideration of alternatives Due to time and money factors hence some of the crucial information will be left out.

### **1.8 Assumptions of the Study**

The following were the assumptions of the study;

The study assumed that the respondents were aware of the EIA regulations and hence were able to provide information on the same. It also assumed that developers have been complying with the EIA regulations. The study also assumed that the respondents were honest in responding to the study questions.

### **1.9 Significance of the Study**

The findings of this study were important in a number of ways; the study findings established that technical factors influenced compliance to the EIA regulations by developers. The study team were appalled at how unaware Kenyans are, of the existence of the 1999, Environmental Management and co-ordination 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 assisted in seeking ways of addressing such technical factors that hinder compliance. There was great need to inculcate a culture of sensitivity to basic environmental care within the Kenyan population. The findings helped raise the levels of awareness of the EIA regulations so that as many as possible developers are able to adhere to the regulations. The study findings also established the capacity that the lead agencies have in the implementing the EIA regulations and hence sought for ways that these lead agencies could be in the front line in complying with the regulations. Lastly, the study findings came up with interventions that will help rising the levels of compliance to the EIA regulations.

### **1.10 Definitions 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 Audi (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 organizations 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.

**CLEIAA** is a pan-African networking forum where Environmental Assessment and Management (EA&M) practitioners, administrators, policy makers, researchers and other key stakeholders exchange views, make linkages and pursue joint activities related to the promotion of sustainable development through EA&M in Africa

**Environmental Management and Coordination Act (EMCA)** is an Act of Parliament that 'provides for the establishment of an appropriate legal and institutional Framework for the management of the environment and connected matters' (Republic of Kenya,

### **1.11 Organisation of the Study**

This study comprised of five chapters. Introduction and background information to the study was the highlight of chapter one. Included in chapter one also comprises of the statement of the problem, objectives of the study research questions, significance of the study, delimitations of the study, limitation of the study and assumptions of study and definition of significant terms used in the study. Chapter two has exhibited the literature review for the study objectives while the methodology of conducting the research are preserve of chapter three. Chapter four included data presentation, analysis of the research data and interpretation of the research findings. Chapter five included summary of the findings, conclusion and recommendation.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0. Introduction

This chapter on literature review on Environment impact Assessment. The chapter specifically addresses the background to the Environment Impact Assessment. The chapter further presents the theoretical and conceptual framework of study.

#### 2.1 Background to the Environment Impact Assessment

Many definitions of Environmental Impact Assessment 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, exploration of alternatives and mitigations measures. According to the World Bank Operational Directive, (World Bank 1989) Environmental impact is a flexible procedure, which can vary in breath, 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 discreet 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. US Environmental Protection Agency (US 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 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 and commitment made. United Nations Environment Programme

(UNEP, 2002) a systematic processes to identify, predict 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 of proposed undertaking (UNEP, 2002).

Environmental Impact Assessment identifies potential problems and opportunities and is thus an essential part of the project cycle. Apart 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 Environmental Impact Assessment 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 effected parties and communities. The project proponent pays for the entire Environmental Impact Assessment process. The fee payable to NEMA is 0.1% of the project cost or minimum of kshs. 10,000 for projects costing up to 20m. Environmental Audit (EA) is the systematic documentation, periodic and objective evaluation of activities and processes of an ongoing project. Kenya s environmental law is contained in various sectional 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. The provisions of section 55 (7) of EMCA are even more pertinent to the implementation of Nairobi Convention as they relate directly to land based sources and activities. Section 55(7) mandates the ministry in consultation with relevant lead agencies to issue regulations for the control and privation of pollution to the marine environment from land based sources, including rivers, estuaries, pilings, vessels, and from installations and devices that explore or exploit natural resources in the seabed

and subsoil of the exclusive economic zone. The minister is mandated to issue appropriate regulations to prevent, reduce and control pollution of the marine environment. Section 58(1) (4) and second schedule of EMCA requires certain projects to undergo Environmental Impact Assessment studies before implementation. Environmental Impact Assessment and Audit Regulations of 2003 were promulgated pursuant to sections 58 and 147 of EMCA 1999.

### **2.2.1 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 with environmental issues are equally numerous. Sector specific laws are deficient in that they are characterized by fragmented and uncoordinated sectional legal regimes that are developed to facilitate resource allocation and to deal with environmentally adverse effects of resource exploitation. The sectional institutions under these laws often find themselves in regulatory competition.

### **2.2.2 Constitution of Kenya**

The constitution of Kenya in spite of being the supreme law of the land does contain specific provision regarding the environment. Section 70 however lists the right to life as one of the fundamental rights and individual is entitled to. The right life granted by the constitution can be interpreted to include the right to a clean and healthy environment. Environmental Management and coordination Act of 1999 (EMCA) the 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 are defined in Section 2 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.

### **2.2.3 EIA Process in Kenya**

Development has impacts on 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 is a tool that assists in anticipation and minimization of the adverse effects of development. Undertaken in the early stages of project planning and design, Environmental Impact Assessment seeks to help shape development in a manner that best suits the local environment and is most responsive to human needs. The concept of Environmental Impact Assessment recognizes that natural resources are finite and incapable of absorbing the unchecked demands of modern society (RoK, 1999).

As is evident that the Kenyan Environmental Impact Assessment process follows international norms in that it incorporates the traditional screening, scoping, and 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 practitioner 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 regulations stipulates the academic and experience requirements for each category. Importantly in the context of the Nairobi convention is that section 44 of the regulations specifically requires an Environmental Impact Assessment for activities likely to have a trans-boundary impact and in section 42, there is a specific requirement for SEA. A weakness of regulations 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 to initiate an environmental audit any time 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. In addition to directing the p Environmental Impact Assessment process, the EMCA 1999 imposes penalties for offences related to pollution and 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.

### **2.3 Technical factors influencing compliance to the EIA regulations 2003 by developers.**

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 Ministry of environment and Mineral Resource through the National Environment Management Authority (NEMA) as mandated by the Environmental Management and Coordination Act (EMCA, 1999) coordinate the surveillance system. NEMA creates a consultative forum for all the lead agencies involved in health and environment matters (EMCA, 1999).

Most African countries with legal framework for Environmental Impact Assessment have guidelines in place for the review. However, many capacity issues affect the quality of the review. One or a combination of the following usually carries out the review of the report: the technical staff of the Environmental Impact Assessment administrative institution; an intergovernmental committee; a multi-stakeholders committee; and external reviews depending on the complexity of the study and expertise available. Performance at country level is varied. For example, Cameroons 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 Environmental Impact Assessment 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 Environmental Impact Assessment study and in the case of donor-supported projects, the cost is usually factored into project funds. While in some countries, the schedule of Environmental Impact Assessment fees relative to project costs is provided for in legislation, in others it is left to the developers to decide. In reality, the cost of Environmental Impact Assessment is

subject to negotiation between the developer and consultant. Fees charged are generally within expected limits and have not been considered a deterrent to conduct of Environmental Impact Assessment. 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).

## **2.4 Levels of awareness to the compliance of Environmental Impact Assessment**

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 it b clearly understood. The low level of public awareness of environmental concerns, and limited expertise, experience and lack of coherent legal framework and guidelines has compromised Environmental Impact Assessment quality in Africa (CLEIAA, 2003). The quality of Environmental Impact Assessment 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, Environmental Impact Assessment administrators have defined minimum qualifications required for membership to Environmental Impact Assessment study teams. In some countries, the registration, certification and accreditation of Environmental Impact Assessment professionals are legal requirements. Financial institutions are also insisting on EIA and the quality of report produced (CLEIAA, 2003). Increasingly, countries are enacting legislation that provide for engaging the public. In many countries, the media are instrumental in eliciting public comments on Environmental Impact Assessment report, publicizing public hearings, notifying stakeholders of decisions and informing stakeholders about the appeal process. Local communities and others interest groups routinely demand evidence of Environmental Impact Assessment process is , in most cases, inadequate due to many factors such as time, money, literacy, language, public presentation , education, cultural difference, gender, physic al remoteness and political/ institutional culture of decision –making. Case studies on public participation in the Environmental Impact Assessment 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.

## **2.5 Capacity of NEMA in ensuring compliance to Environmental Impact Assessment**

The Kenya government attaches great value to issues of environmental governance, 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 1, 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 pursuing sustainable development in all sectors of the Kenyan economy spearhead by National environment Management Authority (NEMA), the Ministry of Environment and Mineral Resources and other relevant ministries such as thus 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 regulations in legal Notice No. 101 of June 2003. These regulations clearly spell out the importance of EIA. The successful implementation of EIA regulations of 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 Acts (EMCA) No. 8 of 1999, as the principal instrument of government in implementation of all policies relating to the environment. The authority became operational on 1<sup>st</sup> July 2002 following the merger of the national Environment Secretariat (NES) and the permanent presidential commission on soil conservation and forestation (PPCSCA). NEMAs mandate is defined in section 8 (1) of EMCA 1999; "the object and purpose for which the authority is established is to exercise general supervision and coordination over



all matters relating to the environment and to be the principal instrument of Government in implementation of all policies relating to the environment.

## **2.6 Capacity of lead agencies in implementing 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 sectional 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 live hoods. This was later legislated in 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 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 effectively carrying out its function of proper management of the environment at this levels. The lead agencies also implement a number of legislations such as the agriculture act, water act 2003, forest act 2005, charcoal guidelines 2010 that affects the environment is used and managed. These agencies also include the United Nations international, National and local NGOs. They implement projects and programmers that touch on peoples live hoods 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 Environmental Impact Assessment.

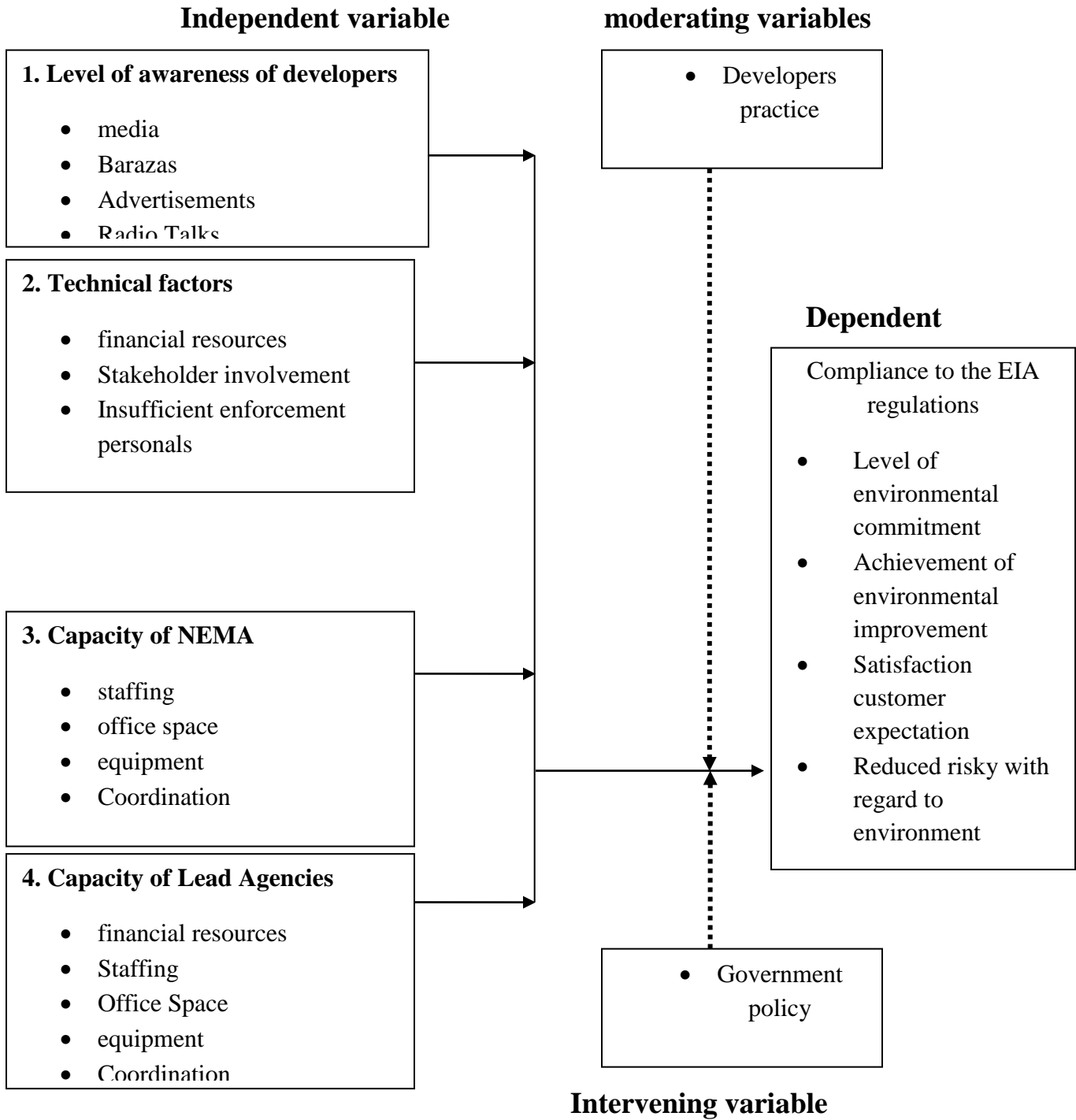
## **2.7 Compliance to the Environmental Impact Assessment by developers**

There is inadequate enforcement of the provisions of the Environmental Impact Assessment to curb degradation of environment. there is urgent need for standards

Enforcement and Review committee that is supposed to promulgate the standards, guidelines and regulations on waste management matter as well as the District and provincial Environment committee that are responsible for the proper management and governance of the environment within the district and province and all technical officers of the municipal councils and the concerned ministries. There is inadequate capacity within municipal councils (see above).key among these is local authorities as they are in charge of disposal of and management of waste and sewage. The dependent variable which is compliance to the Environmental Impact Assessment is influenced by moderating variables like the developers practice and intervening variables like government policies to meet the independent variable such as the technical factors, level of awareness on the Environmental Impact Assessment and the capacity of local agencies and NEMA to implement the Environmental Impact Assessment.

## **2.8. Theoretical framework**

The human relation theory is relevant in explaining psychological factors that influence environment .Importation this perspective is the belief that social needs have precedence over economic needs .Abraham Maslow is an important contributor to the field of human relations through his content (needs) theory . The most basic needs are the are the physical needs for food, water and shelter. The others are the needs for safety, social needs or the needs for love, affection and acceptance as belonging to a group, need for esteem and the most advance need for self-actualization or self-fulfillment .People try to satisfy their lower needs and then progress upward to the higher needs (Armstrong, 2001). All this processes of trying to fulfill ones needs have severe impacts on environment .As people put their efforts in achieving their higher needs in the hierarchy such as construction of a storey building for self-actualization or drilling a borehole for irrigation .they should ensure that they adhere



**Figure 1 Conceptual framework on factors influencing compliance to the EIA Regulations 2003.**

The conceptual framework for study illustrates the factors that influence developer compliance to EIA regulations 2003. The framework shows that for the effective compliance to EIA variables such as technical factors, level of awareness to the EIA regulations, 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 governmental policy, there will be effective compliance to the EIA regulations 2003.

## **2.9. Literature Review Summary.**

The chapter discusses the adoption of EIA at the global arena by the United Nations environment program me (UNEP), the US Environment Protection Agency USEPA, the World Bank, and the international association for impact assessment (IIAIA) and Institute of Environment Assessment .

This chapter also presented the review of literature on factors influencing compliance to the EIA/EA Regulation, 2003 in Kenya the case of Kitui central sub county. 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 .

The factors that influence the compliance to the EIA Regulations 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 different stakeholders that are to implement and expected to comply with the regulations. It also gives a comprehensive assessment of the conception 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 to strategic, approaches, technique and logical organizations of observing data and information required to solve a problem in hand. In this study the research methodology will involve the following sub topics; research design, target population. Sample size and sampling procedures, research instruments, and data collection procedures 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 will be used in its both qualitative and quantitative approaches. Descriptive studies aims at giving an accurate account about a specific aspect to situation which is being studied. This design will therefore be used to investigate factors influencing compliance to Environment Impact Assessment by developers in Kitui Central Sub County

#### **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 will involve the developers (49), the DEC (10), Lead agencies (30), county Environment officer (1), county director of environment (1) as the stakeholder in the purpose for this study in order to establish factors influencing compliance to Environment Impact Assessment in Kenya, a case of Kitui Central sub county

### **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 will be 49 developers out of 88, 30 lead agencies out of 45, 10 DEC members out of 10 and the county Environment officer (1), county director of environment of NEMA. The source of the sample size will be the county director of environment and the county Environment officer, Kitui, 2017.

### **3.5 Research instrument**

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 will be used to establish factors influencing compliance to environment impact assessment by developers in Kitui central sub county. This will include the questionnaires and interview schedule. According to Berg (1999) interview schedule is preserved mans of data collection because it is a social encounter. This collected qualitative data and quantitative data. In this study interview guide will be used to collect data from the county environment Officer and the District Environment Committee.

#### **3.6.1 Piloting**

Pilot study will be 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 will be done in another sub county which will not be used in the real study.

#### **3.6.2 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 will help improve face validity and content of the instruments. Face validity will be determined by a review of the items which means anyone who looks over the test,

including examines 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 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.

### **3.6.3 Instrument Reliability.**

Reliability is a measure of degree to which research instrument gives constructive results after its repeated several times. Instrument reliability enhances dependability, accuracy and clarity. The split –half method will be used. this entails separating the questionnaire into two sets using the odd numbered questions for one set and the even numbered questions for other half (Nachmais and Nachmias, 1996). Each of two sets will be treated separately and scored accordingly. The two sets will then be correlated and the correlation co-efficient obtained adjusted by the Spearman’s-Brown prophecy formula.

### **3.7 Data Collection Procedure.**

Before the start of the data collection the researcher will go to the national council for science and technology (NCST) to obtain permit to carry out the research. The researcher then will visit the area of study and make arrangements with the respondents on when to conduct the study. Questionnaires and interview guide schedules will be then being prepared.

### **3.8 Data Analysis Techniques**

After the data had been collected it will be cross examined to ascertain their accuracy, competence and identify those items wrongly responded to, spelling mistakes and blank spaces. Quantitative data will then be entered into the computer for analysis using the statistical package for social sciences (SPSS) (Version 17). The processed frequencies and percentages will be used to discuss the findings. The findings from the study will be presented using tables showing frequencies, percentages, means, and standard deviations to illustrate the differences between dependent variables. In the analysis of variance

(ANOVA) will be used to determine compliance to Environment Impact Assessment (EIA) regulations 2003. Spearman Rank Correlation Coefficient ( $\rho$  or rho) will also be used to reflect degree of linear relationship in the compliance to environment impact assessment EIA regulations 2003.

### **3.9 Ethical Consideration**

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 will first ensure that complete confidentiality of information collected. This will be done by not revealing the identities of the respondents. Secondly the researcher will respect the respondent's 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 will avoid cases of plagiarism by ensuring that all data obtained from secondary sources will be acknowledged herewith. Fourthly, the researcher ensures that respondents will be free to participate in the study. Finally, the researcher will be more than willing to share or give feedback of the researcher to the respondents.



### 3.10 operational Definitions of variables

Indicators will be denoted by main variables under the study in order to render them measurable

<b>OBJECTIVE</b>	<b>INDEPENDENT VARIABLE</b>	<b>INDICATORS</b>	<b>MEASURE</b>	<b>SCALE MEASUREMENT</b>	<b>OF</b>	<b>TOOLS OF ANALYSIS</b>
To establish the extent to which technical factors influence compliance to the EIA regulations in Kitui central sub county	Technical factors	Level of compliance	Use of technical knowledge	Nominal		descriptive /inferential statistics
To establish the extent to which developers level of awareness influence compliance to the EIA regulation 2003 in Kitui central sub county	Level of awareness	Level of compliance	Application of compliance aspects	Nominal		descriptive /inferential statistics
To examine the influence of capacity of lead agencies to implement the EIA REGULATIONS 2003 in Kitui central sub county	Capacity of lead agencies	Level of compliance	Level of practice	Nominal		descriptive /inferential statistics
To examine the influence of capacity of NEMA to implement the EIA regulation 2003 in Kitui central sub county	Capacity of NEMA	Level of compliance	Level of involvement	Nominal ordinal		descriptive /inferential statistics

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATIONS AND INTERPRETATION

#### 4.1 Introduction

This chapter provides the findings of the study, analyses. The findings are presented according to the specific objectives of the study. The analysis is done by considering each of the objective analyzing each of the questionnaire and interview schedule item relating to that objective and giving the findings on that particular objective and then discusses the results. A thematic analysis of the data is also performed.

Finally, the various responses given by the different respondents on identical research objectives are compared to find if the respondents concur on various issues or not. The common responses are then, considered to be representing the actual situation. An attempt is made to find possible reasons for the difference in the response from different respondents whenever they arise where possible. The results are presented in the form of tables.

**Table 4.1.Respondents Return Rate**

	<b>Expected responses</b>	<b>Actual responses</b>	<b>Response rate %</b>
Developers	49	49	100
Dec members	10	10	100
Lead Agencies	30	30	100
NEMA officers	2	2	100
<b>Total</b>	<b>91</b>	<b>91</b>	<b>100</b>

**Table 4.2 Distribution of developers by equalizations**

<b>Qualifications</b>	<b>Frequency</b>	<b>Percentage</b>
Certificate	4	8.2
Diploma	20	40.8
Degree	18	36.7
Masters	7	14.3
<b>Total</b>	<b>49</b>	<b>100.0</b>

Table 4.2 shows that 20(40.8%) of the developers had diploma, 18(36.7%) of the developers had degree 7(14.3%) of the developers had masters while a significant number 4(8.2%) had certificate education responded as per the table below.

Data on developers age showed that 15(30.6%) were aged between 26 and 30 years 11(22.4%) of developers were between 36 and 40 years, 10(20.4%) of the developers were aged between 31 and 35. 7(14.3%) of the developers were aged between (41-45).

### **4.3 Factors influencing compliance to EIA in Kitui central sub county.**

#### **4.3.1 Influence of technical factors on the compliance to EIA**

To determine how technical factors influenced the compliance to the EIA. Developers were asked whether they were providing appropriate personal protective equipment to their staff while implementing projects in line with the regulations. Their responses indicated that majority 37(75.5%) of the developers said that they provided personal protective equipment (PPE) to their staff while 12(24.5%) of developers did not provide. Those who responded to the negative indicated that 18(36%) did not provide appropriate personal protective equipment (PPE) to their staff because they dealt with youth programme on education and work, 10(20.4%) of developers said that the organization was not founded.

The researcher further sought to establish whether they complied with other existing legislations being implemented by lead agencies. Data shows 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. Developers responses on whether NEMA was playing its co-ordinating role well is presented in table 4.10

**Table 4.3 Responses to whether NEMA played its coordinating role well by developers**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage</b>
Very effective	10	20.4
Effective	30	61.2
Not effective	9	18.4
<b>Total</b>	<b>49</b>	<b>100</b>

Findings from table 4.3 indicated that majority 30(61.2%) of developers indicated that NEMA was playing its coordinating role effectively, 10(20.4%) of developers said it was very effective while 9(18.4%) of developers said that NEMA was not effective in its roles. Those that indicated that NEMA did not play its role well- indicated that it was due to few staff in the field; they need to have offices or more staff in the districts. They said that NEMA was below standard and it was not known. They also indicated that NEMA had not educated the developers on the regulation. There was a poor coordinating between key players and ineffective programmes.

The developers were also asked whether they had ever received a compliance letter from NEMA on the implementation of the EIA. Findings showed that 27(55.1%) of developers had never received letter from NEMA on the compliance of the EIA while 22(44.9%) of developers had received various time. For example, 8(16.3%) of developers said that they had received once, 7(14.3%) of developers had received 4 times while 2(4.1%) of developers had received five times. They were also asked whether officers from NEMA ever inspected their facilities in this area. Data showed that majority (29.59.2%) of developers' facilities had been inspected. Asked whether they considered allocating funds 4 complying with EIA when planning for project; data indicated that majority 31(63.3%) considered while 18(36.76%) of developers did not consider.

The researcher focused on the lead agencies and sought to establish whether they received any funds for enforcing the EIA. Data showed that majority 19(63.3%) of lead agencies did not receive funds for enforcing the EIA while 11(36.7%) of lead agencies received the fund. Asked to explain their responses 3(10.0%) of lead agencies did not have such projects, the same number said that there was no communication that was received and the same number said that they failed to received as there was lack of co-operation.

To establish the lead agencies relationship with NEMA in complying with the EIA, 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 ensuring compliance to the EIA regulation 2003, 6(20.0%) of lead agencies said that the relationship was poor as most activities are promoted by NGO's in NEP and there was no communication while only a significant 1(3.3%) of lead agencies said that the relationship was very good. They were also asked to indicate whether NEMA was playing its coordination role well to which they responded as indicated in table 4.11

**Table 4.4 Responses to whether NEMA played its coordinating role well by lead agencies**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage</b>
Very effective	3	10.0
Effective	20	66.7
Not effective	7	23.3
<b>Total</b>	<b>30</b>	<b>100.0</b>

Findings from Table 4.4 indicated that majority 20(66.7%) of lead agencies said that the coordinating role of the National Environment Management Authority was effective, 3(100%) of lead agencies said it was very effective while 23.3% of the lead agencies said it was not effective. The researcher asked the lead agencies on how the coordinating role of National Environment Management Authority could be effective. They indicated that 6(20.0%) of lead agencies suggested that the activities of National Environment Management Authority not to be concentrated to the central government only, 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 bulk, 2(6.7%) of lead agencies said that workers should be committed and should play a key role in their department other lead agencies said that National Environment Management Authority should collaborate with their key partners and public to be educated.

When asked whether they had received a compliance letter from NEMA on ensuring compliance to the EIA, 17(56.7%) of lead agencies had received a compliance letter from NEMA on ensuring compliance to the EIA; while 13(43.3%) of lead agencies had not received.

The DEC members were asked whether they had financial allocation from NEMA to ensure compliance to the EIA regulation of 2003. Data showed that they had not received anything in 2008, 2009 but had received anything in 2008, 2009 but had received 10,000 in 2010 and same amount in 2011 asked whether the funds were enough, majority 8(80%) of DEC members said that the funds were not enough, while 1(10.0%) of DEC members said that the funds were very enough, the same rate said it was enough.

They were also asked to indicate their relationship with the lead agencies in ensuring compliance to the EIA regulation of 2003. Data shows that 5(50.0%) of DEC members said that they had a good relationship with lead agencies in ensuring compliance to the EIA regulation 2003. While the same number had poor relationship. Asked whether NEMA was playing its coordinating role well, majority 8(80%) of while 1(10.0%) of DEC members said it was very effective. The same number of DEC members said it was not effective as there was lack of communication between NEMA and public. Those that indicated that it was not effective gave reasons such as lack of communication between NEMA and the public. The county trust officer said that they did not receive adequate funds to ensure compliance to Environmental Impact assessment as there were no funds allocated for this activity. The study further sought to establish whether the CEO had various facilities in their station to aid ensuring compliance to Environmental Impact assessment. Data shows that there were one vehicle, 2 desktop computers and printers,

wifi in the office. The office lacked motorbike, bicycles, laptop, GPs, Television and radio and uniformed policing unit.

When asked whether the equipment were enough for them in ensuring compliance to the EIA relation, the CEO said they were enough. The researcher further sought to establish from the CEO the number of actions they had taken for the last five years to enforce compliance in 2017 in Kitui central sub-county.

Data shows that he had taken 15 inspections, 15 improvements of orders actions and 10 cessation orders in the year 2017. In the year 2017, the County Environment Officer further indicated that he had taken 30 inspections and 35 improvements of orders.

The study further sought to establish the of EIA project reports and EIA reports the office had received and processed for the last five years for developers in Kitui central sub-county. Their responses indicated that they had received 300 EIA project reports. The CEO said that his relationship with lead agencies in ensuring compliance to EIA was good. He also said that NEMA was effective in playing its coordinating role.

#### **4.3.2 Influence of developers level of awareness on compliance to the EIA regulators of 2003 in Kitui central sub-county**

In-order to examine the extent to which developers. Level of awareness influence compliance to EIA, the developers were asked to indicate whether they were aware of the EIA regulations of 2003 18(36.7%) of developers were not aware while 8(16.3%) of developers were not very aware. Asked how they had come know the EIA, 11(22.4%) said they knew when the EIA was being done for them, 3(6.1%) of developers knew EIA 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 dallies & NEMA meetings.

The study established that the developers were of the view that NEMA should use the media, baraza, documentaries and talks programs in order to sensitize proponents on the EIA regulations of 2003. Their responses showed that 39(79.9%) agreeing that media awareness programs should be done in-order to sensitize proponents on the compliance to

EIA regulation of 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 regulation of 2003.

However, 26(53.1%) were opposed that documentaries awareness programs should be enforced by NEMA in order to sensitize proponents on EIA regulation of 2003 majority 32 (65.3%) indicated that talks awareness program should be put in place by NEMA in order to sensitize proponents on the EIA regulations of 2003. They were also asked to indicate the challenges that they face as proponent in trying to ensure compliance to EIA regulations of 2003.

Their responses are presented in Table 4.12

**Table 4.5 Challenges faced in awareness creation on the regulation by developers**

<b>Challenge</b>	<b>Frequency</b>	<b>Yes</b>	<b>No</b>
Political interference	23	46.9	53.1
Financial challenges	35	71.4	28.6
Technical skills	27	55.1	44.9
Staffing challenges	23	46.9	53.1
Equipment challenges	21	42.9	57.1

Data from table 4.5 indicated that 23(46.9%) faced political interference, 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.

The lead agencies were asked whether they were aware of the EIA regulation of 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 program, baraza programs, documentaries and talks as a lead agency in order to sensitize proponents on the EIA. Data the same number used barazas, half 15(50%) used documentaries and only 8 (26.7%) used talks as a lead agency in enforcing compliance to EIA regulations by the proponents.



They were also asked to indicate the challenges that they faced as lead agencies in creating awareness on the EIA. Their responses are presented in table 4.13.

**Table 4.6 Challenges faced by lead agencies in awareness creation on the EIA regulation 2003.**

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

Data from Table 4.6 showed that only 3(10%) faced political interference 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.

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

They were also asked to indicate what challenges that faced as awareness creation on ensuring compliance to the EIA regulation. Their responses are presented in table 4.14.

DEC member's responses to challenges faced in awareness creation on ensuring compliance to EIA regulation

**Table 4.7 Challenges faced by NEMA in awareness creation on the EIA regulation 2003.**

Challenge	Yes		No	
	Frequency	%	Frequency	%
Political interference	1	10	9	90
Staffing challenges	9	90	1	10
Equipment challenges	8	80	2	20

Data from Table 4.7 showed that majority 9(90%) faced financial challenges, majority 7(70%) faced staffing challenges while majority 9(90%) faced equipment challenges.

Data from the CEO indicated that he was aware of the EIA; he used media awareness and talks in order to sensitize proponents on the EIA regulation of 2003. He indicated that he did not face political interference in awareness creation of EIA.

4.3.3 Influence of capacity of lead agencies on the implementation of the EIA in Kitui central sub-county.

The study sought to examine the influence of capacity of lead agencies in ensuring compliance to EIA.

## **CHAPTER FIVE**

### **SUMMARY, 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 the study**

The purpose of this study was to establish factors influencing compliance to EIA in Kenya, a case of Kitui central sub-county. Research question one sought to establish the extent to which technical factors influence compliance to the EIA in Kitui central sub-county; research objective two aimed at examining the extent to which developers level of awareness influence compliance to the EIA in Kitui central sub-county; research objective three examined the influence of capacity of lead of lead agencies to enforce compliance to EIA. In Kitui central sub-county while research objective four examined the influence of capacity of NEMA to enforce compliance to EIA in Kitui central sub-county.

The study used descriptive survey research design. The sample size was 49 developers, 30 lead agencies, 10 DEC members and the CEO (2) of Nema questionnaires and interview schedule were used to collect data for the study.

#### **5.3 Summary of findings**

Findings indicated that technical factors influenced the compliance to the EIA regulations of 2003. For example, majority 37(75.5%) of the developers indicated that they were provided with appropriate personal protective equipment (PPE) to their staff while enforcing compliance to EIA regulation. It was also revealed that majority 47(95.9%) of the developers complied with other existing legislations being enforced by lead agencies. Majority 30(61.2%) of developers indicated that Nema was playing its role of coordinating effectively 10(20.4%) of developers said it was very effective.

However, majority 27(55.1%) of the developers had never received a compliance letter from NEMA on the enforcement of EIA. They also indicated that officers from NEMA inspected their facilities in the area as it was indicated by 29 (59.2%) of them. Data from

the lead agencies indicated that majority 19(63.3%) did not receive funds in enforcing the EIA majority 23(76.7%) of lead agencies said that they had a good relationship with NEMA in enforcing the EIA.

Majority 20(66.7%) of lead agencies said that the coordinating role of NEMA was effective with 3(10.0%) indicating it was very effective. Data from the committee members indicated that they had not received financial allocation from NEMA to enforce the EIA.

Majority 8(80.0%) of CEO said that he did not receive adequate fund to enforce EIA regulation of 2003 as there no funds are allocated for this CEO had various facilities in their office to enforce the EIA regulation of 2003. These included vehicles, desktop computers and printers and wifi. The office lacked motorbike, bicycles, laptop, GPs and TV and radio which were adequate.

Findings also revealed that developer's level of awareness influenced the compliance to the EIA regulation of 2003. For example, 23(46.9%). It was also revealed that 39 (79.6%) agreed that media awareness programs should be enforced by NEMA in order to sensitize proponents on the EIA regulation of 2003. Majority 32(65.3%) indicated that talks awareness programs should be enforcement by NEMA in order to sensitize proponents on the EIA regulation of 2003. There were however challenges faced in the enforcement of compliance to EIA regulation of 2003, where majority 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.

The lead agencies faced challenges as indicated by 16(53.3%) technical skills challenges as indicated by 17 (56.7%). Findings from the committee members indicated that 9(90%) were aware of the EIA regulations of 2003. Data from the CEO indicated that he was aware of the EIA regulation of 2003, media awareness, barazas; documentaries and talk awareness were done in order to sensitize proponents on the EIA regulation of 2003.

Findings also revealed that the capacity of lead agencies influenced the implementation of the EIA regulations of 2003. For example, majority 36(73.5%) indicated that they had the capacity to enforce compliance to EIA regulation of 2003. However there were

challenges faced where majority 32(65.3%) faced financial challenges, 19(38.8%) faced equipment related challenges. They also faced challenges of facilities for the ensuring compliance to the EIA regulation of 2003. Majority 27 (90.0%) of the lead agencies indicated that they had in adequate equipment in regulation of 2003.

Findings also revealed that majority 25(83.3%) had not submitted any report in those years. Findings from the District environment Committee indicated that majority of them 8(80%) faced financial challenges, 6(60%) faced technical challenge while 3(30%) faced staffing challenges. It was revealed that the capacity of National Environment Management Authority influenced compliance to environmental impact assessment. For example the County Environment Officer indicated that he had not received funds for ensuring compliance to environmental impact assessment. He further indicated that he did not face political interference challenge in complying with environmental impact assessment.

#### **5.4 Conclusions**

Based on the findings of the study, it was concluded that technical factors influenced the compliance to the EIA. This conclusion was made on the basis that majority of the developers indicated that they were provided appropriate personal protective equipment to the staff while ensuring compliance in projects in line with other existing legislations being done by lead agencies. The coordination role of National Environment Management Authority was deemed as effective in ensuring compliance to environmental assessment. The study also concluded that developer's level of awareness influenced the compliance to the environmental impact assessment. The developers were aware of the environmental impact assessment. The District Environment Committee members were also aware of the environmental impact assessment.

Environmental assessments should lead to development decisions informed by knowledge of the range of potential environmental and social impacts—direct, indirect, interactive, and cumulative. Projects that move forward with little or no consideration of such impacts are leading to an increasing number of protests, in some cases violent. There is a growing awareness among communities all over the developing world regarding the connection between the environment and livelihoods as well as the

implications of this nexus for human rights. The likelihood of conflict is particularly high when environmental assessment practices are weak and there is a surge of projects with significant potential environmental and social impacts. Such is the case in many regions in the world today, notably, but not exclusively, the Mekong River Basin. In the Mekong region, environmental insecurity is likely to worsen if environmental assessment practices do not move closer to the standards set by international best practices. If current trends continue, ambitious hydropower and other water-related projects (navigation, irrigation, etc.) will escalate the risk of potential conflicts due to power asymmetries among the Mekong states and growing environmental and human insecurities that will be borne by the millions of people dependent on the Mekong.

### **5.5 Recommendations**

From the research findings, the researcher made the following recommendation: that

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

Nema should certify some centres within the lead agencies to undertake Environmental Impact Assessment in order to increase compliance to the regulation & lower the cost of writing Environmental Impact Assessment reports. This will be possible as most lead agencies have qualified staff who can write Environmental Impact Assessment reports. The government should allocate some financial resources to facilitate the lead agencies to review Environmental Impact Assessment project reports. International donors, regional bodies, and international financial institutions should, continue to provide technical assistance in developing and/or improving the regulatory Frameworks governing Environmental Impact Assessment and assist countries in elaborating or improving technical Guidelines for Environmental Impact Assessment. Help build capacity to conduct effective Environmental Impact Assessment s by focusing research on additional case

Nema and the ministry of Environment and mineral resources should sensitize the lead agencies and developers on the Environmental Impact Assessment process to increase compliance to the regulation and to safeguard the environment for the public good and in order not to deplete resources the future generations. There is need to build the capacity of Nema to play its coordinative and supervisory role in the environment sector.

#### **5.6 .Suggestions for further research**

Considering the limitations and delimitation of this study, the researcher would like a similar study be carried out on factors influencing compliance to Environmental Impact Assessment in eastern province and Kenya in general. The study should focus on how to raise compliance to the EIA regulation of 2003 with the aim of reducing the negative impacts of projects on the environment for sustainable development

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## **APPENDIX 1: LETTER OF TRANSMITTAL**

### **Letter of Introduction**

**University Of Nairobi SCDE**

**P.O Box 30197,**

**NAIROBI**

Dear sir/madam

#### **RE: TRANSMITTAL LETTER**

I am a student of university of Nairobi pursuing a degree of Master of Arts in project planning and management. Am carrying out a research on factors influencing compliance to environmental impact assessment and environmental audit regulations of 2003 in Kenya: a case of Kitui central sub-county .This study is for academic purposes but will be useful for government, non-governmental organization and other private and co-operate institution involved in development projects. Your participation in the exercise is voluntary and you are free to seek clarification where you do not understand. The information provided will be treated with utmost confidentiality and will be used for academic purposes only .The privacy of the respondent will be maintained. I am therefore kindly requesting you to participate in the study by providing answers to questions you are asked. You have been requested to provide some important information concerning the study. The information to be provided will be with utmost privacy. Your cooperation will be highly appreciated

Yours faithfully

Rachael Katumi



## APPENDIX II: QUESTIONNAIRE FOR PROPONENTS (DEVELOPERS)

This questionnaire aims at establishing factors influencing compliance to Environment Impact Assessment (EIA) regulations 2003 in Kenya, a case of Kitui central sub county. 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 (please tick/fill in the spaces provided)

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 organization?

I. 1 – 5 years

II. 6 – 10 years

III. 11 – 15 years

IV. Over 15 years

**SECTION: B .Capacity of proponents (Developers) in the implementation of theEIA Regulation 2003.**

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

- a) 1 -5
- b) 6 – 10
- c) 11 – 15
- d) 21 – 30
- e) 31 – 35
- f) 36 – 40
- g) 41 and above

2. What is their qualification? ( tick appropriately)

Qualification	Number
Certificate	
Diploma	
Degree	
Masters	
Others	

3. What are their ages?(tick appropriately)

Age	Number
Below 20 years	
21 – 25 years	
26 – 30 years	
36 – 40 years	
41 – 45 years	
46 – 50 years	
Above 51 years	

4. Does your organization have the capacity to implement the **EIA Regulation 2003?**(**tick appropriate**)

a) Yes

b) No

5. If no please explain your answer

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

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

Challenges	(Tick where appropriate)
Political interference	
Financial	
Technical staff	
Staffing	
Equipment	
Any other (specify)	

**Section C: Awareness of proponents (developers) on the EIA Regulations 2003.**

7. Are you aware of **EIA Regulation 2003?** (**tick appropriate**)

a) Very aware

b) Aware

c) Not aware

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

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

<b>Intervention</b>	<b>(Tick where appropriate)</b>
Media	
Baraza	
Documentaries	
Talks	
Any other (specify)	

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

<b>Challenges</b>	<b>(Tick where appropriate)</b>
Political interference	
Financial	
Technical skills	
Staffing	
Equipment	
Any other (specify)	

**Section D: To establish technical factors that influence compliance to the EIA/EA Regulations of 2003.**

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

a) **Yes**

b) **No**

If no please explain

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

a) **Yes**

b) **No**

If no please explain

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

a) Very Effective

b) Effective

c) Not effective

If not effective explain

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13. Have you ever received a compliance letter from NEMA on the implementation of the EIA regulation 2003? (tick appropriately)

a) Yes

b) No

c) If yes how many in the last 5 years? -----

14. Have officers from NEMA ever inspected your facilities in this area?(tick appropriate)

a) Yes

b) No

If yes how many times in the last 5 years?

15. Do you consider allocating funds for complying with the EIA Regulation 2003 when planning for project implementation?(tick appropriate)

a) Yes

b) No

### APPENDIX III: QUESTIONNAIRE FOR LEAD AGENCIES

This questionnaire aims at establishing factors influencing compliance to Environment Impact Assessment (EIA) regulations 2003 in Kenya, a case of Kitui central sub county. You are requested to participate in the study by filling in this questionnaire. You are assured that all the information you provide will be used for the purpose of 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?(**tick where appropriate**)

- a) Certificate
- b) Diploma
- c) Degree
- d) Masters
- e) Other specify.....

3. What is your age?(**tick appropriate**)

- 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 organization?(**tick appropriate**)

- V. 1 – 5 years
- VI. 6 – 10 years
- VII. 11 – 15 years
- VIII. Over 15 years

**Section B: Capacity of lead agencies in ensuring compliance to the EIA Regulations 2003.**

5. How many staff members do you have in your organization?(**tick appropriate**)

- h) 1 -5
- i) 6 – 10
- j) 11 – 15
- k) 21 – 30
- l) 31 – 35
- m) 36 – 40
- n) 41 and above

6. Are there challenges that you face in implementing the **EIA** Regulation 2003?

Challenges	(Tick where appropriate)
Political interference	
Financial	
Technical skills	
Staffing	
Equipment	
Any other (specify)	

7. What type of equipment do you have in your organization in this station to implement the **EIA** Regulation 2003?(**tick where appropriate**)

- i. Vehicle
- ii. Motorbike
- iii. Bicycles
- iv. Desktop
- v. Laptop
- vi. Printers
- vii. GPS
- viii. TV
- ix. Radio
- x. Any other (**please specify**)



8. Do you think these equipment are enough for you to implement the regulations?(**tick appropriately**)

- i. Very enough
- ii. Enough
- iii. Not enough

If not enough what other equipment do you require?

\_\_\_\_\_

9. Do you consider allocating funds for complying with the **EIA** Regulation of 2003 when planning for project implementation?

- a) Yes
- b) No

If yes how many **EIA** project reports have you submitted to **NEMA** in the last 5 years? (**Tick appropriate**)

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 of 2003**

10. Are you aware of **EIA/EA** Regulation 2003?

- a) Very aware
- b) Aware
- c) Not aware

If not aware give reasons?

\_\_\_\_\_  
\_\_\_\_\_

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

<b>Intervention</b>	<b>(Tick where appropriate)</b>
Media	
Baraza	
Documentaries	
Talks	
Any other (specify)	

12. What challenges that you face in awareness creation of **EIA/EA** regulation?

<b>Challenges</b>	<b>(Tick where appropriate)</b>
Political interference	
Financial	
Technical skills	
Staffing	
Equipment	
Any other (specify)	

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

13. Do you receive any funds as a lead agency in ensuring compliance to the **EIA** Regulations of 2003?

a) Yes

b) No

Please explain your answer

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14. What is your relationship with **NEMA** in implementing the **EIA** Regulation of 2003?

- a) Very good
- b) Good
- c) Poor

If poor explain why

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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?

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

- d) Yes
- e) No
- f) If yes how many in the last 5 years? -----

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

- c) Yes

d) 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?

c) Yes

d) No

**APPENDIX IV: INTERVIEW GUIDE FOR COUNTY DIRECTOR  
ENVIRONMENT**

Compliance to environment impact assessment (**EIA**)/ Environment Regulation 2003 in Kenya, a case of Kitui central sub county. 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.

1. Does NEMA provide adequate office space for you support the staff under you? Kindly elaborate
2. Are there challenges that you face in ensuring compliance to the EIA Regulations 2003? Kindly explain.
3. Do you think proponents are aware of the **EIA** Regulation 2003? Which efforts have you put in place to ensure that the proponents are aware of the regulations.
4. What awareness programs do you implement in order to sensitize proponents on the **EIA** regulation 2003?
5. Explain the challenges that you face in awareness creation of **EIA** regulation 2003?
6. What type of equipment do you have in your organization in this station to implement the **EIA** regulations 2003?
7. Do you think these equipment are enough for you to ensure compliance to the regulation? If not enough what other equipment do you require?
8. How many compliance actions have you taken to enforce the regulations in the last 5 years in Kitui central sub county?
9. How many EIA project report have you received and processed in the last 5 years for developers in Kitui central sub county.
10. What is your relationship with lead agencies in implementing the **EIA** regulations of 2003?
11. Do you think NEMA is playing its coordinating role well? please explain\_\_\_\_\_

**APPENDIX V: QUESTIONNAIRE FOR DISTRICT ENVIRONMENT  
COMMITTEE**

This interview guide aims at establishing factors influencing compliance to Environment impact assessment (EIA)/ regulations 2003 in Kenya a case of Kitui central sub county. 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 the gender of committee members? **Specify your gender**
2. Male  Female
3. What is the qualification of the committee members? Specify the number in each category
  - a) Certificate number
  - b) Diploma number
  - c) Degree number
  - d) Masters number
  - e) Others number
4. What are the ages of the committee members?
  - a) Below 20 years number
  - b) 21 – 25 years number
  - c) 26 – 30 years number
  - d) 31 -35 years number
  - e) 36 – 40 years number
  - f) 41 – 45 years number
  - g) 46 – 50 years number
  - h) Above 51 years number
5. What is your experience in working in this organization?

- a) 1 – 5 years
- b) 6 – 10 years
- c) 11 – 15 years
- d) Over 15 years

**Section B: Capacity of NEMA in ensuring compliance to the EIA Regulations 2003**

6. How many members do you have in your committee?

\_\_\_\_\_

7. How many times do you meet per year?

\_\_\_\_\_

8. Do you think you receive good sitting allowances in your meetings

- a) Yes
- b) No

If no explain

\_\_\_\_\_  
\_\_\_\_\_

9. What is the gender of the committee members?

- a) Male \_\_\_\_\_
- b) Female \_\_\_\_\_

10. Are there challenges that you face as a committee in ensuring compliance to the EIA regulations?

Challenges	Tick where appropriate
Political interference	
Financial	
Technical skills	
Staffing	
Equipment	
Any other (specify)	

**Section C: awareness of proponents on EIA/EA regulations of 2003**

11. Do you think proponents are aware of **EIA** regulation of 2003?

- a) Very aware
- b) Aware
- c) Not aware

12. What awareness programs does your committee have in order to sensitize proponents on the EIA regulation of 2003

intervention	Tick where appropriate
Media	
Baraza	
Documentaries	
Talks	
Any other (specify)	

13. What challenges that your committee faces creation of **EIA** regulations?



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 regulation 2003**

14. What financial allocation have you received from **NEMA** in the last 5 years to ensure compliance to the **EIA** Regulation 2003?

Year	Financial allocation (Kshs)
2008	
2009	
2010	
2011	
2012	

15. Are these funds enough?

a) Very enough

- b) Enough
- c) Not enough

If not enough please give reasons

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16. What is your relationship with lead agencies in ensuring compliance to the EIA regulation of 2003?

- a) Good
- b) Poor

If poor explain

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

- a) Very effective
- b) Effective
- c) Not effective

If not effective explain

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**APPENDIX VI: STUDY BUDGET**

<b>Items</b>	<b>Cost</b>
Stationary	6,000
Library (internet and textbooks)	6,000
Typesetting, printing, photocopying, and binding	10,000
Data collection	12,000
Data analysis	15,000
Transport	5,000
Research assistant	10,000
Miscellaneous	2,000
Total	66,000

**APPENDIX VII: WORK SCHEDULE**

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Proposal writing												
Data collection												
Data processing												
Data analysis												
Report writing												