THE ENVIRONMENTAL MANAGEMENT AND COORDINATION ACT, 1999

ENVIRONMENTAL IMPACT ASSESSMENT PROJECT REPORT FOR THE PROPOSED REHABILITATION AND IMPROVEMENT OF FACILITIES AT THE NYAMIRA LAW COURTS AT NYAMIRA TOWN, NYAMIRA COUNTY

For:
The Kenyan Judiciary,
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© December, 2014

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GPS Coordinates: S 00.56026° E 034.93367°
Certification

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PROJECT REPORT
SUBMITTED TO THE NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

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Date............................................
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Acknowledgement

The EIA Lead Expert would like to register his appreciation to all stakeholders involved in the Judiciary Transformation Framework 2012-2016. The lead expert is thankful to the Judiciary of Kenya for the offer to carry out this Environmental and Social Impact Assessment (ESIA) exercise, the World Bank for financing the project, the Client Coordinator – Chief Registrar of the Judiciary, JPIP Project Coordinator and JPIP Court Construction/Civil Engineer Specialist for all their efforts to ensure that the Kenyan Judiciary gets a new face though the Judicial Performance Improvement Project (JPIP). Profound thanks go to the Complan Architects for providing the necessary documentation and facilitating site visits to enable the consultant effectively carry out the ESIA exercise. We acknowledge the overwhelming assistance provided by Mr. Obonyo (The court Executive Officer) and Mr. Nicholas Njagi (Snr. Resident Magistrate) during the EIA.

Further gratitude is extended to the neighbours and other stakeholders around the proposed project site for their view and inputs during the public participation process.
List of Acronyms
Cap – Chapter (of the Laws of Kenya)
CGN – County Government of Nyamira
CC- County Commissioner
DOSHS – Directorate of Occupational Health and Safety Services
EA – Environmental Audit
EHS- Environmental Health and Safety
EIA – Environmental Impact Assessment
EIAAR – Environmental (Impact Assessment and Audit) Regulations, 2003
EMCA - Environmental Management and Coordination Act
EMP – Environmental Management Plan
GOK- Government of Kenya
GPS – Global Positioning System
IEBC- Independent Electoral and Boundary Commission
JPIP- Judicial Performance Improvement Project
L.N. - Legal Notice
mm- millimetres
MSDS- Material Safety Data Sheets
NEMA – National Environment Management Authority
NLC- Nyamira Law Courts
OSHA – Occupational Safety and Health Act
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Executive Summary

a) Project Description

The proposed project involves rehabilitation of the existing court buildings and construction of new structures. Rehabilitation will mainly involve demolition and upgrading of various facilities at the station which include; the existing law courts, customer care unit, security cubicle and gate, pit latrines, vehicle shed, while a new three storey building will be constructed. The lower ground will have 6 police and prison cells, water storage units, exhibit store, a generator room, septic tanks and an installed incinerator. The ground floor will have 2 magistrate chambers, 2 courtrooms, a registrar’s office, judiciary parking bay and a water fountain. 1st and 2nd floors will be typically designed to contain the following facilities: 2 magistrate chambers and 2 courtrooms in each floor, a judge’s room, children room, a meeting room, prosecutor’s office, a security room and a library, among other auxiliary offices. All the details are illustrated in the attached drawings.

The proposed development will take place at the Nyamira Court Station in Nyamira Town. The government is the legal owner of the parcel of land occupied by the law courts.

b) Need for the Project

The Nyamira law courts have over the years been an important institution in the county in upholding the virtues of the judiciary of Kenya among the citizenry. However, the premises occupied by the law courts are limited in terms of providing adequate space to deliver its services affordably. There are few offices while the courtrooms are too small in size to cater for the number of people attending court sessions.

The recent constitutional promulgation that provides for adequate service delivery in each county has seen a growing gap between the demand for efficient judicial services and availability of proper facilities to facilitate service delivery. It is against this backdrop that The Judicial Performance Improvement Project funded by the World Bank took the initiative to kick start the project in order to ensure the court station is designed to be within character of the current development trend in the country. The objective of the
project is to strengthen the capacity of the judiciary in Nyamira to provide its services in the project area in a more effective, transparent and accountable manner.

b) Key findings and conclusions

This EIA found out that the proposed rehabilitation and improvement of the facilities at the law courts will have both positive and negative environmental and socio-economic impacts. Positive impacts will be realized both during the construction and operation phase and include provision of employment opportunities and income generation to the local people, availability of environmental opportunities, adequate judicial service delivery, secure working environment and improved environmental management and improved infrastructure. Potential negative impacts will inevitably occur throughout the project life cycle and will include risks associated with demolished structures, interruption of existing logistics, clearance of vegetation, soil quality, generation of noise, dust, vibrations and debris, increased demand for water and increased resource consumption.

The neighbors and public consulted during the EIA warmly welcomed the project with minimal apprehension. All the concerns raised by the public were captured in order to assist the proponent address potential environmental impacts of the project. The Environmental Management Plan herein developed must be implemented right from the planning and design stage up to the final stage of the project cycle. The project proponent should comply with the conditions issued by the Nyamira County Government and the National Government including conditions given by NEMA. The proponent must also take into consideration the views and concerns expressed by the neighbours and incorporate them in the project implementation.

c) Environmental Impacts and Management Plan

The table below gives a summary of the identified and predicted environmental and social impacts of the proposed project and the suggested mitigation measures for each impact. This environmental information provided addresses all the potential significant effects that might arise in the project cycle and provide preventive measures to abate the effects.
<table>
<thead>
<tr>
<th>Aspect &amp; impact</th>
<th>Mitigation measures</th>
</tr>
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</table>
| Solid waste generation and other related wastes | • All workers to be sensitized to ensure waste production is minimized  
• Use of an integrated solid waste management system including prevention, source reduction, recycling, composting, reuse or incineration.  
• Demolished floor/wall material should be re-used for backfilling  
• Installation of color coded waste bins that should be covered to minimize attraction of aves  
• A secure waste holding shed should be set up to facilitate segregation and temporary storage of wastes in waste bags.  
• All hazardous and non-hazardous waste should be stored separately  
• Containerization of any solid waste and appropriate disposal by a NEMA licenced waste handler pursuant to L.N. 121  
• Keep waste tracking forms for all the wastes that leaves site to ensure a clear chain of custody  
• The kitchen sinks should be fitted with sumps and a grease separator to prevent pollution  
• Ensure the installed incinerator is regularly maintained  
• Set up a judicial mechanism of receiving neighbours concerns and monitoring non-compliance or non-conformity |
| Interruption of existing logistics and services | • Relocation of power lines to be done at off peak hours to prevent interruption of neighborhood service delivery  
• Measures to be put in place to ensure that judicial services are not delinked from the general public (consider mobile court)  
• Provision of mobile toilets to suffice for demolition of existing latrines  
• Provision of a temporary direct access route via the main highway into the station to prevent traffic snarl up and interruption |
| Clearance of vegetation | • Strategic construction of gravedeled car parks within tree spacing to retain existing species with controlled root disturbance.  
• Inclusion of BODPAVE 85 porous grass pavers in the design within the soil root zone to create a gravel eco-park instead of concreting the car park.  
• Scale down the extent of clearance of tree species on-site  
• Clearly demarcate boundaries for construction of open vehicle bays to avoid ambiguous unnecessary clearance of vegetation  
• Under no circumstances should the *Dovyalis caffra* be cleared off  
• Develop incentives of incorporating a green building design in the improved court station and re-vegetating exposed zones  
• Involve the local forestry institution in finding the best alternative indigenous sp. to be used in landscaping initiatives  
• All works to be limited to designated sites under supervision |
| Soil erosion, | • Develop incentives for landscaping and re-vegetation of exposed lawns  
• All new vehicle routes should be provided with side drains, culverts and
| Hydrology and Drainage | metre drains that lead to recovery points  
| | • Excavated earth should be held away from areas susceptible to surface runoff of storm waters  
| | • Excavations should be confined only to the approved plans  
| | • Contractor to limit excavations and substructure works including foundation to the approved plan to prevent furthering subsurface impacts  
| Noise, dust, gaseous emission and vibration pollution | • All personnel will be properly inducted on work ethics and safe working procedures to minimize dust and noise generation.  
| | • Workers operating in highly noisy and dusty conditions will be afforded with protective gear for safe use  
| | • The construction site should be secured by site hoarding to prevent dust propagation by wind and limit noise production within site  
| | • Truck drivers will be instructed to prevent unnecessary hooting and idling of engines.  
| | • Hoarding and netting for dust control will be implemented  
| | • Transportation of waste debris for disposal should be done aboard secured vehicles  
| | • Construction sites generating dust will be sprinkled with water to prevent dust emission  
| | • Construction and demolition works, and movement of trucks will be limited to working hours  
| | • Machinery and equipment used will be regularly serviced  
| | • Erection of a bill board to notify neighbours on cautionary practices and ongoing works  
| | • Adequate job supervision should be prioritized  
| | • The installed generator and power equipment used to be fitted with noise control devices e.g. silencers or fitted on rubber surface  
| | • Notify neighbours of decommissioning and demolition plans  
| Asbestos material handling | • Proponent to only secure services of skilled asbestos handlers during removal and disposal of fibre material  
| | • All workers on site will be required to wear protective gear  
| | • Material safety data sheets to be provided  
| | • Adherence to safety procedures will be enforced at all stages of the exercise  
| | • Carry out employee medical examinations  
| Generation of sewerage and waste water | • All waste water and sewerage will be channeled into a septic tank for treatment  
| | • Apply for an effluent discharge licence from NEMA  
| | • Monitor quality of waste water periodically as per conditions of the licence  
| | • Suitable toilets will be constructed while mobile toilets to be provided at construction stage  
<p>| | • Connection of treatment facility development to sewer line |</p>
<table>
<thead>
<tr>
<th>Work accidents during construction and demolition stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All workers will be inducted on occupational health and safety before commencement</td>
</tr>
<tr>
<td>• A comprehensive contingency plan will be developed to offset any major injuries</td>
</tr>
<tr>
<td>• Material safety data sheets (MSDS) to be availed at all work areas</td>
</tr>
<tr>
<td>• All machinery and equipment used to be serviced regularly by qualified personnel</td>
</tr>
<tr>
<td>• An EHS Management system to be formulated and safety officer appointed</td>
</tr>
<tr>
<td>• All workers, pursuant to WICA regulations, shall accordingly be insured against accidents</td>
</tr>
<tr>
<td>• All truck drivers to be instructed to exercise caution while turning</td>
</tr>
<tr>
<td>• Contractor should subject employee selection to criteria based on health and safety parameters</td>
</tr>
<tr>
<td>• Safety signage to be set up to caution the public</td>
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<table>
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<tr>
<th>Increased resource use</th>
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<tbody>
<tr>
<td>• Maximize on harvesting rainwater into storage tanks</td>
</tr>
<tr>
<td>• All employees and visitors to be sensitized on resource conservation</td>
</tr>
<tr>
<td>• Water conservation taps to be installed</td>
</tr>
<tr>
<td>• Identify opportunities for safe water reuse and/or recycling</td>
</tr>
<tr>
<td>• Installation of water and electricity meters</td>
</tr>
<tr>
<td>• consider solar energy harvesting and optimize on natural lighting in the project design</td>
</tr>
<tr>
<td>• Use of energy efficient machines and appliances</td>
</tr>
<tr>
<td>• Truck drivers to be instructed not to leave vehicle engines idling</td>
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<table>
<thead>
<tr>
<th>Occupation health and safety</th>
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<tbody>
<tr>
<td>• Registration of the station as a work place with DOSHS</td>
</tr>
<tr>
<td>• All workers to be instructed on first aid administration</td>
</tr>
<tr>
<td>• Formulation of an EHS Management system</td>
</tr>
<tr>
<td>• Development, documentation and communication of a health and safety policy prior to commencement of all operations</td>
</tr>
<tr>
<td>• All workers to be instructed on firefighting skills</td>
</tr>
<tr>
<td>• Provision of firefighting equipment at the court station</td>
</tr>
<tr>
<td>• Development of a smoking policy</td>
</tr>
<tr>
<td>• Installation of smoke detectors</td>
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<table>
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<tr>
<th>Security issues</th>
</tr>
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<tbody>
<tr>
<td>• Consider employing local individuals for all the technical works</td>
</tr>
<tr>
<td>• Controlled access to the project site</td>
</tr>
<tr>
<td>• Provide adequate security at the working station</td>
</tr>
<tr>
<td>• Consider installation of cctv cameras at the courts</td>
</tr>
<tr>
<td>• Provide adequate ventilation as per the project design</td>
</tr>
<tr>
<td>• Do not exceed court room capacity during seatings</td>
</tr>
<tr>
<td>• Ensure emergency exits are provided and well indicated</td>
</tr>
<tr>
<td>• Conduct periodic emergency drills</td>
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1.0. Introduction

The Judicial Performance Improvement Project JPIP is an initiative of The Judiciary of the Government Kenya under a new strategy commonly known as the Judiciary Transformation Framework (JTF). JTF as a strategy is intended to govern the reforms in the Judiciary from the years 2012 to 2014. The JPIP, a World Bank sponsored project aims to implement some of the key activities in the JTF. The objective of the JPIP is to strengthen the capacity of the Judiciary to deliver its services in an effective, transparent and accountable manner.

The proposed rehabilitation and improvement of facilities at the Nyamira law court station is one of the initiatives of the Judiciary of the Government of Kenya. In compliance with the Environmental Management and Coordination Act of 1999, the proponent has engaged a NEMA-registered Firm of Experts to carry out Environmental Impact Assessment on the proposed rehabilitation of the law courts and submit an EIA project report to the National Environment Management Authority. This is therefore the EIA report of the proposed court rehabilitation.

The Environmental Management and Coordination Act of 1999 has defined “Environmental impact assessment” as a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment. In the preparation of this EIA report, the expert firm has followed the guidelines contained in the EIA regulations under Legal Notice No. 101 of June 2003.

As a requirement of conducting EIA and the subsequent compilation of this report, the expert has also consulted and involved project stakeholders including neighbors, area residents and staff at the station. While undertaking the EIA process, the expert has identified the potential positive and negative environmental and socio-economic impacts of the proposed project from the construction/rehabilitation, operation and maintenance and decommissioning stages. He has also identified mitigation measures for the adverse impacts. Further, this EIA project report has developed an environmental management plan to guide the implementation of mitigation measures and as a basis for environmental monitoring.
2.0 Terms of Reference

The Terms of Reference for conducting Environmental Impact Assessment for the proposed rehabilitation and improvement of facilities at the Nyamira Law courts in Nyamira County was:

1) to determine whether the proposed project will have adverse impacts on the environment and recommend mitigation measures for any adverse impacts identified;

2) to find out the positive socio-economic and environmental impacts and benefits associated with the proposed project for the purpose of enhancement;

3) to analyze possible project alternatives in terms of site, designs and other criteria and seek justification for the preferred options;

4) to seek the views and inputs of neighbors and members of the public in carrying out the proposed development;

5) to promote environmentally and ecologically friendly development;

6) to identify health and public safety concerns associated with the implementation of the proposed project and provide an action plan for managing public health and safety;

7) to provide an environmental management plan for managing the environmental impacts of the proposed development during and after the implementation of the project;

8) to enable the project proponent comply with the requirements of the Environmental Management and Coordination Act

The terms of reference were done in accordance with the Environmental (Impact Assessment and Audit) Regulations, 2003.
3.0 EIA methodology
The following general methodology was used in conducting Environmental Impact Assessment for the proposed rehabilitation and improvement of facilities at the Nyamira Law courts:

a) Screening
This involved determination of the need for EIA. The proposed project is an urban development that should be subjected to EIA in accordance with section 58 of the Environmental Management and Coordination Act of 1999 and the Environmental Impact Assessment and Audit Regulations, 2003.

b) Scoping
This process involved identification of the main issues and impacts to be analyzed in the EIA. At the scoping stage, the terms of the reference for the EIA were developed.

c) Establishment of the environmental baseline
This involved study and description of the existing characteristics of the baseline environment on which the proposed project is to be implemented. It involved the study of the area bio geophysical environment and the immediate socio-economic environment.

d) Review and analysis of alternatives
This entailed a review and analysis of the alternatives to the proposed project. This was aimed at determining better ways of avoiding or minimizing environmental impacts while still realizing the project goals. The review of alternatives provided opportunities for environmental enhancement. The alternatives reviewed were alternative project sites, alternative designs and the “no project” alternative.

e) Impact analysis
This was the main stage and involved a detailed identification, prediction and evaluation of the potential environmental and socio-economic impacts of the proposed project. The
impacts of the project were analyzed for the construction, operation and maintenance and the decommissioning phases.

f) **Public Involvement and Consultation (PIC)**

PIC was done at all main stages of the EIA right from scoping, analysis of alternatives, environmental baseline survey, impact analysis and even at the preparation of the project EMP. Various stakeholders were consulted including the neighbours and the general public.

g) **Identification of mitigation measures**

This involved identification of mitigation measures to be undertaken for the identified negative impacts at all stages of the project cycle. An EMP was made as a framework for mitigation of impacts and for monitoring environmental performance.

g) **Preparation of the EIA report**

This report was prepared in accordance with the EIA terms of reference and in line with the guidelines specified in the Environmental (Impact Assessment and Audit) Regulations of 2003 for preparation of EIA reports.

4.0 **Project Objective**

The objective of the proposed project by the proponent is to improve the performance of the judiciary to perform its services in a more effective and accountable manner.

5.0 **Project Location and Land Ownership**

The proposed project rehabilitation and improvement activities will be done on a Plot No…… in Nyamira County at **GPS Coordinates S 00.56026° E 034.93367°** The land on which the proposed development will take place is owned by the Government of Kenya. The immediate neighbours are the IEBC, County offices, registrar of persons offices and the Kenya Police station. Other nearby facilities include the Nyamira NEMA offices, the KFS offices and the county planning offices. A copy of the **land lease title** for the proposed development is appended to this report.
The sketch map below shows the location of the proposed site.

Fig (1) Location of the proposed project site
6.0 Baseline Environmental Setting

6.1 Physical Environment

6.1.1. Climate

Nyamira County generally experiences bimodal rainfall pattern which is well distributed, reliable and adequate for a wide range of crops. The long rains start from December to June while the short rains commence from July to November. There is no significant dry spell in between the rain seasons, with the county receiving an average annual precipitation of between 1200mm to 2100 mm. The county is divided into two agro-ecological zones comprising of the highlands and the midland upper zones.

The temperature of Nyamira County can be described as favourable but with high diurnal temperature ranges during mid-seasons. The maximum day and night temperatures are normally between 28.7°C and 10.1°C respectively, resulting to an average normal temperature of 19.4°C.

6.1.2 Soil Conditions

The soil at the project site is red volcanic nitosols which support a wide variety of vegetation. These soils are deep, fertile and well drained, marred with patches of rocks near the vehicle parking bay.

6.1.3 Topography

The proposed project site lies on a relatively high slope at an altitude of 2024 metres above sea level as recorded on a GPS handset. It slopes from East-West along a gentle slope.

Generally, the topography of Nyamira county is mostly hilly and therefore the name “The Gusii highlands”. The most predominant geographical features in the county are the Kemasare, Nkoora and Nyabisimba hills with the Manga ridge running in among them. This thence divides the county into two basic topographic zones that lie between 1250m and 2100m above sea level. The low zones comprise of swampy, wetlands and valley bottoms while the upper zones comprise of the Gusii hills. This is where the court station is situated.

6.1.4 Vegetation

Vegetation at the proposed project site includes trees, hedges and grass which have been well maintained. The grasses on site include Thermeda triandra and kikuyu long grasses. Hedges at the site include mainly Dovyalis caffra and Cupressus spp. while trees at the site range from exotic to indigenous species. These include; Grivellia robusta, Cassuarina equisetifolia, Eucalyptus spp. among others.
The county of Nyamira supports a variety of vegetation and the most significant are expressed in the forest ecosystems. Private forests however take centre stage, with the Nkora forest located at Rangenya being the most proximate, while the Manga rotuba Forest managed by the Catholic Church is located further north towards Oyugis.

![Vegetation at the proposed project site](image)

Fig (2): Vegetation at the proposed project site

### 6.1.5 Drainage

Since the law courts slope from East West on a gentle slope, the soil conditions at the project site allow for excellent drainage with minimal compaction. There is no surface water body near the proposed project site; hence there is no potential direct impact of the proposed project on any water body. The county of Nyamira however has various permanent rivers and streams which include Sondu, Eaka, Kijauri, Kemera, Charachani, Gucha (Kuja), Bisembe, Mogonga, Chirichiro, Ramacha and Egesagane. These are rivers which drain their waters into the Lake Victoria, a rather significant ecosystem in the East of Africa. It is therefore important that the construction phase of the project incorporates reinforcement measures within the drainage and sewerage facilities to curb any imminent leakages that might lead to transfrontier impacts or gravitational seepages.
6.2 Social Economic Environment

6.2.1 Economic Activities

The proposed project site is mainly dominated by government administrative offices which include the county commission offices, planning office, police station among others. However, the area being primarily urban is dominated by trading and marketing activities. Agriculture is the main source of goods production, since the high altitude has enabled the growing of tea, bananas termed ‘mbogoya’, sweet potatoes, maize among other crop products. The favourable temperatures also allow for livestock production. The town centre is dominated by a flurry of activities including transport services, banking industry, Jua Kali workshops and routine hawking.

6.2.2. Infrastructure

a) Roads

The proposed project site has a good road network. The court station just lies next to the Kisii - Oyugis highway and a tertiary murram road which is motor-able leads to the court station.

Fig (3) Road leading to the proposed project site

b) Sewerage

The area lacks a sewerage facility for mass treatment of waste from the various facilities within the county. At the moment, pit latrines are available sanitation services while the single existing toilet leads to a septic tank. The proposed facility will be connected to a new septic tank for treatment of human wastes and later channeled to a soak pit.
c) Water and sanitation

The proposed project area is well served by water from the Nyamira Water Company. Water is stored in tanks for daily use in case of water losses. Pit latrines have been provided at the court station for both staff and public use.

The new facility will be connected to the existing Nyamira Water Company Water Supply System while large capacity water tanks will be installed.

d) Storm water drainage

The primary highway is well constructed with side drains to enable drainage of storm water. However, the feeder road enroute the court station lacks any side drains while the existing facility has no provision for storm water ways. It is recommended that the development factors in complete removal of the asbestos roofing to enable roof
catchment. In addition, the culverts and metre drains should be channeled to a water recovery system or to the main highway storm drains.

e) Electricity

The area is also well served by the national Kenya Power mains grid. The facility will be connected to the Kenya Power supply. In addition, a standby generator will be installed to provide electric power during instances of power shortage or loss.

![Existing power lines at the court station](image)

**Fig (7) Existing power lines at the court station**

f) Communication

The area has excellent network coverage by all the major mobile service providers.

g) Health services

The nearest medical facility to the proposed project site is the Nyamira District Hospital. However, there are several clinic facilities and drug stores at the market centre.

h) Security

The project site has excellent security. While the Nyamira Police station is just a few meters across the main highway, being a law court, the station has its own security system at all times.
Fig (8) Police houses next to the court station

i) Schools

The main schools near the project site are Nyamira D.E.B primary and secondary schools which are 2km away.

6.2.3 Demography

The area is predominantly occupied by the Kisii ethnic group. Other ethnic groups include Luo and Luhya. The county has 3 constituencies namely West Mugirango, Kitutu masaba North Mugirango.

According to the 2009 Population Census:

a) West Mugirango had a population of 159,673 persons;

b) North Mugirango had a population of 239,448 persons while,

c) Kitutu Masaba had a population of 199,136 persons.
7.0. Policy Institutional and Regulatory Framework

7.1 Introduction

Kenya has had a poor environmental legislation background. Environmental law was fragmented into sectional laws (up to 77 statutes) resulting to poor management of the environment and hence its deterioration. In the year 1999, Environmental Management and Coordination Act (EMCA) 1999 were enacted by parliament. The Act aimed to provide for the establishment of an appropriate legal and institutional framework for the management of the environment. The EMCA of 1999 created various environmental management institutions including NEMA, which is the principal organ of government in matters of environmental management.

7.2 Policy Framework

7.2.1 The National Environmental Policy, 2013

The environment has been an essential feature of Kenya’s development trajectory. Yet, for many years, the country was lacking a comprehensive environment policy. Previously, most of the environmental imperatives were captured in various development plans. It was against this backdrop that the Government together with the Ministry of Environment, Water and Natural Resources recognized the need to develop a comprehensive National Environment Policy that presents the most participatory information gathering approach in policy formulation in the environmental sector, one of the main pillars of economic growth.

This Policy proposes a broad range of measures and actions responding to key environmental issues and challenges. It seeks to provide the framework for an integrated approach to planning and sustainable management of natural resources in the country. It recognises the various vulnerable ecosystems and proposes various policy measures not only to mainstream sound environmental management practices in all sectors of society throughout the country but also recommends strong institutional and governance measures to support the achievement of the desired objectives and goal.
According to section 3.1, the objectives of this Policy are to:

(a) Provide a framework for an integrated approach to planning and sustainable management of Kenya’s environment and natural resources.
(b) Strengthen the legal and institutional framework for good governance, effective coordination and management of the environment and natural resources.
(c) Ensure sustainable management of the environment and natural resources, such as unique terrestrial and aquatic ecosystems, for national economic growth and improved livelihoods.
(d) Promote and support research and capacity development as well as use of innovative environmental management tools such as incentives, disincentives, total economic valuation, indicators of sustainable development, Strategic Environmental Assessments (SEAs), Environmental Impact Assessments (EIAs), Environmental Audits (EA) and Payment for Environmental Services (PES).
(e) Promote and enhance cooperation, collaboration, synergy, partnerships and participation in the protection, conservation, sustainable management of the environment and natural resources.
(f) Ensure inclusion of cross-cutting and emerging issues such as poverty reduction, gender, disability, HIV&AIDS and other diseases in the management of the environment and natural resources.
(g) Promote domestication, coordination and maximization of benefit from Strategic Multilateral Environmental Agreements (MEAs).

7.2.2 National Environment Action Plan (NEAP) Framework 2009-2013

The Environment Management Coordination Act 1999 provides for the formulation of the National, Provincial and District Environment Action Plans every five years. This has been followed by the recognition of the fact that economic growth and environment are closely intertwined in Kenya. Environmental Action Planning is a tool that aims at enhancing the integration of environment into development planning. This is the second National Environment Action Plan (NEAP) for the country that succeeded the first NEAP of 1994 which aimed at laying down very clear strategies in order to integrate environmental issues in development programs and projects.
The NEAP Framework of 2009-2013 not only recognizes the milestones achieved from the implementation of the guidelines in the NEAP 1994 tool, but also aims at providing a broad framework for the coordination of environmental activities by all actors i.e. private sector and Government to guide the course of development activities. It is a step towards integrating environment and development for better management of resources. The Kenya NEAP report addresses environmental issues in a cross sectoral and in an integrated fashion. The NEAP provides not only a strategy for achieving sustainable development in Kenya, but also a basis for translating Agenda 21—the Global programme Action on Environment and Development, which is one of the outcomes of the United Nations Conference on Environment and Development (UNCED).

**7.2.3 Sessional Paper No 6 of 1999 on Environment and development**

According to this Sessional Paper, Kenya’s fundamental principles with respect to environmental conservation include:

a) Environmental protection is an integral part of sustainable development.

b) The environment and its natural resources can meet the needs of present as well as those of future generations if used sustainably.

c) All the people have the right to benefit equally from the use of natural resources as well as an equal entitlement to a clean and healthy environment.

d) Poverty reduction is an indispensable requirement for sustainable development.

e) Sustainable development and higher quality of life can be achieved by reducing or eliminating unsustainable practices of production and consumption; and by promoting appropriate demographic policies.

f) Endogenous capacity building is essential for development, adaptation, diffusion, and transfer of technologies for sustainable development.

g) Indigenous/traditional knowledge and skills are vital in environmental management and sustainable development.

h) Effective public participation is enhanced by access to information concerning the environment and the opportunity to participate in decision-making processes.

i) Public participation including women and youths is essential in proper environmental management.

j) For sustainable management, the polluter pays principle should apply.
k) Access to judicial and administrative proceedings, including redress and remedy, is essential to environmental conservation and management.

l) Private sector participation in environmental management is essential for sustainable development.

m) Effective measures should be taken to prevent any threats of damage to the environment, notwithstanding lack of full scientific certainty.

n) Peace, security, development, and environmental protection are interdependent and indivisible.

o) International co-operation and collaboration is essential in the management of environmental resources shared by two or more states.

The overall goal of the Sessional paper was to integrate environmental concerns into the national planning and management processes and provide guidelines for environmentally sustainable development.

According to the Sessional paper, the Government will endeavor to:

a) **Formulate comprehensive EIA guidelines, procedures, and legislation**;

b) **Strengthen and develop environmental standards**;

c) **Establish a system of EIA audits, monitoring, evaluation, and appeal**;

d) **Subject new and existing project and programmes to environmental monitoring and auditing**;

e) **Strengthen capacities in institutions and local communities with regard to EIA**; and

g) **Incorporate social and cultural values in EIA**.

The Sessional paper on environment and development was thus the starting point in using EIA as a tool for appraising the suitability and sustainability of developments.
7.3 Institutional Framework

7.3.1 The National Environment Management Authority (NEMA)
This is the government authority charged with the general supervision and coordination of all environmental matters in the Kenya. NEMA is the principal instrument of the government in the implementation of all policies relating to the environment. The authority is a creature of the Environmental Management and Coordination Act (EMCA) that came into effect on the 14th of January, year 2000. Among others, the functions of NEMA are:

a) to coordinate various environmental management activities undertaken by lead agencies;
b) to promote the integration of environmental considerations into development actions with a view to ensuring proper management and rational utilization of environmental resources on a sustainable yield basis for the improvement of quality of life;
c) to advise the government on legislative and other measures for the management of the environment or the implementation of various international conventions, treaties and agreements in the field of environment;
d) to identify development actions for which environmental audit and monitoring must be conducted under the Act;
e) to assess and monitor activities to ensure that the environment is not degraded by such activities, that environmental management objectives are adhered to and adequate early warning on impending environmental emergencies is given;
f) to cooperate with relevant lead agencies on environmental education and enhancement of public awareness on environmental protection;
g) to prepare and issue an annual report on the state of the environment in Kenya.

Under EMCA, NEMA may delegate any of its powers on the performance of any of its functions to Provincial and District Environment Committees; NEMA officers); its employees or agents. NEMA is headed by a Director General (DG) who is appointed by the president. At the county level, NEMA is represented by the County Director of Environment.

7.3.2 The Judicial Service Commission
The Judicial Service Commission is a government authority established by Article 171 of the Constitution. Part III section 13 of the Judicial Service Act confers powers and functions of the authority as below;

(1) In addition to the powers of the Commission under Article 253 of the Constitution, the Commission shall have the power to—

(a) purchase or otherwise acquire, hold, charge and dispose of movable or immovable property;
(b) borrow and lend money;
(c) enter into contracts;
(d) do or perform all such other things or acts necessary for the proper performance of its functions under the Constitution and this Act which may be lawfully done or performed by a body corporate.

(2) Members of the Commission shall be guided in the discharge of their responsibilities by the principles contained in the Constitution and in this Act.

(3) The Commission shall have all the necessary powers for the execution of its functions under the Constitution and this Act.

7.3.3 The National Construction Authority (NCA)
This Authority was created by the National Construction Authority Act of 2011. The functions of the NCA as specified in section 5 (2) of the Act are to:

a) promote and stimulate development, improvement and expansion of the construction industry;
b) advise and make recommendations to the Minister for Public Works on matters affecting or connected with the construction industry;
c) undertake or commission research into any matter relating to construction industry;
d) prescribe the qualifications or other attributes required for registration as a contractor under this Act;
e) assist in the exportation of construction services connected to the construction industry; provide consultancy and advisory services with respect to the construction industry;
f) promote and ensure quality assurance in the construction industry;
g) encourage the standardization and improvement of construction techniques and materials;

h) initiate and maintain a construction information system;

i) provide, promote, review and coordinate training programmes organized by public and private accredited training centres for skilled construction workers and construction site employers;

j) accredit and register contractors and regulate their professional undertakings;

k) develop and publish a code of conduct for the construction industry; and

l) Do all other things that may be necessary for the better carrying out of its functions under the Act.

7.3.4 County Government of Nyamira

This is the special jurisdiction under which the proposed project lies. All efforts must be made to abide by all the bylaws, and other legislation regulating the construction of the proposed project site.

7.3.5 The Directorate of Occupational Safety and Health Services

This is the Government agency tasked with regulating safety and health services in Kenya. Developers must comply with DOSHS requirements including submission of architectural drawings for approval by DOSHS before undertaking the development.

7.4 Legislative and Regulatory Framework

7.4.1 The Environmental Management and Coordination Act (EMCA), 1999

EMCA is an Act of parliament to provide for the establishment of an appropriate legal and institutional framework for the management of the environment. EMCA provides every person in Kenya with the right to a clean and healthy environment. The Act states that every person has the responsibility to protect and manage the environment. EMCA defines the role of Environmental Impact Assessment (EIA) as a tool to maintain environmental integrity. Under the Act, projects likely to impact negatively on the environment must be subjected to EIA. Section 58 (1) of the Act states that “Notwithstanding any approval, permit or license granted under this Act or any other law
in force in Kenya, any person, being a proponent of the project, shall, before financing, commencing, proceeding with, carrying out, executing or conducting or causing to be financed, commenced, proceeded with, carried out, executed or conducted by another person any undertaking specified in the second schedule to this Act, submit a project report to the Authority [NEMA] in the prescribed form, giving the prescribed information and which shall be accompanied by the prescribed fee”.31

Part (2) of section 58 states “the proponent of a project shall undertake or cause to be undertaken at his own expense an Environmental Impact Assessment study and prepare a report thereof where the authority, being satisfied after studying the project report submitted under subsection (1) that the intended project is likely to have or will have a significant impact on the environment, so directs”. The second schedule of the Act details the types of projects for which an EIA must be carried out. Among others, the following must be subjected to the EIA process:

a) Any activity that is out of character with the surrounding;
b) Any structure that is not in keeping with its surroundings;
c) Transportation including construction of roads, railways, sea ports, pipelines and water transport;
d) urban development including establishment of urban centers, cities, towns, industrial estates, shopping centers, commercial and residential areas;
e) Dams, rivers and water diversions, water transport between different catchments and drilling for underground water, flood control and geothermal;
f) Aerial spraying;
g) Electrical infrastructure including generation stations, transmission lines, and substations;
h) Forestry related activities including timber harvesting, clearing of forest areas, afforestation and re-afforestation;
i) Natural conservation areas including game reserves, buffer zones, wilderness areas, modification of forest management policies;
j) Agricultural activities such as large scale farming, monoculture and irrigation.
7.4.2 The Environmental (Impact Assessment and Audit) Regulations 2003

These regulations were made by the Minister for Environment and Natural Resources in June 2003 in exercise of the powers conferred by section 147 of the Environmental Management and Coordination Act. The regulations apply to all policies, plans, programmes, projects and activities in Part IV, V and the Second Schedule of the Act. According to section 4 (1) of these regulations, no proponent shall implement a project likely to have a negative environmental impact or for which an Environmental Impact Assessment is required under the Act or under these Regulations unless an EIA has been concluded and approved in accordance with these regulations. According to these regulations, no licensing authority under any law in force in Kenya shall issue a trading, commercial or development permit or licence for any project for which an environmental impact assessment is required under the Act unless the applicant produces to the licensing authority a licence of environmental impact assessment issued by the Authority (NEMA) under these regulations.

Section 6 of these regulations state that an application for an EIA license shall be in the form of a project report in Form 1 set out in the First Schedule to these regulations, and the applicant shall submit the application together with the prescribed fee to the Authority or the Authority’s appointed agent in the District where the project is to be undertaken. Section 7 (2) states that in preparing a project report under this regulation, the proponent shall pay particular attention to the issues specified in the Second schedule to these regulations. Section (11) states that an environmental Impact Assessment study shall be conducted in accordance with the terms of reference developed during the scoping exercise by the proponent and approved by the Authority (NEMA). Section 13 requires that an environmental impact assessment shall be carried out by a lead expert qualified in accordance with the criteria of listing experts specified in the second schedule of the Act. Section 17 (1) of the regulations state that during the process of conducting an environmental impact assessment study under these regulations, the proponent shall, in consultation with the Authority, seek views of persons who may be affected by the project. According to section 23 of these regulations, NEMA shall give its decision on an EIA study report within three months of receiving the report. Section (24) follows that where the Authority approves an EIA study report under regulation (23), it shall issue an EIA license in Form 3 set out in the
First schedule to these regulations on such terms and conditions as it may deem necessary. Regulation (31) states that an environmental audit shall be undertaken for the following development activities which are likely to have adverse environmental impacts:
(a) Ongoing projects commenced prior to coming into force of these regulations; or
(b) New projects undertaken after completion of an environmental impact assessment study report

Section 2 of regulation 31 states that an environmental audit shall, unless it is a self-auditing study under regulation 34, be conducted by a qualified and authorized environmental auditor or environmental inspector who shall be an expert or a firm of experts registered in accordance with regulation 14.

7.4.3 The Environmental Management and Coordination (Waste Management) Regulations, 2006
These regulations were made by the Minister for Environment and Natural Resources on the 4th of September 2006 in exercise of the powers conferred by sections 92 and 147 of the Environmental Management and Coordination Act of 1999, and in consultation with relevant lead agencies. Under Regulation 4 (1), no person shall dispose of any waste on a public highway, street, road, recreational area or in any public place except in a designated public receptacle. Under Regulation 6, a waste generator shall segregate waste by separating hazardous waste from non-hazardous waste and shall dispose of such wastes in such facility as shall be provided by the relevant local authority. Under Regulation 14 (1), every trade or industrial undertaking shall install at its premises anti-pollution equipment for the treatment of waste emanating from such trade or industrial undertaking. Under Regulation 18, every generator of hazardous waste shall ensure that every container or package for storing such waste is labeled in easily legible characters, written in both English and Kiswahili. The label shall contain the following information:

a) The identity of hazardous waste;
b) The name and address of the generator of waste;
c) The net contents;
d) The normal storage stability and methods of storage;
e) The name and percentage of weight of active ingredients or half-life of radio active material;
f) Warning of or caution statements which may include any of the following as appropriate –
   (i) The words “WARNING” or “CAUTION”;
   (ii) The word “POISON” (marked indelibly in red on a contrasting background); and
   (iii) The words “DANGER! KEEP AWAY FROM UNAUTHORIZED PERSONS”; and
   (iv) A pictogram of skull and crossbones

g) A statement of first aid measures, including the antidote when waste is inhaled, ingested or dermal contact and a direction that a physician must be contacted immediately;

The 4th schedule of these regulations lists categories of wastes that are considered hazardous. The 3rd schedule gives the standard for the treatment and disposal of wastes including classification for incinerators and the standards, guidelines, criteria and procedure for installing and operating incinerators. Under Regulation (5) (1), a waste generator shall minimize waste generated by adopting the following cleaner production methods:
a) Improvement of the production processes through;
   (i) Conserving raw materials and energy;
   (ii) Eliminating the use of toxic raw materials; and
   (iii) Reducing toxic emissions and wastes

b) Monitoring the product cycle from beginning to the end by:
   (i) Identifying and eliminating potential negative impacts of the product;
   (ii) Enabling the recovery and re-use of the product where possible; and
   (iii) Reclamation and recycling; and

c) Incorporating environmental concerns into the design and disposal of the product.
**7.4.4 The Public Health, CAP 242 Laws of Kenya**

This Act of Parliament commenced on 6th September 2001 to make provision for securing and maintaining health. According to section 118, the following shall be deemed nuisances liable to be dealt with in the manner provided in this part:

a) any vessel, and any railway carriage or any other conveyance in such a state or condition as to be injurious or dangerous to health;

b) any dwelling or premises or part thereof which is or are of such construction or in such state or so situated or so dirty or so verminous as to be, in the opinion of a medical officer of health, injurious or dangerous to health, or which is or are liable to favors the spread of any infectious disease;

c) any street, road or any part thereof, any stream, pool, ditch, gutter, watercourse, sink, water tank, cistern, water closet, earth closet, privy, urinal, cesspool, soak away pit, septic tank, cesspit, soil pipe, waste pipe, drain, sewer, garbage receptacle, dustbin, dung pit, refuse pit, slop tank, ash pit, or manure heap so foul or in such a state or situated or constructed as in the opinion of the medical officer of health as to be offensive or injurious or dangerous to health;

d) any well or other source of water supply or any cistern or other receptacle for water, whether public or private, the water from which is used or likely to be used by man for drinking or domestic purposes or in connection with the manufacture or preparation of any article of food intended for human consumption, which in the opinion of a medical officer of health is polluted or otherwise liable to render any such water injurious or dangerous to health;

e) Any noxious matter or waste water, flowing or discharged from any premises wherever situated, into any public street, or into any nullah, or watercourse, irrigation channel or bed thereof not approved for the reception of such drainage;

f) Any stable, cowshed or other building or premises used for keeping animals or birds, which is so constructed, situated, used or kept as to be offensive or which is injurious or dangerous to health;

g) Any animal so kept as to be a nuisance or injurious to health;

h) Any accumulation or deposit of refuse, offal, manure, or other matter whatsoever which is offensive or injurious to health;
i) Any accumulation of stones, timber or other material if in the opinion of a medical officer of health is likely to harbor rats or vermin;

j) Any premises in such a state or condition and any building so constructed as to be likely to harbor rats;

k) Any dwelling or premises which is so overcrowded as to be injurious or dangerous to health of the inmates, or so dilapidated or defective in lighting or ventilation, or is not provided with sanitary accommodation to the satisfaction of the medical officer of health;

l) Any public or other building which is so situated, constructed, used or kept as to be unsafe, injurious or dangerous to health;

m) Any occupied dwelling or for a proper sufficient and wholesome water supply is not available within a reasonable distance as under the circumstances it is possible to obtain;

n) Any factory or trade premises not kept in a cleanly state and free from offensive smell arising from any privy, water closet, earth closet or urinal or not ventilated so as to render harmless and inoffensive as far as practicable any gases, vapors, dust or other impurities generated or so badly lighted or ventilated as to be injurious or dangerous to the health of those employed therein;

o) Any factory or trade premises causing or giving rise to smells or effluvia which are offensive or which are injurious or dangerous to health;

p) Any area of land kept or permitted to remain in such a state as to be offensive, or liable to cause any infectious, communicable or preventive disease or injury or danger to health;

q) Any chimney sending forth smoke in such quantity or in such manner as to be offensive or injurious or dangerous to human health;

r) Any cemetery, burial place or place of sepulture so situated or so crowded or otherwise so conducted as to be offensive or dangerous to health;

s) Any act, omission, or thing which is, or may be, dangerous to life, or injurious to health. Section 116 of this Act empowers local authorities to maintain cleanliness and prevent nuisances. Part (x) provides for the protection of feedstuffs, including the construction and regulation of buildings used for the storage of feedstuffs. Section 128 prohibits the residing or sleeping in kitchens or feed stores.
7.4.5 The Environmental Management and Coordination (Noise and Excessive Vibration Pollution Control) Regulations

According to Regulation 3.(1), except as otherwise provided in these Regulations, no person shall make or cause to be made any loud, unreasonable, unnecessary or unusual noise that annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and the environment. According to regulation 3 (2), in determining whether noise is loud, unreasonable, unnecessary or unusual, the following factors may be considered:

(a) Time of the day;
(b) Proximity to residential area;
(c) Whether the noise is recurrent, intermittent or constant;
(d) The level and intensity of the noise;
(e) Whether the noise has been enhanced in level or range by any type of electronic or mechanical means; and,
(f) Whether the noise can be controlled without much effort or expense to the person making the noise.

Under Regulation 4.(1) except as otherwise provided in these Regulations, no person shall-

(a) Make or cause to be made excessive vibrations that annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and the environment;
(b) Cause to be made excessive vibrations that exceed 0.5 centimetres per second beyond any source, property boundary or 30 metres from any moving source.

Under Regulation (5), no person shall make, continue or cause to be made or continued any noise in excess of the noise levels set in the First Schedule to these regulations, unless such noise is reasonably necessary to the preservation of life, health, safety or property.

According to Regulation 8 (1) No person shall use or operate any radio or receiving set, musical instrument, phonograph, television set, any other machine or device for the producing or reproducing of sound or any other sound-amplifying equipment in a loud, annoying or offensive manner such that, noise from the device-

(a) Interferes with the comfort, repose, health or safety of members of the public;
(b) Creates a risk thereof, within any building or, outside of a building, at a distance of 30 meters or more from the source of such sound; or
(c) Interferes with the conversation of members of the public who are 30 meters or more from the source of such sound. In accordance with Regulation 9 (1), any person in charge of a party or other social event that occurs on any private or public property shall ensure that the party or event does not produce noise in a loud, annoying or offensive manner such that noise from the party interferes with the comfort, repose, health or safety of members of the public within any building or, outside of a building, or recklessly creates the risk thereof, at a distance of 30 meters or more from the source of such sound. According to Regulation 10 (1) No person shall:
(a) Preach, tout, advertise, promote or sell anything; or
(b) Engage in any commercial activity; in any manner so as to emit noise by shouting within a Central Business District of any town, a residential area, a silent zone, or any other area declared as a silent zone by NEMA;
In line with Regulation 11 (1) any person wishing to- (a) operate or repair any machinery, motor vehicle, construction equipment or other equipment, pump, fan, air-conditioning apparatus or similar mechanical device; or (b) engage in any commercial or industrial activity, that is likely to emit noise or excessive vibrations shall carry out the activity or activities within the relevant levels prescribed in the First Schedule to these Regulations. In accordance with Regulation 12 (1) no person shall operate a motor vehicle that (a) produces any loud and unusual sound; and (b) exceeds 84 dB (A) when accelerating. In addition, sub-Regulation (2) states that no person shall at any time sound the horn or other warning of a vehicle except when necessary to prevent an accident or an incident. Under Regulation 13 (1) except for the purposes specified in sub-Regulation (2) there under, during night time hours, no person shall operate construction equipment (including but not limited to any pile driver, steam shovel, pneumatic hammer, derrick or steam or electric hoist) or perform any outside construction or repair work so as to emit noise in excess of the permissible levels as set out in the Second Schedule to these Regulations. According to Regulation 16 (1) where a sound source is planned, installed or intended to be installed or modified by any person in a manner that such source will create or is likely to emit noise, or excessive vibrations, or otherwise fail to comply with the provisions of these Regulations, such
person shall apply for a license to the Authority. In accordance with Regulation 19 (1), no person shall carry out activities such as fireworks, demolitions, firing ranges and specific heavy industry without a valid permit issued by the Authority. Under Regulation (26), where there is continuous emission of noise or excessive vibration after the Environmental Inspector has issued an improvement notice, the Environmental Inspector may, with the approval of the Director General, and in consultation with the relevant lead agency, order the closure of an establishment or undertaking emitting such noise or excessive vibrations. According to Regulation (28), any person who contravenes any of the provisions of these Regulations, for which no penalty is stipulated, commits an offence and is liable upon conviction, to a fine of not more than three hundred and fifty thousand shillings or to imprisonment for a term of not more than eighteen months or to both such fine and imprisonment.

7.4.6 The Occupational Safety and Health Act, 2007

This is an Act of parliament to provide for the safety, health and welfare of workers and all persons lawfully present at workplaces, to provide for the establishment of the National Council for Occupational Safety and Health and for connected purposes. According to Section 3 (1), this legislation shall apply to all workplaces where any person is employed, whether permanently or temporarily. Under Section 3 (2), the purpose of this Act is to:

a) Secure the safety, health and welfare of persons at work; and
b) Protect persons other than persons at work against risks to safety and health arising out of, or in connection with, the activities of persons at work.

Under Section 6 (1), every occupier shall ensure the safety, health and welfare at work of all persons working in his workplace. Under section 6 (3), every occupier shall carry out appropriate risk assessments in relation to the safety and health of persons employed, and on the basis of these results, adopt preventive and protective measures to ensure that under all conditions of their intended use, all chemicals, machinery, equipment, tools, and process under the control of the occupier are safe and without risk to health and comply with the requirements of the safety and health provisions in this Act. Under 6 (4), every occupier shall send a copy of a report of risk assessment
carried out under this section to the area occupational safety and health officer. According to Section 6 (6), it is the duty of every occupier to register his workplace unless such workplace is exempted from registration under this Act. Under section 7 (1) except in such cases as may be prescribed, it is the duty of every occupier to: -

 a) prepare and, as often as may be appropriate, revise a written statement of his general policy with respect to the safety and health at work of his employees and the organization and arrangements for the time being in force for carrying out that policy; and

 b) to bring the statement and any revision of it to the notice of all his employees.

Under section 9 (1), every occupier shall establish a safety and health committee at the workplace in accordance with regulations prescribed by the minister if –

 (a) There are twenty or more persons employed at the workplace; or

 (b) The Director (of Occupational Safety and Health) directs the establishment of such committee at any other workplace.

Section 11 (1) states that the occupier of a workplace shall cause a thorough safety and health audit of his workplace to be carried out at least once in every period of 12 months by a safety and health advisor, who shall issue a report of such an audit containing the prescribed particulars to the occupier on payment of a prescribed fee and shall send a copy of the report to the Director of Occupational Safety and Health Services. According to Section 13 (1) (c), every employee shall at all times wear or use any protective equipment or clothing provided by the employer for the purpose of preventing risks to his safety and health. Under Section 16 (1), no person shall engage in any improper activity or behavior at the workplace which might create or constitute a hazard to that person or any other person. In accordance with Section 21, an employer or self-employed person shall notify the area occupational safety and health officer of any accident, dangerous occurrence or occupational poisoning which has occurred at the workplace. Where an accident in a workplace causes the death of a person therein, the employer or self-employed person shall –

 a) Inform the area occupational safety and health officer within 24 hours of the occurrence of the accident; and
b) Send a written notice of the accident in the prescribed form to the area occupational safety and health officer within 7 days of occurrence of the accident.

Under Section 22 (3), an occupier shall send a written notice of any disease specified in the second schedule of the Act occurring in the workplace to the Director. Under Section 47 (1), every workplace shall be kept in a clean state, and free from effluvia arising from any drain, sanitary convenience or nuisance. In accordance with section 52 (1), sufficient and suitable sanitary conveniences for the persons employed in the workplace shall be provided, maintained and kept clean, and effective provision shall be made for lighting the conveniences; and where persons of both sexes are or are intended to be employed (except in the case of workplaces where the only persons employed are members of the same family dwelling there), such conveniences shall afford proper separate accommodation for persons of each sex. Under section 78 (1), all stocks of highly inflammable substances shall be kept either in a fire resisting store or in a safe place outside any occupied building, provided that no such store shall be so situated as to endanger the means of escape from the workplace or from any other part thereof in the event of fire occurring in the store. Under Section 81 (1), in every workplace or workroom, there shall be –

a) provided and maintained, and conspicuously displayed and free from any obstruction so as to be readily accessible, means for extinguishing fire, which shall be adequate and suitable having regard to the circumstances of each case; and

b) Present, persons trained in the correct use of such means of extinguishing fire during all working hours.

Under 81 (2), every workplace shall be provided with adequate means of escape, in case of fire, for persons employed therein, having regard to the circumstances of each case. Under 82 (1), every occupier of a workplace shall design evacuation procedures to be used during any emergency and have the procedures tested at regular intervals. Under Section 84 (3), every employer shall ensure the availability at the workplace of material safety data sheets for all chemicals and other hazardous substances in use at the premises of the employer, containing detailed essential information regarding the
identity, supplier’s classification of hazards, safety precautions and emergency procedures.

7.4.7 The Judicial Service Act, No. 1 of 2011

This is an Act of Parliament to make provision for judicial services and administration of the judiciary; to make further provision with respect to the membership and structure of the Judicial Service Commission; the appointment and removal of judges and the discipline of other judicial officers and staff; to provide for the regulation of the Judiciary Fund and the establishment, powers and functions of the National Council on Administration of Justice, and for connected purposes.

According to Section 3 under this Act, The object and purpose of this Act is to, among other things, ensure that the Commission and the Judiciary shall—
(a) be the organs of management of judicial services and, in that behalf, shall uphold, sustain and facilitate a Judiciary that is independent, impartial and subject only to the provisions of the Constitution and the law;
(b) facilitate the conduct of a judicial process designed to render justice to all;
(c) be accountable to the people of Kenya;
(d) facilitate a judicial process that is committed to the expeditious determination of disputes;
(e) facilitate a judicial process that is committed to the just resolution of disputes;
(f) support and sustain a judicial process that is committed to the protection of the people and of their human rights;
(g) promote and sustain fair procedures in its functioning and in the operations of the judicial process, and in particular, be guided in all cases in which it has the responsibility of taking a decision affecting a judicial officer of any rank or its own employee, by the rules of natural justice;
(h) be the administrative manifestation of the Judiciary’s autonomy and inherent power to protect and regulate its own process, achieving these objects through application of principles set out in the Constitution and other laws;
(i) facilitate accessibility of judicial services to all Kenyans;
(j) facilitate the promotion of gender equity in the Judiciary and the protection of vulnerable children in the administration of justice;
(k) be guided in their internal affairs, and in the discharge of their mandates by considerations of social and gender equity and the need to remove any historical factors of discrimination; and
(l) apply modern technology in their operations.

Section 4 of this Act stipulates the standards of service and states as below;
In the exercise of the powers or the performance of the functions conferred by this Act, the Commission and the Judiciary shall, among other things—
(a) have the technical, infrastructural and administrative competence to ensure that the requirements of the judicial process are fulfilled;
(b) adopt quality service as a core principle and, to uphold this principle, the Commission and the Judiciary shall formulate a modern and constantly updated scheme of judicial and other training for all categories of Judges, judicial officers and staff of the Commission;
(c) be guided in their activities by the relevant provisions of the Constitution;
(d) uphold the judicial service code of conduct and ethics as may, by regulations, be prescribed;
(e) be non-partisan and non-political in orientation and operations;
(f) promote and uphold honesty and integrity in its operations, and give fulfillment to all values essential for the discharge of judicial functions; and
(g) apply and promote such other positive values as the Commission may, by regulations, prescribe.

7.4.8 The Physical Planning Act

Part V of this Act provides for control of development. This Act provides for the preparation and implementation of physical development plans for connected purposes. It establishes the responsibility for the physical planning at various levels of Government in order to remove uncertainty regarding the responsibility for regional planning. A key provision of the Act is the requirement for Environmental Impact Assessment (EIA). This legislation is relevant to the implementation and siting of sewerage plants in pilot urban centres as identified in the project document.
Section 30. (1) of the act requires that no person shall carry out development within the area of a local authority without a development permission granted by the local authority. It provides for a hierarchy of plans in which guidelines are laid down for the future physical development of areas referred to in a specific plan. The intention is that the three-tier order plans, the national development plan, regional development plan, and the local physical development plan should concentrate on broad policy issues. The Act calls for public participation in the preparation of plans and requires that in preparation of plans proper consideration be given to the potential for socio-economic development needs of the population, the existing planning and future transport needs, the physical factors which may influence orderly development in general and urbanization in particular, and the possible influence of future development upon natural environment.

7.4.9 The Land Act 2012

The Act shall apply to all land declared as:
- public land under Article 62 of the Constitution;
- private land under Article 64 of the Constitution; and
- community land under Article 63 of the Constitution and any other written law relating to community land.

The guiding values and principles of land management and administration bind all State organs, State officers, public officers and all persons whenever any of them—

a) enacts, applies or interprets any provisions of this Act; and

b) makes or implements public policy decisions.

In the discharge of their functions and exercise of their powers under this Act, the Commission and any State officer or public officer shall be guided by the following values

and principles—

a) equitable access to land;

b) security of land rights;

c) sustainable and productive management of land resources;

d) transparent and cost effective administration of land;

e) conservation and protection of ecologically sensitive areas;
f) elimination of gender discrimination in law, customs and practices related to land and property in land;

g) encouragement of communities to settle land disputes through recognized local community initiatives;

h) participation, accountability and democratic decision making within communities, the public and the Government;

i) technical and financial sustainability;

j) affording equal opportunities to members of all ethnic groups;

k) non-discrimination and protection of the marginalized; and

l) democracy, inclusiveness and participation of the people; and

m) alternative dispute resolution mechanisms in land dispute handling and management.

The Act states that there shall be the following forms of land tenure:

• freehold;
• leasehold;
• such forms of partial interest as may be defined under this Act and other law, including but not limited to easements; and
• customary land rights, where consistent with the Constitution

There shall be equal recognition and enforcement of land rights arising under all tenure systems and non-discrimination in ownership of, and access to land under all tenure systems.

Title to land may be acquired through—

(a) allocation;

(b) land adjudication process;

(c) compulsory acquisition;

(d) prescription;

(e) settlement programs;

(f) transmissions;

(g) transfers;

(h) long term leases exceeding twenty one years created out of private land; or

(i) any other manner prescribed in an Act of Parliament.
8.0. Project Description, Activities and Processes

8.1 Project Description

a) Current status

At the moment, the court station consists of a courtroom, two senior resident magistrate chambers, one registry with a makeshift kitchen extension, prosecutors office, a customer care office and a vehicle parking bay. The current court buildings are roofed with asbestos while the rear ends are served with an exhibit store. Other facilities at the station include water tanks, a septic tank and pit latrines. The photographs below indicate the current state of the law courts.
8.2 Proposed development

The proposed project involves rehabilitation of the existing court buildings and construction of new structures. Rehabilitation will mainly involve demolition and upgrading of various facilities at the station which include; the existing law courts, customer care unit, security cubicle and gate, pit latrines, vehicle shed, while a new three storey building will be constructed.

Facilities in the newly constructed storey buildings and rehabilitated structures will include:

- A court room for each of the four magistrates at the court station
- A private chamber with toilet facilities for each magistrate
- A private facility for hearing children cases
- Accountants office
- Registry office including filing and archiving room
- Prosecutors office
- Administration offices
- A Library
- Probation and aftercare facilities
- Lawyers room
- Male and female holding cells and separate toilets for both gender
- Secure prisoner receiving area all gendered
- Male and female public washrooms
- Male and female staff washrooms
- Magistrates common room
- Front entrance and waiting area

Other outdoor facilities include:

i. Water storage units,
ii. Exhibit store,
iii. Generator room,
iv. Septic tanks and an installed incinerator
v. Judiciary parking bay and,
vi. A water fountain

Detailed architectural drawings are appended to this report.
8.3. Activities

8.3.1. Activities during construction

The proposed project activities to be undertaken during the implementation of the proposed project include:

- Site hoarding as required by the CGN by-laws
- Demolition of existing buildings including existing pit latrines, vehicle shed, customer care shed, kiosk, security gate and cubicle
- Relocation of electrical power poles and lines
- Removal of asbestos roofing in accordance with NEMA Regulations and renovation of courtroom, exhibit store, magistrate chamber, and registry facilities
- Over site excavations for removal of vegetation, top soil and backfilling with well compacted hardcore filling after setting foundation trenches
- Disposal of excavated debris and landscaping around excavated areas.
- Erection of foundation walls in horizontal joint
- Construction of superstructures and substructures as per the architectural designs and to the structural engineer’s detail.
- Setting up of external structures including incinerator, foul and storm water storage through septic tank, soak pit, fountain and rain water harvesting structures.
- Fittings and finishes including floor finishes, steel grill works, store shelving, wall finishes, ceiling finishes, painting and plumbing
- Electrical works that involves light fittings, installation of light switches, meter board and wiring. Connections to utilities including the overhead KPLC mains and connections to water supply
- Paving and landscaping as per project design
- Furnishing the building in readiness for use
- Acquisition of an occupational certificate from the relevant authorities
- Commissioning of the project for judicial service provision
8.3 Activities at the Operation stage

The main objective of the JPIP implementation at Nyamira Law Courts is to develop the necessary infrastructure for the Judiciary in the county to hold trials and provide access to courts by providing the physical space necessary for such services. In a nutshell, the activities during the operation stage will involve among the following:

- Judicial proceedings including court hearings, presentation of exhibits and prosecution/trial
- Administration, archiving and shelving of court documentation
- Temporary holding of suspects including male, female and children in separate cells
- Research and conferences in library and conference halls
- Sewerage treatment and maintenance of the septic tank and septic tank and proper disposal of treated sludge
- Security services within the facility
- Maintaining of lawns, pavements, washrooms and other indoor facilities

9.0 Analysis of Alternatives

Some of the alternatives to the proposed apartment’s development include; alternative site and route, alternative layouts/designs and the “no project” alternative as briefly described below.

9.1 Alternative sites (locations) and route

The proponent has the option of undertaking the proposed development in a different location other than the chosen site. This would entail applying for a different plot from the county government or purchasing land altogether in a different locality to carry out the development. However, the proposed site is on land owned by the government and the judiciary has been entitled to it. There is readily available space adjacent to the existing facilities hence optimum resource utility. With land scarcity, high cost of land within the environs of Nyamira, proximity to the town and the nearby county offices that allows for development and easier accessibility by the public in addition to the fact that an existing court structure is already in existence within this plot; the proposed site is preferred.

The justifications for the proposed site are:

(a) The land has been legally allocated to the proponent by the Nyamira County Government
(b) The proposed development does not contravene land use plans of the local authority in the area. Furthermore, all public offices, including the police station are located within the environs of the project site and hence the law courts can only be set up in such a setting.

(c) Due to low employment opportunities in the area, the project will largely help in reinforcing youth employment by offering employment opportunities.

(d) It eliminates the extra cost of buying land elsewhere and minimizes resource exhaustion

(e) The proximity to established support infrastructure including good access road, existing power supply, security and water supply, which are ideal for the development.

(f) There is adequate space for the proposed development on the plot.

(g) In line with the Vision 2030, the proposed project will be in line to ensure that the county government of Nyamira realizes the ideals of the social pillar in the vision.

(h) The already existent court that only needs rehabilitation will be important in providing easily available infrastructure for judicial purposes thus strengthening the capacity of newly constructed facilities onsite. This will thus minimize extra costs during construction phase.

(i) The access route is ideal for use during the project implementation phase as an alternative route would result to clearance of vegetation including important tree species like Cassuarinas and Dovyalis caffra which haven’t exceeded their lifeline.

9.3 Alternative Layouts and Designs

This involves looking at various possible alternative project designs and layouts. It is important to acknowledge the fact that the proponent has consulted widely with the project architect and engineers in settling for an up to date project design and layout which optimizes on the available resources and achieves the intended project objective.

The EIA Experts however recognized the need for salvaging and exploring all options available in minimizing the clearance of the existing indigenous tree species in the project site which have densely occupied the forest station as indicated below.
Fig. 13 Indigenous tree species within the project site

With a tree life of over 10 years, the trees in the project site prove to be crucially important in carbon sequestration (approx. 24lbs of CO2 per year for the whole tree population at the site), stabilization of the landscape and reinforcing the 10% tree-cover onsite policy.

It is for these reasons that a Green car park is proposed as an alternative to the ‘grey’ asphalt or concrete car park in the proposed design. The proposed green car park will entail the following;

- Strategic construction of graveled car parks within tree spacing to retain existing species with controlled root disturbance.
- Inclusion of BODPAVE 85 porous grass pavers in the design within the soil root zone to create a gravel eco-park instead of concreting the car park. This is not only cost effective but blends well with the existing tree-line and is far more durable.
- Fitting of lightning arresters within the law courts and at the eco-park to offset any potential natural hazards.
9.4 The “No Project” Alternative

The “No Project” alternative implies that no development is undertaken on the land and thus retains the original environment. Thus, the project implementation is better considered because of the following reasons;

a) Without the proposed development, the land would not be put into optimum use.

b) The capacity of the law courts need to be strengthened in order for the Judiciary to deliver its services in an effective, transparent and accountable manner. The existing law courts are constrained in terms of space, as evident in the squeezed registry which has been extended to accommodate a kitchen.

c) Additionally, rehabilitation would be important in replacing the asbestos roofing and the overfilled rubbish pits which pose health hazards to both staff and the public.

d) The proponent has invested significant amounts of money in the project and will suffer loss if the project is not undertaken.

e) The project is accompanied with environmentally friendly facilities including waste management facilities and rainwater harvesting facilities; some of which are the first of their kind in the locality. These facilities ensure proper hygiene, sanitation, water supply and improve on efficiency. Not undertaking the project would be contravening the principles of sustainable development.

f) This alternative would hinder potential expansion of employment opportunities and investment in the area.

Thus, although the “no project” alternative would not have adverse impacts on the environment, it does not make sense not to undertake the development since the existing facilities are underdeveloped, poorly furnished and limit the capacity of the judiciary to accomplish its mandate.
10.0 Project Inputs, Outputs, By-products and Wastes

10.1 Inputs

10.1.1 Inputs at the construction stage

The inputs at the construction stage include the construction materials such as:

- Water
- Energy including fuels
- Building sand and murram
- Cement and Ballast
- Polythene sheets and plastic sheets
- Metal including high tensile bars, wire mesh
- PVC pipes
- Metal frames and pipes
- Steel bars
- Wood- mahogany hardwood/cypress
- Glass and plastic
- Ceramic floor tiles
- Silk vinyl paint, gloss oil paint
- Roofing sheets
- Building blocks and natural stones
- Plants for landscaping

10.1.2 Inputs at operation and maintenance phase

The input at operation and maintenance phase include: -

- Water
- Energy (electricity and diesel)
- Office electrical appliances including telephones, computers, television set
- In-house equipment including tables, chairs etc.
- Cleaning materials
- Repair and maintenance materials including; sheets, roofing tiles, pipes, plastics, glass and other normal domestic repair and maintenance materials
- Office stationery
- Exhibits
10.2 Outputs, By-products and wastes
The project output will be the proposed Judiciary facilities as per the project design. The by-products and wastes to be generated from the development at various stages of the project cycle include:

- Demolition rubble that will need proper disposal with priority on salvaging or re-use
- Soil and gravel from digging of foundations and substructures
- Noise and dust from construction activities and delivery of material to the site
- Left over construction materials
- Human waste
- Wastewater from washrooms
- Solid waste from offices, courtrooms, library and other facilities
- Exhibit fluids and other waste material emanating from the store

11.0 Potentially Affected Environment
The following components of the environment will be potentially affected by the proposed residential development:

a) **Air**
Each of the phases during the project life cycle will have a characteristic potential impact on the surrounding aerial environment and therefore changing its quality. These are outlined below:

- **The construction/demolition phase**
  Excavations and earthworks while removing vegetation/top cover and trenching for foundations and underground piping, delivery of construction material by drivers of trucks, demolition of walls and sub-structures, disposal of debris, mixing of cement, sand and ballasts are some of the activities which will result to generation of dust and noise in the locality. Movement of trucks during transit and building machinery will also result in fugitive exhaust emissions, vibrations and noise of different measure. Such activities will contribute to a certain potential effect on the air quality. Of concern however is the asbestos dust that will be
emanated while removing the asbestos roofing from the current courtrooms. This dust has the potential of negatively affecting the air quality to a significant extent.

*The operation phase*
During the operation phase, the exhibit pit, waste water and human waste treatment facility might also contribute to an effect in pollution of the air by emission of foul smells if not properly maintained. Furthermore, the soak pit might be a breeding site for mosquitoes and other microorganisms. Fugitive incinerator emissions in form of hazardous smoke will also have an impact on the air quality.

*The decommissioning phase*
During this phase, disconnection and removal of utilities e.g. water pipes, electricity and telephone cables, removal of all the underground facilities like water tanks, septic tanks, and mechanical demolition of the structures will result to a significant amount of air pollution due to emissions of dust, vibrations and extreme noise that will all affect air quality. Any defective machinery, poorly maintained trucks or instances of idling of these vehicles during collection of demolished debris could all lead to air pollution by exhaust emissions, vibrations and noise, and fossil fuel smell. In addition, demolition of the septic tank and the incinerator will result to foul smells and hazardous ash leaking into the ambient air.

b) **Soil, its biological composition and land use**
Various attributes of the land/soil will also be potentially affected by the proposed development during the project life cycle as illustrated below.

*The construction phase*
During the construction phase, excavations, disposal and setting up of substructures will have a direct impact on the land. Transportation of construction materials and physical offloading will realign the top soil structure changing its surface integrity and exposing it to probable erosion while new vehicle tracks in
the delicate road tracks would increase erosion. Excavations to remove earth material and available vegetation would disrupt soil structure and its hydrology that flows in an east west inclination. Soil biological composition (soil floral and faunal composition) will also be affected in the course of construction works due to disruption of the micro-habitat. Solid wastes materials including packaging material, plastic cans, and paint and non-use material littering the soil cover would disrupt soil composition if not well handled and disposed. Further, oil spillages by defective machinery or poorly maintained vehicles at the site would negatively affect the soil integrity. Lastly, the construction will increase pressure on land as a limited resource adding to infrastructural density. As a result, land uses would be changed permanently to human usage.

**The operation phase**

Poor waste disposal from the facilities and waste treatment facility in form of both solid wastes and waste water would result to soil pollution by contamination of the soil in the area. Non-biodegradable wastes like plastics &polythene and underground leakages from drainage pipes, exhibit pit and the septic tank would interfere with underground water quality and soil composition in general. Primary negative effects include soil contamination, increase in soil pH and soil toxicity due to fugitive ash leaks from the incinerator. The trans-frontier effect resulting from underground water contamination would be death of soil microbes.

**The decommissioning phase**

Most of the effects during this phase are similar to those during the construction phase. Soil erosion will be a major effect during the decommissioning phase coupled with increment in debris hence interfering with land cover. Loosened soil particles if exposed to heavy rain droplets, surface run-off, trampling and wind are easily eroded.

c) **Biodiversity**
**Floral components**

The project location is richly vegetated with planted indigenous tree species and a well maintained landscape. Vegetation at the proposed project site includes trees, hedges and grass. The grasses on site include Thermada triandra and kikuyu long grasses. Hedges at the site include mainly *Dovyalis caffra* and *Cupressus spp.* while trees at the site range from exotic to a rich assortment of indigenous species. These include; *Grivellia robusta, Cassuarina equisetifolia, Eucalyptus spp.* among others. The construction phase that would involve setting up of the superstructure will involve clearance of the vegetation in these sites. However, the designed car park could be substituted by a green-graveled car park that doesn't involve total clearance of vegetation; especially the rich assortment of the well-established tree line in these zones. The decommissioning phase on the other end is expected to disrupt vegetation covering the soil by clearance and trampling.

**Soil Micro Fauna Composition**

*The construction phase*

During the construction period, excavations that will involve clearing of top matter and removal of earth and subsequent disposal to a large extent will interfere with soil microorganisms that include insects, earthworms, and rodents among other organisms. Removal of soil material and compaction will interfere with soil structure and drainage changing microfaunal habitation. Any mishandled construction debris, instances of oil spillages and waste water leakages from the sewerage system would change the soil characteristics that are important for the survival of host organisms. Vibrations due to machinery and truck movement could result to a disruption in micro-habitation within the soil. Furthermore, setting up of the super and substructures would lead to habitat destruction. The site; however, has not been reported to hoard any endangered species hence the effect will be minimal if well managed.

*The operation phase*
The operation phase will involve minimal soil works and hence there will be little to no effect to soil microorganisms. However, the incinerator if not properly maintained could result to fugitive ash leakages that could impair the soil quality and affecting species habitat. In addition, the exhibit drains need to be inspected regularly as seepages would result to gravitational flowage that would impair soil characteristics and its capability to support soil species.

**The decommissioning phase**

Demolitions, trampling, soil compaction during landscaping and other earth works to remove the facility during this phase would all interfere with soil microbiological niche. Restoration by phytoremediation would however minimize and compensate for the net effect.

d) The human environment and health related aspects

The steps towards sustainable development embrace all the key pillars that would lead to green productivity as the key objective. However, the underlying key to achieving this reality is consideration of the human factor at all levels. During the project lifecycle, various activities will have a potential significant effect on the people involved and neighboring the project. Some of the risks and positive effects are discussed in each phase of the project life cycle.

**The construction phase**

Negative potential impacts to human health and wellbeing include risks of accidents to both public and workers in the facility due to traffic and transport activity and occupational risks within. In addition dust, noise, vibrations, construction debris and insecurity brought by the presence of strangers in the location during construction would negatively affect the serenity of the environment resulting to disturbance, pulmonary infections among other health concerns. The exercise of removing the asbestos roof is a precarious process that entails significant health ramifications if not handled appropriately. The project will however offer excellent employment opportunities to the local youths. Re-vegetation initiatives would also improve the aestheticism of the neighborhood.

**The operation phase**
During this phase, positive effects to the project proponent and the surrounding people will include more improved and efficient service delivery to the public, improvement in their livelihood due to better security and employment opportunities and improved infrastructure. In addition, investment is likely to grow due to attractions offered by such kind of positive development. Proper waste management facilities, resource conservation measures and extension of water supply network within the neighbourhood are a positive step towards boosting the county economic and social capability. Some of the negative potential effects include environmental related hazards resulting from poor waste management activities, leakages in waste treatment facility or from the incinerator. In addition, occupational hazards at the workplace including fire risks and food contamination plus smoke emissions from the incinerator could negatively affect the neighbourhood.

**The decommissioning phase**

The demolition exercise could result into works related accidents due to poor visibility, lack of supervision, negligence, electrical faults, spillages or road related accidents among other risks. Dust, vibrations and occupational noise could also negatively affect the surrounding neighborhood.
12.0. Stakeholders Consultation and Participation
During the environmental impact assessment of the proposed rehabilitation of the Nyamira Law Courts, the team of experts consulted project stakeholders including the project architect, staff, immediate neighbours and members of the public.

12.1 Objective
The aim of neighbours and members of the public consultation and participation was to seek their views, inputs and concerns with regard to the proposed court rehabilitation project.

12.2 Methods
The following methods were used for consultation and public participation.

a) Meetings
Meetings were held with the court executive, resident magistrates, town administration and the project architect.

b) Interviews and questionnaires
Interviews were also held with various stakeholders including neighbours and members of the public. Questionnaires were used in seeking views, opinions and inputs of those consulted.

12.3 Summary of views and inputs
The matrix below summarizes the views, inputs and concerns of the stakeholders who were consulted during the EIA of the proposed development.

<table>
<thead>
<tr>
<th>Name</th>
<th>ID &amp;Tel No.</th>
<th>Occupation/designation</th>
<th>Views, concerns and inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Njoroge Mugo</td>
<td>ID No. 22792821</td>
<td>Ecosystem Conservator</td>
<td>▪ The project will create local employment opportunities</td>
</tr>
<tr>
<td></td>
<td>Tel. No. 0720650442</td>
<td></td>
<td>▪ There will be motivation to judiciary staff working in conducive environment and also to the public</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Nyamira town will be improved</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ The management should consider allocating space for replanting trees</td>
</tr>
<tr>
<td>Name</td>
<td>ID No.</td>
<td>Contact Information</td>
<td>Role</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------</td>
<td>---------------------------</td>
<td>-------------------------------------------</td>
</tr>
</tbody>
</table>
| Paul O. Onyango                   | 22422368        | Tel. No. 0720322405       | County Development Planning Officer      | ▪ The project will adversely affect the environment through air & noise pollution, health hazards and weak disposal mechanisms  
▪ There will be efficient management, reduced insecurity & employment creation from the project  
▪ Management should put up portable toilets on site during construction  
▪ Construction site to be bunded  
▪ Safe feeding site to be provided                                                                 |
| Joshua N. Lichoni                 | 8869067         | Tel. No. 0723334113       | Officer Commanding Station(OCS)           | ▪ Project will benefit station by providing proper temporary cells for prisoners awaiting proceedings  
▪ Services of the high court will be brought nearer the county  
▪ Adequate cells should be constructed to cater for different prisoner categories                                                                 |
| Anam Moturi                       | 0300986         | Tel. No. 0721430240       | Town Administrator                       | ▪ The project will help decongest court offices  
▪ Construction materials and resources should be obtained locally  
▪ Caution should be prioritized so the project wouldn’t stall  
▪ Project should be eco-friendly  
▪ All key stakeholders to be involved                                                                 |
| Simeon Onsongo                    | 10660374        | Tel. No. 0723791755       | Headteacher, Nyamira D.E.B primary school | ▪ Development will be improved through income generation  
▪ Criminals will be rehabilitated  
▪ Roads and land are aspects which should be taken care of during project implementation                                                                 |
| Hesbon Ogelo                      | 23543975        | N/A                       |                                           | ▪ The project is a good exercise & is highly waited for  
▪ The town will be expanded and secured                                                                 |
<table>
<thead>
<tr>
<th>Name</th>
<th>ID No.</th>
<th>Position</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Nyambaka</td>
<td>040679</td>
<td>Auditor, Ministry of National Treasury</td>
<td>• Construction will result to health hazards due to dust from cement</td>
</tr>
<tr>
<td></td>
<td>0720352106</td>
<td></td>
<td>• There will be noise pollution due to large tools and lots of workers on-site</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• There will be social disturbances when brewers are sentenced</td>
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<td></td>
<td></td>
<td></td>
<td>• Employment, security, good waste facilities and sufficient legal personnel will improve the area</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Better improved courts will reduce transport costs currently experienced in seeking better services</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• The court’s proximity to the road might result to prisoners escaping</td>
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<td></td>
<td></td>
<td></td>
<td>• A high perimeter fence should be set around court for security</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Rehabilitation exercise should be supervised to ensure building is well constructed</td>
</tr>
<tr>
<td>Edward Waya Ratemo</td>
<td>8291554</td>
<td>Civil Servant, Ministry of Devolution/Planning</td>
<td>• There will be improved service delivery</td>
</tr>
<tr>
<td></td>
<td>0722335485</td>
<td></td>
<td>• Criminal activity will be reduced</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Rule of law will be adhered to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Housing for workers to be provided</td>
</tr>
<tr>
<td>Isaiah N. Misonge</td>
<td>11514264</td>
<td>COC, IEBC</td>
<td>• There will be improved ways of exhibit disposal, especially local liquor</td>
</tr>
<tr>
<td></td>
<td>0722657980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kennedy Okemwa</td>
<td>10466683</td>
<td>Sub-county Officer in charge of probation</td>
<td>• No comment</td>
</tr>
</tbody>
</table>
13.0. POTENTIAL ENVIRONMENTAL AND SOCIAL-ECONOMIC IMPACTS

13.1 POSITIVE IMPACTS DURING DESIGN AND PLANNING PHASE.

A. Job creation

The proposed project has created jobs for the various project consultants. There was no identified negative impact established at this stage.

B. Source of local authority revenue

The County Government of Nyamira benefitted from fees charged on building plans approval and occupation certificate once project is complete.

C. Inclusion of Ecofriendly plans in the project design

The project lay out phase was not only important for the consideration of the necessary facilities to be set up, but was also a distinct stage of incorporating ecofriendly measures for resource conservation and waste management. In addition, appropriate planning for the limited land resource helped to prevent instance of unnecessary clearance of vegetation and soil habitat destruction. Further, removal of the asbestos roof has been a major consideration in heading towards sustainable environmental management.

13.2 POSITIVE ENVIRONMENTAL IMPACTS OF CONSTRUCTION ACTIVITIES

A. Creation of employment opportunities and generation of income

The onset of the construction phase will see the opening up of job opportunities both for contract workers and for permanent employees. This will improve livelihood by providing a source of income. The kind of job opportunities created in this phase will include casual, semi-skilled and professional staff among them environmentalists, architects, physical planners and surveyors who will benefit from the project construction phase thus enabling income generation.

B. Improvement of Security in the locality and its neighborhood

During construction, security will be provided to ensure adequate services are provided. Controlled access, installation of CCTV cameras on-site and
supervision of the general work will enable appropriate security in the locality. Furthermore, being multi-project that calls for an all-round security detail, the neighbourhood will be well secured during the phase.

C. **Expansion of the business network in the locality**

During the construction period, there will be a ready market provided by the project as raw materials for construction like timber, sand, cement, ballast and steel will be needed for the project. Wholesalers and food vendors will benefit from the ongoing project as interaction with the staff and management will lead to an expansive business activity. The need for raw material input from licenced suppliers and other items like water and food will help generate income for businesses and open up the town to investment.

D. **Better well-maintained access road**

13.1.2. **NEGATIVE ENVIRONMENTAL IMPACTS OF CONSTRUCTION ACTIVITIES**

**A. Solid waste generation**

During the setting up of the substructures, the superstructures and other externally related works, construction waste material and refuse including excavated earth, sand, concrete, cement, timber planks, used water, human wastes including food remains from the construction workers, glasses, paints, cans, plastics, cart-off metal, steel remains, plastic cables and paper packaging, building stones, ballast and oil spills among others will be generated. Such wastes if improperly managed can significantly litter the site and overspill into the neighboring properties thus lowering the environmental quality and reducing the aestheticism. The wastes can also accumulate to large heaps harboring rats, flies and microbiological organisms which could result to disease outbreaks.

**B. Interruption of existing logistics and services**

The proposed rehabilitation works of both the existing court room structures and construction of new facilities would result to disruption in the day to day activities of the judiciary. As a result, service delivery will be impaired. In addition,
demolition and renovation of existing facilities including security office, customer care, latrines and car park would temporarily impair access to such services during this phase. The neighbourhood services might also be interfered with due to traffic use via the access road, noise and new workers onsite prompting extra security measures. Lastly, relocation of power poles and lines and new installations of electricity during the last stages might result to power interruptions in the neighbourhood.

C. Clearance of vegetation
Vegetation at the proposed project site includes trees, hedges and grass. The grasses on site include Thermeda triandra and kikuyu long grasses. Hedges at the site include mainly Dovyalis caffra and Cupressus spp. while trees at the site range from exotic to a rich assortment of indigenous species. These include; Grivellia robusta, Cassuarina equisetifolia, Eucalyptus spp. among others. The construction phase that would involve setting up of the superstructure, demolition and rehabilitation of existing facilities and setting up a car park will result to clearance of the vegetation in these sites.

D. Soil erosion, hydrology and drainage
During the construction phase, excavations, disposal and setting up of substructures will have a direct impact on the land. Transportation of construction materials by heavy trucks, offloading and general construction work by heavy machinery and equipment will lead to realignment of the top soil structure changing its surface integrity and exposing it to probable erosion while new vehicle tracks in the delicate road tracks would increase erosion. Excavations to remove earth material and available vegetation would disrupt soil structure and expose it to erosion. In addition, the local hydrology that flows in an east west inclination will be affected. Removal of vegetation in order to set foundation will result to exposure of the top soil to wind and rain erosion.
E. Noise, dust, gaseous emissions and vibration pollution

The construction works, delivery of building materials and instances of idling engines from heavy trucks and the use of machinery/equipment including generators, metal grinders and concrete mixers will contribute to significant levels of noise and vibration within the construction site and the surrounding area. Elevated noise levels within the site can affect adjacent institutions, the public and other places of work.

Heavy earth moving vehicles transporting cement and other construction material via the rough access road and generators used for mixing ballast, sand and cement among other functions are likely to have fugitive emissions of CO₂, SOX and NOX from the use of sulfur fuels. Idling of trucks would also increase these emissions in cases where the engines are poorly maintained. This would negatively reduce the air quality of the locality. In addition, dust emissions likely to occur during this phase include fine particulate matter, sand dust, and cement dust among others. These forms are likely to pollute the environment. Dust emitted can be a hindrance to air quality hence affecting visibility and could result to pulmonary atrocities.

F. Generation of waste water

Waste water will emanate from activities such as cleaning of equipment and machinery after use, point sources including cement mixing sites and workers washing area. Improper management of such waste waters will result to runoff, erosion and pollution of the environment.

G. Increased Resource Consumption

Energy will be required for use in vehicles and to power generators for use during construction activities. This will be in form of fuel and the delivery and transport of materials by heavy moving trucks will increase fuel consumption by a significant extent. Activities like idling of trucks and machinery have a potential of contributing to extra fuel consumption and could also limit efforts for efficiency in resource use and raw material conservation. In addition, water will be a major resource to be utilized in mixing, washing, cooling, and disposal among
numerous other activities. Other resources that will be consumed include the raw materials important to facilitate construction. These are timber, sand, stones, cement, ballast, plastic, metallic material and iron sheets among others.

H. Risk of work accidents and occupational health and safety concerns
There is general concern on the safety of neighbouring workers who will be using the same route as the vehicles that will be delivering construction material and transporting away wastes. Drivers of turning trucks will have to exercise caution in order to abate any accidents to passersby. Secondly, occupational risks are also likely to happen during this period due to ignorance or lack of sensitization. The removal of asbestos roofing is a precarious exercise which if handled inappropriately could expose workers to carcinogenic dust. In addition, workers are likely to face risks of fire outbreaks, accidental falls, injuries due to improper handling of machinery or lack of PPE are likely to happen during the construction phase. Some of the activities that are likely to pose risk of injuries during construction include; excavation, setting high walls of the substructures and super structures, erection and fastening of roofing materials, metal grinding and cutting, concrete work, steel erection and welding.

I. Security Concerns
The influx of strangers at the facility during construction for provision of skilled and unskilled labor could raise security concerns to the surrounding residents. In addition, the workers should be provided with security for their own safety. Physical safety is imperative for the success of this development activity and without security being addressed; the workers safety might be compromised. The presence of strangers in the area could also lead to loss of property.

13.2. IMPACTS DURING PROJECT OPERATION AND MAINTENANCE PHASE.
13.2.1 POSITIVE ENVIRONMENTAL & SOCIAL IMPACTS OF OPERATION PHASE
a) An improved facility capable of better service provision
The proposed project will result in a building with sufficient capacity to accommodate the increased county judicial needs including a larger population, courtrooms for
proceedings, offices, research and other functions. Increased demand for better services due to the introduced county system calls for modern, up to date and efficient judicial services which have to be brought closer to the people. The court will therefore have the necessary capacity in terms of infrastructure and staff to cater for such needs. Services will improve in terms of the following areas:

(i) Capacity to handle more than 4 court proceedings at a scheduled time
(ii) Ability to enable and enhance research within the court library
(iii) Improved cells to cater for different categories of suspects including male, female and juveniles
(iv) An infrastructure that is able to support both the abled and disabled
(v) Expanded conference areas to facilitate judicial meetings
(vi) Ability to support a wide range of professionals including lawyers, prosecutors, senior magistrates in a much comfortable environment
(vii) A technologically enhanced infrastructure for more efficient data storage and communication,

b) Employment Opportunities
The proposed project will create employment opportunities to maintenance personnel, office assistants, cleaners and security guards among others.

c) Optimum utility of land
The proposed project site is currently underutilized. The proposed court building will lead to optimal utility of land.

d) Improved aesthetics
A well designed building will enhance the aesthetic features of the area. Inclusion of an eco-park in the project design will be a major step towards environmental management.

e) Improved security and social morality
Generally, the improved infrastructure is bound to improve the performance of the law courts in providing its services. As a consequence, crime rate will decline and morality will be improved. Additional security will be hired to provide security once the proposed development is complete. This will thus enhance security situation in the area.
13.2.2. NEGATIVE IMPACTS DURING OPERATION AND MAINTENANCE PHASE

a) Generation of waste water
Operational activities such as cleaning and use of washrooms, offices and courtrooms will increase the amount of waste water generated. In addition, used exhibits including local liquor will be generated from the prosecution store and courtrooms which will need appropriate handling.

b) Generation of solid waste
These will come from court exhibits, office and registry waste, court room waste and other wastes, especially during court functions. There will also be generation of human waste from washrooms and latrines which will require more appropriate mechanisms of disposal.

c) Increased water consumption
Water will be used for activities like drinking, washing, cleaning, aesthetics and watering plants. This will increase demand for water in the area, yet water is a scarce resource in the County.

d) Increased demand for electricity
Electricity will be required for use by electronic equipment, for lighting, hearing in courtroom and other uses, which will increase overall demand for electricity in the area.

e) Generation of storm water
The proposed development will generate storm water from roof catchment and from paved surfaces. This storm water will exert pressure on existing storm water drainage facilities and can potentially destroy roads if not well managed.

f) Generation of noise
There will be generation of noise during court breaks or when awaiting sessions by people and when the generator is powered on during power breaks.

g) Increase in traffic
There will be marginal increase in traffic at the operation and maintenance phase of the project since the improved court infrastructure will have a broadened public and staff capacity. With an enlarged car park, it’s only natural for traffic via the access route to increase.

h) Increased pressure on utilities
There will be increased pressure on utilities in the areas as a result of more people coming to the law court including sewerage and water.
13.3. IMPACTS AT THE DECOMMISSIONING PHASE

The following would be the resultant potential environmental and social impacts in the event of decommissioning of the institution.

a) Human and Solid Waste Generation
Following demolition of the super and sub structures, accumulation of debris will most definitely occur. Pulling down of walls and roofing would result to generation of extremely large waste proportions that include metallic material, plastic and cables, dried paint, roofing sheets, stones and blocks among other material. Accumulation of these waste material; most of which could prove hazardous e.g. paint and adhesives are potential sources of underground water pollution. Soil toxicity would be increased and this would negatively affect microbiological organisms in the soil, degrade underground water quality and any trans-frontier effect including underground seepage would pollute water resources. Additionally, demolition of the septic tank and soak pit that serve for the purpose of human waste treatment could affect the surrounding environment resulting to pollution.

b) Destruction of Vegetation
The biodiversity of the environment would also be affected by demolition works. Efforts projected towards re-vegetation would be distorted as trampling, debris cover and excavations would remove the available vegetation exposing the soil to erosion and destroying the habitat.

c) Air Pollution during demolition
The pulling down of the superstructures by cranes and further disposal of debris by heavy earth moving trucks would result to significant levels of air pollution. Fugitive exhaust emissions in the form of carbon monoxide, sulphur and nitrogen oxides, particulate matter and dust would adversely affect air quality. This would negatively affect the neighborhood and the environment.

d) Works accidents and injuries
Without a comprehensive contingency plan in the disassembly of the structure, the possibility of work related injuries is even higher at this phase than any other. This is attributed to the fact that the stockpile would be a heaping mixture of hazardous and
rather sharp material which if not handled with care could harm the workers and passersby.

e) Noise pollution
Trucks used for during the demolition exercise and the associated machinery would result to emission of noise and vibration that would disturb the neighborhood. Idling of trucks, hooting, pulling down of superstructures and digging out substructures and the incinerator could lead to extremely high levels of noise which if not put under check could result to noise pollution.

f) Loss of land Aesthetic Value
The dug outs would leave the land bare. In addition, accumulation of debris at the site waiting hauling and disposal coupled with eventual disposal at selected sites will lower the aesthetic value of the site.

g) Soil and underground water pollution
Demolition of the septic tank, drainage ways, incinerator and the exhibit pit would expose the soil to contamination. Leakage of oil from the generator, sewerage from septic tank, exhibit refuse and ashes from incineration to the underground water and aquifers would result to contamination by nitrogenous, phosphates, metallic and other inorganic material. In the long run, transfrontier effects like health effects could result due to contamination of underground water which could be harnessed by unsuspecting residents for domestic purposes.

a) Disruption of Electrical Power and Water Supply
The demolition works will also lead to disruption of electric connection system as the courts would be connected to the national grid and water network. Tertiary consumers and neighboring premises would end up experiencing disturbances and probable business interruption due to lack of electrical power supplies.

b) Loss of employment and economic opportunities
The demolitions would further mean scraping off employment for the staff. This would affect economic power of both the local staff and the management.
14.0. Impact Mitigation and Environmental Management Plan
This EIA has identified some adverse environmental and socio-economic impacts arising from the proposed development, which make it mandatory to incorporate and undertake mitigation measures at all phases of the project cycle, right from the design stage. The EIA has also identified the need to undertake measures to monitor implementation of mitigation measures throughout the project cycle.

The matrix below specifies the Environmental Management Plan (EMP) for the proposed rehabilitation and improvement of facilities at the Nyamira Law Courts at Nyamira town, Nyamira County. It is worth emphasizing that the mitigation measures specified in the EMP must be undertaken at all phases of the project right from planning and commencement up to the decommissioning phase.
<table>
<thead>
<tr>
<th>Aspect</th>
<th>Potential Environmental, socio-economic, Health and Safety Impact</th>
<th>Mitigation measures</th>
<th>Project Phase</th>
<th>Responsibility</th>
<th>Cost estimate (KES)</th>
<th>Monitoring indicators</th>
</tr>
</thead>
</table>
| Solid waste generation and other related wastes | Adverse public health and safety impacts; adverse aesthetic impacts on land | • All workers to be sensitized to ensure waste production is minimized  
• Use of an integrated solid waste management system including prevention, source reduction, recycling, composting, reuse or incineration.  
• Demolished floor/wall material should be re-used for backfilling  
• Installation of clearly color coded waste bins that should be covered to minimize attraction of aves  
• A secure waste holding shed should be set up to facilitate segregation and temporary storage of wastes in waste bags.  
• All hazardous and non-hazardous waste should be stored | Construction, operation and maintenance decommissioning phases | Project proponent, building contractor, workers, general public | Approx. 10,000 per truck load of rubble soil 5,000 per month for General waste disposal  
Cost of installation of NEMA licenced incinerator | • Waste disposal records (monthly receipts)  
• Waste bins provided  
• Physical observation for waste segregation and re-use  
• Secure waste holding yard in place  
• Solid waste receptacles provided  
• NEMA licenced incinerator and septic tank  
• Eco-board in place |
| Interruption of existing logistics and services | Delayed judicial service delivery, interruption in electric power supply, disrupted sanitation and security services | Relocation of power lines to be done at off peak hours to prevent interruption of neighborhood service delivery | Measures to be put in place to ensure that judicial services are | Construction and decommissioning phases | Project proponent and building contractor | Cost of providing portable toilet, mobile court | No complaints from the local community and neighbourhood |

- Containerization of any solid waste and appropriate disposal by a NEMA licenced waste handler pursuant to L.N. 121
- Keep waste tracking forms for all the wastes that leaves site to ensure a clear chain of custody
- The kitchen sinks should be fitted with sumps and a grease separator to prevent pollution
- Ensure the installed incinerator is regularly maintained
- Set up a judicial mechanism of receiving neighbours concerns and monitoring non-compliance or non-conformity
- No complaints from the local community and neighbourhood
| Clearance of vegetation | Loss of native tree species, habitat destruction, loss of soil cover and soil erosion | - Strategic construction of graveled car parks within tree spacing to retain existing species with controlled root disturbance.  
- Inclusion of BODPAVE 85 porous grass pavers in the design within the soil root zone to create a gravel eco-park instead of concreting the car park.  
- Scale down the extent of clearance of tree species on-site  
- Clearly demarcate boundaries for construction of open vehicle bays to avoid ambiguous unnecessary clearance of vegetation  
- Under no circumstances should | Construction, operation and maintenance decommissioning phases | Project proponent, building contractor, workers | Cost of constructing an eco-park with BODPAVE 85 porous gravel technology | - Limited trees cleared  
- Graveled green-car park constructed  
- Re-vegetation of open lawns done |
the *Dovyalis caffra* be cleared off
- Develop incentives of incorporating a green building design in the improved court station and re-vegetating exposed zones
- Involve the local forestry institution in finding the best alternative indigenous sp. to be used in landscaping initiatives
- All works to be limited to designated sites under supervision

<table>
<thead>
<tr>
<th>Soil erosion, Hydrology and Drainage</th>
<th>Soil disturbance, adverse health impacts from dust</th>
<th>Construction; operation and maintenance phase</th>
<th>Project proponent, building contractor and construction workers</th>
<th>In project budget</th>
</tr>
</thead>
</table>
| Soil disturbance, adverse health impacts from dust | Develop incentives for landscaping and re-vegetation of exposed lawns | All new vehicle routes should be provided with side drains, culverts and metre drains that lead to recovery points | Excavated earth should be held away from areas susceptible to surface runoff of | No evidence of soil erosion
- Paving and refilling done
- Landscaping in open spaces done
- New vehicle routes constructed with side drains, culverts and metre drains

Soil erosion, Hydrology and Drainage

Soil disturbance, adverse health impacts from dust

Soil disturbance, adverse health impacts from dust
| Noise, dust, gaseous emission and vibration pollution | Impact on neighbourhood, occupational safety and health impacts | All personnel will be properly inducted on work ethics and safe working procedures to minimize dust and noise generation. Workers operating in highly noisy and dusty conditions will be afforded with protective gear for safe use. The construction site should be secured by site hoarding to prevent dust propagation by wind and limit noise production within site. Truck drivers will be instructed to prevent unnecessary hooting and idling of engines. Hoarding and netting for dust control will | Construction, operation and decommissioning phases | Project proponent, building contractor and construction workers, judiciary management | In project budget | a) No complaints from the local community members 
 b) Physical observation |
be implemented
- Transportation of waste debris for disposal should be done aboard secured vehicles
- Construction sites generating dust will be sprinkled with water to prevent dust emission
- Construction and demolition works, and movement of trucks will be limited to working hours
- Machinery and equipment used will be regularly serviced
- Erection of a bill board to notify neighbours on cautionary practices and ongoing works
- Adequate job supervision should be prioritized
- The installed
<table>
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<tr>
<th>Activity</th>
<th>Impact Area</th>
<th>Description</th>
<th>Phase</th>
<th>Cost/Duration</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos material handling</td>
<td>Occupational safety and health impacts, public health impacts</td>
<td>Proponent to secure services of skilled asbestos handlers during removal and disposal of fibre material. All workers on site will be required to wear protective gear. Material safety data sheets to be provided. Adherence to safety procedures will be enforced at all stages of the exercise. Carry out employee medical examinations.</td>
<td>Demolition and construction phase</td>
<td>Project proponent, building contractor, workers</td>
<td>In project budget. No health concerns reported. Medical examinations availed.</td>
</tr>
<tr>
<td>Generation of sewerage and waste water</td>
<td>Pollution, adverse public health impacts</td>
<td>All waste water and sewerage will be channeled into a septic tank as per project design. Suitable toilets will be constructed while mobile toilets to. Design, Construction, Operation and maintenance phases</td>
<td>Project proponent, Architect, Building contractor</td>
<td>Approx 100,000 effluent discharge licence fees</td>
<td>Physical observation. Maintenance records for wastewater disposal system. Water recovery and recycling system in place. Effluent discharge</td>
</tr>
</tbody>
</table>
| Work accidents during construction and demolition stage | Public health impacts, occupational safety and health impacts | • All workers will be inducted on occupational health and safety before commencement  
• A comprehensive contingency plan will | Design, Construction and decommissioning stages | Project proponent, Architect, Building Contractor and workers | In project budget | • Insurance policy in place  
• PPE provided to workers  
• Safety signage in place  
• MSDS availed at |
|---|---|---|---|---|---|---|
| | | | sample analysis per sample | Maintenance costs | licence available | • Effluent analysis records  
• Licence of waste exhauster |
| | | | | | |
be developed to offset any major injuries
  • Material safety data sheets (MSDS) to be availed at all work areas
  • All machinery and equipment used to be serviced regularly by qualified personnel
  • An EHS Management system to be formulated and safety officer appointed
  • All workers, pursuant to WICA regulations, shall accordingly be insured against accidents
  • All truck drivers to be instructed to exercise caution during turning on site
  • Contractor should subject employee selection to criteria based on health and safety parameters
  • Safety signage to be set up to caution the public

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<tr>
<th>Increased resource consumption</th>
<th>Increased demand for water and electricity</th>
<th>Maximize on harvesting rainwater into storage tanks</th>
<th>Design, construction, operation and Project Proponent, staff and public</th>
<th>Capital costs</th>
<th>Monthly water and power consumption</th>
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<tr>
<td>Occupational health and safety</td>
<td>Health and safety concerns</td>
<td>Registration of the station as a work place with DOSHS</td>
<td>Operation and maintenance phase</td>
<td>Project Proponent, court management and staff</td>
<td>Safety and health budget</td>
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<td>All workers to be instructed on first aid administration</td>
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<td>Formulation of an EHS Management system</td>
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<td>Development, documentation and communication of a maintenance phase</td>
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<td>• Water conservation taps to be installed</td>
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<td>• Identify opportunities for safe water reuse and/or recycling</td>
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<td>• Installation of water and electricity meters</td>
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<td>• Consider solar energy harvesting and optimize on natural lighting in the project design</td>
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<td>• Use of energy efficient machines and appliances</td>
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<td>• Truck drivers to be instructed not to leave vehicle engines idling</td>
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<td>• All employees and visitors to be sensitized on resource conservation</td>
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<td>• Water conservation taps installed</td>
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<td>• Rainwater and solar energy harvesting facilities</td>
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<td>• Water and energy conservation signage in place</td>
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<td>• Maintenance phase records;</td>
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<td>• Water conservation taps installed</td>
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<td>• Relevance licences and certificates obtained</td>
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</tbody>
</table>
| Security issues | Security concerns and staff safety | Controlled access to the project site  
- Provide adequate security at the working station during the project cycle  
- Consider installation of CCTV cameras at the courts  
- Provide adequate ventilation as per the project design  
- Do not exceed court room capacity during seatings  
- Ensure emergency exits are provided and well indicated  
- Conduct periodic emergency drills | Construction and operation phase  
Project Proponent, court management and staff | Capital costs  
- No security incidents associated with the workers |
15.0 Project Budget
The proposed rehabilitation and improvement of facilities at the Nyamira Law Courts at Nyamira town, Nyamira County will cost an estimated Kshs 122,634,000. A summary of the project cost is appended to this report.

16.0 Conclusions and Recommendations
This EIA has established that the negative environmental or socio-economic impacts from the proposed project are not significant. The impacts identified on the physical environment can be adequately mitigated by the project proponent if the EMP is fully implemented. Consequently, the EIA Experts are of the opinion that this is a positive development that should be approved to optimize on land use and to accommodate expanded judiciary activities in Nyamira County. The Environmental Management Plan herein developed must be implemented right from the planning and design stage up to the final stage of the project cycle. The project proponent should comply with the conditions issued by the Nyamira County Government and the National Government including conditions given by NEMA. The proponent must also take into consideration the views and concerns expressed by the neighbours and incorporate them in the project implementation.
17.0. References


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Kenya, Republic of: National Environmental Policy, 2014


Kenya, Republic of: Environmental Management and Coordination (Noise Pollution and Excessive Vibration Pollution Control) Regulation, 2009

Republic of Kenya: The Occupational Safety and Health Act, 2007


Thiaine, J. (2014): Environmental Impact Assessment of the proposed residential hotel at Lavington in Nairobi

www.kenyalaw.org
Appendices

1. Completed neighbors and public consultation questionnaires.
2. Copy of the Firm of Expert’s EIA/EA practicing license
3. Architectural plans of the proposed development
4. Copy of land ownership document
5. Project cost