Environmental & Social Impact Assessment Project Report for the Proposed Construction of Ruiru Market in Kiambu County of the Nairobi Metropolitan Region

REPUBLIC OF KENYA

MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT (ESIA)

PROPOSED CONSTRUCTION OF RUIRU MARKET

GPS Coordinates - Latitude 1° 8'52.90"S, Longitude 36°57'12.40"E

Project Ref No.EHS-5240-522708-41

Date: March 3, 2018
CERTIFICATION

SGS Kenya Limited was commissioned by the Ministry of Transport, Infrastructure, Housing and Urban Development to undertake Environmental and Social Impact Assessment for the proposed development of Ruiru Market, Kiambu County. The Report has been in accordance with the Environmental Management and Coordination Act no. 8 of 1999 and The Environmental (Impact Assessment and Audit) Regulations, 2003 for submission to the National Environmental Management Authority (NEMA).

SGS Kenya Limited submits this Environmental and Social Impact Assessment Report, to NEMA Kenya. To the best of our knowledge, all the information in this report is true and correct.

Proponent: Ministry of Transport, Infrastructure, Housing and Urban Development

.............................................. ..............................................
Name of Officer                Designation

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# TABLE OF CONTENTS

CERTIFICATION .................................................................................................................. II

LIST OF TABLES ..................................................................................................................... IX

LIST OF FIGURES .................................................................................................................. X

LIST OF ANNEXES ................................................................................................................ XI

ACRONYMS AND ABBREVIATIONS ...................................................................................... XI

EXECUTIVE SUMMARY ....................................................................................................... XII

CHAPTER ONE ....................................................................................................................... 21

1 INTRODUCTION .................................................................................................................. 21

1.1 RUIRU MARKET DESCRIPTION ..................................................................................... 22

1.1.1 Proposed project Locations ...................................................................................... 22

1.1.2 History of Ruiru Market ............................................................................................ 23

1.1.3 Current Market Profile .............................................................................................. 23

1.2 RATIONALE FOR IMPROVEMENT OF THE MARKET .................................................... 27

1.3 IMPROVEMENT OBJECTIVES ....................................................................................... 28

1.4 PROPOSED PROJECT DESCRIPTION ............................................................................ 28

1.5 THE PROPOSED MARKET .............................................................................................. 30

1.5.1 Market building description ..................................................................................... 30

1.5.2 Proposed Profile for the New Ruiru Market ............................................................. 30

1.6 ENVIRONMENTAL CONSIDERATIONS ....................................................................... 35

1.6.1 Water storage ........................................................................................................... 35

1.6.2 Common washing trough/point ................................................................................. 36

1.6.3 Toilets ...................................................................................................................... 36

1.7 SOLID WASTE MANAGEMENT ........................................................................................ 36

1.7.1 Proposed effective ways of managing solid waste in Ruiru Market ............................. 36

1.7.2 Solid waste categorization and segregation ............................................................. 36

1.7.3 Access and point collection ..................................................................................... 38

1.8 PAPs RELOCATION ......................................................................................................... 38

1.8.1 Relocation site ......................................................................................................... 39

1.8.2 39

1.9 ESIA JUSTIFICATION ...................................................................................................... 39

1.10 PROJECT COST .............................................................................................................. 40

CHAPTER TWO ..................................................................................................................... 42

2 METHODOLOGY ................................................................................................................. 42

2.1 TERMS OF REFERENCE (TOR) FOR THE ESIA PROCESS ............................................ 42

2.2 SCOPE AND OBJECTIVES OF THE ESIA .................................................................... 42

2.3 OBJECTIVES OF THE ESIA .......................................................................................... 43

2.4 ESIA APPROACH AND METHODOLOGY .................................................................... 43
2.5 APPROACH ....................................................................................................................................... 44
2.6 ENVIRONMENTAL SCREENING ..................................................................................................... 44
2.7 ENVIRONMENTAL SCOPING .......................................................................................................... 44
2.8 DOCUMENTARY REVIEW ................................................................................................................ 45
2.9 SITE ASSESSMENT ........................................................................................................................... 45
2.10 DETAILED ESIA REPORT ACTIVITIES .......................................................................................... 46
2.11 PUBLIC PARTICIPATION ................................................................................................................ 46

CHAPTER THREE ................................................................................................................................. 49

3 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK .................................................................... 49

3.1 GOVERNMENT OF KENYA POLICY FRAMEWORK ....................................................................... 49
3.2 THE CONSTITUTION OF KENYA 2010 ............................................................................................. 49
3.3 THE KENYA VISION 2030 .............................................................................................................. 49
3.3.1 National Environmental Action Plan (NEAP) of 1994 .............................................................. 51
3.3.2 The National Poverty Eradication Plan (NPEP) of 1999 ......................................................... 52
3.3.3 The Poverty Reduction Strategy Paper (PRSP) of 2000 ............................................................ 52
3.3.4 Environment and Development (Sessional Paper No. 6 of 1999) ........................................... 53
3.3.5 Nairobi metro 2030 .................................................................................................................. 53
3.3.6 The National Land Policy (2007) .............................................................................................. 53
3.3.7 Public Health Policy of 2014 .................................................................................................... 54
3.3.8 HIV/AIDS Policy of 2009 ........................................................................................................ 54
3.3.9 The National Gender Policy of 2001 ....................................................................................... 54
3.3.10 World Bank Environmental and Social Safeguard Policies ................................................... 55

3.4 LEGAL FRAMEWORK ...................................................................................................................... 57
3.4.1 The Environment Management and Coordination Act, 1999 and its Amendment (Environment Management and Coordination (Amendment) Act 2015) .............................................. 57
3.4.2 Environmental Management and Coordination (Water Quality) Regulations, 2006 .......... 57
3.4.3 Air Quality Regulation, 2014 ................................................................................................... 60
3.4.4 Environmental Management and Coordination Act (Noise and Excessive Vibrations Pollution Control) Regulations, 2009 .................................................................................................................. 61
3.4.5 The physical Planning Act ....................................................................................................... 63
3.4.6 The County Government Act 2012 .......................................................................................... 63
3.4.7 The Urban Areas and Cities Act 2011 ..................................................................................... 64
3.4.8 The Occupational Safety and Health Act, 2007 ..................................................................... 65
3.4.9 The Water Act 2002 ................................................................................................................ 65
3.4.10 The Public Health Act ........................................................................................................... 66
3.4.11 The Environment and Land Court Act No.19 of 2011: ......................................................... 67
3.4.12 The Land Act 2012 ................................................................................................................. 68
3.4.13 The Land Registration Act of 2012 ......................................................................................... 68
3.4.14 National Gender and Equality Commission Act, 2011 .......................................................... 68
3.4.15 HIV/AIDS Prevention and control Act (Act No. 14 of 2006) ...................................................... 69
3.4.16 The Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012 .................................................................................................................. 69
3.4.17 The Sexual Offences Act (No. 3 of 2006) ......................................................................................... 70
3.4.18 Environmental Permits and Licenses ............................................................................................... 70

3.5 THE INSTITUTIONAL FRAMEWORK .................................................................................................. 71
3.5.1 The Ministry of Transport, Infrastructure, Housing and Urban Development (MoTIHUD) ....... 71
3.5.2 Ministry of Environment and natural resource ................................................................................. 71
3.5.3 EMCA 1999 AND 2015 INSTITUTIONS ............................................................................................ 71
3.5.4 The Directorate of Nairobi Metropolitan Development ............................................................... 72
3.5.5 The County Government of Kiambu (CGK) ..................................................................................... 72
3.5.6 The local CBOs and other Civil Society .......................................................................................... 72
3.5.7 The National Gender and Equality Commission (NGEC) ............................................................... 72

CHAPTER FOUR ......................................................................................................................................... 74
4 ENVIRONMENTAL AND SOCIAL BASELINE ..................................................................................... 74

4.1 PROJECT BACKGROUND ..................................................................................................................... 74
4.2 LOCATION AND SIZE .......................................................................................................................... 74

4.3 EXISTING FACILITIES .......................................................................................................................... 75
4.3.1 Market Structures .............................................................................................................................. 75
4.3.2 Sanitation Facilities ............................................................................................................................ 75
4.3.3 Parking ................................................................................................................................................ 75
4.3.4 Security ................................................................................................................................................ 75

4.4 INFRASTRUCTURE ................................................................................................................................. 76
4.4.1 Road network .................................................................................................................................. 76
4.4.2 Water Supply .................................................................................................................................... 76
4.4.3 Electrical Services .............................................................................................................................. 76
4.4.4 Mechanical Services ........................................................................................................................ 76

4.5 WASTE MANAGEMENT ......................................................................................................................... 77
4.5.1 Sewer Facilities ................................................................................................................................. 77
4.5.2 Solid Waste Disposal ....................................................................................................................... 77

4.6 CLIMATIC CONDITION .......................................................................................................................... 77

4.7 DRAINAGE AND HYDROLOGY ............................................................................................................. 78

4.8 GEOLOGY AND SOILS ........................................................................................................................... 78
4.8.1 Topography ......................................................................................................................................... 78

4.9 SOCIAL ENVIRONMENT .......................................................................................................................... 79

4.10 DEMOGRAPHICS ................................................................................................................................. 79
4.10.1 Ruiru Market Demographic ............................................................................................................. 80
4.10.2 Education ......................................................................................................................................... 80
4.10.3 Business owners ............................................................................................................................... 81
4.10.4 Income level ..................................................................................................................................... 81

4.11 BIODIVERSITY ...................................................................................................................................... 82
CHAPTER FIVE

5 PUBLIC PARTICIPATION

5.1 APPROACH TO PUBLIC CONSULTATIONS

5.2 SOCIAL IMPACT ASSESSMENT METHODOLOGICAL FRAME

5.2.1 KEY STAKEHOLDERS

5.3 RUIRU MARKET STAKEHOLDER IDENTIFICATION/MAPPING

5.4 OUTCOME OF THE STAKEHOLDER CONSULTATION PROCESS

5.5 PUBLIC CONSULTATION METHODOLOGY FOR RUIRU MARKET

5.6 ANALYSIS OF FINDINGS IN THE CONSULTATIONS

5.6.1 Focus group discussions

5.6.2 Household survey with structured questionnaire findings

5.7 RUIRU SOCIAL IMPACT ASSESSMENT QUESTIONNAIRE ANALYSIS

5.8 CONCLUSIONS AND RECOMMENDATIONS

CHAPTER SIX

6 INTRODUCTION

6.1 RELOCATION OPTION

6.2 ZERO OR NO PROJECT ALTERNATIVE

6.3 ANALYSIS OF ALTERNATIVE CONSTRUCTION MATERIALS AND TECHNOLOGY

6.4 SOLID WASTE MANAGEMENT ALTERNATIVES

CHAPTER SEVEN

7 ENVIRONMENTAL AND SOCIAL IMPACTS ASSESSMENT AND MITIGATION MEASURES

7.1 INTRODUCTION

7.2 APPROACH

7.3 POSITIVE IMPACTS

7.4 SOURCE OF REVENUE TO THE GOVERNMENT

7.5 SOCIALIZATION

7.6 PERMANENT WORKING LOCATION

7.7 IMPROVED PUBLIC HEALTH

7.8 REDUCED CONGESTION

7.9 ECONOMIC GROWTH

7.10 SOLID WASTE MANAGEMENT

7.11 SHIELD AGAINST ADVERSE WEATHER CONDITIONS

7.12 NEGATIVE IMPACTS

7.13 BIODIVERSITY AND VEGETATION LOSS

7.14 SOILS AND GEOLOGY DISTURBANCE

7.15 DEPLETION OF WATER RESOURCES DURING CONSTRUCTION PHASE

7.16 SOILS AND GROUNDWATER CONTAMINATION

7.17 AIR POLLUTION (DUST GENERATION)

7.18 AIR POLLUTION (GENERATION OF EXHAUST EMISSION)
7.19 Noise and excessive vibration generation ......................................................... 107
7.20 Construction solid/liquid wastes generation .................................................... 108
7.21 Health and safety impacts .................................................................................. 108
7.22 Disruption of public supply utilities (water supply and electricity) ..................... 109
7.23 Increased surface runoffs .................................................................................. 110
7.24 Landscape and visual destruction ...................................................................... 110
7.25 Hazardous materials use/storage ...................................................................... 110
7.26 Food poisoning .................................................................................................. 111
7.27 Poor sanitation .................................................................................................. 111
7.28 Traffic snarl up and accidents .......................................................................... 111
7.29 Socio-economic impacts .................................................................................... 112
7.30 Housekeeping ................................................................................................... 113
7.31 Crime management, child protection, gender equity and sexual harassment ...... 113
7.32 Complaints and grievances/social conflict ......................................................... 115
7.33 Increased HIV/AIDS prevalence and other diseases ......................................... 115
7.34 Operation phase impacts .................................................................................. 116
7.35 Solid and liquid waste ....................................................................................... 116
7.36 Increased energy consumption and demand ...................................................... 116
7.37 Occupational health and safety concerns ......................................................... 117
7.38 Fire outbreak ..................................................................................................... 117
7.39 Blockage of drainage systems .......................................................................... 118
7.40 Water pollution .................................................................................................. 118
7.41 Depletion of water resources during operation phase ........................................ 118
7.42 Air pollution (dust; source emissions; odour/foul smells) .................................... 119
7.43 Accidents and incidence occurrence .................................................................. 119
7.44 HIV/AIDS prevalence ........................................................................................ 119
7.45 Decommissioning phase impacts ....................................................................... 120
7.46 Solid wastes (scraps and other debris onsite) .................................................... 120
7.47 Air, water and soil pollution ............................................................................. 120
7.48 Occupational health and safety concerns .......................................................... 120
7.49 Cumulative impacts .......................................................................................... 121
  7.49.1 Assessment of the impacts ........................................................................... 121
  7.49.2 Conclusion .................................................................................................... 124
7.50 Categories of impacts relating to resettlement .................................................... 124
  7.50.1 Loss of business shades ............................................................................... 125
  7.50.2 Loss of business income during the transition .............................................. 125
  7.50.3 Access to sanitation and water facilities ....................................................... 125
  7.50.4 Garbage collection ...................................................................................... 125
  7.50.5 Impact on the environmental health .............................................................. 126
  7.50.6 Air quality .................................................................................................... 126
  7.50.7 Noise and vibration ...................................................................................... 126
7.50.8 Conflict during resettlement or return to the new market...........................................127

CHAPTER EIGHT..............................................................................................................................128

8 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN (ESMMP)........128

8.1 GENERAL OVERVIEW .............................................................................................................128
8.2 SIGNIFICANCE OF ESMMP ...................................................................................................128
8.3 ENVIRONMENTAL, SOCIAL, MANAGEMENT AND PLAN .......................................................129
8.4 GRIEVANCE REDRESS MECHANISMS (GRM) .......................................................................148

CHAPTER NINE..................................................................................................................................149

9 CONCLUSIONS AND RECOMMENDATIONS ...........................................................................149

9.1 ENVIRONMENT AND SOCIAL ASSESSMENT CONCLUSIONS ........................................149
9.2 ENVIRONMENT AND SOCIAL ASSESSMENT RECOMMENDATION ......................................149

ANNEXES..........................................................................................................................................153

List of Tables

Table 1-1: Proposed NaMSIP Market and Location .................................................................22
Table 1-2: Proposed Arrangement of Stalls in Ruiru Market ..................................................31
Table 1-3: BoQ Cost Summary page .................................................................................. 41
Table 3-1: Analysis of potential impacts to World Bank Safeguards Policies ....................56
Table 3-2: Standards for Discharge of Waste water into public sewers .............................58
Table 3-3: Standards for Discharge of Waste water into Environment (Water body) .........59
Table 3-4: Maximum permissible noise levels for construction sites (measurement taken within the facility) .................................................................62
Table 3-5 Comparison between WHO and NEMA Noise Guidelines .........................62
Table 3-6: Construction activities requiring permits or licenses ........................................70
Table 4-1: Gender Data of Ruiru Market Traders ................................................................. 80
Table 4-2: Education Levels of PAPs .................................................................................. 80
Table 4-3: Literacy Levels of PAPs ...................................................................................... 81
Table 4-4: 11 Business owners ............................................................................................ 81
Table 4-5: Estimated monthly household income ............................................................... 82
Table 5-1: Constitutional and legal provisions for public participation ......................... 83
Table 5-2: The key stakeholders in Public Consultation ..................................................... 87
Table 5-3: Categories of identified stakeholders .................................................................. 87
Table 7-1: The distance of Ruiru Market in reference to other fourteen markets on a straight line ................................................................................................................................... 122
Table 8-1: Environmental and Social Management and Monitoring Plan (Table)........... 130
Table 8-2: ESMMP for the Relocation and Return ................................................................. 144

List of Figures

Figure 1-1: Satellite Map of Ruiru Market (feasibility study report)................................. 23
Figure 1-2: Temporary structure section in Ruiru Market ................................................... 25
Figure 1-3: Permanent Stall section in Ruiru Market ......................................................... 25
Figure 1-4: Toilet Facilities at Ruiru Market ...................................................................... 26
Figure 1-5: Garbage Collection Point at Ruiru Market ....................................................... 27
Figure 1-7: Market Managed model.................................................................................... 30
Figure 1-8: Ruiru Market Building Front Perspective (Source: Scope Design Systems Consultants) ...................................................................................................................................................... 31
Figure 1-9: Ruiru Market Building Side 1 Perspective (Source: Scope Design Systems Consultants) ...................................................................................................................................................... 32
Figure 1-10: Ruiru Market Building Side 2 Perspective (Source: Scope Design Systems Consultants) ...................................................................................................................................................... 32
Figure 4-1: Ruiru Market site (google Earth August 2016) .................................................. 74
Figure 4-2: TESMMPerature Graph of the Project area (Source: www.worldweatheronline.com) ...................................................................................................................................................... 77
Figure 4-3: Rainfall Graph of the Project area (Source: www.worldweatheronline.com) .... 78
Figure 4-4: Topography of Ruiru (Source: http://www.floodmap.net/elevation) ............. 79

List of Annexes

Annex 1: Layout .................................................................................................................. 153
Annex 2: SAMPLE CHANCE FIND PROCEDURES ..................................................... 158
Annex 3: Grievance Redress Process .................................................................................. 159
Annex 4: Ruiru Market Survey Summary ........................................................................... 160
Annex 5: Samples of Questionnaire filled during stake holder Consultation ..................... 162
ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBD</td>
<td>Central Business District</td>
</tr>
<tr>
<td>DEC</td>
<td>District Environment Committee</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EMCA</td>
<td>Environmental management and Coordination Act</td>
</tr>
<tr>
<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
</tr>
<tr>
<td>ESMMP</td>
<td>Environmental/Social Management and Monitoring Plan</td>
</tr>
<tr>
<td>GoK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immuno-Virus/ Acquired Immuno-Deficiency Syndrome</td>
</tr>
<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>IDA</td>
<td>International Development Association</td>
</tr>
<tr>
<td>MoNMeD</td>
<td>The Ministry of Nairobi Metropolitan Development</td>
</tr>
<tr>
<td>NaMSIP</td>
<td>Nairobi Metropolitan Services Improvement Project</td>
</tr>
<tr>
<td>KCG</td>
<td>Kiambu County Government</td>
</tr>
<tr>
<td>NEMA</td>
<td>National environment and Management Authority</td>
</tr>
<tr>
<td>NIUPLAN</td>
<td>Nairobi Integrated Urban Development Master Plan for the City of Nairobi</td>
</tr>
<tr>
<td>NMR</td>
<td>Nairobi Metropolitan region</td>
</tr>
<tr>
<td>NMT</td>
<td>Non-Motorized Transport</td>
</tr>
<tr>
<td>MoT</td>
<td>Ministry of Transport</td>
</tr>
<tr>
<td>MRTS</td>
<td>Mass Rapid Transit System/ Mass Rapid Transit Study</td>
</tr>
<tr>
<td>RUJUWASCO</td>
<td>Ruiru Juja Water and Sewerage Company</td>
</tr>
<tr>
<td>SPC</td>
<td>Spatial Planning Concept Development Plan</td>
</tr>
<tr>
<td>TOD</td>
<td>Transit Oriented Development</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>OP</td>
<td>Operative procedures</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Project Description and Technology
The Ministry of Transport, Infrastructure, Housing and Urban Development (MoTIHUD) through the Nairobi Metropolitan Services Improvement Project (NaMSIP) intends to upgrade 15 markets within the Nairobi Metropolitan Region. The World Bank with the objectives of providing an enabling physical space for organized markets; creating market linkages for products; fostering access to services so as to promote efficiency and quality of products, and promoting reliable linkages with financial institutions is financing this project. The goal is to enhance livelihoods especially for the urban poor who are operating as vendors in these selected markets.

In this regard, Ruiru Market was one of the primary markets to be selected for development. The market is located in Ruiru town. Ruiru town is approximately 25 kilometres from Nairobi. The market is located about 1.5 Kilometres off Thika Road along Ruiru Kamiti Road towards the eastern side of the town. Ruiru town can be described as a residential town for Nairobi residents as well as an industrial town. Industries in Ruiru town include Super Foam, Spinners & Spinners Garments, Devki Steel Mills, Brookside Dairy and Ruiru Feeds. The town has other upcoming developments besides the market which includes the Tatu City development. The Ruiru Market project is being implemented by the State Department of Housing and Urban Development under the Nairobi Metropolitan Services Improvement Project, NaMSIP, funded by the World Bank.

Proposed Project description
Market building description
The design of the market consists of one block story building with three floors which will hold diverse business entities. The compound of the market building shall have a parking area, flower beds and different kinds of ornamental plants. The building floor arrangement is as described in the following table.

<table>
<thead>
<tr>
<th>Level</th>
<th>Capacity and Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Level</td>
<td>436 stalls&lt;br&gt;Stalls to be used for agricultural produce</td>
</tr>
<tr>
<td>First Level</td>
<td>371 stalls&lt;br&gt;Stalls to be used for household goods</td>
</tr>
<tr>
<td>Second Level</td>
<td>336 stalls and 9 shops&lt;br&gt;Stalls to be utilized for sale of cloths, Mpesa shops, cobblers, ATMs, cosmetics, accessories and storage, food-court, salon, day-care centre and generator room</td>
</tr>
<tr>
<td>Total Stalls</td>
<td>1143</td>
</tr>
</tbody>
</table>
The detailed description of the proposed market is provided in Chapter One of this report. However, in summary, the market will consist of the following:

- **Stalls** - two levels of stalls; bigger stalls designed for products demanding larger space such as clothes which measure 3m by 3m and smaller stalls that will measure 3m by 1.5m;

- **Infrastructure** - a car park, access roads and internal passes and drainages.

- **Water Supply and Reticulation** - Water supply will be mainly from Ruiru Juja Water and Sewerage Company and can be supplemented by a water tower. Check meters will be in place to monitor the water usage.

- **Sanitary Facilities** - toilet spacing will be 2.3m² per 1000 market users.

- **Fire Fighting** - fire exits and hydrants.

- **Garbage disposal** - Garbage collection cubicles for both recyclable and non-recyclable materials.

- **Ventilation** - The standard air changes will be used to determine extract fan and duct sizes. Natural ventilation will be the predominant way of ventilating the market.

- **Power** - A switch room with a meter board will be required for power distribution to the different stalls. There will be check meters for every stall for management purposes. Provisions for future expansion of the stalls operation will also be taken into consideration. Cabling to and from the switch room will be done by use of cable trays for efficient and neat cable management.

- **Lighting** - **external lighting** for security reasons, movement of security guards and to explore the possibilities of 24-hour market operation and Internal lighting in the stalls.

- **Telecommunication systems** - ICT infrastructure to support the service provider.

- **Security** - CCTV cameras located at strategic locations and the DVR and CCTV monitors located in security room.

**ESIA Study and Objective**

The main objective of the Study was to identify environmental and social impacts associated with the proposed construction of the proposed market and to recommend an appropriate environmental management strategy for the project. The core outcome of the Study is an Environmental and Social Management and Monitoring Plan (ESMMP), which will be used to enhance and mitigate any positive and negative impacts respectively for the project.

Specific tasks included:

- Evaluation of the existing situation at the proposed project site;
• Appreciation of the project concepts through the study of design documents, construction and intervention layout, feasibility of the project and other documents;
• Identification of potential impacts associated with the proposed project;
• Identification of suitable mitigation and preventive measures appropriate for the impacts and;
• Development of a comprehensive environment and social management and monitoring plan for integration into the project implementation

Approach and Methodology
The ultimate goal of this approach was to identify positive and negative impacts resulting from the construction of the proposed project. The systematic investigative and reporting methodology specified in the conduct of Project Report Studies (Legal Notice 101 of EMCA) was adopted in this Study. Baseline data on project design was generated through discussion with the client and review of project documentation. Opinions formed were revalidated through field work entailing site investigations and interviews with key primary stakeholders (e.g. traders, shoppers, market management) and secondary stakeholders (e.g. area residents, other traders).

To identify, predict, analyse and evaluate potential impacts that may emanate from the project, diverse study methods and tools including use of scoping the area, questionnaires, stakeholder consultations, focus group discussions, and observations were employed. An Environmental and Social Management and Monitoring Plan (ESMMP) comprising of an impact mitigation plan and modalities for monitoring and evaluation were then developed to guide environmental and social management during all phases of project development.

Policy, Legal, and Regulatory Framework
This project report has been developed to ensure that the proposed construction of the market is in conformity with national policy aspirations towards securing sustainable development. Specifically, this report has been developed to ensure compliance with requirements of the Environmental Management and Coordination Act (EMCA) 2015-Kenya’s supreme environmental law and the National Constitution. Section 58 of EMCA requires that all proposed developments in Kenya will be subjected to environmental impact assessment and to be conducted in line with the Second Schedule (of EMCA) and the Legal Notice 101 (Regulations for Environmental Assessment and Audit) of June 2003.

Potential Environmental Impacts and Mitigation Measures
Positive Impacts
The project is anticipated to have positive socio-economic impacts on the traders and local residents. The provision of a modern market will ensure that traders operate in a more convenient place. It is also anticipated that the project will result in growth in revenue of Kiambu County economy, job creation and labour remuneration accruing to local residents. Inherent with the proposed market project will be the following negative impacts.

Negative Impacts

Air Quality
The project is anticipated to impact on ambient air quality through generation of dust and combustion gases (SO₂, NOₓ, CO, and particulates). Dust will be generated from construction activities especially removal existing temporary market stalls/structures, grading, excavation, and increased traffic on unpaved roads. Dust will be greater during drier period in areas of fine textured soils.

The combustion emissions will be generated by diesel powered construction equipment: excavator, wheel loader, trucks, motor grader and compactor.
Considering the project dust controls (watering; stabilizing disturbed areas) and the fact that the dust and combustion emissions will be short-term and localized, air quality impacts from the construction activities are expected to be of low significance at the site and negligible at the closest settlements, respectively.

Soil erosion Impacts
The project is anticipated to cause soil erosion during construction and decommissioning phases. Construction phase and demolition phase activities especially excavation and demolition of structures, respectively, are likely to cause soil erosion at the construction site and surrounding areas. However, the impacts are expected to be short term and of low significance.

Loss of vegetation
The development of the proposed market is expected to impact on both flora and fauna currently at the site. The flora to be affected include grasses and a few trees such as acacia while fauna include butterflies, birds of different species and crawling animals such as lizards. Both flora and fauna at the site are not on IUCN Red list of threatened species.
There will be no effect on the terrestrial ecology both during operation and during decommissioning phases. During the operation phase, the site would be covered by the proposed development while for decommissioning phase, the site would be restored and rehabilitated to its natural state.
Impact on Water Resources
During construction phase, potential water contamination could arise from disturbance of soil, spillage of fuels, lubricants and other toxic materials at the construction site, discharge of silt laden run off from sites, and disposal of waste and wastewater from sanitary conveniences provided to construction workers.
During operation phase, solid waste generated from the market if not managed appropriately can be washed down to drainage systems near the project area.
During the decommissioning phase, the potential negative impacts to water resources are likely to be very similar to those considered during the construction phase of the project, and the appropriate mitigation measures should be employed to reduce impact on receptors.
The potential risk of water pollution from proposed project can be reduced by adopting protective measures to prevent spills; putting in place suitable spill response plans; managing wastes appropriately and controlling soil erosion. With these good practices, the risk of water pollution from the project should be low.

Noise and Vibration
The ambient noise quality of the project site is characteristic of an urban setting. During construction phase, noise sources will include, including ground clearance, piling, concreting and equipment installation.
During operation phase, the primary noise sources at the site will include vehicles delivering the supplies to the market; customer’s vehicles, and market activities including playing of loud music or use of sound amplifiers to attract customers, a characteristic behaviour in most markets in Kenya. In addition, during decommissioning phase, sources of noise will include; demolition works and vehicles carting away materials.

Socio-Economic Impacts
Socio-economic impacts take into consideration the relationship between economic activities and social life. This relationship is interlinked by the dependence of social activities on economic activities and the vice versa. In most instances the focus is on the social impacts due to economic changes. With regards to the proposed market, there is however generally greater emphasis on economic issues, particularly relating to provision of enough space so that traders can do their business conveniently. The temporary closure of the open-air market will impact negatively on the economy of the traders, farmers and inconvenience the customers/residents. In the long run, the new modern type market will bring positive impacts to the people of the town and the surrounding areas.
Disruption and damage of public utilities
There is potential for a few disruptions of public utilities, especially the electric power and some water lines, especially the ones that might be located near or located at the site. Although minimal, disruption of electric power will occur during connection of power to the project. During transportation of materials to construction site, the use of already existing tarmacked roads to the site may lead to damage on paved surfaces if axle load weight is not observed, resulting to poor roads, and spending more money repairing the affected roads. Water and sewer utilities may also be affected during construction through damage or disruption during connection periods
Mitigation measures include generation of a Utility Management Plan to minimize damage to public utilities

Traders’ dissatisfaction due to perceived inequities in allocation of market stalls
The development of the market as well as allocation of space for doing business has been discussed with the traders through public consultation. Against the background of this knowledge and expectation, there is a risk of dissatisfaction if procedures of allocation of stalls or space are not adequately applied, or if they are seen to be applied in an inequitable manner. There is therefore need to adhere to the market policy in allocation of stalls or space to traders; and implement grievance resolution mechanism, which is part of the RAP for the market, prepared separately from this report.

Inconvenience and danger to proximate residents through increased road traffic and dust, and reduced access to worksites
The project is not anticipated to impact on traffic on the nearby roads (Ring Kikuyu road, traffic around the site will increase considerably. However, construction and decommissioning phase (demolition) activities on site and road traffic will produce dust and noise, and will pose hazards to road users. The impacts will be of short duration (the construction and decommissioning periods) and are low significance.
During operation phase, the market can generate light traffic from vehicles of suppliers delivering products to the markets as well as of customers visiting the market. When distributed over the wider road network, the impacts will be low. However, as with construction, the relative increase in traffic around the site will be slightly significant, with associated implications for access and safety.

Increased demand of construction materials, energy and water
Increased demand of construction materials, energy and water is bound to happen during construction activities. An elaborate waste material reduction is important to save on high demand for construction materials from the environment. Water storage and conservation measures should be adhered to save on water volume used.

During operation phase, water will be required for cleaning, welfare and hygiene. Demand for energy and water is not anticipated during decommissioning phase as energy and water supply infrastructure will be removed from the site.

Public Consultation, Participation and Disclosure
Apart from the gathering of quantitative data through a socio-economic survey of the area of influence of the project and a preliminary survey of project affected people, consultation sessions (qualitative) were held with the affected persons and other local community interests to share the information about the project and record their concerns/ feedback associated with this project. The consultation was in two stages namely scoping and stakeholder’s consultation. Consultative sessions discussed the topics related to land acquisition and resettlement issues, employment and livelihoods of communities, gender and women issues, contractor’s camp and access to existing routes and environmental issues.

The section on stakeholder consultations provides details of outcomes of consultations and covers issues and concerns showed by the stakeholders regarding land acquisition and resettlement. To address the issues and concerns raised by the stakeholders, mitigation measures have been developed and incorporated into the ESIA. Overall, the stakeholders generally supported the project and anticipated numerous benefits as a result of the project.

Environmental and Social Management and Monitoring Plan
Social safeguards and environmental protection are very important in any development. A detailed Environmental and Social Management and Monitoring Plan (ESMMP) has been proposed for use during the implementation of the project. The ESMMP details the important steps available to mitigate the impact that arise during all phases of the project. The proponent and the contractor are the responsible parties in the implantation and monitoring of the ESMMP

Project and ESMMP Costs
The proposed project construction period will be 9 months and a defects liability period of 3 months respectively. The project is estimated to cost approximately **Kshs. 226,349,802.** The cost of implementation of the ESMMP is approximated to be **Kshs. 9,850,000.**

**Cost of Relocation**

The resettlement costs for the construction of Ruiru Market is estimated at thirty nine million three hundred and sixty nine thousand and two hundred shillings (KShs. 39,369,200) which is inclusive of reparations of the resettlement site and recommended resettlement support for traders, livelihood restoration as well as planning and administrative costs. An ESMMP for the relocation and return of affected traders and a description of the relocation activities are part of this report.

**Conclusion**

In view of this study, the project is socially and environmentally acceptable. As long as the implementation of the project adheres to the proposed Environmental and Social Management and Monitoring Plan, the project should be granted environmental license and approval to pave way for its implementation.

**Recommendation**

The following is recommended for effective implementation of the mitigation measures for the project;

- All mitigation measures need to be specified in the tender and contract documents, and must be included in the Engineering Drawings, Specifications and Bills of Quantities.
- Diligence on the part of the contractor and proper supervision by the Resident Engineer during construction and the initial operation phase is crucial for mitigating impacts. In this regard, the contractor is to submit a Contractor Environmental and Social Management Plan, CESMP, comprising of an Environmental and Social Health and Safety (ESHS) Plan and a Code of Conduct in order for the contractor to commit to the ESMMPs.
- Periodic environmental and social monitoring is required by the project proponent to ensure that mitigation measures have been implemented in order to prevent or avert any negative impacts of the project.
- The implementing agency should set up proper and applicable Grievance Redress Mechanism (GRM) for the project to deal with grievances and issues on the project.
• Reporting of the implementation of safeguards should be incorporated in the monthly reporting of the project
CHAPTER ONE

INTRODUCTION

The Government of Kenya is improving its economy and decentralizing development to County Governments by utilizing funds received from international organizations like World Bank and other foreign institutions to undertake major development projects at the County levels. Nairobi Metro 2030 is part of the overall national development agenda for Kenya which is encapsulated in Kenya Vision 2030. Following this effort, the Nairobi Metropolitan Region (NMR) through the National Government and respective County Governments intends to upgrade its dilapidated infrastructure, inclusive of markets, to achieve an economically, socially and environmentally sustainable modern urban centres.

Under Kenya Vision 2030 one of the key objectives is to bring overall development and poverty eradication by building regional trade and business service hubs. These hubs include the establishment of metropolitan markets and stalls for trade in the region. The residents and traders of the metropolitan regions and farmers around the republic will feel the benefits of these new markets. The market hub will encourage commercial farming and entrepreneurial culture in Kenya.

Nairobi Metropolitan Services Improvement Project (NaMSIP) is a World Bank funded Project under the State Department of Nairobi Metropolitan Region in the Ministry of Transport, Infrastructure, Housing and Urban Development. NaMSIP’s mandate is to strengthen service delivery in the Nairobi Metropolitan Region (NMR) on various selected projects by investing in local infrastructure (markets, roads, street lighting, bicycle and pedestrian pathways, drainage, among others) and in providing large-scale metropolitan infrastructure in the areas of trade, solid waste management, transport, sewerage services, among others. NaMSIP has the following four major components:

- Institutional Reform and Planning;
- Local Government Infrastructure and Services;
- Metropolitan Infrastructure and Services;
- Project Management, Monitoring and Evaluation

Among the projects earmarked for improvement are fifteen (15) existing and new markets within NMR which fall under Component 2 (Local Government Infrastructure and Services) of the NaMSIP Project. Although population density in the markets has created opportunities due to concentrated demand for goods and services and provided income sources through trade and Employment, it has also created concentrated problems such as
pollution, congestion, encroachment to road reserves and general sanitary problems within
the NMR markets. Ruiru Market is among the 15 markets in the Nairobi Metropolitan
Region set for construction among others as shown in the table below.

Table 1-1: Proposed NaMSIP Market and Location

<table>
<thead>
<tr>
<th>Market</th>
<th>Location</th>
<th>Location (County)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jogoo Road</td>
<td>Nairobi city along Jogoo road</td>
<td>Nairobi</td>
</tr>
<tr>
<td>2. Karandini</td>
<td>Nairobi city near Dagoretti Corner on the</td>
<td>Nairobi</td>
</tr>
<tr>
<td></td>
<td>western side of the intersection of Ngong</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road and Naivasha Road</td>
<td></td>
</tr>
<tr>
<td>3. Mwariro</td>
<td>Nairobi near Kariakor</td>
<td></td>
</tr>
<tr>
<td>4. Muthurwa</td>
<td>Nairobi City, Off Haile Selassie Avenue</td>
<td></td>
</tr>
<tr>
<td>5. Thika (Madaraka)</td>
<td>Thika, Makongeni area along Garissa Road</td>
<td>Kiambu</td>
</tr>
<tr>
<td>6. Juja</td>
<td>Juja Town near Jomo Kenyatta University of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science and Technology</td>
<td></td>
</tr>
<tr>
<td>7. Ruiru</td>
<td><strong>Along Kamiti road in Ruiru Town</strong></td>
<td></td>
</tr>
<tr>
<td>8. Githurai</td>
<td>Githurai town along the Thika Super</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highway next to Githurai Bus stop</td>
<td></td>
</tr>
<tr>
<td>9. Kiambu</td>
<td>Kiambu town along Biashara Road</td>
<td></td>
</tr>
<tr>
<td>10. Kihara</td>
<td>In Kihara town, along Kihara - Gachie-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Karura Road</td>
<td></td>
</tr>
<tr>
<td>11. Kikuyu</td>
<td>Kikuyu town, near Kikuyu-Nairobi market</td>
<td></td>
</tr>
<tr>
<td>12. Kitengela</td>
<td>Off Nairobi Namanga Road in Kitengela town</td>
<td>Kajiado</td>
</tr>
<tr>
<td></td>
<td>behind the Kobil petrol station</td>
<td></td>
</tr>
<tr>
<td>13. Ngong</td>
<td>Ngong Town near Ngong bus terminus</td>
<td></td>
</tr>
<tr>
<td>14. Ongata Rongai (Ole Kasasi)</td>
<td>Ole Kasasi, Rongai area near Maasai Lodge, Off the main</td>
<td>Machakos</td>
</tr>
<tr>
<td></td>
<td>Magadi Road</td>
<td></td>
</tr>
<tr>
<td>15. Tala</td>
<td>Tala Town</td>
<td></td>
</tr>
</tbody>
</table>

1.1 Ruiru Market Description

1.1.1 Proposed project Locations

The proposed market will be developed in Ruiru town which is a suburb of Nairobi city and part of Nairobi Metropolitan region. The market will be locate along Kamiti Ruiru Market on coordinate, Latitude 1° 8'52.90"S and longitude 36°57'12.40"E. Ruiru Town has several industries apart from being a residential area for Nairobi workers. These industries include Super Foam, Spinners & Spinners Garments, Devki Steel Mills, Brookside Dairy and Ruiru Feeds. It has several banks that offer financial services to the business community in the area. Therefore, Ruiru Town is a self-sustaining town that contributes to the development and growth of Kenyan economy.
1.1.2 History of Ruiru Market

Ruiru is one of the oldest markets in Kiambu County. The market is open air type which is partly fenced. The market boundaries are well defined and it operates from 5.00 a.m. to 7.00 p.m. daily. The major market days are Saturday and Wednesday. The market has about 1379 traders but on market days it usually receives other unregistered traders from other markets who come to sell their goods doubling the number of traders in the market. The land and major market structures on site belong to the county but traders have done temporary market stands for their wares.

1.1.3 Current Market Profile

**Topography:** The site of the existing market is generally on a flat terrain with murrum type of soil.

**Site access:** Ruiru Market is accessible via a tarmac road off the main Ruiru road. However there is no signage from the main Ruiru road showing the direction of the market.

**Land tenure:** The market site sits on public land which belongs to Kiambu County and is approximately 3.8 acres.
Market structures: These are a mix of permanent buildings and temporary structures used by the traders to sell their produce as shown in the figure below. The permanent buildings which form an enclosure to the open trading area on one section of the market are stalls which accommodate shops, hotels, tailoring and butcheries. In the middle of the looped asphalt road there is a concrete paved platform used by traders selling agricultural produce. Traders dealing with clothes and household goods use temporary stalls made of timber and iron sheets roof covering.
Sanitation: There are 2 toilet blocks within the market. The current used toilet block which consist of 3 toilets for ladies and 2 toilets for gents are inadequate. Cleaning of the toilets is done once per day by the county government. The toilet service offered for free for both traders and customers. The toilets drain into a septic tank. However, a new sewer is under development that is to serve Ruiru town and its environs.
Parking: The market does not have onsite parking within its boundaries. Buyers usually park on the tarmac road leading to the entrance of the market. Traffic congestion is experienced during market days due to the high number of customer vehicles and wholesale trucks delivering goods to the retailers.

Security: The market has neither a gate nor a perimeter wall. The permanent buildings in the periphery form the boundary on entrance side while the other three sides have a dilapidated chain link barbed wire fence. The market management committee has employed 2 security guards who are assisted by loaders to provide security on a 24-hour basis. In addition to this, traders who sell clothes and household goods store their wares in the permanent stalls when they close shop.

Road network: The main area of trading has an existing asphalt road forming a loop within the market. The market section with temporary stalls and the wholesale area has earth roads. Movement becomes difficult during rainy seasons as it gets muddy due to lack of storm water drainage systems.

Water supply: The market does not have a reliable supply of water. Water supply to the market is piped from Ruiru –Juja Water and Sewerage Company (RUJUWASCO) and stored in a 2000 litre water tank. The water is not adequate for all market operations and traders often use dirty water from other sources to clean their farm produce.
Solid waste disposal: The county government has provided facilities for disposal of waste from the market, located outside the market which they collect and dispose on a daily basis. The plate below shows status of garbage collection in the market.

**Figure 1-5: Garbage collection point at Ruiru Market**

**Firefighting**: There is no firefighting equipment.

**Wash up area**: There is no wash up area for agricultural produce.

**Electrical services**: There exists 3 phase, 415V power supply to the site. There is also a HV line running parallel to the market. The Kenya Power meter board is at the main entrance to the market at the far right. The traders do not have any socket outlets for power connection. The hotels, butcheries and stalls have socket outlets available as well as lighting. They are metered directly by Kenya Power. There is a high mast light fixture at a central location of the market. The traders’ committee members however stated that the lighting is unreliable. The bill for the high mast light fixture is paid for by the County Government of Kiambu.

The figure below outlines the concerns that were identified by traders whereby data was captured by stakeholder engagement of traders:

1.2 **Rationale for Improvement of the Market**

The following are major drivers for improvement of the market:

- Changing organizational structure of commerce – e.g. Increasing volumes of produce handled; alterations to commercial practices and trading patterns, such as the private sector taking over markets;
• Demographic factors – e.g. Overall increase in population of the city and population shifts within cities;
• Changing transportation patterns – e.g. Increased traffic growth and resulting congestion; shifts in transport mode (i.e. the proportion of different types of vehicles); changes in the capacity and size of delivery and distribution trucks;
• To make use of the current asset more effectively, e.g. collection of rental charges from traders;
• To provide traders and consumers with a modern market with more facilities and amenities;
• To comply with statutory requirements (such as public health, safety and environmental standards).

1.3 Improvement Objectives

• To improve the economic benefit of the site to Kiambu County and local traders;
• To improve operations and maintenance of the site;
• To increase water and sanitation availability;
• To enhance safety and security within and around Ruiru Market.

1.4 Proposed Project description

The most practicable intervention at Ruiru according to the feasibility studies done will be to erect new market buildings to house both the existing and future vendors. A critical analysis has been done in the design of the stalls, the layout of the building as well as the consideration for horizontal and vertical accommodation of the vendors. This project is expected to accommodate more traders in the future as compared to the open air market type of market arrangement that currently exist. A typical multi-level arrangement accommodating all potential vendors is proposed by the market design team.

The four key elements that were considered by the design options are:

• Design of infrastructure based on identified and prioritized needs
• Calculation of required space based on existing infrastructure standards
• Site planning including layout of buildings
• Cost implications

In addition, the market design has provided for a ramp for disabled users. It will also provide for a restaurant area and facilities for cleaners while zoning will be done for retailers selling similar produce. A parking area with a roof shed will be provided for boda boda riders to park their motorbikes. The construction of the relocation site will be
completed before the main market is built so as to provide temporary trading space for the traders who are required to move from the current market to this relocation site which will be within the larger market periphery.

In summary, the market will consist of the following:

- **Stalls** - two levels of stalls; bigger stalls designed for products demanding larger space such as clothes which measure 5m by 5m and smaller stalls that will measure 2m by 1.5m;
- **Infrastructure** - a car park, access roads and internal passes and drainages.
- **Water Supply and Reticulation** - Water supply will be mainly from Ruiru Juja Water and Sewerage Company and can be supplemented by a water tower/water tanks. Check meters will be in place to monitor the water usage.
- **Sanitary Facilities** - toilet spacing will be 2.3m² per 1000 market users.
- **Fire Fighting** - fire exits and hydrants.
- **Garbage disposal** - Garbage collection cubicles for both recyclable and non-recyclable materials.
- **Ventilation** - The standard air changes will be used to determine extract fan and duct sizes. Natural ventilation will be the predominant way of ventilating the market.
- **Power** - A switch room with a meter board will be required for power distribution to the different stalls. There will be check meters for every stall for management purposes. Provisions for future expansion of the stalls operation will also be taken into consideration. Cabling to and from the switch room will be done by use of cable trays for efficient and neat cable management.
- **Lighting** - external lighting for security reasons, movement of security guards and to explore the possibilities of 24-hour market operation and Internal lighting in the stalls.
- **Telecommunication systems** - ICT infrastructure to support the service provider.
- **Security** - CCTV cameras located at strategic locations and the DVR and CCTV monitors located in security room.
- **Access** – The market shall have a stair case and an access ramp for use by the physically challenge people.
• **Market Management Model** - The proposed overall market management will be the responsibility of Kiambu County. The levels of management is as shown in figure 1-2 overleaf

![Market Management Model Diagram]

*Figure 1-6: Market Management Model*

1.5 The Proposed Market

1.5.1 Market building description

The design of the market consists of one block story building with three floors which will hold diverse business entities. The compound of the market building shall have a parking area, flower beds and different kinds of ornamental plants.

1.5.2 Proposed profile for the new Ruiru Market

The design recommends a multi-level building to house both the existing and future vendors. The design addresses concerns such as stall size and the layout of the building raised by traders during consultation sessions. A total of 1152 trading spaces including 1143 stalls and 9 shops are provided for in the new market design to cover all the 644 PAPs and an additional 508 non-PAP traders in the expansive existing market. The current paved area of the existing market has also been designed for roof cover in order to accommodate at least 400 non-PAP traders so that all traders get improved working space at the end of the project. Therefore, in consideration of the market population, a typical
arrangement accommodating all of vendors is as follows as proposed by the market design team:

Table 1-2: Proposed Arrangement of Stalls in Ruiru Market

<table>
<thead>
<tr>
<th>Level</th>
<th>Capacity and Activity</th>
</tr>
</thead>
</table>
| Ground Level   | 436 stalls  
                  | Stalls to be used for agricultural produce                                           |
| First Level    | 371 stalls  
                  | Stalls to be used for household goods                                                |
| Second Level   | 336 stalls and 9 shops  
                  | Stalls to be utilized for sale of cloths, Mpesa shops, cobblers, ATMs, cosmetics, accessories and storage, food court, salon, day-care centre and generator room |
| Total Stalls   | 1143                                                                                     |

Source: Scope Design Systems, 2016

1.5.2.1 Architectural Impression of the Market Building

Figure 1-7: Ruiru Market building front perspective (Source; Scope Design Systems Consultants)
1.5.2.2 Water supply and reticulation
Ruiru Juja Water and Sewerage Company (Rujuwasco) serve Ruiru Market. The water supply can be used to meet the water requirements in the whole market. An underground
and overhead water storage tanks have been proposed for the market. A water pump will be used to pump water into the overhead tank and a gravity fed system employed to distribute water to the required areas within the market.

1.5.2.3 Sanitary facilities
Use of Asian type toilets combined with a flush valve system in the washrooms would be the best vandal proof and hygienic system for use at the market. With a proper facilities maintenance system, the washrooms will serve the users efficiently. Use of push taps for the wash basins will be an efficient way of reducing water usage in the washrooms unlike the knob type where the taps can be left running for long periods of time. Use of a high level cistern for the urinals with distributed flush mechanisms will suffice in cleaning the urinals. The toilets and urinals will be at a maximum distance of 50M-100M from users. Water supply standpipes will preferably be at least 25m from any user and must not exceed 50m away from the furthest user. Meat and fish stalls will have water adjacent to the stalls.

1.5.2.4 Drainage
An ideal site when considering drainage is one that is sloping gently away from the road because the site can be drained naturally. If the site is flat or complicated, the drainage will be laid out before any other structures are made. For foul drainage, the site currently has the Kiambu County Government (KCG) sewer line serving the surrounding area passing through it. The proposed market facilities can therefore drain into this existing sewer line. For storm water drainage, an adequate drainage infrastructure has been incorporated in the design.

1.5.2.5 Fire fighting
Fire fighting and detection systems will be installed in the proposed market based on the architectural design and fire risk assessment. Fire hose reels and fire extinguishers will be located in prime locations to ensure that quick response and corrective action when there is a fire outbreak. The equipment will be encased in cabinets with break glass to discourage theft. Smoke detectors in the stalls and heat detectors in the food cooking and serving areas will also be installed to ensure fires are detected early before spreading.

1.5.2.6 Garbage disposal
A garbage collection point and procedure has been provided for the market. Garbage collection bins will be located in various parts of the market for collection of different waste streams including recyclable and non-recyclable materials. The market maintenance team will be responsible for collecting the waste in the waste bins for disposal into the main market waste receptacle. Dustbins and garbage will be within 25M-50M from the furthest user. The non-recyclable wastes will be collected by the County Government waste
department for disposal at the dumpsites and recyclable wastes will be sold off to waste recyclers.

1.5.2.7 Ventilation
The market will mainly utilize natural ventilation from the doors and windows. The market design will incorporate restaurants, which necessitate ventilation of the kitchens. The air changes required per hour for the kitchens will be used to determine extract fan and duct sizes. UPVC pipe ducts can be used in place of aluminium ducts to cut costs. This forced ventilation will provide a much more habitable work environment.

1.5.2.8 Power
A switch room with a meter board will be required for power distribution to the different stalls. Power requirement to the stalls will be calculated based on area and designated use. This will allow us to confirm whether the existing transformer will be sufficient to cater for the improved market. Power points will be installed in the market stalls to enable traders to connect their equipment and devices. There will be check meters for every stall for management purposes. Provisions for expansion will also be taken into consideration. Cabling to and from the switch room will be done by use of cable trays for efficient and neat cable management.

1.5.2.9 Lighting
External lighting:
For security reasons, movement of security guards and to explore the possibilities of 24 hour market operations, wall mounted lights and floodlights will be used to effectively light up the market.

Internal lighting:
The lighting levels in the stalls will be of a high standard of luminance. LED lights will be used to provide sufficient lighting. LED lights have a longer lifespan and reduce electricity bill as compared to other lighting methods. The number of light fittings will be dependent on the Architectural design.

1.5.2.10 Telecommunication systems
Access to internet is essential to have a modern market. ICT infrastructure will be provided for in the market to support the service provider. This will enhance communication between the buyers and sellers where orders can be placed online and to increase the trader’s coverage.

1.5.2.11 Security
CCTV cameras located at strategic locations will be installed to help curb insecurity in the market area. With the inclusion of ICT infrastructure, the security system can be linked to an emergency backup service provider to ensure quick response.
The DVR and CCTV monitors will be located in the security room. Security lamps will be placed at 15M – 25M intervals.

1.5.2.12 Building Structures

**Stalls:** They will be simple to cut on construction costs. Need good ventilation; be clean, well lit and sheltered from direct sunlight. They will be at least 2.4m by 3.0m.

**Stores:** will be lockable with the front wall either half or completely capable of opening up. Burglar-proof vents are made at least 2.1 M high on all sides. They may be constructed back to back with stalls.

**Shops:** they may be used for functions like tailoring, flower vending, groceries etc. a combination of two or three stalls can constitute a shop.

**Meat stalls:** All the openings to these stalls will be made insect proof and fly-trapped. The walls will be of concrete to prevent wear due to frequent scrubbing. Water, cold storage, good ventilation, security, showers and staff changing room will be provided.

**Offices:** these may include ticketing offices and administrative offices. The latter ought to be at a vantage point for ease of supervision of market activities.

**Fences and perimeter walls:** these shall aid revenue collection at the gate besides being security measures. A good fence will allow cross ventilation.

1.5.2.13 Roads and Walkways

Road widths will be as follows:

- Single lane road width 3.5 M;
- One-way road width 7M
- Two-way road width 12M

**Parking areas** will be 4.8M by 2.4M per car providing 2-5 spaces to the shoppers per 100M² of sales area, the parking being not further than 100M from the market. Parking for pickups and trucks is 8M by 3.68M and 11M by 3.68 M respectively.

**Width of sidewalks** will not be more than 2.5 M and where roadside stalls are to be accommodated; will not be less than 5.2 M. Pedestrian walkways will be well drained, paved and shaded where possible. They will be at about 2.4M wide to allow for free walking as well as easy viewing of goods on sale.

1.6 Environmental Considerations

1.6.1 Water storage

In planning the construction, there will be adequate water storage in form of both underground and raised tanks. The size of these tanks will adequately provide the number of traders expected to be hosted by the market. This storage will come in two folds, both
as storage for water to be used during fire emergencies within the market and water to be used during water shortages. The storage tanks infrastructure has been incorporated in the design

1.6.2 Common washing trough/point

A common washing point will be provided within the market with modern water conserving taps installed. This point will be away from the stalls and out in an open place within the market compound. This will ensure no water gets in the stalls which instead can lead to dampening the stalls and causing foul smell in the market.
Every trader will use this point to do any kind of washing, e.g. washing of fresh produce from the farm. A county worker or traders in a merry go round cleaning process will clean the washing point regularly.

1.6.3 Toilets

Modern toilets that would adequately serve the expected number of traders in the market will be constructed. The toilets will be connected to the existing sewer lines for a quality and perfect management of sewer. Sinks will be installed in the toilets and connected to tap water from the storage tanks. This will ensure high level of cleanliness and reduce chances of communicable diseases such as amoeba and cholera.
Toilets will also be located at a safe distance from the stalls and furthest from section where food products are sold. This reduces chances of flies moving back and forth both the food products and toilets, hence minimizing chances of diseases breaking out.

1.7 Solid Waste Management

1.7.1 Proposed effective ways of managing solid waste in Ruiru Market

Solid waste management will be a shared responsibility among all the stakeholders who are the County government, generators, shoppers, contracted and licensed waste handlers, owners and occupiers of premises.

1.7.2 Solid waste categorization and segregation

Solid waste that will be generated in the market will be divided into various categories depending on their physical or chemical characteristics and necessary manner of handling of such waste. This will provide measures to ensure the health and safety of all users, including waste handlers and the wellbeing of the environment. This will also be enhanced
by division of thee stalls according to product and goods sold. Categories of solid waste to be produced in the market might include, and not limited to:

- **Municipal waste** - Waste that is majorly composed of solid material and mainly produced within a municipal region and area of high population.

- **Market waste** - As the name suggests, these are wastes that are produced within a market area and other areas of trading. They mainly compose of the dominant goods sold within a specific market.

- **Agricultural/organic wastes** - These are wastes that are mainly from farm products that are sold in a market, e.g. banana and orange peels, vegetable wastes and many other green farm produce wastes.

- **E-waste** - These are electronic wastes that are mainly left out after electronic appliances break down beyond repair. They compose of motherboards of radios, televisions sets and many more.

- **Plastic waste and paper wastes** - Wastes from materials made of plastics. They mainly compose of polythene bags, plastic bottles, broken plastic chairs, tables, and many others.

- **Junk waste** - Junk waste is mainly waste from garages and car wash found around these markets. They mainly compose of old metals from old cars and repaired vehicles.

- **Vehicle Service waste** - This comprise of waste generated as a result of vehicle service which will include oil, filters, batteries, etc. that will be generated from the garages. Waste oil in particular will need to be disposed off in an environmentally friendly manner by use of NEMA registered disposers.

Waste segregation method to be facilitated by color-coding litterbins, liner bags and other solid waste bags to ensure separation of waste at the generation source:

- Green liner container for organic wastes
- Blue liner container for plastic and paper wastes
- Brown liner container for any other waste

The following information will be clearly printed or marked of the liner bags, litter bins or containers:

- The name and logo of the service provider
- Address and phone number of the service provider

Traders will keep every litter bin and refuse containers continuously covered when not in use so as to prevent any escape of its content thereof or any soakage into the ground. Traders will also ensure that the refuse containers and litter bins are kept reasonably clean.
and maintained in good conditions. Traders will also ensure safe and sanitary disposal of their wastes in the right refuse container. Traders and customers in these markets will be sensitized on solid waste management in order to enhance the level of awareness and knowledge of solid waste management and disposal to ensure that waste is managed in a manner which will protect human health and the environment against adverse effects, which may result from the waste.

Litter bins will be movable and with wheels, hence can be pushed down and up a ramp. This ensures safer movement of waste without spilling them on the ground. There will be a designated point where these bins will be kept ready for emptying into a truck managed by the Kiambu County Government or a licensed waste collector on a weekly or twice a week basis.

1.7.3 Access and point collection

Every stall shall be provided with a litter bin. The stalls shall then be serviced by a sweeper with a cart who exchanges empty bins for full ones and then empties the bins into a large container stationed in an area immediately adjacent to the market for collection by a lorry managed by the Kiambu County Government or a licensed waste collector.

1.8 PAPs relocation

A Resettlement Action Plan (RAP) report was developed by Impulse-Eco Plan-AWEMAC that presents a baseline socio-economic status of the Ruiru Market traders. This report describes compensation and income restoration options, a description of procedures for redress, institutional responsibilities for implementation, an entitlement matrix and budget outlining the source of funds. The following type of compensation will be provided to the PAPs:

a) **Space for space compensation**: Traders will get alternative space to continue their business operations during market construction so that their sources of income are not negatively impacted. Since there is adequate space in the market, the traders affected will be relocated within the existing large market area.

b) **Cash compensation**: Traders will be compensated for temporary loss of business income during the period of relocation. Cash compensation will also be paid to the owners of businesses for loss of income. They will receive 15% relocation allowance and assisted to move and set up anew that serves as livelihood restoration.

c) **Stall allocation**: Each trader will be allocated a stall in the new market once it is complete.
d) **Right to salvage**: Each trader will have a right to retain his/her construction materials.

### 1.8.1 Relocation Site

After consultations with the traders and the proponent, it was agreed that the PAPs (Ruiru market traders) will be relocated within the site (market space). The new market will be developed on one side of the market space and the traders will be relocated on the other side of the market.

### 1.8.2 Relocation Costs

The resettlement cost for the improvement of Ruiru Market is estimated at Thirty nine million three hundred and sixty nine thousand and two hundred shillings (KShs. 39,369,200). The amount is inclusive of preparation of the resettlement site and recommended resettlement support for traders, livelihood restoration as well as planning and administrative costs.

<table>
<thead>
<tr>
<th>Type of Asset</th>
<th>Number/Quantity</th>
<th>Estimated cost (KSHS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAPs entitlement</td>
<td>644</td>
<td>9,660,000</td>
</tr>
<tr>
<td>Structures/shades</td>
<td>568</td>
<td>8,535,000</td>
</tr>
<tr>
<td>Relocation site improvement</td>
<td>-</td>
<td>8,869,000</td>
</tr>
<tr>
<td>Return of PAPs</td>
<td>644</td>
<td>3,220,000</td>
</tr>
<tr>
<td>Sub Total</td>
<td>-</td>
<td>30,284200</td>
</tr>
<tr>
<td>Add Admin costs 30%</td>
<td>-</td>
<td>9,085,200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>39,369,200</strong></td>
</tr>
</tbody>
</table>

### 1.9 ESIA Justification

In accordance with the EMCA, (Amendment) 2015, all new projects must undergo environmental impact assessment study so as to comply with the EIA Regulation, 2003. The proposed project is expected to have an overall positive impact to the people and the environment. However, project construction phases and other associated civil works are anticipated to have environmental and social impacts that would require mitigation. Construction related project including markets are listed in the second schedule of EMCA, (Amendment) 2015 as among project that should undergo EIA. The magnitude of the projects further justifies the EIA study to provide an Environmental Management Plan (ESMMP) for integration into implementation process. In addition, the National Policy on building and construction as well as the building Act calls for Environmental Impact
Assessment on construction related projects for long-term sustainability and acceptability by the beneficiaries.

1.10 Project Cost

The project is estimated to cost two hundred and twenty six million, three hundred and forty nine thousand, eight hundred and two Kenya Shillings (KShs. 226,349,802) to construct while the cost of implementing the ESMMP is estimated at Kenya Shillings nine million eight hundred fifty thousand (Kshs. 9,850,000). The following table 1-2 shows the summary cost estimate of the project.
### Table 1-3: Bill of Quantities Cost Summary

<table>
<thead>
<tr>
<th>SEC NO.</th>
<th>Description</th>
<th>Page NO.</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>MAIN SUMMARY</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>PRELIMINARIES</td>
<td>Page 5/29</td>
<td>35,512,500.00</td>
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<tr>
<td>6</td>
<td>ALTERATIONS TO THE EXISTING MARKET</td>
<td>Page 6/5</td>
<td>9,419,000.00</td>
</tr>
<tr>
<td>7</td>
<td>GROUND FLOOR</td>
<td>Page 7/21</td>
<td>52,802,228.00</td>
</tr>
<tr>
<td>8</td>
<td>FIRST FLOOR</td>
<td>Page 8/17</td>
<td>28,116,380.00</td>
</tr>
<tr>
<td>9</td>
<td>SECOND FLOOR</td>
<td>Page 9/17</td>
<td>27,896,680.00</td>
</tr>
<tr>
<td>9</td>
<td>ROOFING AND RAINWATER DISPOSAL</td>
<td>Page 10/4</td>
<td>13,826,980.00</td>
</tr>
<tr>
<td>10</td>
<td>GATES AND GATE HOUSES</td>
<td>Page 11/11</td>
<td>2,130,130.00</td>
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<tr>
<td>11</td>
<td>EXTERNAL WORKS</td>
<td>Page 12/26</td>
<td>30,647,904.00</td>
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<tr>
<td>12</td>
<td>DAYWORKS</td>
<td>Page 13/4</td>
<td>98,000.00</td>
</tr>
<tr>
<td>13</td>
<td>F.C AND PROVISIONAL SUMS</td>
<td>Page 14/1</td>
<td>5,400,000.00</td>
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<td>14</td>
<td>ELECTRICAL INSTALLATIONS VOL 2</td>
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<tr>
<td>15</td>
<td>MECHANICAL INSTALLATIONS VOL 3</td>
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<td>12,200,000.00</td>
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</table>

**TOTAL CONSTRUCTION COST** 226,349,802.00
CHAPTER TWO

2 METHODOLOGY

This environmental and social impact assessment has been undertaken to fulfil the legislative requirements of the Environmental Management and Coordination Act (Amendment), 2015 and the subsequent Kenya Gazette Supplement on Environmental Impact Assessment and Environmental Audit Regulations 2003. The ESIA identifies potential positive and negative environmental, social, and economic impacts of the proposed project and proposed mitigation measures to the anticipated negative impacts.

2.1 Terms of Reference (TOR) for the ESIA Process

The following terms of reference for the proposed Ruiru Market development project were used by the ESIA expert team.

- Identification of both positive and negative impacts and the most appropriate interventions during construction and operation.
- Collection of baseline socio-economic data of the proposed project area and potential impact expected from project construction, implementation and operation from existing secondary data sources.
- Development of an environmental and social monitoring program (ESMMP) during construction and operation and presentation of plans to minimize, mitigate, or eliminate negative effects and impacts.
- Description of implementation of ESMMP.
- Identification and consultation with key stakeholders, facilitation of public consultation and conducting interviews with the proposed project beneficiaries.
- Collection of secondary data.
- Maintenance of all correspondences with NEMA relating to the ESIA including improvement orders in close consultation with the client.
- Acquisition of an Environmental and Social Impact Assessment License from NEMA.

2.2 Scope and Objectives of the ESIA

According to the Kenyan Policy all development project or improvement of facilities and infrastructure require an Environmental Impact Assessment. Social Impact assessment is also an integral part of the process. The goal is to ensure that any development does not
have detrimental effect to the environment or the society. This consideration is important for development because it comes up with mitigation, control and improvement measures to ensure that the development is sustainable. Therefore this ESIA report has been undertaken in accordance with Environmental Impact Assessment Regulation as outlined under the Gazette Notice No. 56 of 13th June, 2003 established under the Environmental Management and Coordination Act (EMCA), 2015 of Kenya and

2.3 Objectives of the ESIA

The aim of this ESIA study was to:

1) To identify the impacts of the proposed Ruiru market development and relocation project and the interventions on the environment
2) To predict the likely changes on the environment as a result of the interventions
3) To evaluate the impacts of the various alternatives of the proposed projects
4) To propose mitigation and control measures for the significant negative impacts of the project on the environment.

2.4 ESIA APPROACH AND METHODOLOGY

In accordance to the ESIA guidelines, the study included the following:

1) A clear description of the proposed project including its objectives, design concepts, proposed interventions and anticipated environmental and social impacts,
2) Description of the baseline conditions in the project area to cover the physical location, environmental setting, social and economic issues,
3) A description of the legal, policy and institutional framework within which the proposed market development project will be implemented,
4) Description of the project alternatives and selection criteria,
5) Details of the anticipated impacts to the environment, social and economic aspects of the area covered by the project.
6) Appropriate mitigation and/or corrective measures,
7) Development of an Environmental and Social Management and Monitoring Plan (ESMMP) presenting the project activities, potential impacts, mitigation measures and responsibilities, associated costs and monitoring indicators
2.5 **Approach**

This study was tailored such that it covers all the requirements under the EMCA (Amendment) 2015 and the Environmental Impact Assessment and Audit Regulations, 2003. The overall aim of this approach was to isolate the impacts likely to be experienced as a result of the proposed Market development. Scoping process was done to evaluate the possible impacts as a result of the project. Document review provided the much needed baseline information, legislation other legalities. Interviews and questionnaires were used to collect information from the stakeholders living and working around the development site. The overall study was undertaken following the following stages.

2.6 **Environmental Screening**

The screening process was undertaken to determine whether the proposed Market Development Project was subject to ESIA. Based on EMCA (Amendment) 2015 the proposed project falls under category 2 of projects to be subjected to EISA study as provided for by the second schedule of the Environmental Management and Coordination Act (Amendment) 2015 and Category B under the World Bank Environmental and Social Safeguards Policies as defined in the Bank’s Operational Procedures (OPs).

ESIA is a process for predicting and assessing the potential environmental and social impacts of a proposed project, evaluating alternatives and designing appropriate mitigation, management and monitoring measures. The underlying key principles of an ESIA are that every person is entitled to a clean and healthy environment and that every person has a duty to enhance and safeguard the environment as provided for by the Environmental Management and Coordination Act, 2015 and the Constitution of Kenya. The ESIA is both a planning and decision-making tool. As a planning tool, the ESIA presents methodologies and techniques for identifying, predicting and evaluating potential environmental impacts of projects, policies, plans and programmes in the project cycle (planning, implementation and decommissioning phases). The ESIA process presents decision-makers with the information necessary to determine whether or not a project should be implemented.

2.7 **Environmental Scoping**

The aim of this stage was to ensure that the ESIA study adequately addresses all the crucial issues of environmental and social concern to the decision-makers. This was done by narrowing down on the proposed market development project issues and also to those requiring detailed analysis. The process involved dialogue with all project stakeholders so as to ensure that this aim was fulfilled. It also involved the collection of primary and
secondary data. From an evaluation of this data, a rapid assessment of the project site and its surrounding areas was made.

The key benefits of scoping include:

- Identification and engagement of key stakeholders
- Identification of the existing gaps
- Ensures that the assessment focuses on the key likely environmental and social impacts

2.8 Documentary Review

Several relevant documents were reviewed for a clear understanding of the terms of reference, environmental status of the project area, data on demographic trends (for the project area, the beneficiary areas and the adjoining towns and counties), land use practices in the affected areas, development strategies and plans (Local, National and International) as well as the policy, legal and institutional documents. The documents reviewed were:

- Relevant Legal, Policy and Regulatory documents;
- EMCA (Amendment), 2015
- Nairobi Metro 2030, First edition 2008

2.9 Site Assessment

A physical inspection of the ground (proposed site, relocation site and their surrounding environment) was conducted. This was done with an aim of establishing the anticipated positive and negative impacts on the physical and biological environment (hydrology, climatic patterns and geology), social and economic trends (population trends, settlement trends, economic patterns, cultural setting and linkages, land ownership issues, etc.) and the project affected persons (PAPs) and beneficiaries.

Specific objectives of the field assessment included:

- Obtaining any available information and data from the local public offices including environment, water, lands and agriculture.
- Undertaking comprehensive consultative public participation exercises so as to reach a large section of the affected persons as well as other stakeholders. Public consultations were also organized with the stakeholders in order to evaluate the environmental setting around the proposed site -
observations were focused on the topography, land tenure, surface and ground water sources, public amenities, land cover, climate, flora and fauna, soils, etc.

- Evaluate social, economic and cultural settings in the entire project site.

2.10 Detailed ESIA Report Activities

This assignment involved a series of activities carried out in conjunction with the Client, relevant Government departments, local authorities, community groups and other organizations in the area with a view to sharing their experiences and information with respect to environmental resources and social aspects. Effective evaluation of the social baseline status was achieved through interviews (consultative discussions) and physical inspection of the entire project area. The baseline conditions provided the starting point for the impacts predictions and benchmark for the mitigation measures.

Details of the activities are listed under the terms of reference, and the outputs for each activity are outlined in the sub-sections below;

1) Review of the proposed Ruiru market development project details
2) Establishment of the current baseline conditions to provide a documented foundation for the impact predictions and a benchmark for the development of mitigation measures
3) Update of the legislative and regulatory requirements as a basis for drawing a compliance monitoring protocol for the construction and commissioning phases.
4) Environmental and social impacts assessments for the identification of significant impacts to the environment and the nearby communities. Types and levels of impacts as well as criteria for developing suitable mitigation measures were assessed.
5) Environmental and Social Management and Monitoring Plan (ESMMP) comprising of mitigation measures, authority responsible for monitoring and evaluating anticipated impacts, timeframes and environmental costs were developed.

2.11 Public Participation

Adequate public participation in the ESIA process involving the stakeholders and communities living around the project area was undertaken through meetings and physical interviews. Findings of the detailed ESIA report will also be presented to stakeholders for their feedback. Among the forums undertaken were sensitization and feedback sessions involving all levels of stakeholders, and public participation through issuance of questionnaires and transect walks. A set of questionnaires were used to conduct interviews, one designed for the surrounding community and the other for key stakeholders.
(informants) with open ended and closed ended questions also formed part of the consultative process. The aim of carrying out the public consultation was to find out whether the people were familiar with the proposed project activities, impacts and whether they were ready for the project to be undertaken in their area.

2.12. Methods of Data Collection

The process in support of the preparation of the ESIA comprised of discussions and consultations with the proponent and stakeholders; initial site reconnaissance; desk study and literature review; preparation of data collection instruments; field visits for consultations and observations; data analysis and report writing.

The ESIA team has consequently gathered environmental data already backed up by observations in the field. In order to conduct a broad based and inclusive study, the proponent and the consultant have from the onset ensured the exercise is participatory. As such, discussions have been held with community members in the project area and relevant stakeholders with the assistance and coordination of the proponent.

In this particular Environmental and Social Impact Assessment, several methods were used to collect data they included:

a) Site Assessment and observation
b) Secondary data
c) Photography
d) Discussions, consultations and interviews

a) Site assessments and observations

Observation and assessment of the status of the site is key in finding out whether the project is viable and that the site is appropriate for the proposed project.

b) Secondary data sources

Various literatures were used in aiding the successful completion of the report. They include- The Environmental Management and Coordination Act (EMCA) 2015, the Proposed Project’s Final Design Report, the Kenya Population Census Report of 2009, The Physical Planning Act (cap 286), Occupation Health and Safety Act and Other Places of Work Act among others as discussed in Chapter 4 of this report.

c) Discussions, Consultations and Interviews
At the start of the ESIA it is usual that a meeting is held with key personnel on the site to inform them of the ESIA activities and what is required of them. Interviews are carried out in an attempt to get more information regarding the proposed Ruiru market development project. This involved interviewing the people who are likely to be affected by the project either directly or indirectly as well as the key stakeholders.

d) Photography

This involved capturing the actual state of the site on photos featuring the current state of the site, ongoing activities, neighbouring facilities, vegetation cover among other observed items on site.
CHAPTER THREE

3 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK
This chapter outlines the policy, legal, regulatory and institutional framework in Kenya particularly for environmental management, protection and assessment applicable to the proposed project. The project will be subject to laws, regulations, guidelines and standards of the Government of Kenya and international institutions (World Bank). Note that wherever any of the laws contradict each other, the Environmental Management and Coordination Act (EMCA) prevails.

3.1 Government of Kenya Policy Framework
Applications of national statutes and regulations on environmental conservation suggest that the owner of any project has a legal duty and responsibility to discharge wastes of acceptable quality to the receiving environment without compromising public health and safety. This position enhances the importance of an EIA for the proposed extension project to provide a benchmark for its sustainable operation when finally commissioned. Ruiru Market project complies with government policy framework by the act of the proponent conducting ESIA study before initiating any civil works on the project.

3.2 The Constitution of Kenya 2010
The Constitution of Kenya, promulgated into law on 27 September 2010, is the supreme law of the Republic: It provides the broad framework regulating present and future development aspects of Kenya and along which all national and sectoral legislative documents are drawn.

With regard to environment, Section 42 inside the Bill of Rights of the Constitution, states that: every person has the right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations through legislative and other measures; particularly those contemplated in Article 69; and to have obligations relating to the environment fulfilled under Article 70.

Chapter 5 of the new constitution provides the main pillars on which the 77 environmental statutes are hinged and covers "Land and Environment" and includes the aforementioned articles 69 and 70. Part 1 of the Chapter dwells on land, outlining the principles informing land policy, land classification as well as land use and property. Part 2 of the Chapter directs focus on the environment and natural resources. It provides for a clear outline of the state's obligation with respect to the environment. The Chapter seeks to eliminate processes & activities likely to endanger the environment.
Article 69 states that the State shall:

- Ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits;
- Work to achieve and maintain a tree cover of at least ten percent of the land area of Kenya;
- Protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities;
- Encourage public participation in the management, protection and conservation of the environment;
- Protect genetic resources and biological diversity;
- Establish systems on environmental impact assessment, environmental audit and monitoring of the environment;
- Eliminate processes and activities that are likely to endanger the environment; and,
- Utilise the environment and natural resources for the benefit of the people of Kenya.

There are further provisions on enforcement of environmental rights as well as establishment of legislation relating to the environment in accordance to the guidelines provided in this Chapter.

In conformity with the Constitution of Kenya 2010, every activity or project undertaken within the Republic of Kenya must be in tandem with the state’s vision for the national environment as well as adherence to the right of every individual to a clean and healthy environment.

Section 70 provides for enforcement of environmental rights thus:--:

1) If a person alleges that a right to a clean and healthy environment recognised and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter.

2) On application under clause (1), the court may make any order, or give any directions, it considers appropriate —
   a) to prevent, stop or discontinue any act or omission that is harmful to the environment; (b) to compel any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment; or
b) To provide compensation for any victim of a violation of the right to a clean and healthy environment.

c) For the purposes of this Article, an applicant does not have to demonstrate that any person has incurred loss or suffered injury.

Essentially, the New Constitution has embraced and provided further anchorage to the spirit and letter of the Environmental Management and Co-ordination Act (EMCA), 1999, whose requirements for environmental protection and management have largely informed Sections 69 through to 71 of the Document. In Section 72 however, the new constitution allows for enactment of laws towards enforcement of any new provisions of the Supreme Law. The proposed project complies with the Constitution by proposing a framework in its ESIA on Social, Health, safety and environmental protection.

3.3 The Kenya Vision 2030

Kenya Vision 2030 is a comprehensive national development plan for the period 2008 to 2030. The plan was developed following successful implementation of the Economic Recovery Strategy for Wealth and Employment Creation which ensured the country’s economy was back on the path for realization of rapid economic growth since 2002. The county’s GDP growth rose from 0.6% to 7% in 2007, but declined to 1.7% and 1.8% in 2008 and 2009, respectively. The objective of the Vision 2030 is to transform Kenya into a middle income country with a consistent annual economic growth of 10% by the year 2030. The 2030 goal for urban areas is to achieve “a well-housed population living in an environmentally-secure urban environment.” The document has a well laid plan for the retail and wholesale market industry by:

- Having wholesale and retail markets of high efficiency by lowering transaction costs through institutional reforms through investment in infrastructure, training and linking the markets to wider local and global markets.
- Enumerate the informal sector operators, provide the, with permanent and serviced facilities, training and access to credit facilities.
- ‘Tier 1’ retail facilities will provide primary producers with better value than at present where they are heavily fragmented.

3.3.1 National Environmental Action Plan (NEAP) of 1994

The National Environment Action Plan (NEAP) for Kenya was formulated in 1994 through a consultative process involving various stakeholders. The action plan was aimed at integrating environmental considerations into the country’s socio-economic development. The integration process was to be realized through development of a comprehensive
framework that ensures linkage of environmental management of natural resources to decision-making processes. The NEAP also established the process of identifying environmental problems and issues, awareness raising, building national consensus, defining policies, legislation and institutional needs, and planning environmental projects. The Ruiru Market redevelopment project should be in line with this plan by ensuring that environmental services are enhanced.

3.3.2 The National Poverty Eradication Plan (NPEP) of 1999

The National Poverty Eradication Plan (NPEP) was formulated with an objective of reducing the high levels of poverty in Kenya by 50 percent by the year 2015, as well as to strengthen the capabilities of the poor and vulnerable groups to earn income. The plan also aimed at reducing gender and geographical disparities in order to create a healthy, better-educated and more productive population. The formulation of the plan was guided by the goals and commitments agreed during the World Summit for Sustainable Development (WSSD) of 1995. The plan therefore focuses on the delivery of four WSSD themes of poverty eradication; reduction of unemployment; social integration of the disadvantaged people and creation of an enabling economic, political, and cultural environment through development of transport and communication sector.

The plan is implemented by the Poverty Eradication Commission (PEC) that was established in collaboration with various Government Ministries, bilateral and multilateral donors, the private sector, Community Based Organizations (CBOs) and Non-Governmental Organizations (NGOs). The NPEP is relevant since the proposed market redevelopment since it will create an enabling environment that will contribute immensely in the enhancement of economic growth to the traders.

3.3.3 The Poverty Reduction Strategy Paper (PRSP) of 2000

The Poverty Reduction Strategy Paper (PRSP) for Kenya has the broad objective of reducing poverty and promoting economic growth. This Strategy Paper articulates Kenya’s commitment and approach to tackling endemic poverty through involvement of the poor communities in both rural and urban areas in various socio-economic development activities. The proposed redevelopment, during and after implementation will offer various employment opportunities to Kenyans and will therefore contribute directly towards the realization of the broad national goal of reducing poverty in the country. In addition, the project would stimulate economic development by creating an enabling environment for other key sectors of the economy to thrive by acting a central activating nod.
3.3.4 Environment and Development (Sessional Paper No. 6 of 1999)

Kenya’s policy paper on Environment and Development was formulated in 1999. The policy paper defined approaches that will be pursued by the Government in mainstreaming environmental issues into development. The policy harmonized environmental and developmental objectives with the broad goal of achieving sustainable development. The policy paper also provided guidelines and strategies for government action regarding environment and development. This policy is relevant to the proposed development project in view of the potential impacts on the environment and involvement of the public in project planning.

3.3.5 Nairobi metro 2030

The Government of Kenya formulated the Nairobi Metro 2030 in 2008 to guide the development of the Nairobi Metropolitan Region (NMR). The goal is to ensure that NMR plays its role in the realization of strategies defined under the Kenya’s Vision 2030. Nairobi Metro 2030 brings into focus challenges faced by rapid urban growth and development. The Metro 2030 is integrated into Kenya’s Vision 2030 and other development plans and it also aims at strengthening the county governments as part of the process for the devolution of power to the grassroots. Nairobi Metro 2030 aims at making Nairobi Metropolitan Region a World Class African Metropolis that supports the overall national agenda as defined under Kenya Vision 2030. The aim of the strategy is to enhance economic growth, employment creation, improvement of lifestyles and infrastructure services. The proposed project will thus contribute in the realization of the goals of Nairobi Metro 2030 in so far as development of world class infrastructure and utilities is concerned. Therefore, the redevelopment of Ruiru Market is in line with this plan with an objective of giving the market a crucial facelift and major economic growth for its traders.

3.3.6 The National Land Policy (2007)

Land Policy in Kenya is guided by the environmental management principles which are aimed at restoring environmental integrity through introduction of incentives and encouragement of use of technology and scientific methods for soil conservation, among others. The policy also recognizes that sustainable management of land based natural resources depends largely on the governance system that defines the relationships between people, and between people and resources. To achieve an integrated approach to the management of land-based natural resources, all policies, regulations and laws dealing
with these resources need to be harmonized with the framework established by the Environmental Management and Coordination Act (EMCA) 1999.

The National Land Policy (NLP) presents policy recommendations on issues of land rights and provides for strategies on dealing with land rights of vulnerable groups, minority groups, refugees and internally displaced persons, informal settlements, children and people living with HIV/AIDS. The same section provides guidelines on gender and equity principles relating to land rights on matters to do with land and resettlement. The NLP is relevant to the proposed project in that it will give guidance, together with other land laws, on dealing with land issues during development of the project, any land acquisition if necessary and resettlement.

3.3.7 Public Health Policy of 2014

The public health policy calls upon the project proponents to ensure that buildings are adequately provided with utilities so that they are fit for human habitation and use. The market ought therefore to be provided with all amenities/utilities that are essential for safeguarding public health for all people using the facilities and those that may be living in the neighbourhood such as sufficient ablution blocks, solid waste management and a connection to the existing sewerage system.

3.3.8 HIV/AIDS Policy of 2009

The policy identifies HIV/AIDS as a global crisis that constitutes one of the most formidable challenges to economic development and social progress. The pandemic heavily affects the Kenyan economy through loss of human resource due to deaths, loss of man hours due to prolonged illnesses, absenteeism, reduced performance, increased stress, stigma, discrimination and loss of institutional memories, among others. Due to the large capacity for traders, business activities and the social stature of Ruiru Market HIV/AIDS has to be considered as one of the possible impacts and adequate mitigation measures to be proposed to that effect.

3.3.9 The National Gender Policy of 2001

The purpose of the Gender Policy is to institutionalize the Kenya National Policy on Gender and Development (NPGD), within Gender, Children and Social Development. It articulates the policy approach of gender mainstreaming and empowerment of women at the grassroots level. The policy seeks to have a society where women, men, children and persons with disabilities enjoy equal rights, opportunities and a high quality of life. This
plan has in depth addressed matters gender and development touching on women, children and the disabled for consideration in rolling out its recommendations.

3.3.10 World Bank Environmental and Social Safeguard Policies

Projects financed by or with financial participation of the World Bank are required to be subjected to certain set standards subject to environmental and social safeguards as defined in the Bank’s Operational Procedures (OPs). These operational procedures include:

- OP 4.01 Environmental Assessment;
- OP 4.04 Natural Habitats;
- OP 4.09 Pest Management;
- OP 4.11 Cultural Heritage;
- OP 4.12 Involuntary Resettlement;
- OP 4.10 Indigenous People;
- OP 4.36 Forests;
- OP 4.37 Safety of Dams;
- OP 7.50 Projects on International Waterways;
- OP 7.60 Projects in Disputed Areas.

Under OP 4.01 projects are screened and assigned either of four categories according to the likely impacts they will have on the environment to ensure that they are environmentally and socially sustainable. This classification is as follows:

a) Category A: A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.

b) Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects.

c) Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.
**d) Category FI:** A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.

The proposed improvement of Ruiru Market has been classified as environmental category B and therefore it is required to undergo an ESIA process. The table below shows the applicability of World Bank Operational Safeguards as it applies to this improvement of Ruiru market.

**Table 3-1: Analysis of potential impacts to World Bank Safeguards Policies**

<table>
<thead>
<tr>
<th>OP</th>
<th>Title</th>
<th>Comments/Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.01</td>
<td>Environmental Assessment</td>
<td>Applicable. As a result of environmental and social screening, the project was identified as a Category B</td>
</tr>
<tr>
<td>4.04</td>
<td>Natural Habitats</td>
<td>Not applicable - there no natural habitats at the project site</td>
</tr>
<tr>
<td>4.09</td>
<td>Pest Management</td>
<td>Not applicable- the project will not involve any pest management</td>
</tr>
<tr>
<td>4.10</td>
<td>Indigenous Peoples</td>
<td>Not applicable- there are no indigenous people at the site or project area</td>
</tr>
<tr>
<td>4.11</td>
<td>Physical Cultural Resources</td>
<td>Not applicable. Site inspections and literature searches have not indicated the presence of any cultural (historical, archaeological) sites in the construction area. However, to manage “chance finds” an appropriate procedure is included in this ESIA. Such procedure to be followed by contractors during the construction phase.</td>
</tr>
<tr>
<td>4.12</td>
<td>Involuntary Resettlement</td>
<td>Applicable. The site is currently occupied by some traders/vendors, and therefore there will be some minimal resettlements and/ or livelihood restoration requiring relocation to pave way for the project. A separate RAP report has been done for the project.</td>
</tr>
<tr>
<td>4.36</td>
<td>Forests</td>
<td>Not applicable- there is no forest at the site</td>
</tr>
<tr>
<td>4.37</td>
<td>Safety of Dams</td>
<td>Not applicable because the project will not involve construction of dams.</td>
</tr>
<tr>
<td>7.50</td>
<td>Projects on International Waters (OP 7.50)</td>
<td>Not applicable- the site does not sit on international waters</td>
</tr>
<tr>
<td>7.60</td>
<td>Projects in Disputed Areas</td>
<td>The site is not classified as disputed in the project area.</td>
</tr>
</tbody>
</table>
3.4 Legal Framework

3.4.1 The Environment Management and Co-ordination Act, 1999 and its Amendment (Environment Management and Coordination (Amendment) Act 2015)

The Principal Act, EMCA, 1999 and its amendment EMC (Amendment) Act 2015 are read together. The EMCA 1999 provides for the establishment of appropriate legal and institutional framework for the management of the environment and related matters. Part II of the Environment Management & Coordination Act, 1999 states that every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment. In order to partly ensure this is achieved, Part VI of the Act directs that any new programme, activity or operation should undergo environmental impact assessment and a report prepared for submission to the National Environmental Management Authority (NEMA), who in turn may issue an EIA license as appropriate. The approval process time frame for Project Reports is 45 days and for full EIA Study is 90 days. The EMC (Amendment) Act 2015 amends some sections of the Principal Act (EMCA, 1999) so as to be in line with the provisions of the 2010 Constitution.

Relevance: The Second Schedule of the Act specifies projects that require to be subjected to EIA studies. Under this schedule, there is no minimum size threshold below which an EIA is not necessary. Indeed, an appraisal of the proposed development of Ruiru Market triggers requirements for an EIA under this Second Schedule. This ESIA Report has thus been prepared in compliance with this requirement.

3.4.2 Environmental Management and Coordination (Water Quality) Regulations, 2006

The Regulations provides for sustainable management of water resources including prevention of water pollution and protection of water sources. (Lakes, rivers, streams, springs, wells and other water sources).

It is an offence under Regulation No.4 (2), for any person to throw or cause to flow into or near a water resource any liquid, solid or gaseous substance or deposit any such substance in or near it, as to cause pollution.

Regulation No. 11 further makes it an offence for any person to discharge or apply any poison, toxic, noxious or obstructing matter, radioactive waste or other pollutants or permit the dumping or discharge of such matter into the aquatic environment unless such discharge, poison, toxic, noxious or obstructing matter, radioactive waste or pollutant complies with the standards for effluent discharge into the environment.
Regulation No. 14 (1) requires every licensed person generating and discharging effluent into the environment to carry out daily effluent discharge quality and quantity monitoring and to submit quarterly records of such monitoring to the Authority or its designated representatives.

The proponent will have to ensure that appropriate measures to prevent pollution of underground and surface water sources are implemented throughout the project cycle.

Wastewater guidelines
Part of the study involves a review of the environmental standards that provides a basis for monitoring and future audits. The table below presents recommended guidelines on wastewater quality for discharge into the public sewers and open water bodies.

Table 3-2: Standards for Discharge of Waste water into public sewers

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum levels permissible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspended solids (mg/L)</td>
<td>250</td>
</tr>
<tr>
<td>Total dissolved solids (mg/L)</td>
<td>2000</td>
</tr>
<tr>
<td>Temperature °C</td>
<td>20 - 35</td>
</tr>
<tr>
<td>pH</td>
<td>6-9</td>
</tr>
<tr>
<td>Oil and Grease (mg/L) - where conventional treatment shall be used</td>
<td>10</td>
</tr>
<tr>
<td>Oil and Grease (mg/L) - where ponds is a final treatment method</td>
<td>5</td>
</tr>
<tr>
<td>Ammonia Nitrogen (mg/L)</td>
<td>20</td>
</tr>
<tr>
<td>Substances with an obnoxious smell</td>
<td>Shall not be discharged into the sewers</td>
</tr>
<tr>
<td>Biological Oxygen Demand BOD5 days at 20° C (mg/L)</td>
<td>500</td>
</tr>
<tr>
<td>Chemical Oxygen Demand COD (mg/L)</td>
<td>1000</td>
</tr>
<tr>
<td>Arsenic (mg/L)</td>
<td>0.02</td>
</tr>
<tr>
<td>Mercury (mg/L)</td>
<td>0.05</td>
</tr>
<tr>
<td>Lead (mg/L)</td>
<td>1.0</td>
</tr>
<tr>
<td>Cadmium (mg/L)</td>
<td>0.5</td>
</tr>
<tr>
<td>Chromium VI (mg/L)</td>
<td>0.05</td>
</tr>
<tr>
<td>Chromium (Total) (mg/L)</td>
<td>2.0</td>
</tr>
<tr>
<td>Copper (mg/L)</td>
<td>1.0</td>
</tr>
<tr>
<td>Zinc (mg/L)</td>
<td>5.0</td>
</tr>
<tr>
<td>Selenium (mg/L)</td>
<td>0.2</td>
</tr>
<tr>
<td>Nickel (mg/L)</td>
<td>3.0</td>
</tr>
<tr>
<td>Nitrates (mg/L)</td>
<td>20</td>
</tr>
<tr>
<td>Phosphates (mg/L)</td>
<td>30</td>
</tr>
<tr>
<td>Cyanide Total (mg/L)</td>
<td>2</td>
</tr>
<tr>
<td>Sulphide (mg/L)</td>
<td>2</td>
</tr>
<tr>
<td>Phenols (mg/L)</td>
<td>10</td>
</tr>
<tr>
<td>Detergents (mg/L)</td>
<td>15</td>
</tr>
<tr>
<td>Colour</td>
<td>Less than 40 Hazen units</td>
</tr>
<tr>
<td>Alkyl Mercury</td>
<td>Not Detectable (nd)</td>
</tr>
<tr>
<td>Free and saline Ammonia as N (mg/L)</td>
<td>4.0</td>
</tr>
<tr>
<td>Calcium Carbide</td>
<td>Nil</td>
</tr>
<tr>
<td>Chloroform</td>
<td>Nil</td>
</tr>
</tbody>
</table>
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Maximum levels permissible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflammable solvents</td>
<td>Nil</td>
</tr>
<tr>
<td>Radioactive residues</td>
<td>Nil</td>
</tr>
<tr>
<td>Degreasing solvents of mono-di-trichloroethylene type</td>
<td>Nil</td>
</tr>
</tbody>
</table>


### Table 3-3: Standards for Discharge of Waste water into Environment (Water body)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Max. Allowable(Limits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1-trichloroethane (mg/l)</td>
<td>3</td>
</tr>
<tr>
<td>1,1,2-trichloroethane (mg/l)</td>
<td>0.06</td>
</tr>
<tr>
<td>1,1-dichloroethylene</td>
<td>0.2</td>
</tr>
<tr>
<td>1,2-dichloroethane</td>
<td>0.04</td>
</tr>
<tr>
<td>1,3-dichloropropene (mg/l)</td>
<td>0.02</td>
</tr>
<tr>
<td>Alkyl Mercury compounds</td>
<td>Nd</td>
</tr>
<tr>
<td>Ammonia, ammonium compounds, NO3 compounds and NO2 compounds (Sum total of ammonia-N times 4 plus nitrate-N and Nitrite-N) (mg/l)</td>
<td>100</td>
</tr>
<tr>
<td>Arsenic (mg/l)</td>
<td>0.02</td>
</tr>
<tr>
<td>Arsenic and its compounds (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Benzene (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Biochemical Oxygen Demand (BOD 5days at 20°C) (mg/l)</td>
<td>30</td>
</tr>
<tr>
<td>Boron (mg/l)</td>
<td>1.0</td>
</tr>
<tr>
<td>Boron and its compounds – non marine (mg/l)</td>
<td>10</td>
</tr>
<tr>
<td>Boron and its compounds –marine (mg/l)</td>
<td>30</td>
</tr>
<tr>
<td>Cadmium (mg/l)</td>
<td>0.01</td>
</tr>
<tr>
<td>Cadmium and its compounds (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>0.02</td>
</tr>
<tr>
<td>Chemical Oxygen Demand (COD (mg/l)</td>
<td>50</td>
</tr>
<tr>
<td>Chromium VI (mg/l)</td>
<td>0.05</td>
</tr>
<tr>
<td>Chloride (mg/l)</td>
<td>250</td>
</tr>
<tr>
<td>Chlorine free residue</td>
<td>0.10</td>
</tr>
<tr>
<td>Chromium total</td>
<td>2</td>
</tr>
<tr>
<td>cis –1,2- dichloro ethylene</td>
<td>0.4</td>
</tr>
<tr>
<td>Copper (mg/l)</td>
<td>1.0</td>
</tr>
<tr>
<td>Dichloromethane (mg/l)</td>
<td>0.2</td>
</tr>
<tr>
<td>Dissolved iron (mg/l)</td>
<td>10</td>
</tr>
<tr>
<td>Dissolved Manganese(mg/l)</td>
<td>10</td>
</tr>
<tr>
<td>E.coli (Counts / 100 ml)</td>
<td>Nil</td>
</tr>
<tr>
<td>Fluoride (mg/l)</td>
<td>1.5</td>
</tr>
<tr>
<td>Fluoride and its compounds (marine and non-marine) (mg/l)</td>
<td>8</td>
</tr>
<tr>
<td>(mg/l)</td>
<td>0.01</td>
</tr>
<tr>
<td>Lead and its compounds (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>n-Hexane extracts (animal and vegetable fats) (mg/l)</td>
<td>30</td>
</tr>
<tr>
<td>n-Hexane extracts (mineral oil) (mg/l)</td>
<td>5</td>
</tr>
<tr>
<td>Oil and grease</td>
<td>Nil</td>
</tr>
<tr>
<td>Organo-Phosphorus compounds (parathion,methyl parathion,methyl demeton and Ethyl parantrophyl phenylphosphorothioate, EPN only) (mg/l)</td>
<td>1.0</td>
</tr>
<tr>
<td>Polychlorinated biphenyls, PCBs (mg/l)</td>
<td>0.003</td>
</tr>
<tr>
<td>pH ( Hydrogen ion activity----marine)</td>
<td>5.0-9.0</td>
</tr>
<tr>
<td>pH ( Hydrogen ion activity--non marine)</td>
<td>6.5-8.5</td>
</tr>
<tr>
<td>Phenols (mg/l)</td>
<td>0.00 1</td>
</tr>
<tr>
<td>Selenium (mg/l)</td>
<td>0.01</td>
</tr>
<tr>
<td>Parameter</td>
<td>Max. Allowable (Limits)</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Selenium and its compounds (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Hexavalent Chromium VI compounds (mg/l)</td>
<td>0.5</td>
</tr>
<tr>
<td>Sulphide (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Simazine (mg/l)</td>
<td>0.03</td>
</tr>
<tr>
<td>Total Suspended Solids, (mg/l)</td>
<td>30</td>
</tr>
<tr>
<td>Tetrachloroethylene (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Thiobencarb (mg/l)</td>
<td>0.1</td>
</tr>
<tr>
<td>Temperature (in degrees Celsius) based on ambient temperature</td>
<td>± 3</td>
</tr>
<tr>
<td>Thiram (mg/l)</td>
<td>0.06</td>
</tr>
<tr>
<td>Total coliforms (counts /100 ml)</td>
<td>30</td>
</tr>
<tr>
<td>Total Cyanogen (mg/l)</td>
<td>Nd</td>
</tr>
<tr>
<td>Total Nickel (mg/l)</td>
<td>0.3</td>
</tr>
<tr>
<td>Total Dissolved solids (mg/l)</td>
<td>1200</td>
</tr>
<tr>
<td>Colour in Hazen Units (H.U)</td>
<td>15</td>
</tr>
<tr>
<td>Detergents (mg/l)</td>
<td>Nil</td>
</tr>
<tr>
<td>Total mercury (mg/l)</td>
<td>0.005</td>
</tr>
<tr>
<td>Trichloroethylene (mg/l)</td>
<td>0.3</td>
</tr>
<tr>
<td>Zinc (mg/l)</td>
<td>0.5</td>
</tr>
<tr>
<td>Whole effluent toxicity</td>
<td></td>
</tr>
<tr>
<td>Total Phosphorus (mg/l)</td>
<td>2 Guideline value</td>
</tr>
<tr>
<td>Total Nitrogen</td>
<td>2 Guideline value</td>
</tr>
</tbody>
</table>


3.4.3 Air Quality Regulation, 2014

This regulation is referred to as “The Environmental Management and Coordination (Air Quality) Regulations, 2014”. The objective is to provide for prevention, control and abatement of air pollution to ensure clean and healthy ambient air.

It provides for the establishment of emission standards for various sources, including as mobile sources (e.g. motor vehicles) and stationary sources (e.g. industries) as outlined in the Environmental Management and Coordination Act, 1999. It also covers any other air pollution source as may be determined by the Minister in consultation with the Authority. Emission limits for various areas and facilities have been set.

The Regulations prohibits the Proponent from:

- Acting in a way that directly or indirectly cause or may cause air pollution to exceed levels set out in the second Schedule to the Regulations
- Allowing particulates emissions into the atmosphere from any source not listed in the six schedule of the Regulations
- Causing ambient air quality in controlled areas (listed in Schedule Thirteen) to exceed those stipulated under second Schedule.
- Allowing (during construction and demolition) emission of particulate matter above the limits stipulated in second Schedule.
• Causing or allowing stockpiling or storage of material in a manner likely to cause air pollution

• Causing or allowing emissions of oxides of nitrogen in excess of those stipulated in the eleventh Schedule of the Regulation

The proponent shall observe policy and regulatory requirements and implement the mitigation measures proposed in this document in an effort to comply with the provisions of these regulations on abatement of air pollution.

3.4.4 Environmental Management and Coordination Act (Noise and Excessive Vibrations Pollution Control) Regulations, 2009

The regulations define noise as any undesirable sound that is intrinsically objectionable or that may cause adverse effects on human health or the environment. The regulations prohibit any person from making or causing to be made any loud, unreasonable, unnecessary or unusual noise which annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and the environment.

Article 13 2(d) of the regulations allows for construction work at night for public utility construction, construction of public works, projects exclusively relating to roads, bridges, airports, public schools and sidewalks, provided noise generated is not caused within a residential building or across a residential real property boundary where such noise interferes with the comfort, repose, or safety of the members of the public. The second Schedule of the Regulations provides for the maximum permissible level of noise at construction sites.
Table 3-4: Maximum permissible noise levels for construction sites (measurement taken within the facility)

<table>
<thead>
<tr>
<th>Facility</th>
<th>Maximum Noise level permitted (leq) in dB (A)</th>
<th>Day (6.01am-6.00pm)</th>
<th>Night (6.01pm-6.00am)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Health facilities, educational institutions, homes for disabled and</td>
<td></td>
<td>60</td>
<td>35</td>
</tr>
<tr>
<td>residential areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Residential</td>
<td></td>
<td>60</td>
<td>35</td>
</tr>
<tr>
<td>(iii) Areas other than those prescribed in (i) and (ii)</td>
<td></td>
<td>75</td>
<td>65</td>
</tr>
</tbody>
</table>

Under section 15, the Regulations require the Proponent during EIA studies to:

- Identify natural resources, land uses or activities which may be affected by noise or excessive vibrations from construction or demolition;
- Determine the measures which are needed in the plans and specifications to minimize or eliminate adverse construction or demolition noise or vibration impacts;
- Incorporate the needed abatement measures in the plans and specifications.

It is anticipated that the proposed project will generate noise and/or vibration during the construction phase that will originate from the construction equipment, vehicles and the workers since the project neighbours homesteads and businesses in some sections. It is therefore recommended that the construction team develops mitigations to reduce noise propagation in the project area.

The provisions of this Act will be applied by the Proponent in the management of the project where the contractor will be required to adhere to the provisions of this regulation.

**Noise guidelines**

The following guidelines will be used to monitor noise levels, especially during the construction stage of the project.

Table 3-5 Comparison between WHO and NEMA Noise Guidelines

<table>
<thead>
<tr>
<th>Specific Environment</th>
<th>Critical Effects</th>
<th>Health Effects</th>
<th>L_Aeq dB(A) WHO</th>
<th>Time base (hours)</th>
<th>L_Aeq dB(A) NEMA</th>
<th>Time base (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor living area</td>
<td>Serious annoyance</td>
<td>Moderate annoyance</td>
<td>55 50</td>
<td>16 16</td>
<td>45 35</td>
<td>14 14</td>
</tr>
<tr>
<td>Indoor dwelling Inside bedroom</td>
<td>Speech interference</td>
<td>Sleep disturbance</td>
<td>35 30</td>
<td>16 8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Outdoor bedroom</td>
<td>Speech disturbance</td>
<td>Sleep disturbance</td>
<td>45 8</td>
<td>35 8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School classroom Indoor</td>
<td>Speech and communication</td>
<td></td>
<td>35</td>
<td>During class time</td>
<td>Day 60 Night 35</td>
<td>14 14</td>
</tr>
</tbody>
</table>
### Specific Environment | Critical Effects | Health | LAeq dB(A) WHO | Time base (hours) | LAeq dB(A) NEMA | Time base (hours)
--- | --- | --- | --- | --- | --- | ---
School playground outdoor | Annoyance External | 55 | During play | 45 | Day
Hospital, treatment room indoor | night time daytime | 30 | 8 | - | -
Industrial, Commercial and traffic areas | Hearing impairment | 70 | 24 | 60 | 12
Ceremonies, festivals entertainment events | Hearing impairment | 100 | 4 | - | -

The provisions of this Act will be applied by the Proponent in the management of the project where the contractor will be required to adhere to the guidelines to reduce the possibility of adverse noise and vibration impacts to human health. The regulation stipulates that the acceptable standard day and night noise levels should not exceed 65dBA and 45 dBA respectively.

#### 3.4.5 The Physical Planning Act

The physical Planning Act (Cap.286) of 1998, aimed at developing a sound spatial framework for co-existence, through plan proposals that enhance and promote integrated spatial/physical development of social-economic activities. The construction of a market service hub constitutes making of material change to land, the activity constitutes ‘development’ hence need to be controlled by local authorities. From the foregoing, the physical planning Act (Cap.286) has made specific provision in respect to the mandate of local authorities in the need for physical planning. As concerns city, municipal, town and urban councils

#### 3.4.6 The County Government Act 2012

The County Government Act of 2012, which has been adapted to the Constitution’s State and County structure in relation to devolution, declares the County Integrated Plan to be central to the County’s administration and prohibits any public spending outside of the plan. The Act clarifies that the County Integrated Plan to be broken down into the economic plan, physical plan, social environmental plan and spatial plan. Also, the Act states that the County Plan commands,

- County integrated development plan
- County Sectoral plans
- County spatial plan
- Cities and urban areas plans as stipulated by Urban Areas and Cities Act
The act also stipulates that the County Government will be responsible for functions stipulated in article 186 and assigned in the Fourth Schedule of the Constitution which includes control of air pollution, noise pollution, other public nuisances and outdoor advertising.

The Proponent will ensure the project will be compliant with County Government Act 2012 by controlling all forms of pollution. Additionally an Environmental and Social Management/monitoring plan has been provided in this report with measures for mitigating potential environmental pollution anticipated from the development of the project.

3.4.7 The Urban Areas and Cities Act 2011

This law passed in 2011 provides legal basis for classification of urban areas (City when the population exceeds 500,000; a municipality when it exceeds 250,000; and a town when it exceeds 10,000) and requires the city and municipality to formulate County Integrated Development Plan (Article 36 of the Act). Under Article 36, the integrated development plan so developed is required to be the central pillar in public administration of the city or municipality this forming the basis for:

- The preparation of environmental management;
- Preparation of valuation rolls for property taxation plans;
- Provision of physical and social infrastructure and transportation;
- Preparation of annual strategic plans for a city or municipality;
- Disaster preparedness and response;
- Overall delivery of service including provision of water, electricity, health, telecommunications and solid waste management; and vii) the preparation of a geographic information system for a city or municipality.

The strategy plan as stated in 4) above denotes an annual plan to be adopted in the county assembly following the integrated development plan, and the Act requires the board of town committee to formulate the strategy plan soon after the adoption of the integrated development plan (Article 39). The integrated development plan as stipulated in the Act has to reflect:-

- vision for the long term development of the city or urban area;
- an assessment of the existing level of development;
- any affirmative action measures to be applied;
- development priorities and objectives;
- development strategies which shall be aligned with any national or county sectoral plans and planning requirements;
• a spatial development framework;
• operational strategies; and
• applicable disaster management plans;
• a regulated city and municipal agricultural plan;
• a financial plan; and
• the key performance indicators and performance targets (Article 40).
• The integrated development plan thus formulated has to be submitted to the county executive committee, and the committee has to submit the plan to the county assembly with an opinion within 30 days (Article 41).

3.4.8 The Occupational Safety and Health Act, OSHA 2007

This Act was signed into law in October 2007 to repeal and replace the Factories and Other Places of Work Act Cap 514. It came into force on December 20, 2007. The Act makes provision for safety and health of workers in all workplaces in Kenya. All rules made under the previous Act remain in force under the new Act.

The Act requires developers to notify the Director of Occupational Health and Safety of their intended development before commencement. The Act also sets minimum standards to be maintained in such workplaces to safeguard health, safety and welfare of workers. All these are aimed at eliminating hazards in workplaces. The Act further requires all workplaces to display the abstract of the Act to all workers to read and remind themselves on how to protect themselves from hazards.

The Act further makes it mandatory for occupiers or employers to provide personal protective equipment and all practicable means to prevent injury to the health of workers exposed to any potentially harmful substances or conditions. Other considerations includes the establishment of sanitary convenience for both sexes which should kept clean at all times (subsection 18) also the provision of drainage of accumulated waters on the floors (subsection 17) to avoid any possible injuries to the workers.

Relevance to the Proposed Project

It is thus recommended that all Sections of the Act related to this project, such as provision of protective clothing, clean water, and insurance cover are observed so as to protect all from work related injuries or other health hazards.

3.4.9 The Water Act 2002

In March 2003 the Water Act 2002 came into effect. The Water Act 2002 provided the legal framework for management and conservation of water resources in line with the new policy
changes. New institutions with separate functions were established, and decentralized
decision making is reflected in autonomous regional bodies. Section 25 of the Act requires
a permit to be obtained for among others any use of water from a water resource or
discharge of a pollutant into any water resource.
According to section 29 of the same Act, application for such a permit shall be subject to
public consultation as well as an environmental impact assessment as per the
Environmental Management and Coordination Act, 1999. The conditions of the permit may
also be varied if the authority feels that the water so used is causing deterioration of water
quality or causing shortage of water for other purposes that the authority may consider has
priority. This is provided for under section 35 of the Act.
The Act also requires that any effluent discharge in any water body should contain no
poisonous matter or substances that are likely to be injurious directly to public health, to
livestock, crops, orchards and gardens irrigated with such water. It also prohibits disposal
of effluent or drainage from factory in a manner likely to contaminate groundwater. The Act
also gives conditions relating to construction works in its second schedule.

**Relevance to the proposed project**

Water is significant to the general operation of the proposed project. The construction
would mean that more water would be needed for various activities and waste water or
effluent would be discharged. Management of this resource is therefore significant for the
success of operations of the project. Pollution of water sources should be avoided. Water
for use will be obtained from Rujuwasco.

**3.4.10 The Public Health Act**

This Act makes it the duty of every local authority to take all lawful, necessary and
reasonably practicable measures to safeguard and promote public health (s.13). Part IX
of the Act deals with sanitation and housing, and is of most significance for the control of
polluting discharges. Section116 imposes a duty on every local authority to maintain its
district in a clean and sanitary condition, to prevent nuisances and prosecute those
responsible for nuisances. Nuisances include drains and sewers for the discharge of
pollutants into watercourses and lakes. The Public Health (Drainage and Latrine) Rules
made under s.126 of the Act, makes more specific provision for drainage. The Rules:

- Prohibit the drainage of surface water into foul water sewers;
- Require the drainage of new buildings;
- Prohibit the discharge into sewers of matter which may interface with the free
  flow of the sewage or injure the sewer;
• Impose a requirement for permits to be obtained from the local authority before the making of sewer connections or the construction of sewage treatment works; and
• Empower the local authority to prohibit the discharge of injurious matter into sewers.
• Section 163 – Powers of entry and inspection - It should be noted that a medical officer, health inspector or a police officer above the role of an inspector shall enforce compliance and offences are punishable by law.

3.4.11 The Environment and Land Court Act No.19 of 2011:

This law was assented to on 27th August, 2011 and commenced on 30th August 2011 to give effect to Article 162(2) (b) of the Constitution; to establish a superior court to hear and determine disputes relating to the environment and the use and occupation of, and title to, land, and to make provision for its jurisdiction functions and powers, and for connected purposes. Section 13 (1) of the Act gives the Court original and appellate jurisdiction to hear and determine all disputes in accordance with Article 162(2) (b) of the Constitution and with the provisions of this Act or any other written law relating to environment and land. In exercise of its jurisdiction under Article 162 (2) (b) of the Constitution, the Court shall have power to hear and determine disputes relating to environment and land, including disputes:

• relating to environmental planning and protection, trade, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources;
• relating to compulsory acquisition of land;
• relating to land administration and management;
• relating to public, private and community land and contracts, choses in action or other instruments granting any enforceable interests in land; and
• Any other dispute relating to environment and land.

This statute is deemed relevant to all development proposed for implementation in Kenya as it provides for legal recourse for disputes relating to environment and land.

1.3.10 Public Procurement and Disposal Act 2005:
The purpose of this Act is to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities to achieve the following objectives -

• to maximize economy and efficiency;
• to promote competition and ensure that competitors are treated fairly;
• to promote the integrity and fairness of those procedures;
• to increase transparency and accountability in those procedures; and
• to increase public confidence in those procedures;
• to facilitate the promotion of local industry and economic development.
• All procurement of services related that relate to Ruiru Market development and operation/maintenance is subject to this statute.

3.4.12 The Land Act 2012

The Act specifies the local context and approach towards resettlement and compulsory land acquisition, though the latter does not apply to the context of Ruiru Market.

In managing public land, the Commission is further required in section 10(1) to prescribe guidelines for the management of public land by all public agencies, statutory bodies and state corporations in actual occupation or use. In these guidelines management priorities and operational principles for management of public land resources for identified uses shall be stated.

This in essence means that the Commission shall take appropriate action to maintain public land that has endangered or endemic species of flora and fauna, critical habitats or protected areas. As well the commission shall identify ecologically sensitive areas that are within public land and demarcate or take any other justified action on those areas and act to prevent environmental degradation and climate change.

The market land under which Ruiru falls is classified under Public land hence invoking some sections of this Act.

3.4.13 The Land Registration Act of 2012

The Act provides for the registration of absolute proprietorship interests over land (exclusive rights) that has been adjudicated or any other leasehold ownership interest on the land. Such land can be acquired by the state under the Land Act 2012 in the project area.

3.4.14 National Gender and Equality Commission Act, 2011

The Commission was established through an Act of parliament and is mandated but not limited to perform the following functions:

(a) promote gender equality and freedom from discrimination in accordance with Article 27 of the Constitution; (b) monitor, facilitate and advise on the integration of the principles of
equality and freedom from discrimination in all national and county policies, laws, and administrative regulations in all public and private institutions; (c) co-ordinate and facilitate mainstreaming of issues of gender, persons with disability into the overall national development framework.

Some sections of this Act shall be invoked in the implementation of the project.

3.4.15 HIV/AIDS Prevention and control Act (Act No. 14 of 2006)

Part 11, Section 7 of the Act requires that HIV and AIDS education be carried out at the work-place. The government is expected to ensure the provision of basic information and instruction on HIV and Aids prevention and control to:

(i) Employees of all government ministries, departments, authorities, and other agencies and employees of private and informal sectors.

(ii) The information on HIV/AIDS is expected to be treated with confidentiality at the work place and positive attitude towards infected employees.

In allocating contractors to the market, the Ministry should ensure that the contractor offers such training to the worker as provided by law as well as provision of protective devices – condoms – for those at site.

3.4.16 The Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012

The provisions of this Act apply to all internally displaced persons that arise either through calamities, social conflict or development projects and is guided by the Bills of Right under the Constitution of Kenya. Section 5 of the Act lists development projects among the displacement factors and outlines involvement of the affected persons through awareness, sensitization, training and education on causes, impacts, consequences and prevention measures. Section 6 of the Act provides that displacements and relocation as a result of development project sites will only be justified by compelling and overriding public interest.

The procedures to follow are listed under section 22 and include:

i) Justification as to why the displacement is unavoidable and that there is no other feasible alternative.

ii) Seeking free and informed consent from the affected person

iii) Holding public hearing on project planning

iv) Provision of reasonable notice time to allow the affected persons review and react to the displacement conditions; and

v) Displacement process should reflect respect to human rights.
Relocation of the affected persons will be guided by the following factors: -

i) Full information on the affected persons and ensuring their participation;

ii) Identification of safe, adequate and habitable alternatives;

iii) Availability of safety, nutrition, health, and hygiene as well as protection at the new location; and

iv) Acceptability by the host communities in the new location (if re-location is implemented).

The Act therefore provided enacted guidelines in the event of relocation of the Ruiru traders.

3.4.17 The Sexual Offences Act (No. 3 of 2006)

Relevant Sections in this Act include:-

- 24- Sexual offences relating to position of authority and persons in position of trust.
- 25- Sexual relationship which pre-date position of authority or trust.
- 26- Deliberate transmission of HIV or any other life threatening sexually transmitted disease.

In the life cycle of the Ruiru Project and the associated resettlement, the Act will be key in ensuring that no sexually offences are committed.

3.4.18 Environmental Permits and Licenses

The table below presents a summary of the Project activities that would require contractors to acquire permission, licenses or permits from relevant authorities and / or agreements with land owners.

**Table 3-6: Construction activities requiring permits or licenses**

<table>
<thead>
<tr>
<th>Contractor Activities</th>
<th>Concerned Authority</th>
<th>Provisions / permits / licenses to be acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree felling</td>
<td>KCG</td>
<td>‘Permit to harvest’. Harvesting itself is undertaken by KCG.</td>
</tr>
<tr>
<td>Water abstraction</td>
<td>WRMA</td>
<td>Water abstraction permit</td>
</tr>
<tr>
<td>Quarrying activities / sand mining</td>
<td>NEMA</td>
<td>EIA license / consents / agreements from land owners</td>
</tr>
<tr>
<td>Disposal of construction debris</td>
<td>NEMA</td>
<td>Waste transport license and disposal in accordance with NEMA Waste Management Regulations, 2006</td>
</tr>
<tr>
<td>Blasting at quarry sites</td>
<td>NEMA</td>
<td>Permit in accordance to the Environmental Management and Coordination (Noise And Excessive Vibration Pollution Control) Regulation, 2009.</td>
</tr>
</tbody>
</table>
3.5 The Institutional framework

The development of Ruiru Market will involve a number of public institutions which will exercise their respective mandates in accordance to the relevant laws and Constitution of Kenya. These institutions include:

3.5.1 The Ministry of Transport, Infrastructure, Housing and Urban Development (MoTIHUD)

The MTIHUD is the project proponent and is implementing the development of Ruiru market through Nairobi Metropolitan Services Improvement Project (NaMSIP) that is under the State Department of Housing and Urban Development.

3.5.2 Ministry of Environment and Natural Resources

Kenya’s Ministry of Environment and Natural Resources is mandated to monitor, protect, conserve and manage environment and natural resources of the country. The Ministry is to achieve this monumental task through sustainable exploitation of natural resources for socio-economic development geared towards eradication of poverty, improving living standards and maintaining a clean environment for present and future generations.

3.5.3 EMCA 1999 AND 2015 INSTITUTIONS

The EMCA, 1999, make provisions for creation of environmental administrative structures under MENR. The institutions that have been created under the Act for environmental management in Kenya are:

- NEMA - the principal government authority established under MENR to exercise general supervision and coordination over all matters relating to the environment in Kenya. In the context of the EIA process NEMA is responsible for approving the ToR for the ESIA and for the approval of the ESIA. Without this latter approval, the project cannot proceed.
- NEC - The apex body under the Act charged with the responsibility of developing the national environmental policy in Kenya as well as to set annual environmental goals and objectives.
- PCC - formed to investigate environmental complaints against any person, submit their findings/recommendations to the NEC and to submit periodic reports of its activities to the NEC.
- County Environmental Committee (CEC) - plays a role in decentralization of activities undertaken by NEMA. It enables local communities to have access to environmental management information and also undertake quick site checks, review environment related project reports and may also attend site meetings. This may be sought during the project construction period.

3.5.4 The Directorate of Nairobi Metropolitan Development

In the capacity of employer, the Ministry of Transport, Infrastructure, housing and Urban Development, Nairobi Metropolitan Development through the NaMSIP/PCT has administrative jurisdiction over the EIA process and will also act custodian of the ESMMP emanating from this study.

3.5.5 The County Government of Kiambu (CGK)

The County Government of Kiambu owns the proposed project site and will operate the Market once it is development is completed. The Proponent will develop the Market and hand it over to the County. The CGK is therefore a key stakeholder in the detailed design and implementation phase.

3.5.6 The local CBOs and other Civil Society

Members of the civil society working in the area in related fields are responsible for sensitizing the people and empower them to realize maximum benefits from the project. They will be involved in the training and counselling of the project affected persons.

3.5.7 The National Gender and Equality Commission (NGEC)

The NGEC is mandated by the Constitution among other functions to monitor, facilitate and advise on the integration of the principles of equality and freedom from discrimination in all national and county policies, laws, and administrative regulations in public and private institutions. It acts as the principal organ of the State in ensuring compliance with all treaties and conventions ratified by Kenya relating to issues of equality and freedom from discrimination and relating to special interest groups including minorities and marginalized persons, women, persons with disabilities, and children. It coordinates and facilitates mainstreaming of other marginalized groups in national development and to advise the
Government on all aspects thereof; as well as monitoring, facilitating and advising on the development of affirmative action implementation policies as contemplated in the Constitution. It is also mandated to co-ordinate and advice on public education programmes for the creation of a culture of respect for the principles of equality and freedom from discrimination.
CHAPTER FOUR

4 Environmental and Social Baseline

4.1 Project Background

Ruiru market, hereafter referred to as the proposed project, discussed in this ESIA report forms part of the Nairobi Metropolitan Services Improvement Project, NaMSIP, being implemented by the State Department of Housing and Urban Development with financial support from the Word Bank. As the population of Nairobi grows and demand for goods and services increase the demand for these service improvement is warranted. Therefore NaMSIP initiation is based on service improvement in the urban areas which are covered in the Nairobi metropolitan region. The selection of the market (Ruiru) was on the basis of the existing local participatory process from prioritizing local investment called the Local Authority Service Development Action Plan.

4.2 Location and Size

Ruiru market is located in Ruiru market off Thika super highway. The Market is approximately 1.5 Kilometres towards the Western side of the town along Kamiti Ruiru road from the Thika super highway.

Figure 4-1: Ruiru market site (Google Earth August 2016)
4.3 EXISTING FACILITIES

4.3.1 Market Structures

The existing market has a mix of permanent buildings and temporary structures that are used by the traders to sell their produce.

a) The permanent buildings which form an enclosure to the open trading area on one section of the market are stalls which accommodate shops, hotels, tailoring and butcheries. Existing market stalls.

b) In the middle of the looped asphalt road there is a concrete paved platform used by traders selling agricultural products.

c) Traders use umbrellas to protect themselves from weather elements. The temporary stalls are made of timber and mabati roofing.

4.3.2 Sanitation Facilities

The existing sanitation facility consists of two toilet blocks - one which is old and a recently built one, which consist of 3 toilets for ladies and 2 toilets for gents are inadequate. Cleaning of the toilets is done once per day by the county government. The management committee attempted to introduce a levy for the use of the toilets but the traders resisted.

4.3.3 Parking

The market currently does not have a designated onsite parking area. Customers to the market usually use the side of the road that is leading to the market for parking their vehicles. Therefore the market may occasionally experience traffic congestion during market days due to the high number of customer vehicles and wholesale trucks delivering goods to the retailers.

4.3.4 Security

The market has neither a gate nor a perimeter wall, the permanent buildings in the periphery form the boundary on entrance side while the other 3 sides have a dilapidated chain link barbed wire fence. The market management committee has employed 2 security guards who are assisted by loaders to provide security on a 24-hour basis. In addition to this, traders who sell clothes and household goods store their wares in the permanent stalls when they close shop. Traders cover their products with polythene sheets when the market closes at night.
4.4 Infrastructure

4.4.1 Road network

The main area of trading has an existing asphalt road forming a loop within the market. Asphalt road around the permanent stalls. The section where there are temporary stalls and the wholesale area has earth roads. Movement becomes difficult during rainy seasons as it gets muddy due to lack of storm water drainage system. Earth road within the wholesale area.

4.4.2 Water Supply

The market does not have a reliable supply of water. The existing water supply from RUJUWASCO has been disconnected because of failure by the county government to pay the water bill. The traders are therefore forced to buy water from the CDF water project. In addition to this, the market does not have adequate water storage facilities.

4.4.3 Electrical Services

There is existing 3 phase, 415V power supply to the site. There is also a HV line running parallel to the market. The Kenya Power meter board is at the main entrance to the market at the far right. The traders do not have any socket outlets for power connection. The hotels, butcheries and stalls have socket outlets available as well as lighting. They are metered directly by Kenya Power. There is a high mast light fixture at a central location of the market. The traders’ committee members however stated that the lighting is unreliable. The bill for the high mast light fixture is paid for by the County Government of Kiambu.

4.4.4 Mechanical Services

The following are existing available services:

- Water supply to the market is piped from Ruiru Juja Water and Sewerage Company (RUJUWASCO) and stored in 2000 litre water tank. The water is not adequate for all market operations and traders often use dirty water from other sources to clean their farm produce.
- There exist 3 ladies’ toilets, 2 gents’ toilets and 1 urinal.
- All waste water from the market drains into a nearby open field.
- There is no firefighting equipment.
- There is no wash up area for agricultural produce.
- Solid waste is collected by the county government but the provided bin for collection is not sufficient. The frequency of collection is not adequate.
4.5 Waste Management

4.5.1 Sewer Facilities

The market is not connected to a sewer line. Therefore the current toilets are drained towards an open field.

4.5.2 Solid Waste Disposal

The county government has provided facilities for disposal of waste from the market, located outside the market which they collect and dispose on a daily basis.

4.6 Climatic Condition

Ruiru town and its environs experience a bi-modal type of rainfall. The long rains are experienced between mid-March to May followed by a cold season. The cold season is characterized by drizzles and frost, which occur in the months of June to August. The short rains fall between mid-October to November. The town receives rainfall of a high of 2000mm and a low of 600mm. The town experiences sunshine most of the year with temperature highs of 27.0°C and lows of 12.0 °C.

![Average Temperature Graph for Ruiru](Source: [www.worldweatheronline.com](http://www.worldweatheronline.com))

Figure 4-2: Temperature Graph of the Project area (Source: [www.worldweatheronline.com](http://www.worldweatheronline.com))
4.7 Drainage and Hydrology

The Market site currently has a drainage system and an existing sewer line passing adjunct to the site which is manage by Ruiru Juja Water and Sewerage Company (RUJUWASCO). The topography of the market is slightly sloping towards the eastern side and therefore the draining of the market will be aided by the existing slope basin. Therefore the Market infrastructure will be upgraded to march the existing drainage system.

4.8 Geology and Soils

The soils around at site have been disturbed by human activities over a long period of time because it an existing town. The soils at Ruiru Market consist of red volcanic soils type. The surface of the market is partly covered by road (tarmac), kiosks and trees.

4.8.1 Topography

The area toward Ruiru market is generally flat which extends onward towards Juja and Thika. The project is located at an elevation of about 1565masl.
4.9 Social Environment

The social environment in the area consists of several business established enterprises, transportation system (roads), industries and residential area. The interaction of these establishments with people in the area and outside the area is part of the functional Nairobi socioeconomic environment. Currently, the social environment around the area augers well with movement of people, goods and delivery of services due to the existing infrastructure such as roads, railway line, water pipelines, sewerage pipelines, power-lines, commercial and residential buildings.

4.10 Demographics

Ruiru town (urban Centre) had a population of 238,858 people according to the 2009 National Census, 259,867 people in 2012 and 282,723 people in 2015. The population
increase is projected to be over 299,067 in the year 2017. (Source; Kiambu county government Website and Kenya National Census 2009)

4.10.1 Ruiru Market Demographic

Majority (1,057) traders in Ruiru market are female while the male comprise of 134 traders in this market. This translates to 79% females and 21% male traders in this market proving that more women contribute to economic activities.

<table>
<thead>
<tr>
<th>Table 4-1: Gender Data of Ruiru Market Traders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

4.10.2 Education

The education level of traders in this market varies with majority (313) of the traders having secondary education forming 49% while those with primary education are 25% of the traders. Further, those with tertiary education in table 6.4 below indicate 5% of the traders with those with no education at all being 6%. The literacy level varies with majority (79.8%) of the traders being able to speak both English and Swahili, while those who speak Kiswahili alone constitute 20% of the traders and those who are able to speak English alone are 5% of the traders. Further, those who speak local dialect only are a paltry 6% of the population.

<table>
<thead>
<tr>
<th>Table 4-2: Education Levels of PAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Primary</td>
</tr>
<tr>
<td>Secondary</td>
</tr>
<tr>
<td>Tertiary</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
### Table 4-3: Literacy Levels of PAPs

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>514</td>
<td>79.8</td>
</tr>
<tr>
<td>English</td>
<td>3</td>
<td>.5</td>
</tr>
<tr>
<td>Kiswahili</td>
<td>123</td>
<td>20</td>
</tr>
<tr>
<td>local dialect</td>
<td>4</td>
<td>.6</td>
</tr>
<tr>
<td>Total</td>
<td>644</td>
<td>100.0</td>
</tr>
</tbody>
</table>

#### 4.10.3 Business owners

Majority of the businesses are owned by landlords that operate as traders forming 88% while traders only (owner of a business only) stands at 11%. There is only 1% who own the stall alone meaning only one landlord who does not trade in the market.

### Table 4-4: 11 Business owners

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner of both stall and business (landlord and trader)</td>
<td>568</td>
<td>88</td>
</tr>
<tr>
<td>Owner of business only (trader only)</td>
<td>75</td>
<td>11</td>
</tr>
<tr>
<td>Owner of stall only (landlord only)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>644</td>
<td>100.0</td>
</tr>
</tbody>
</table>

#### 4.10.4 Income level

The estimated total household monthly income for traders in Ruiru market rages between Kshs. 1000 – Kshs. 100,000. This is further disaggregated with majority 41.9% of the traders having a monthly household income of between Kshs 11,000-20,000. Those who have a household income of Kshs 91,000-100,000 constitute 0.5% of the traders while those having an income of Kshs 21,000-30,000 being 12.1% of the traders. Further, traders having an income of Kshs 1,000-10,000 constitute 27.3% of the traders population while those having an income of Kshs over 100,000 being 3% of the traders population in Ruiru market. Summarily, traders earning between Kshs 51,000-60,000 constitute a paltry 1.2% of the traders.
Table 4-5: Estimated monthly household income

<table>
<thead>
<tr>
<th>Income level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;100,000</td>
<td>19</td>
<td>3.0</td>
</tr>
<tr>
<td>Kshs 1,000-10,000</td>
<td>176</td>
<td>27.3</td>
</tr>
<tr>
<td>Kshs 11,000-20,000</td>
<td>270</td>
<td>41.9</td>
</tr>
<tr>
<td>Kshs 21,000-30,000</td>
<td>78</td>
<td>12.1</td>
</tr>
<tr>
<td>Kshs 31,000-40,000</td>
<td>54</td>
<td>8.4</td>
</tr>
<tr>
<td>Kshs 41,000-50,000</td>
<td>23</td>
<td>3.6</td>
</tr>
<tr>
<td>Kshs 51,000-60,000</td>
<td>8</td>
<td>1.2</td>
</tr>
<tr>
<td>Kshs 61,000-70,000</td>
<td>5</td>
<td>.8</td>
</tr>
<tr>
<td>Kshs 71,000-80,000</td>
<td>6</td>
<td>.9</td>
</tr>
<tr>
<td>Kshs 81,000-90,000</td>
<td>2</td>
<td>.3</td>
</tr>
<tr>
<td>Kshs 91,000-100,000</td>
<td>3</td>
<td>.5</td>
</tr>
<tr>
<td>Total</td>
<td>644</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.11 Biodiversity

Ruiru town was formerly an agricultural area which has been slowly turned into an urban town with industrial areas, housing areas, market and business areas. The flora and fauna of the market is that of any typical market in Kenya. During the site visits, few trees were observed which would be removed to pave way for the construction of the market. The trees were planted in the market to offer refuge during sunny days and for beautification of the market.
CHAPTER FIVE

5 PUBLIC PARTICIPATION

5.1 APPROACH TO PUBLIC CONSULTATIONS

Introduction
Public participation is basically concerned with involving, informing and consulting the public in planning, management implementation and other decision-making activities. Public participation tries to ensure that due consideration is given to public values, concerns and preferences when decisions are made. It encompasses the public actively sharing in the decisions that government and other agencies make in their search for solutions to issues of public interest.

Stakeholder engagement activities have been undertaken in compliance with the Kenyan environmental law (EMCA, 1999 and EIA/EA Regulations 2003) and related World Bank guidelines. (ESS10). The legal and regulatory framework makes adequate provisions for public consultation and disclosure. The legal requirements provide the entry points for effective stakeholder engagement throughout the ESIA process and subsequent Project implementation.

Table 5-1: Constitutional and legal provisions for public participation

<table>
<thead>
<tr>
<th>Article</th>
<th>Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article 1(2) of the Constitution of Kenya, 2010</td>
<td>All sovereign power belongs to the people of Kenya. The people may exercise their sovereignty directly or through their elected representatives.</td>
</tr>
<tr>
<td>Article 10 (2) a, b and c</td>
<td>The national values and principles of governance include; democracy and participation of the people; inclusiveness; good governance, integrity, transparency and accountability.</td>
</tr>
<tr>
<td>Article 27</td>
<td>The Constitution guarantees equality and non-discrimination. Hence, public participation should ensure equality and non-discrimination.</td>
</tr>
<tr>
<td>Article 33</td>
<td>Public participation should respect the freedom of expression of all participants.</td>
</tr>
<tr>
<td>Article 35</td>
<td>The Constitution guarantees the right to access information by citizens</td>
</tr>
<tr>
<td>Article 174(c)</td>
<td>Objects of devolution are; to give powers of self-governance to the people and enhance their participation in the exercise of such powers in decision making.</td>
</tr>
<tr>
<td>Article 174(d)</td>
<td>Communities have the right to manage their own affairs and to further their development.</td>
</tr>
<tr>
<td><strong>Article 184(1)</strong></td>
<td>National legislation shall provide for the governance and management of urban areas and cities and shall provide for the participation of residents in the governance of urban areas and cities.</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Article 232(1)(d)</strong></td>
<td>The values and principles of public service include the involvement of the people in the process of policy making and (f) transparency and provision to the public of timely and accurate information.</td>
</tr>
<tr>
<td><strong>Fourth Schedule Part 2(14)</strong></td>
<td>The functions and powers of the county are to coordinate and ensure the participation of communities in governance. Counties are also to assist communities to develop the administrative capacity to enhance their exercise of power and participation in governance at the local level.</td>
</tr>
<tr>
<td><strong>The Public Finance Management Act Section 207</strong></td>
<td>County Governments are to establish structures, mechanisms and guidelines for citizen participation.</td>
</tr>
<tr>
<td><strong>County Government Act Section 91</strong></td>
<td>The county government shall facilitate the establishment of modalities, and platforms for citizen participation.</td>
</tr>
<tr>
<td><strong>The County Government Act Sections 94, 95, 96</strong></td>
<td>Counties are to establish mechanisms to facilitate public communication and access to information using media with the widest public outreach. Every county shall designate an office for ensuring access to information.</td>
</tr>
<tr>
<td><strong>County Government Act Sections 100 and 101</strong></td>
<td>County governments should create an institutional framework for civic education.</td>
</tr>
<tr>
<td><strong>Urban areas Act Sections 21 and 22</strong></td>
<td>Overarching theme is participation by the residents in the governance of urban areas and cities. The Second Schedule of the Act provides for the rights of, and participation by residents in affairs of their city or urban areas.</td>
</tr>
<tr>
<td><strong>Public Procurement and Disposal Act 2015 Section 68(3), 125(5), 138, and 179</strong></td>
<td>Emphasis on transparency of the procurement process including requirements for procuring entities to publicly avail procurement records after closure of proceedings, publicize notice of intention to enter into contract on websites and public notice boards and publish and publicize all contract awards.</td>
</tr>
</tbody>
</table>

**Source:** County Public Participation Guidelines 2016.

**Aims of Public Participation/consultation:**

- Public Participation Forms Collaborating with the public to develop decision criteria and alternatives and identify the preferred solution;
Involving the public to ensure their concerns are considered throughout the decision process, particularly in the development of decision criteria and options;

- Consulting with the public to obtain their feedback on alternatives or decisions;
- Informing the public by providing information to help them understand the issues, options and solutions.

5.2 SOCIAL IMPACT ASSESSMENT METHODOLOGICAL FRAME

Stakeholders Mapping

Stakeholders mapping is the process of identifying stakeholders considering the legitimate representatives or the project affected groups and whose views should take precedence in stakeholder consultations. Good practice suggests that as long as stakeholder groups are offering a perspective that is relevant to the project, there is no need to determine whether these stakeholder groups are the main representatives of the stakeholders or not. Such perspectives and suggestions from stakeholder groups should be taken into account based on their merit and not on who is making the suggestions.

Attention should be paid to views and suggestions of stakeholders who are directly affected by the project either negatively or positively. Adversely affected stakeholders need to be contacted directly with respect to decisions that pertain to mitigating impacts, regardless of who represents them. Groups that are considered vulnerable in the development process should be clearly identified as part of the stakeholder analysis so that the consultation process can ensure that their views and suggestions are adequately taken into account.

5.2.1 KEY STAKEHOLDERS

5.2.1.1 PAPs affected by the projects potential adverse environment and social Impacts

Project affected people (PAPs) adversely affected by impacts or issues covered by the Bank safeguard policies. Environmental and social safeguard policies discussed in section 4.37 in this report have mandatory consultation requirements, particularly in identifying potential adverse impacts and in defining measures to mitigate them. These PAPs include:

a) people whose land is expropriated;

b) people who need to physically relocate to a new location,

c) people whose livelihoods need to be re-established;
d) Indigenous Peoples whose culture and lifestyle, as well as relationship with the land and natural resources on which they are dependent, are affected as a result of the project;
e) people whose access to natural resources is affected; and
f) People who will face increased pollution, health impacts or inconvenience during construction.

5.2.1.2 Intended beneficiaries of the proposed project
It is important to consult beneficiaries of a project in order to enable them to give comments and suggestions on project design. Often such consultations can result in significant increase in project benefits. The traders feedback can help make significant design and implementation improvements in a project.

5.2.1.3 Key interest groups (e.g., trade unions, academics, professional organizations)
These are known to have views on issues being addressed by the project. There are often professional organizations which either have a direct stake in the project, that is, they may be directly affected by project outcomes, or they may have a professional interest in the issue(s) being addressed by the project. Such interest groups can play an important role in shaping the views of some of the directly affected stakeholders, or in otherwise influencing project implementation.

5.2.1.4 Local NGOs/CSOs interested in the issues addressed by the project.
Such organizations are often the spokespersons for directly and indirectly affected people and are well informed about the Bank and the sector(s) in which they operate. Very often, such NGO/CSOs are more vocal on project issues than the directly affected stakeholders themselves.

5.2.1.5 International NGOs
Some projects and issues draw the interest of international NGOs, which can play a significant role in shaping international public opinion on these projects depending on the project scope and magnitude.

5.2.1.6 Local governments participating in the project
Participation of the local government is key to ensuring stability of project implementation. Involving County government representatives in consultation process is important as it will enable them that they can understand the issues raised by various stakeholders and respond to local issues and concerns related to the project.
5.3 RUIRU MARKET STAKEHOLDER IDENTIFICATION/MAPPING

The following are the Key stakeholders identified for consultation at Ruiru Market.

<table>
<thead>
<tr>
<th>Primary Stakeholders</th>
<th>No</th>
<th>Name</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Stakeholders</td>
<td>1</td>
<td>NaMSIP</td>
<td>National government body participating in the project</td>
</tr>
<tr>
<td>Primary Stakeholders</td>
<td>2</td>
<td>Ruiru Market Association</td>
<td>PAPs affected by the projects potential adverse environment and social impacts</td>
</tr>
<tr>
<td>Primary Stakeholders</td>
<td>3</td>
<td>Businesses within 500m from the project site</td>
<td>PAPs who may suffer adverse socio-economic impacts as a result of the project</td>
</tr>
<tr>
<td>Primary Stakeholders</td>
<td>4</td>
<td>Traders at the Ruiru Market</td>
<td>Intended beneficiaries of the proposed project</td>
</tr>
<tr>
<td>Primary Stakeholders</td>
<td>5</td>
<td>Kiambu County Government officials</td>
<td>Local government officials participating in the project</td>
</tr>
</tbody>
</table>

Source: Stakeholder Consultations in Investment Operations (World Bank 2011)
5.4 OUTCOME OF THE STAKEHOLDER CONSULTATION PROCESS

5.5 Public Consultation Methodology for Ruiru Market

The public consultations methodologies that were used to get information from Ruiru Market stakeholders include the following:

a) Focus group discussions;

b) Household surveys with structured questionnaires;

Focus group discussions;
This method was used to elicit information from the market officials, government and County officials as well as other key organizations. The consultative meeting that was held with the market officials was done to introduce the project to the officials, obtain their views regarding the project and to plan gauge the grassroots sentiments towards the project if they know about it. A stamped copy of the social impact assessment team's introduction letter has been stamped to confirm engagement with the relevant officials. These documents have been appended to this report.

Household surveys with structured questionnaires;
This survey targeted the traders and the nearby residents. This was done by having informal interviews with 200 traders and relevant stakeholders within and around (500 meters radius) the project site. The referred to relevant stakeholders are from the surrounding businesses that will be socially impacted. The interviewees were randomly picked. This survey was to obtain individual comments that may not have been captured in the public meetings.

Public Meeting in the Precincts of the Market;
A public meeting where the PAPs and market committee members were invited by NaMSIP consultants and NaMSIP staff was held on Monday February 5, 2018 where issues of resettlement and environmental impacts were discussed. The PAPs assented to the relocation for the market to be constructed and it was confirmed to them that a relocation site has been identified and will be prepared for them taking cognizance of any environmental management issues. The minutes and attendance sheets for this meeting are in the appendix.

5.6 ANALYSIS OF FINDINGS IN THE CONSULTATIONS

5.6.1 Focus group discussions
The following are the comments and issues raised from informal meetings with relevant stakeholders, see annex for signed and stamped confirmation of engagement.
### Name of Officer | Organization | Comments
--- | --- | ---
Ms Mercy Gatobu | Deputy County Commissioner | They were happy to hear about the project and they would support it.
Mr. Samuel Ndugu Muraya | Vice Chairman, Ruiru Business Community | He was welcomed the project. Identified a major hurdle being the relocation of the traders and the need for engagement. He agreed to work with the proponent to make this project a success.
The Minister, Ward Administrator. Director of Markets | Kiambu County government | They welcomed the project and promised to work with the proponent to make the project a success

#### 5.6.2 Household survey with structured questionnaire findings

The following are the comments/ responses received from the respondents with regards to the proposed project. See Annexed questionnaires, minutes and photos

<table>
<thead>
<tr>
<th>Question</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Do you know of the proposed upgrade of the market? | • Yes – 137  
• No - 61 |
| What do you think will be the positive Socio-Economic impact to the local community? | • Harassment by the council (county) askaris will stop due to increased charges.  
• Protection of traders and products from the sun and mud during rainy weather  
• Increased Security for commodities and market utilities.  
• The stalls will draw more customers as it will be organized.  
• Improved sanitation.  
• Fewer accidents because of construction of proper path ways in the markets.  
• Preferred own storage instead of paying for storage of goods which will reduce cost of items |
| What do you think will be the negative Socio-Economic impact to the local community? | • Displacement of traders thus resulting in fighting
• Fighting over new stalls allocation.
• Displacement of people outside due to lack of space inside the new market.
• Fear of squeezed space/ congestion in the new location.
• Corruption will increase during the allocation of stalls
• Fear of increased rates and rents.
• Rich will benefit from the new stalls and locals will be displaced
• High taxes from county government due to the new market structure.
• Storeyed structure will not get customers. Prefer Open structure.
• Rise of price in commodities
• Management will be hard
• Increased security
• Loss of employment due to displacement
• It will take long to construct
• Stalls will lessen space
• Stalls will be owned by individuals
• Some people will be left out
• Disruption to business will cause the loss of income
• Rise in cartels
• Existing traders will not get back stalls |
| Do you or someone you know depend on the | • Yes – 194
• No – 3
• Didn’t answer - 1 |
| Ruiru Market | ESIA Report
Version: Final |
market for their livelihoods?

<table>
<thead>
<tr>
<th>What would you like to see the project owner do in their implementation of the project?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Create organisation of the space</td>
</tr>
<tr>
<td>• Fast construction to lessen time of disruption to business</td>
</tr>
<tr>
<td>• More toilets and running water</td>
</tr>
<tr>
<td>• Prefer Chinese construction as it is fast</td>
</tr>
<tr>
<td>• Provision of electricity</td>
</tr>
<tr>
<td>• Involve all stakeholders in the project</td>
</tr>
<tr>
<td>• Structure should accommodate everyone</td>
</tr>
<tr>
<td>• Employ the near community for building</td>
</tr>
<tr>
<td>• Build while the traders are inside the market</td>
</tr>
<tr>
<td>• Build should be of good structure i.e. use certified standards</td>
</tr>
<tr>
<td>• Youth to get employment</td>
</tr>
<tr>
<td>• Security upgrade/increase</td>
</tr>
<tr>
<td>• Management of the stalls should be by the locals</td>
</tr>
<tr>
<td>• Install security lights around the market</td>
</tr>
<tr>
<td>• Improve drainage</td>
</tr>
<tr>
<td>• Consider access for the disabled (physically handicapped)</td>
</tr>
<tr>
<td>• Proper disposal of waste.</td>
</tr>
<tr>
<td>• Create space for mothers to breastfeed.</td>
</tr>
<tr>
<td>• Alternative space for traders during construction period.</td>
</tr>
<tr>
<td>• Design market/stalls according to the commodities being sold.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Any other comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Timely/fast upgrade</td>
</tr>
<tr>
<td>• Enough space for all</td>
</tr>
<tr>
<td>• Prefer open shaded structures and not enclosed</td>
</tr>
<tr>
<td>• Give more information about the structure, perimeter wall, drainage and roof.</td>
</tr>
<tr>
<td>• Prefer stalls because of security</td>
</tr>
<tr>
<td>• Prefer perimeter fence, shade and cemented floor to be semi-permanent like Gatundu.</td>
</tr>
<tr>
<td>• Just shade and no stalls.</td>
</tr>
<tr>
<td>• Management to be done by local traders.</td>
</tr>
<tr>
<td>• No cement floors otherwise the avocados will get damaged.</td>
</tr>
<tr>
<td>• Don’t put people who sell the same commodity together.</td>
</tr>
</tbody>
</table>
• Built in an organised way to benefit traders.
• No storeyed market structure.
• Free and fair allocation of stalls/space.
• Increase security.
• Preferred storeyed market as it accommodated more people.
• During construction traders to be in market thus avoiding displacement.
• Proponent should talk directly to the traders.
• No specific ownership of open market structures.
• The rich are the ones who will benefit.
• Deliver the promise of the upgrade.
• Good idea and welcomed the idea.
• There should be a constant water supply and toilets should be built.
• Improve hygiene amenities.
• Should be only paved.
• Each vendor should get back his/her space after completion.
• Consider relocation of traders before the commencement of the construction.
• A record of existing traders needs to be made before construction.

5.7 RUIRU SOCIAL IMPACT ASSESSMENT QUESTIONNAIRE ANALYSIS

Respondents according to gender

<table>
<thead>
<tr>
<th></th>
<th>Number of respondents</th>
<th>Percentage(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>63</td>
</tr>
<tr>
<td>Total Respondents</td>
<td></td>
<td>76</td>
</tr>
</tbody>
</table>
Awareness of market upgrade

<table>
<thead>
<tr>
<th></th>
<th>Number of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td>No</td>
<td>21</td>
<td>28</td>
</tr>
</tbody>
</table>

Market Upgrade Awareness

<table>
<thead>
<tr>
<th></th>
<th>Number of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>72</td>
<td>99</td>
</tr>
<tr>
<td>No</td>
<td>28</td>
<td>1</td>
</tr>
</tbody>
</table>

Do you know anyone who depends on the market for their livelihood

<table>
<thead>
<tr>
<th></th>
<th>Number of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>75</td>
<td>99</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
### Positive Impacts

<table>
<thead>
<tr>
<th>Positive Impacts</th>
<th>Number of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase competition, business growth, Economic growth</td>
<td>33</td>
<td>43</td>
</tr>
<tr>
<td>Protection from harsh weather</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>None</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Increase security</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Improve hygienic conditions</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Improve order and organization of the market</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Create Employment</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

People dependant on the market for their livelihood

- Yes: 1
- No: 99
### Negative Impacts

<table>
<thead>
<tr>
<th>Negative Impacts</th>
<th>Number of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of income</td>
<td>26</td>
<td>34</td>
</tr>
<tr>
<td>Loss of livelihoods during construction period</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>Decrease customer base, in case of storeys</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Discrimination against low income earners</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Congestion</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Loss of customer base during construction</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Increased council charges and rates</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Environmental pollution</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
### Upper floors have low temperatures. People will get sick

<table>
<thead>
<tr>
<th>Negative Impacts</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of income</td>
<td>35</td>
</tr>
<tr>
<td>Loss of livelihoods during...</td>
<td>31</td>
</tr>
<tr>
<td>Discrimination against low income</td>
<td>25</td>
</tr>
<tr>
<td>Loss of customer base during construction</td>
<td>20</td>
</tr>
<tr>
<td>Congestion</td>
<td>15</td>
</tr>
<tr>
<td>Increased council charges and rates</td>
<td>10</td>
</tr>
<tr>
<td>Environmental pollution</td>
<td>7</td>
</tr>
<tr>
<td>Upper floors have low temperatures...</td>
<td>5</td>
</tr>
<tr>
<td>Congestion</td>
<td>5</td>
</tr>
<tr>
<td>Loss of customer base during construction</td>
<td>5</td>
</tr>
<tr>
<td>Discrimination against low income</td>
<td>5</td>
</tr>
<tr>
<td>Loss of income</td>
<td>5</td>
</tr>
<tr>
<td>Loss of livelihoods during...</td>
<td>5</td>
</tr>
<tr>
<td>Discrimination against low income</td>
<td>5</td>
</tr>
<tr>
<td>Loss of income</td>
<td>5</td>
</tr>
</tbody>
</table>

### What would you like to see the project do during implementation?

<table>
<thead>
<tr>
<th>What would you like to see the project do during implementation?</th>
<th>Number of respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocation for all</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>Alternative space during construction</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>Drainage</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Water Supply</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Security</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Employ local youth</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Design according to commodities sold</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Implementation</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Ample parking Alternative space for sellers during construction</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Any other comments?</td>
<td>Number of Respondents</td>
<td>Percentage (%)</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Increase Spacing</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Avoid storeys, shelter/perimeter wall</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Use shortest time possible</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Toilets and Sanitation</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Affordable rent</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Great Idea</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Market should be expanded</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Start ASAP</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Concern over start date</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Accessibility</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
5.8 CONCLUSIONS AND RECOMMENDATIONS

- There is need for further discussions with the Ruiru Market Association on:
  - The process of how the stalls will be allocated,
  - Creation of a database of existing traders,
  - Engage on possible relocation of traders during construction,
  - Input on the design of the market to ensure acceptance.

- The proponent needs to further engage the traders on the design of the market as stipulated within the County Public Participation Guidelines set up by the Council of Governors. Currently the traders do not feel any form of ownership which is vital;


- Discussion on waste disposal with the traders by setting up a civic education on how the waste will be disposed of and the involvement of the traders and the county government.

- To ensure continued engagement between the proponent and the traders the proponent could set up an office for the traders to lodge their grievances and
comments. The office should have copies of the design, ESIA, visual tools and staff to explain the project.

- The traders are positive to the project thus the proponent needs to continue engaging them especially as 2017 is an election year and markets are politically sensitive.
CHAPTER SIX

6 Introduction
Regulation 18(1) of Legal Notice 101 specifies the basic content of an Environmental Impact Assessment Study Report subsequent to which, subsection (i) requires an analysis of alternatives including project site, design and technologies and reasons for preferring the proposed site, design and technologies.
This section analyses the project alternatives in terms of site, technology and waste management options.

6.1 Relocation Option
Relocation option to a different site is not an option available for the project implementation because the project is intended to improve an already identified and existing Ruiru Market.

6.2 Zero or No Project Alternative
The No Project option in respect to the proposed project implies discontinuation of the project proposal hence the status quo is maintained. The result is the site being retained in its existing form. This option is the most suitable alternative from an extreme environmental perspective as it ensures non-interference with the existing conditions. This option will however have the greatest implications on the socioeconomic environment of the area and surrounding communities. This will mean the market will not be developed, and the land will remain unutilized for the specific purpose it is supposed to serve. The No Project Option is the least preferred from the socio-economic and partly environmental perspective due to the following factors:

- The economic status of the direct and indirect users of the market will remain unchanged,
- The empty land will stay unutilized as a market land,
- No Employment opportunities will be created for local citizens who will work in the project area and after the development of the market,
- Increased urban poverty and crime in Kenya will continue to rise,
- Development of infrastructural facilities (roads and associated infrastructure) will not be undertaken.

From the analysis above, it becomes apparent that the No Project alternative is not attractive to the local people, Kenyans, and the Government of Kenya.
6.3 Analysis of Alternative Construction Materials and Technology

The proposed project will be constructed using modern, locally and internationally accepted materials to achieve public health, safety, security and environmental aesthetic requirements. The railway station works will be made using locally sourced materials that meet the Kenya Bureau of Standards requirements.

The consultant presented three options for QW construction materials which are:

1. Option 1. Traditional material. This is primarily represented by concrete structures, and concrete or clay bricks
2. Option 2. Steel frame and precast concrete/granite panels
3. Option 3. Steel frame and thermo-acoustic aluminium panels

The construction materials selected for the modules by the Client is Option 2 as outlined below:

- Concrete foundation
- Metallic structures for columns, beams and roof
- Thermo-acoustic panel for the roof
- Precast concrete panels
- Security windows
- Metallic doors and louvers
- Granite tiles in the floor and/or concrete finishing non-skid with hardener in the floor

These materials were selected for these advantages:

- Use of recycled materials
- Reduction in noise levels at construction sites
- Reduction in the amount of construction waste
- Reduction in transport cost
- Reduction in site disturbance
- Savings in construction time and cost

6.4 Solid waste management alternatives

A lot of solid wastes will be generated from the proposed project, which could be detrimental to the environment. An integrated solid waste management system has been recommended to mitigate any impacts of solid waste generated from the project during construction and operation of the proposed project. First, the proponent will give priority to reduction at source of the materials. This option will demand a solid waste management awareness programme in the management and the staff. Recycling and reuse options of the waste will be the second alternative in priority. This will call for a source separation
programme to be put in place. The third priority in the hierarchy of options is combustion
of the waste that is not recyclable. Finally, the proponent will need to establish agreement
with Kiambu County Government to ensure regular waste removal and disposal in an
environmentally-friendly manner. In this regard, a NEMA registered solid waste handler
would have to be engaged. This is the most practical and feasible option for solid waste
management considering the described options.
CHAPTER SEVEN

7 ENVIRONMENTAL AND SOCIAL IMPACTS ASSESSMENT AND MITIGATION MEASURES

7.1 Introduction
This chapter outlines the potential negative and positive impacts that will be associated with the project. The impacts will be related to activities to be carried out during construction of the project and the operation stage of the project. The operational phase impacts of the project will be associated with the activities carried out within the premises. In addition, closure and decommissioning phase impacts of the project are also highlighted.

The impacts of the project during each of its life cycle stages (construction, operation and decommissioning) can be categorized into: impacts on the biophysical environment; health and safety impacts and socio-economic impacts.

7.2 Approach
The process involved in assessing the potential impacts of the project used the following steps:

- Prediction: What will happen to the environment as a consequence of the project?
- Evaluation- will it have beneficial or adverse effects? How big is the change expected to be? How important will it be to the affected receptors?
- Mitigation- if the impact is of concern, can anything be done to avoid, minimize, or offset the impact? Or to enhance potential benefits?
- Assessment of residual impacts-after mitigation, is the impact still of concern?

7.3 Positive Impacts
This project is anticipated to create employment opportunities for many people within Kiambu County. Direct Job creation will begin from the construction phase of the project whereby the locals will be employed to undertake both informal and formal jobs at the construction site. The socio-economic survey carried out for this project indicated that majority of the traders are in their youthful age. This shows that the market will attract more youth to venture into trade business and hence reduce the number of the unemployed population in the society.
7.4 **Source of revenue to the government**
The County government can source for revenue from the traders through collection of
levies. This contribution enables the County government to maintain the market and carry
out other developments within the County.

7.5 **Socialization**
Socialization and interactions realized among traders within the market encourages
sharing and dissemination of important and helpful information among people of the same
social groups and interests.

7.6 **Permanent working location**
Having the modern market will give the traders an opportunity to have permanent and
organized working locations. This encourages stability in business undertakings hence
more income generation.

7.7 **Improved public health**
Construction of the modern market will improve the state of public health for the market
and its vicinity as the project will entail provision of good drainage system, adequate water
provision, sanitary facilities, and organized waste management systems.

7.8 **Reduced Congestion**
The upcoming development will enable reduction of congestion as currently witnessed in
the market. All the traders will be accommodated in the new market building.

7.9 **Economic growth**
Construction of the market is likely to spur economic growth in the area such as
development of other business activities including; banking, transportation and residential
among others.

7.10 **Solid Waste Management**
Solid waste management will be a shared responsibility among all the stakeholders who
are the county government, generators, shoppers, contracted and licensed waste
handlers, owners and occupiers of premises. Traders will be provided with separate
collection bins for biodegradable and non-biodegradable waste at the new facility. Waste
from such bins shall be collected on daily basis by the county workers for proper disposal.
Traders will also be provided with bins near their merchandising points to ensure waste
generated is collected at garbage stations or transfer points and later disposed at the main
collection points for further disposal by the county government.
7.11 Shield against adverse weather conditions

The construction of a modern market will ensure traders carry out their businesses without worry of extreme weather such as vulnerability to rainfall and heat from the sun since the market will have a roof and wall around it.

7.12 Negative Impacts

7.13 Biodiversity and vegetation loss

The project will have a direct impact to the existing biodiversity in the market centre since the construction phase will involve removal of the vegetation cover and trees planted in the market. However, this development will have minimal impact to the biodiversity because the area is a business area as categorised by Kiambu County Government.

Mitigation

With the rating of low medium impact, the proponent is advised to compensate the loss of trees in the market during construction by planting flowers and other aesthetic plants once the project is complete.

7.14 Soils and geological disturbance

Since the construction phase will involve use of heavy plant machinery and excavations, soil disturbance is bound to happen. Therefore, the Contractor should put in place mitigation measures to aim at minimum soil disturbance and soil erosion. These measures will include clearing the project site of excavated materials or protect excavated sections from storm water, avoid excavation through flood plains or into stream banks, creating proper channels for waste water and solid waste disposal, develop emergency measures and procedures for protection of soils.

Mitigation

The impact rating is low, however the proponent through the Contractor should ensure that excavations are undertaken safely in that shoring and good slope banking is put in place and by adhering to all safety rules.

7.15 Depletion of Water Resources during Construction phase

Construction works demand high level of water utilization. This high water demand will in turn impact to the water supply in the County. The impact will be reduced water supply to other adjacent areas that shares the same water infrastructure.

Mitigation

The impact rating is low. The Contractor is advised to consult with Ruiru Juja Water and Sewerage Company Limited to get permit for their share allocation of water. This
consultation and collaboration with water supplier will be encouraged so that water demand conflict will not arise. The Contractor is also advised to install water storage tanks and other water saving technology at the site to save on water usage.

7.16 Soils and groundwater contamination

The proponent and Contractor will prepare a hazardous substance control system and emergency response plans that will include preparations for quick and safe clean-up of accidental spills. It will prescribe hazardous-materials handling procedures to reduce the potential for a spill during construction, and will include an emergency response programme to ensure quick and safe clean-up of accidental spills.

Mitigation

The following mitigation measures should be undertaken:

- Pave and shield the waste collection area from direct sunlight and rains;
- Place all oily and contaminated wastes on paved surfaces;
- Dispose offsite oily waste appropriately;
- Obtain spill kits for use in case of accidental spillages on site;
- Obtain portable secondary spill containments for use on site.

7.17 Air pollution (Dust generation)

The construction activities often result in increased dust and gas emissions. These pollutants emanate from movement of construction machinery and trucks as well as dust generated during construction.

Mitigation

- Practice prevention measures such as dampening dust by use of water (sprinkling water on surfaces that produce dust or covering them);
- Provide PPEs such as nose masks to the workers on the construction site;
- Control over areas generating dust particles. Such areas should be regularly cleaned;
- Workers should be encouraged to go for regular health check-ups to ascertain their health standards;
- Regular air quality tests to enhance air quality monitoring;
- Wet sweeping of the surfaces that produces a lot of dust particles;
- Establishment of optimum green spaces in the compound particularly at the perimeter fence as the vegetation helps in extracting pollutants from the air.
7.18  Air pollution (Generation of exhaust emission)

The following measures are recommended to mitigate impact of air pollution associated with exhaust emissions;

- Maintaining equipment appropriately;
- Keeping vehicle idling time to the very minimum.
- Use of alternative fuelled construction equipment where feasible.

7.19  Noise and excessive Vibration generation

Noise refers to harmful or annoying sound that can affect job performance, safety and health. Physical impacts may include; loss of hearing, pain, nausea and interference with communications when the exposure is severe. Psychological effects could be disruption of concentration and cause of annoyance. Construction activities tend to cause noise which affects the immediate environment and even disrupt other nearby operations. The noise will affect small animals and birds which are sensitive to noise.

**Mitigation**

- Construction activities should be carried only during the day when most the neighbours are active or carrying on with their normal day chores. The appropriate time could be between 0800hrs to 1800hrs.
- Construction vehicle’s drivers and machine operators should be sensitized to adopt a habit of switching off engines of their vehicles or machinery when they are not in use.
- Regular maintenance of the construction machinery is highly encouraged to reduce the noise resulting from friction.
- The proponent should provide a well-marked billboard at the construction site gates. This is meant to notify the public of the construction activity and timings.
- Unnecessary hooting should be avoided at all costs by the construction vehicles and even during project occupation.
- Personal protective equipment and /materials such as earmuffs and earplugs should be provided to the workers when operating noisy machinery and in a noisy environment. This measure ensures physical barrier that reduces inner noise levels and guard against hearing loss.
7.20 Construction solid/liquid wastes generation

Construction operations will generate solid wastes within the site. The wastes may include; rods of metal, pieces of iron sheets, broken glasses, pieces of wood, empty containers and broken stones.

Mitigation

- The proponent should liaise with private waste handlers and the Kiambu County Government to have a sound waste handling and disposal.
- The wastes should be properly segregated and separated to facilitate recycling of some useful waste materials. For example; broken stones can be used for backfills. Integrated solid waste management system may also be adopted through hierarchy of options like source reduction, recycling, composting and re-use.
- The proponent should ensure that measures are put in place to ensure that construction materials required for the project are carefully budgeted to ensure the amount of construction materials left are kept to the minimal level possible.
- All the solid wastes should be collected by NEMA licensed waste collectors and dumped in NEMA recognized dumpsite
- Portable sanitary toilets will be used and the waste will be disposed appropriately by the mobile toilet handler.

7.21 Health and safety Impacts

Construction activities such as excavation and concreting can pose occupational hazards and risks to construction workers and the general public living and working in the neighbourhood of the construction site. They can cause respiratory infections and injuries to limbs and body due to exposure to, dust and combustion gases, operation of equipment and handling of construction materials. Accidents may occur during construction as a result of workers falling from heights or being hit by falling construction materials or tools. Dust and combustion gases can irritate the eyes causing trachoma and respiratory problems. While the operation of construction equipment and handling of materials can result in injuries to the workers especially in the absence of appropriate protective devices. The health of the site workers may be further compromised by the food which is often supplied by mobile individuals with no licenses to handle food and some of the foodstuffs may be prepared in unhygienic manner.

Mitigation
• Depending on the occupational safety and health hazards encountered while performing assigned tasks, workers may require using properly fitting personal protective equipment (PPE) to avoid injuries and illness. They (workers) must be provided with full protective gear. These include working/safety boots, overalls, helmets, goggles, earmuffs, masks, gloves etc.

• Adapt effective emergency response plans. A good start of learning how to respond to an emergency is through certification in Basic First Aid. Regular drills and emergency situations should be followed to impart the anticipated insight and awareness to the workers.

• A first aid kit should be provided within the site. This should be fully equipped always and should be managed by qualified persons.

• Safety awareness may be gained through regular safety training or personal interest in safety and health.

• Local individuals preparing food for the workers at the site must be controlled to ensure that food is hygienically prepared. Allow only authorized food vendors to supply food for the workers in the site.

• The Contractor should have workmen’s compensation cover. It should comply with Workmen’s Compensation Act, as well as other Ordinances, Regulations and Union Agreements.

• Workers should always be sensitized on social issues such as drugs, alcohol, diseases etc.

7.22 Disruption of public supply utilities (water supply and electricity)

Disruption of water supply can occur during construction phase. During excavation activities, the underground water pipes supplying water to other businesses and residents may be accidentally broken.

Mitigation

• Contractor should promptly liaise with the Ruiru Juja Water and Sewerage Company Limited and Kenya power to provide the layout of supply lines that pass through or around the market.

• The supply lines should be isolated and protected from damage during the construction period.

• The contractor should report immediately to the concerned service provider if any of the supply lines is damaged to prevent prolonged water disruptions to neighbouring businesses and residents.
7.23 Increased surface runoffs

Increase in the runoffs emanating from expansive roof tops and paved grounds shall be mitigated. These runoffs often lead to flooding and overflow of the drainage system.

Mitigation

- Construct gutters along the roofs for rainwater harvesting and provide tanks for water storage;
- Construct efficient drainage systems within the market.

7.24 Landscape and visual destruction

At the initial stages of construction, excavators and landscape distortion can be an eye sore to the passer-by.

Mitigation

- The Contractor shall put up a perimeter fence using non-transparent material to prevent people from accessing the site.
- The Proponent shall beautify the building and the site after its completion by painting it and planting aesthetic plant round it.

7.25 Hazardous materials use/storage

There may be the need to use hazardous materials for construction. These materials can lead to minor or major destructions to life, soils and water. They may include paint; reacting chemicals among others.

Mitigation

- Ensure that all chemicals used in construction are appropriately labelled or marked and that material safety data sheets containing essential information regarding their identity, suppliers’ classification of hazards, safety precautions and emergency procedures are provided and are made available to employees and their representatives;
- Keep a record of all hazardous chemicals used at the premises, cross-referenced to the appropriate chemical safety data sheets;
- There should be no eating or drinking in areas where chemicals are stored or used.
7.26 Food poisoning

Construction workers may contract food poisoning by buying food from food vendors. This may lead to reduced work personnel and may lead to delay of works and increased expenses for training new workers.

**Mitigation**
- Allow only authorized food vendors to supply food for the workers in the site;
- Sensitize workers on the possibility of food poisoning from the vendors

7.27 Poor sanitation

Poor sanitation may be realized during construction when construction workers do not have access to toilets and water for washing hands thereafter.

**Mitigation**
- Provide Suitable, efficient, clean, well-lit and adequate gender specific sanitary conveniences for construction workers;
- Provide water and soap for washing hands after visiting the toilets.

7.28 Traffic snarl up and accidents

Activities related to construction works and operation will undoubtedly induce uncharacteristic levels of additional vehicular traffic at the site and roads leading to the site and market respectively. Related issues of vehicle congestion and reckless driving by truck drivers delivering construction materials and supplies to the site and market will be sources of potential accidents to road users and pedestrians. Disturbance of normal living conditions to the local population and business people due to the increased traffic in the area will also be expected especially during the construction period.

**Mitigation measures during construction**

The proponent shall implement the following measures to minimise inconvenience and danger to proximate residents through increased road traffic and dust, and reduced access to worksites:

- The contractor should develop a traffic management plan for the traffic within the construction site and around it
- Determine the main access and egress points for the site throughout the project duration, along with scheduled changes in these access and egress points, if applicable. These points need to be shown on the site layout (i.e., site setup) drawings.
• Proper traffic control signage should be installed. This includes road signage to be erected near all the entrances and junctions to control construction traffic
• Delivery of materials should be planned at night when there is minimal traffic
• Any excavated materials should be hauled at night or timed during traffic off-peak periods
• Prepare a plan for communication with residents and businesses surrounding the construction site. Effective communication with local stakeholders is essential to minimize the inconvenience to the surrounding community
• The Contractor shall prepare a traffic management plan to be approved by the RE
• The Contractor’s vehicles and equipment must be in proper working condition and have registration plates, and numbering.
• The Contractor shall ensure proper driving discipline by its employees, and sanctions those in breach.
• Excavated sites, embankments, and dangerous locations are protected with proper safety barriers, tape and warning signs.
• Maintain a log detailing every violation and accident on site or associated with the project work activities, including the nature and circumstances, location, date, time, precise vehicles and persons involved, and follow-up actions with the police, insurance, families, community leaders, etc.
• Implement grievance resolution mechanism
• Use of flagmen to direct traffic especially construction vehicles

Mitigation measures during operation

• Make the necessary arrangements for coordinating and controlling delivery vehicles
• Make arrangements with the traffic police and county personnel to manage traffic in the area to mitigate against traffic accidents and traffic jam built up at the entry and exit points of the market
• Delivery of supplies should be limited to off-peak hours when the market is not operational to minimize traffic jams in the area.

7.29 Socio-Economic Impacts

Since the market will be upgraded into a modern type of indoor market, the existing open-air market will be closed and relocated temporarily. The temporary closure of the open-air market will impact negatively on the economy of the traders, farmers and inconvenience
the customers/residents. In the long run, the new modern type market will bring positive impacts to the people of the town and the surrounding areas. They will be able to do trade in the new market and access other services such as sanitation, water and will be sheltered from the sun and rain.

**Mitigation**

- Relocate the market to a suitable location nearby; the County government can provide land or hire a piece of land temporarily as the market building is being constructed.
- Give priority to the currently existing traders in the market to avoid conflict with new traders.

### 7.30 Housekeeping

During construction, organization of the construction area is important to ensure prevention of accidents and incidences within the site. Clear gangways and pathways enable faster movements even during normal working time and during response to emergencies.

**Mitigation**

Ensure that there is a well-organized housekeeping plan in place at the construction site.

### 7.31 Crime management, child protection, gender equity and sexual harassment

The laws of Kenya prohibit Contractors from employing children in a manner that is economically exploitative, hazardous, and detrimental to the child’s education, harmful to the child’s health or physical, mental, spiritual, moral, or social development. It is also important to be vigilant towards potential sexual exploitation of children, especially young girls. The Contractor should adopt a ‘Child Protection Code of Conduct’; that all staff of the Contractor must sign, committing themselves towards protecting children, which clearly defines what is and is not acceptable behaviour.

Crimes might occur in the project area during the construction and operation such as stealing of construction materials or individual property, fighting, petty crimes such as pick pocketing, drug abuse and alcoholism among others.

There is also potential that gender inequality might occur during project construction through unequal distribution of work, discrimination against women, and unequal pay for women, lack of provision of separate facilities for women, among others. Sexual harassment against women might also happen because of mixing of women and men at the construction site.

**Mitigation Measures (design)**

- Proper design incorporating lighting to enhance security at the market
• Provision for fencing along the property boundary should be part of the design to control entry and exit points

**Mitigation measures during construction**

• Ensure no children are employed on site in accordance with national labour laws

• Ensure that any child sexual relations offenses among Contractors’ workers are promptly reported to the police

• The client and the Contractor shall adopt a ‘Child Protection Code of Conduct’ which sets stringent standards for personal behaviour to avoid child exploitation and abuse.

• The Contractor shall require his employees, sub-Contractors, sub-Consultants, and any personnel thereof engaged in construction works to individually sign and comply with this Code of Conduct.

• Removing any employee who persists in any misconduct or lack of care, carries out duties incompetently or negligently, fails to conform to any provisions of the contract, or persists in any conduct which is prejudicial to safety, health, or the protection of the environment.

• Taking all reasonable precautions to prevent unlawful, riotous or disorderly conduct by or amongst the Contractor’s personnel, and to preserve peace and protection of persons and property on and near the site.

• Prohibiting alcohol, drugs, arms, and ammunition on the worksite among personnel.

• The Contractor and Supervision Consultant should register in a log all events of a criminal nature that occur at the worksite or are associated with the civil works activities.

• The Contractor and Supervision Consultant should report all activities of a criminal nature on the worksite or by the Contractor’s employees (whether on or off the worksite) to the police and undertake the necessary follow-up. Crime reports should include nature of the offense, location, date, time, and all other pertinent details.

• Sensitize the construction workers, locals, and security to be on the lookout on suspicious activities near the site

The Contractor’s responsibility for workers’ conduct within the worksite should include but not limited to:
• Contractor to prepare and enforce a “No Sexual Harassment Policy” in accordance with national law where applicable
• Contractor and implementing agency to prepare and implement a Gender Action plan to include at minimum, in conformance with local laws and customs, equal opportunity employment, gender sensitization
• Provision of gender disaggregated bathing, changing, sanitation facilities
• Grievance redress mechanisms including non-retaliation should be set up for the workers
• Liaise with the administration units (County and sub County governments, Police, DO, chiefs, etc.) to provide regular surveillance and patrols to protect workers and shoppers during operation
• The market management should hire a security firm to manage security within the market

7.32 Complaints and Grievances/Social Conflict

During construction, the neighbouring community and traders may have complaints and grievances regarding the ongoing activities. There is also potential for social unrest among the local population if they are not considered for employment. This can bring negative publicity during construction including stoppage of work and can delay the projects progress.

The development of the market as well as allocation of space for doing business has been discussed through public consultations, and there are many expectations on who will occupy the stalls when the development is completed. Against the background of this knowledge and expectation, there is a risk of dissatisfaction if procedures of allocation of stalls and spaces are not adequately applied, or if they are seen to be applied in an inequitable manner.

Mitigation

• Provide grievance redress mechanism for the public and traders;
• Advice the public and traders on where to report grievances;
• Consider prioritizing the local manpower for both skilled and unskilled labour.
• Adhere to the market policy in allocation of stalls and spaces to traders;
• Implement proposed grievance resolution mechanism

7.33 Increased HIV/AIDS prevalence and other diseases

Construction sites in developing countries are potentially primary centres of HIV-AIDS
because construction sectors provide entry-level local jobs, which may be crucial to the survival of youth-headed households and extended families.

**Mitigation**
- HIV-AIDS awareness methods used in campaign to increase understanding about the disease;
- Raising awareness about HIV/AIDS;
- Promote the benefits of abstinence / avoidance;
- Distribute condoms to construction workers;
- Encourage workers to go for HIV voluntary counselling, testing and referral services;

### 7.34 Operation Phase Impacts

#### 7.35 Solid and liquid waste

The market building after completion and upon occupation will generate solid and liquid wastes. The efficient management of the solid waste generated by the project during the operation phase rests on the hands of Kiambu County Government.

**Mitigation**
- The proponent should develop a waste management plan for the market
- Wastes should be disposed off in a regular and an appropriate manner. It is recommended that the Proponent should put measures in place to ensure that the wastes are disposed of efficiently through reuse, recycling and proper disposal procedures
- The proponent should provide waste handling facilities such as waste bins for holding wastes temporarily before disposal by appropriate waste handlers.
- The proponent should ensure that the market is connected to the septic tank to ensure proper discharge of liquid wastes.

#### 7.36 Increased energy consumption and demand

The building will be connected to the electric line which is already available in the area. However; increase in energy consumption will be experienced in the existing electric supply infrastructure.

**Mitigation**
• The proponent shall install energy-efficient system within the building for instance the use of energy saving bulbs. This will promote energy conservation during the operational phase of the project.
• The occupants of the building will be sensitized to ensure energy efficiency in their commercial operation.
• The above measures will be complemented by monitoring energy use during the operation of the market and set targets for efficient energy use.
• Maintenance of regular checks of the electrical systems and appliances.
• Switching off security and internal lights during the day when natural lighting can be used.

7.37 Occupational Health and Safety Concerns

The market premise should be maintained at its optimum useful state and high standards of hygiene maintained to avoid any disease outbreak. All electrical installations should be properly fixed and maintained to avoid any risk of fire outbreak.

Mitigation
• Local individuals preparing food for at the market must be controlled to ensure that food is hygienically prepared and served.
• Adapt effective emergency response plans. A good start of learning how to respond to an emergency is through certification in Basic First Aid. Regular drills and emergency situations should follow to impart the anticipated insight and awareness to the workers.
• A first aid kit should be provided within the market. This should be fully equipped always and should be managed by qualified persons.
• Safety awareness may be gained through regular safety training or personal interest in safety and health.
• Traders should be sensitized on social issues such as drugs, alcohol, diseases etc.

7.38 Fire Outbreak

The anticipated occupants/ traders are likely to use LPG, electricity and charcoal as their source of cooking fuel. The occupants/ traders are also likely to store flammable materials since the premise is a trading hub dealing with different good. Therefore, the risk of fire outbreak is likely and should be prevented as much as possible.

Mitigation
• Installation of firefighting equipment, which must be strategically placed
• All electrical systems must undergo regular checks
• If appliances or equipment that can cause fire like petroleum and liquid gas may be used in the shops/supermarket/restaurant/hardware, then the occupants/traders must be sensitized on the fire risks they are exposed to
• Highly inflammable paints should be avoided in the kitchen walls and other areas where cooking activities are anticipated.

7.39 Blockage of drainage systems
The plumbing system and drainage might be blocked if the occupants/traders do not exercise proper use and maintenance

Mitigation
• The proponent should ensure that unwanted materials such as sticks and cloths are not allowed into the drainages. Special bins for handling sanitary materials or clothes should be provided in the toilets.
• Regular maintenance of the drainage should be done to avoid blockages.

7.40 Water Pollution
During the operation phase, water pollution may occur when market users litter the drainages, channelling contaminated water to the drainage systems and disposal of liquid waste inappropriately.

Mitigation
• Avoid channelling contaminated water onto the public drainage systems.
• Use septic tank to manage sanitary waste from the market
• Dispose market waste appropriately

7.41 Depletion of Water Resources during Operation phase
Operation of the market will lead to a higher demand of water by the market users. This demand may lead to depletion of the water from the water service provider and at times water rationing will be required.

Mitigation
• Install water tanks and other water saving technology at the site to save on water usage;
• Train market users on water saving techniques;
• Carry out rainwater harvesting to supplement tapped water.
7.42 Air pollution (Dust; Source emissions; odour/foul smells)

Air pollution may occur due to operation activities at the market. These include piling of solid waste for a long time, rotting food stuffs especially vegetables and meats, use of sanitary facilities without proper cleaning, burning waste on site, and source emissions from the generators as well as occurrence of uncovered manholes at the market.

Mitigation

- Clean and dust away all market areas regularly;
- Solid waste should be regularly removed from the market collection points
- Carry out proper maintenance of generators used on site
- Manholes should be covered using airtight covers to reduce any odour and foul smell;
- Frequently (daily) clean the sanitary facilities by use of detergents;
- Unnecessary combustion of materials within the compound should be avoided.
- All rotting vegetables and meat must be removed from the market and disposed of appropriately

7.43 Accidents and incidents occurrence

Accidents and incidences may occur during operations of the project. Occurrence of such incidences may include falling, being knocked down by vehicles, damage to goods and property.

Mitigation

- Ensure that provisions for reporting incidents, accidents and dangerous occurrences during operations using prescribed forms obtainable from the local Occupational Health and Safety Office (OHSO) are in place;
- Provisions must be put in place for the formation of a Health and Safety Committee, in which the County Government and the traders are represented;
- Train employees on how to respond to incident and accident occurrences.

7.44 HIV/AIDS prevalence

HIV-AIDS prevalence is likely to increase among market traders when many youths get self-Employed and earn income. Without proper campaign on prevention, the spread of HIV can be rampant within traders.

Mitigation

- Awareness methods used in campaign to increase understanding about the disease;
• Raising awareness about HIV/AIDS;
• Promote the benefits of abstinence / avoidance;
• Availing condoms to traders;
• Encourage traders to go for HIV voluntary counselling, testing and referral services;
• Monitoring of outcomes, in collaboration with National HIV/AIDS Authorities

7.45 Decommissioning phase impacts

7.46 Solid wastes (Scraps and other Debris Onsite)
Demolition works generates a lot of solid wastes. These wastes range from; wood, tiles, waste metals and stones amongst others.

Mitigation
• The proponent should liaise with private waste handlers and the Kiambu County Government to have a sound waste handling and disposal.
• The wastes should be properly segregated and separated to facilitate recycling of some useful waste materials. For example; broken stones can be used for backfills. Integrated solid waste management system may also be adopted through hierarchy of options like source reduction, recycling, composting and re-use.
• All the solid wastes should be collected by NEMA licensed waste handlers and dumped in NEMA recognized dumpsites.

7.47 Air, Water and Soil Pollution
Demolitions also generate a lot of waste that can contaminate water, air or soil. These wastes may include liquids, dust or waste water.

Mitigation
• Solid waste and liquid waste resulting from demolition or dismantling works will be managed as described in the construction phase

7.48 Occupational Health and Safety Concerns
The decommissioning phase may cause accidents; inhalation of dust; generation of noise and occupational incidences like fall.

Mitigation
• Depending on the occupational safety and health hazards encountered while performing assigned tasks, workers will use properly fitting personal protective
equipment (PPE) to avoid injuries and illness. Workers must be provided with full protective gear. These include working/safety boots, overalls, helmets, goggles, earmuffs, masks, gloves etc.

- A first aid kit should be provided within the site. This should be fully equipped at all times and should be managed by qualified persons.
- Local individuals preparing food for the workers at the site must be controlled to ensure that food is hygienically prepared.
- The Contractor should have workmen’s compensation cover. It should comply with Workmen’s Compensation Act, as well as other Ordinances, Regulations and Union Agreements.
- Workers should always be sensitized on social issues such as drugs, alcohol, diseases etc.
- Grievance redress mechanisms including non-retaliation should be set up for the workers

7.49 Cummulative impacts

Cumulative impacts are those that result from the successive, incremental, and/or combined effects of an action, project, or activity. For practical reasons, the identification and management of cumulative impacts are limited to those effects generally recognized as important on the basis of scientific concerns and/or concerns of affected communities\(^1\). Cumulative impacts can only occur where, following the implementation of mitigation, significant residual impacts are predicted by the ESIA process.

The cumulative impacts considered in this project include the following:

- Air quality,
- Water quality,
- Waste management
- Noise impacts
- Traffic
- Social economics

7.49.1 Assessment of the impacts

The assessment looked at the likelihood of an impact having a residual impact that can build up or interact with other impacts from other market projects after the implementation of the mitigation measures proposed in this report. The impact was then

\(^1\) (IFC), 2013, Good Practice Handbook Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets
rated likely or unlikely. The distances between the markets were also taken into consideration. The distance of other proposed markets to Ruiru Market is set out in table 7-1 below.

**Table 7-1: The distance of Ruiru Market in reference to other fourteen markets on a straight line**

<table>
<thead>
<tr>
<th>Market</th>
<th>Approximate distance to Ruiru Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Muthurwa</td>
<td>20.36 Km</td>
</tr>
<tr>
<td>2. Jogoo Road</td>
<td>19.29 Km</td>
</tr>
<tr>
<td>3. Githurai</td>
<td>7.54 Km</td>
</tr>
<tr>
<td>4. Kiambu Market</td>
<td>14.24m</td>
</tr>
<tr>
<td>5. Mwariro</td>
<td>19.82 Km</td>
</tr>
<tr>
<td>6. Kikuyu</td>
<td>33.94 Km</td>
</tr>
<tr>
<td>7. Karandini</td>
<td>27.45 Km</td>
</tr>
<tr>
<td>8. Ngong</td>
<td>40.47 Km</td>
</tr>
<tr>
<td>9. Ole Kasasi</td>
<td>34.41 Km</td>
</tr>
<tr>
<td>10. Kitengela</td>
<td>36.42 Km</td>
</tr>
<tr>
<td>11. Kihara</td>
<td>22.25 Km</td>
</tr>
<tr>
<td>12. Juja</td>
<td>8.60 Km</td>
</tr>
<tr>
<td>13. Madaraka</td>
<td>20.25 Km</td>
</tr>
<tr>
<td>14. Tala</td>
<td>59.40 Km</td>
</tr>
</tbody>
</table>

The following tables look at the significance of an impact to have residual cumulative impact. The impacts are rated as negligible, minor or moderate.

**Residual cumulative impact of air quality**

No significant local air quality effects are predicted following the good construction practice, which incorporates the implementation of the identified mitigation measures in the ESMMP

<table>
<thead>
<tr>
<th>Phase</th>
<th>Significance (Pre-mitigation)</th>
<th>Residual Significance (Post-mitigation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>negligible</td>
<td>negligible</td>
</tr>
<tr>
<td>Operation</td>
<td>negligible</td>
<td>negligible</td>
</tr>
</tbody>
</table>

**Residual cumulative impact of water quality**
No significant impacts on the local water environment are predicted with the implementation of proposed mitigation measures. Therefore in reference to the fifteen markets, interaction of the impacts to produce cumulative impact is negligible.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Significance (Pre-mitigation)</th>
<th>Residual Significance (Post-mitigation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>minor</td>
<td>negligible</td>
</tr>
<tr>
<td>Operation</td>
<td>minor</td>
<td>negligible</td>
</tr>
</tbody>
</table>

**Residual cumulative impact of Waste management**

In waste management cumulative impact to the waste services could be impacted if mitigation measures are not implemented and the impact significance could be minor. Therefore following the implementation of mitigation measures cumulative impact are localised and impossible to spread and combine to produce any significant cumulative impact.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Significance (Pre-mitigation)</th>
<th>Residual Significance (Post-mitigation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>minor</td>
<td>negligible</td>
</tr>
<tr>
<td>Operation</td>
<td>negligible</td>
<td>negligible</td>
</tr>
</tbody>
</table>

**Residual cumulative impact of Noise quality**

For the proposed market project, the noise generation is predicted to be localised. In addition to distance between the markets its impossible for the noise level to combine and produce significant cumulative impact.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Significance (Pre-mitigation)</th>
<th>Residual Significance (Post-mitigation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>negligible</td>
<td>negligible</td>
</tr>
<tr>
<td>Operation</td>
<td>negligible</td>
<td>negligible</td>
</tr>
</tbody>
</table>

**Residual cumulative impact of traffic congestion/interruption**

Due to the geographical location of the markets and the fact that all the markets are not going constructed at the same time. It's unlikely that any significant cumulative traffic impacts arising from the market improvement projects. In addition the haulage routes and access roads for the markets are different and widespread; therefore no significant impact will arise following the implementation of the localized mitigation measures.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Significance (Pre-mitigation)</th>
<th>Residual Significance (Post-mitigation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>minor</td>
<td>negligible</td>
</tr>
<tr>
<td>Operation</td>
<td>negligible</td>
<td>negligible</td>
</tr>
</tbody>
</table>
7.49.1.1 Cumulative impact on socio economic

Cumulative impacts on socio economic as a result of all the fifteen markets being built at the same time is likely to have positive impacts to the socio economy of the metropolitan region. Some of the benefits include the following;

- Increased number of people employed in the building sector as casual/permanent during the construction and operation stage
- Improved markets will reduce produce loses because of the improved storage conditions and working condition and increase profitability of the businesses in the markets
- The county revenue tax will increase due to the increase of number of traders in the market.

7.49.2 Conclusion

The possibility of the interaction of the impact is unlikely to produce any cumulative impact due to the distance between the markets and their geographic location. In addition the market will not be constructed at the same time, which make the interaction of the impacts unlikely or even produce any cumulative impact

7.50 Categories of impacts relating to resettlement

The impacts discussed under the resettlement site apply for both the market development and the relocation site. However the relocation site has its own unique challenge due to the fact that it is a temporary site without adequate facilities such as toilets, water, standard paved pathways and walk ways for the traders and the clients.

This section looks at the impact of the relocation of the identified 644 PAPs temporarily to allow the construction of the new market. The anticipated impacts include the following;

- Loss of business shades/structures
- Loss of business income during transition
- Reduced income resulting from these losses
- Access to sanitation facilities and water

The rest of the traders will be provided with better trading facilities including a roof and murram floor around the relocation site within the existing market. This will improve the working conditions of non-PAP traders without any negative socio-economic or physical space losses because the space improvement, reorganization and rationalization around the relocation site will be done smoothly and in a non-invasive manner. Therefore, there will be no negative impact on the non-PAP traders in the current expansive market.
7.50.1 Loss of business shades

The current business shades will be 100% demolished to pave way for the new market development

Mitigation
- Provide temporary appropriate structures at the relocation site.

7.50.2 Loss of business income during the transition

During the relocation period the traders will be unable to conduct their business routine because they will be busy shifting their wares to the new temporary site. Therefore there will be loss of income during this transition period. This may cause the traders to be angry and emotional which may escalate to conflict.

Mitigation measure
- Provide notice to the PAPs in advance to relocate to the new temporary site
- The structure in the relocation site should be ready for occupation before shifting the traders
- Compensation for the lost income

7.50.3 Access to Sanitation and Water Facilities

The relocation site may anticipate limited access to water and sanitary facilities. This may pose public health risks to the traders. Limited sanitary facilities may inconvenience the traders in their day to day routine during their stay in the relocation site.

Mitigation
- Maintain the existing toilets before alternative sanitary facilities are availed
- Provide alternative sanitary facilities such as temporary toilets
- Provide water points for the market

7.50.4 Garbage collection

Due to the fact that there will be disruption in the market setup and daily routine, garbage collection may be affected. This may lead to littering in the relocation site and garbage build up.

Mitigation
- Provision of garbage collection point and provide notice for the same
- Create awareness of garbage collection and cleanliness of the individual trading space
- Garbage collection to resume as scheduled
7.50.5 Impact on the Environmental Health

The environmental aspect such as air quality and noise levels will impact both the resettlement area and the people (workers) in the construction site.

7.50.6 Air Quality

Air quality contaminants from construction sites include mainly dust (particulate matter (PM)) and other contaminants such as NOx, SO2 and CO associated with combustion processes. Emissions of gases in construction site emanate from mobile sources which include vehicles and mobile machinery and equipment.

7.50.6.1 Mitigation for Mobile sources

- Machinery and vehicles operators should implement the manufacturer recommended engine maintenance programs
- Drivers should be trained and guided on the benefits of driving practices that reduce both the risk of accidents and fuel consumption, including measured acceleration and driving within safe speed limits

7.50.6.2 Dust Particulate Matter (PM) control and mitigation measures

- Use of dust control methods, such as covers, water suppression, or increased moisture content for open materials storage piles, or controls, including air extraction and treatment through a baghouse or cyclone for material handling sources, such as conveyors and bins;
- Use of water suppression for control of loose materials on paved or unpaved road surfaces. Oil and oil by-products is not a recommended method to control road dust.

7.50.7 Noise and vibration

This section addresses impacts of noise beyond the property boundary of the facilities i.e. impact of the construction activities to the resettlement site which is within the market development site. The property boundary here applied between the market site and the temporary resettlement site. Worker exposure to noise is covered in section 7.19 (Noise and excessive Vibration generation) and section 7.21 (Health and safety Impacts)

Mitigation

- Selecting equipment with lower sound power levels
- Installing silencers for fans
- Installing suitable mufflers on engine exhausts and compressor components
- Installing acoustic enclosures for equipment casing radiating noise
• Installing vibration isolation for mechanical equipment
• Limiting the hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas
• Re-locating noise sources to less sensitive areas to take advantage of distance and shielding
• Reducing project traffic routing through community areas wherever possible
• Developing a mechanism to record and respond to complaints

7.50.8 Conflict during resettlement or return to the new market

Grievances may arise both during relocation and return to the new market. This may cause conflict and may escalate to protest/violence.

Mitigation
• The laid plan in the RAP report should be adhered to.
• The market traders should be sensitised and notified in advance before relocation
• Grievance/complaints procedure should be provided to all the traders through notice in the market place
CHAPTER EIGHT

8 Environmental and Social Management and Monitoring Plan (ESMMP)

8.1 General Overview

The project is geared towards enhancing social and economic benefits through improvement of Ruiru market. Development of the project would be expected to comply with the environmental conservation requirements in accordance with the established Kenyan laws and regulations. To realize these goals, acceptability by a majority of the stakeholders and minimal effects to the physical environment will require to be ensured through participation in the project and continuous consultations, evaluations and review of the design aspects throughout project implementation cycles.

It is also recommended that the environmental management guiding principles specific to this project improvement and water resources management be established to allow integration of environmental management considerations during construction and operations.

Among the factors that need to be considered in this particular project implementation will include,

- Enhancing integration of environmental, social and economic functions in the project implementation.
- Compensation of any land or property that may be affected by the project in accordance to the laid down regulations,
- The contractors and other players in the project activities be prevailed upon to implement the ESMMP through a sustained supervision and continuous consultation

8.2 Significance of ESMMP

The purpose of the Environmental/Social Management & Monitoring Plan is to provide a summary of the mitigation measures identified in the ESIA, identifying to which stage (design construction operation) they are relevant, who is responsible for ensuring that the actions are taken, and what the broad costs associated with the delivery of the items is predicted to be.

The ESMMP outlined below will address the identified potential negative impacts and mitigation measures on the following project stages:

- Pre-construction and Construction Phases
- Operation Phase and
• Decommissioning Phase.

8.3 Environmental, Social, Management and Plan

ESMMP is a detailed summary of the impacts and the proposed mitigation measures. It further specifies who is responsible for implementation of the proposed actions and the cost involved in the action. It describes monitoring schedule and the parameter to be monitored.
### Table 8-1: Environmental and Social Management and Monitoring Plan (Table)

<table>
<thead>
<tr>
<th>Loss of vegetation</th>
<th>CONSTRUCTION PHASE</th>
<th>Operations phase</th>
<th>Design Engineer, Project Engineer and Contractor</th>
<th>Continuous during construction &amp; operation phases</th>
<th>Included in the BoQ under excavations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimize clearing of unnecessary areas at the construction site</td>
<td></td>
<td>Check and follow specifications in the drawings and plans; (c) Minimal clearance of vegetation and soil stripping; (c&amp;o) Net change in vegetation types at the project site; (c&amp;o) Net change in fauna at the project site</td>
<td>KCG</td>
<td>Soil erosion levels</td>
</tr>
<tr>
<td></td>
<td>Replant vegetation through landscaping upon completion</td>
<td></td>
<td>(c) – construction</td>
<td>Operations</td>
<td>Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td></td>
<td>Replenish vegetation at the open areas of the market regularly</td>
<td></td>
<td>(o) - operations</td>
<td>Monitoring/Indicators</td>
<td>(c) – construction, (o) - operations</td>
</tr>
<tr>
<td></td>
<td>Proper maintenance of trees and other vegetation at the market</td>
<td></td>
<td>(c) and (o)</td>
<td>Monitoring</td>
<td>Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td>Soil erosion</td>
<td>CONSTRUCTION PHASE</td>
<td>Operations phase</td>
<td>Design Engineer, Project Engineer and Contractor</td>
<td>Continuous during construction &amp; operation phases</td>
<td>Included in the BoQ under excavations</td>
</tr>
<tr>
<td></td>
<td>Construct efficient drainage structures (culverts, mitre drains, scour checks etc.)</td>
<td></td>
<td>Check and follow specifications in the drawings and plans; (c) Minimal clearance of vegetation and soil stripping; (c&amp;o) Net change in vegetation types at the project site; (c&amp;o) Net change in fauna at the project site</td>
<td>KCG</td>
<td>Soil erosion levels</td>
</tr>
<tr>
<td></td>
<td>Control earthworks through cascading gabions and distribution channels for storm water</td>
<td></td>
<td>(c) and (o)</td>
<td>Monitoring</td>
<td>Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td></td>
<td>Protect excavated sections of the route of storm water during heavy rains</td>
<td></td>
<td>(c) and (o)</td>
<td>Monitoring</td>
<td>Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td></td>
<td>Provide erosion channels to natural drains and drainage system to minimize erosion</td>
<td></td>
<td>(c) and (o)</td>
<td>Monitoring</td>
<td>Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td>Project Environmental and Social Impact</td>
<td>Proposed Mitigation and Aspects for Monitoring</td>
<td>Responsibility for intervention and monitoring during design, construction and defects liability period</td>
<td>Parameters for Monitoring/ Indicators (c) – construction (o) - operations</td>
<td>Timing - Recommended frequency of monitoring</td>
<td>Estimated Mitigation &amp; Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Design to incorporate existing drainage pattern and avoid disturbing the same OPERATION PHASE Regular cleaning and proper maintenance/repair of drainage structures</td>
<td>Project Engineer and Contractor Utilities providers • (c ) Down time of utilities affected • Complaints from the local residents • No of disruptions</td>
<td>(c) daily</td>
<td>Budget under provisional sums of Utilities Kshs 6,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disruption of Public Utilities DESIGN and CONSTRUCTION PHASE • The contractor to liaise with the service to provide the layout of supply lines that pass through or around the market and make sure the supply lines are isolated and protected • Design to incorporate existing public utilities and avoid disturbing the same • Contractor to generate utility management plan • Contractor to minimize damage to public utilities</td>
<td>The Proponent Kiambu County Government • (c) Implementation of the RAP • Monitor grievance or complaint recorded by local leader/market</td>
<td>Before construction starts</td>
<td>RAP Budget which is OUTSIDE the Costs build in the planning and administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disruption of Businesses or livelihood Construction Phase • Have a Resettlement Action Plan to temporary solve disruption of business as the trader await the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Environmental and Social Impact</td>
<td>Proposed Mitigation and Aspects for Monitoring</td>
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</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Air Pollution</td>
<td>CONSTRUCTION PHASE</td>
<td>Project Engineer, Contractor, Traffic police</td>
<td>(c) inspection / observation</td>
<td>daily/random quarterly dust level measurements monthly inspections</td>
<td>costs of the Contractor</td>
</tr>
<tr>
<td></td>
<td>• Speed control of vehicles accessing the site</td>
<td></td>
<td>• Dust levels (particulate matter PM$<em>{10}$ and PM$</em>{2.5}$) - the levels may exceed the baseline levels (40 µg/m$^3$) presented in table 4-1 of this report but should be within the limits set out in the First Schedule of EMC (Air Quality) Regulations, 2014. At the project site boundary, the 24-hour and annual time weighted average should not exceed 70 and 50 µg/m$^3$ respectively.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Construction of bumps along the road near the market</td>
<td></td>
<td>• Exhaust fumes from the vehicles - the emission levels should not exceed the levels prescribed under Kenya Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Regular watering of access roads and work sites</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Proper maintenance of construction equipment per the manufacturer requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>construction of the market to be complete</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Environmental and Social Impact</td>
<td>Proposed Mitigation and Aspects for Monitoring</td>
<td>Responsibility for intervention and monitoring during design, construction and defects liability period</td>
<td>Parameters for Monitoring/Indicators</td>
<td>Timing - Recommended frequency of monitoring</td>
<td>Estimated Mitigation &amp; Monitoring costs to be included in the BoQ (Kshs)</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Noise pollution</td>
<td>CONSTRUCTION PHASE</td>
<td></td>
<td>(KS1515:2000 on vehicular emission) e.g. CO shall not exceed 0.5 per cent volume and hydrocarbons (HC) concentrations shall not exceed 0.12 per cent volume (1200ppm)</td>
<td>Daily/random Monthly inspections</td>
<td>Costs build in the planning and administration costs of the contractor</td>
</tr>
<tr>
<td></td>
<td>• Regular Sensitization of workforce and residents on potential noise levels</td>
<td>Project Engineer and Contractor</td>
<td>• Construction noise and vibration levels at the construction site should be within the limits prescribed in EMC (Noise and Excessive Vibration Pollution (Control) Regulations 2009 or no more than baseline levels presented in table 4-1 of this report. The regulatory limits are as follow:</td>
<td>Monthly inspections</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Controlled operation of construction plant and equipment</td>
<td></td>
<td>• Noise levels- as provided in the Second Schedule of the above regulations the levels should not exceed</td>
<td>Quarterly noise measurements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No blasting shall be done on site</td>
<td></td>
<td>exceed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Project Environmental and Social Impact

#### Proposed Mitigation and Aspects for Monitoring

<table>
<thead>
<tr>
<th>Responsibility for intervention and monitoring during design, construction and defects liability period</th>
<th>Parameters for Monitoring/Indicators</th>
<th>Timing - Recommended frequency of monitoring</th>
<th>Estimated Mitigation &amp; Monitoring costs to be included in the BoQ (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>exceed Leq 60 and 30 dB(A) in diurnal and nocturnal schedules respectively.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• vibration levels do not exceed 0.5 centimetres per second beyond any source property boundary or 30 metres from any moving source.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Number of Complaints from the residents</td>
<td></td>
</tr>
</tbody>
</table>

#### Water Resources Usage

**CONSTRUCTION PHASE**
- Develop water abstraction plan to minimize conflict with local residents
- Manage use of piped water and other water sources mainly used by local people
- Abstraction licenses should be obtained from the required authority (WARMA)

<table>
<thead>
<tr>
<th>Project Engineer and Contractor</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RUJUWASCO</td>
<td>Project Engineer</td>
<td>WARMA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inspection/method of waste collection</th>
<th>Complaints from the neighbouring communities or the authorities</th>
<th>Amount of water abstracted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPERATION PHASE**
- Monitor water wastage and usage during operational stages of the market

<table>
<thead>
<tr>
<th>KCG</th>
<th>Inspection</th>
<th>Amount of water used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Repairs and damaged water facilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of water used</th>
<th>Repairs and damaged water facilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Water Resources Usage**

**CONSTRUCTION PHASE**
- Develop water abstraction plan to minimize conflict with local residents
- Manage use of piped water and other water sources mainly used by local people
- Abstraction licenses should be obtained from the required authority (WARMA)

**OPERATION PHASE**
- Monitor water wastage and usage during operational stages of the market

<table>
<thead>
<tr>
<th>Project Engineer</th>
<th>KCG</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Timing - Recommended frequency of monitoring**
- (c) monthly
- (o) monthly

**Estimated Mitigation & Monitoring costs to be included in the BoQ (Kshs)**
- Costs build in the planning and administration costs of the contractor
<table>
<thead>
<tr>
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<th>Timing - Recommended frequency of monitoring</th>
<th>Estimated Mitigation &amp; Monitoring costs to be included in the BoQ (Kshs)</th>
</tr>
</thead>
</table>
| Water Pollution                        | • Install pressure taps that minimize and time usage  
• Repair damaged taps and toilets to minimize waste | Project Engineer and Contractor  
Sub-County Health & Environmental Project Engineer and Contractor  
Sub-County Health & Environmental Officer  
NEMA, WARMA, KCG | • Inspection  
• Discharge into water bodies  
• Complaints from the neighbouring communities or the authorities | (c) daily  
(o) regularly | Costs build in the planning and administration costs of the contractor  
& Costs build in the planning and administration costs of the contractor  
& Maintenance costs of the market |

**DESIGN and CONSTRUCTION PHASE**
- Incorporate erosion control measures during construction at the site  
- No oils and fuels should be stored on the construction site – small works  
- Maintenance, re-fuelling and cleaning of equipment should NOT be done at construction site by the contractor – but in a licensed garages outside the site area  
- The design will incorporate oil sumps at the parking areas to isolate oil spills from parked vehicles that might spill to the storm drains  
- No solid waste, fuels or oils shall be discharged on land surface, into drains or streams  

**OPERATION PHASE**
<table>
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<tr>
<th>Project Environmental and Social Impact</th>
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</tr>
</thead>
</table>
| Traffic safety                         | • Monitor oil spills and other leakages at the garages, parking lots, and delivery areas  
• Regular cleaning of oil sumps and storm water drains  
• Contractor to prepare a Traffic Management Plan for approval to address the following issues;  
• Initiation of a safety program and measures by creating awareness and educational campaigns for workers and local communities  
• Installation of appropriate road signage, speed signs, and other warning signs at the site and access roads  
• Copies of insurance policies for the contractor’s drivers and vehicles should be provided to the Supervision Consultant.  
• The contractor’s vehicles and equipment must be in proper working condition and have registration plates, and numbering.  
• The contractor ensures proper driving discipline by its employees, and sanctions those in breach. | Project Engineer and Contractor  
Local Police, KCG | Inspection and accident reports  
( c) & (o) - No of accidents  
( c) & (o) - Complaints from the local people  
( c) Adherence of insurance and traffic Act requirements | Monthly | Costs build in the planning and administration costs of the contractor Contract clause No 18 |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Settlement/Induced settlement changes</td>
<td><strong>CONSTRUCTION PHASE</strong></td>
<td>KCG, Local sub-county Authorities</td>
<td>Inspection/observation Number of informal business set up near the project</td>
<td>monthly</td>
<td>No direct costs</td>
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<td></td>
<td>• Ensure the site is fenced off to discourage informal settlement and trading around the premises</td>
<td></td>
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<td></td>
<td>• Discourage informal business settlement near the market</td>
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<tr>
<td>Social Issues - Employment</td>
<td><strong>CONSTRUCTION PHASE</strong></td>
<td>Contractor, Project Engineer</td>
<td>(c ) observation /reports</td>
<td>Monthly</td>
<td>No direct costs to ESMMMP, costs build in the planning and administration costs of the contractor</td>
</tr>
<tr>
<td></td>
<td>• Utilization of local skilled and unskilled workers</td>
<td></td>
<td>• Number/percentage of local workers from the local communities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adhere to the local labour laws of 30% women in Employment.</td>
<td></td>
<td>• Complaints from local residents</td>
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</table>
| **Workers and commuters health and sanitation** | • Contractor to provide clean and adequate sanitation facilities for the workers at all times  
• Contractor shall also provide clean drinking water at the construction site for his workers at all times  
**OPERATION PHASE**  
• Project proponent to provide clean and adequate sanitation facilities for the commuters | Contractor, Project Engineer  
KCG | • Inspection/observation/ reports  
• Number of sanitation facilities  
• Sanitation facilities cleanliness  
• Number of disease outbreaks | Daily  
Monthly reports | No direct costs to ESMMP, costs build in the planning and Administration costs of the contractor  
& Normal maintenance costs during operation |
| **Security and Crime** | • Proper design incorporating lighting to enhance security at the market  
• Sensitize the construction workers, locals, and security to be on the lookout on suspicious activities near the market  
• Liaise with the administration units (County and sub county governments, Police, DO, chiefs, etc.) to provide regular surveillance and patrols to protect workers and commuters | Contractor, Project Engineer  
Local police  
KCG | • Reporting  
• Number of crimes reported  
• (target =0) | Monthly | No direct costs to ESMMP, costs build in the planning and administration costs of the contractor  
& Normal operational costs during operation |
| **HIV/AIDS, STDs,** | **CONSTRUCTION PHASE**  
• Initiate a sensitization and awareness campaign on HIV/AIDS and STDs to be done to workers and local community; | Contractor, Project Engineer  
Sub-county Health & Environmental | • observation / reports  
• No of HIV/AIDs programs conducted by the contractor | Monthly | • HIV/AIDS awareness campaign |
<table>
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<tr>
<td>OPERATING PHASE</td>
<td>Reduce risk of transfer through provision of male and female condoms for all workers; Provide free STI and HIV/AIDS screening, diagnosis, counselling for workers and local people near the site</td>
<td>Officer, local sub-county authorities</td>
<td>No of testing, counselling provided Prevalence of prostitution, HIV/AIDS and STDs in the area during construction period</td>
<td>Continuous HIV/AIDS prevention campaign Kshs 2,650,000 as per provided in the BoQ</td>
<td></td>
</tr>
<tr>
<td>SOLID WASTE</td>
<td>Maintain a continuous awareness program on health issues related to STDs and HIV/AIDS at the market, e.g. installing posters at the market</td>
<td>Proponent Contractor</td>
<td>Observation / reports Information flow, dissemination and awareness on HIV/AIDS No of posters at the market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTRUCTION PHASE</td>
<td>Establish a well-planned method of solid disposal of debris/garbage at the camp site</td>
<td>Contractor and Project Engineer</td>
<td>Inspection Disposal methods of solid waste from the site Complaints on health and safety aspects related to construction activities Site cleanliness Amount of waste/debris on site</td>
<td>weekly Costs build in the planning and administration costs of the contractor</td>
<td></td>
</tr>
<tr>
<td>OPERATION PHASE</td>
<td>Provision of disposal bins at designated areas at the market</td>
<td>KCG</td>
<td>Inspection Accumulation of garbage at the market</td>
<td>daily KCG budget</td>
<td></td>
</tr>
<tr>
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| • Regular collection and disposal of garbage by the project proponent  
• Clean storm water drains to minimize clogging  
• Provision of separate collection bins for biodegradable and non-biodegradable waste at the new facility.  
• Traders to be provided with bins near their merchandising points to ensure waste generated is collected at garbage stations or transfer points and later disposed at the main collection points for further disposal by the county authorities.  
• All the collection bins and collection points/stations shall be properly maintained on regular basis | • Complaints by commuters  
• (target =0)  
• Number of drainage areas clogged  
• Facilities cleanliness | | | | |
| Occupational Health and Safety | The contractor to prepare a Health and Safety Plan that will include consideration of the following: **CONSTRUCTION PHASE**  
◆ Provide medical and insurance cover for all workers | Project Engineer and Contractor  
Sub-county Health & Environmental Officer | • Inspection  
• No of PPEs provided  
• Workers OHS compliance (use and adequacy) | Monthly | Standard conditions of contract for Insurance - Clause 18 of contract |
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| Child protection                       | • Engage in child labor for economic exploitation, harm to their physical, social, spiritual, and mental capacities should not occur | Contractor, Project Engineer, | • observation/reports/random checks  
• Inspection of employees working at the site  
• Labour Records by the contractor | Regularly | Bill No 1, Item A  
Health & Safety for Workers and Equipment – Approx. Kshs 1,200,000 |
| Gender equity and Sexual harassment    | • Contractor to prepare and enforce a No Sexual Harassment Policy in | Contractor, Project Engineer, | • observation/reports  
Number of incidences (target = 0)  
<p>| | | | | monthly | No direct costs to EMMP, costs build in the planning and administration |</p>
<table>
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</thead>
<tbody>
<tr>
<td>accordance with national law where applicable</td>
<td>Contractor and implementing agency to prepare and implement a Gender Action plan to include at minimum, in conformance with local laws and customs, equal opportunity Employment, gender sensitization</td>
<td>Contractor, Project Engineer,</td>
<td>Number of women Employed</td>
<td>Number of incidences reported (target=0)</td>
<td>costs of the contractor</td>
</tr>
<tr>
<td>Provision of gender disaggregated bathing, changing, sanitation facilities</td>
<td>Grievance redress mechanisms including non-retaliation</td>
<td></td>
<td>Labour Records by the contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of life, injury, or damage to people and private property</td>
<td><strong>CONSTRUCTION PHASE</strong></td>
<td>Contractor shall maintain records and making reports concerning health, safety and welfare of persons, and damage to property, as the RE may reasonably require</td>
<td></td>
<td></td>
<td>No direct costs to ESMMP, costs build in the planning and administration costs of the contractor Schedules,</td>
</tr>
</tbody>
</table>
### Project Environmental and Social Impact

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<tr>
<td>♦ Insuring against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the contractor or any other of the contractor’s personnel. ♦ The construction site shall be fenced off to prevent access to members of the public</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chance Finds</strong></td>
<td>The contractor should have and implement the Chance Finds Procedure set out in Appendix 2 in the event that cultural heritages is discovered</td>
<td>Contractor, proponent, KCG</td>
<td>Log of chance find; 100% implementation of Chance Finds Procedure</td>
<td>Constant monitoring during excavation</td>
</tr>
</tbody>
</table>

**TOTAL APPROXIMATE COSTS OF ESMMP**  
Kshs 9,850,000
Table 8-2: ESMMP for Relocation and Return

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Loss of business shades</td>
<td>• Provide temporary appropriate structures at the relocation site.</td>
<td>Proponent County government</td>
<td>Temporary shade available for use in the relocation site</td>
<td>Before resettlement</td>
<td>RAP budget 8,535,000</td>
</tr>
<tr>
<td></td>
<td>• Resettlement back to the improved market</td>
<td></td>
<td>Permanent stall allocation</td>
<td>After construction of the new market</td>
<td>RAP budget 3,220,000</td>
</tr>
<tr>
<td>Loss of business income during the transition</td>
<td>• Provide notice to the PAPs in advance to relocate to the new temporary site</td>
<td>Proponent County go</td>
<td>Smooth transition at the shortest time possible Compensation of lost income</td>
<td>Throughout the transition period</td>
<td>RAP budget 9,660,000</td>
</tr>
<tr>
<td></td>
<td>• The structure in the relocation site should be ready for occupation before shifting the traders</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Compensation of property and business lost</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Quality</td>
<td>Construction period Mobile sources</td>
<td>Contractor Proponent</td>
<td>(c) inspection / observation Dust levels (particulate matter PM$<em>{10}$ and PM$</em>{2.5}$) - the levels may exceed the baseline levels (40 µg/m$^3$) presented in table 4-1 of this report but should be within the limits set out in the First Schedule of EMC (Air Quality) Regulations, 2014. At the project site boundary, the 24hour and annual time</td>
<td>Quarterly</td>
<td>administration costs of the contractor</td>
</tr>
<tr>
<td>Project Environmental and Social Impact</td>
<td>Proposed Mitigation and Aspects for Monitoring</td>
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</tr>
<tr>
<td>Dust Particulate Matter (PM) control and mitigation measures</td>
<td>• Use of dust control methods, such as covers, water suppression, or increased moisture content for open materials storage piles, or controls, including air extraction and treatment through a baghouse or cyclone for material handling sources, such as conveyors and bins; • Use of water suppression for control of loose materials on paved or unpaved road surfaces. Oil and oil by-products is not a recommended method to control road dust</td>
<td></td>
<td>weighted average should not exceed 70 and 50 µg/m³ respectively.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise and vibration</td>
<td>• Selecting equipment with lower sound power levels • Installing silencers for fans • Installing suitable mufflers on engine exhausts and compressor components • Installing acoustic enclosures for equipment casing radiating noise • Installing vibration isolation for mechanical equipment</td>
<td>Contractor Proponent</td>
<td>• Inspections • Construction noise and vibration levels at the construction site should be within the limits prescribed in EMC (Noise and Excessive Vibration Pollution (Control) Regulations 2009 or no more than baseline levels</td>
<td>Quarterly</td>
<td>administration costs of the contractor</td>
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</tbody>
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<tr>
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</table>
| • Limiting the hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas  
• Re-locating noise sources to less sensitive areas to take advantage of distance and shielding  
• Reducing project traffic routing through community areas wherever possible  
• Developing a mechanism to record and respond to complaints | | presented in table 4-1 of this report. The regulatory limits are as follow:  
• Noise levels- as provided in the Second Schedule of the above regulations the levels should not exceed Leq 60 and 30 dB(A) in diurnal and nocturnal schedules respectively.  
• vibration levels do not exceed 0.5 centimetres per second beyond any source property boundary or 30 metres from any moving source.  
• Number of Complaints from the residents | | | |
| Inadequate Sanitation and Water Facilities | • Maintain the existing toilets before alternative sanitary facilities are availed  
• Provide alternative sanitary facilities such as temporary toilets  
• Provide water points for the market  
• | Proponent Contractor | Adequate sanitary facilities  
Adequate water points | Weekly/Monthly | Cost included in the relocation budget |
<table>
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<tr>
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</table>
| Garbage collection                     | • Provision of garbage collection point and provide notice for the same  
• Create awareness of garbage collection and cleanliness of the individual trading space  
• Garbage collection to resume as scheduled | Proponent County government | • No garbage build-up  
• No littering | Weekly/monthly | No additional cost |
| Conflict during resettlement or return to the new market | • The laid plan in the RAP report should be adhered to.  
• The market traders should be sensitised and notified in advance before relocation  
• Grievance Complaints procedure should be provided to all the traders through notice in the market place | Proponent County government  
Market committee | Zero complaints | Monthly | No additional cost |

**TOTAL APPROXIMATE COSTS OF RELOCATION + RETURN ESMMP**  

| 21,415,000 |
8.4 Grievance Redress Mechanisms (GRM)

Proper and strong grievance mechanisms are very important in ensuring the stakeholders grievances and issues as they relate to the proposed project are addressed in a timely and appropriate manner, to enhance the relationship between the project proponent, contractor, and the stakeholders. It is therefore recommended that the project proponent should therefore put in place a robust GRM for the project to ensure any issues raised by stakeholders related to the project safeguards are addressed.

It is important to emphasize that grievance redress mechanisms are for all aspects of a project, not just environmental and social safeguards. The implementing agency should prepare and disseminate grievance redress guidelines for the project, including a hierarchy of reporting levels for redress, roles, and responsibilities. Public information about grievance redress should be posted in visible locations in project area of influence. Where needed, Grievance Redress Committees (GRCs) should be established, with the necessary authority, training and resources. Entities involved in grievance redress should keep proper records and logs. Project budgets should include resources for the establishment and operation of the Grievance Redress System. The implementing agency should on regular occasions review the GRM and verify that they are working properly.

A sample grievance process has been provided in Annex 3 of this report.
CHAPTER NINE

9 Conclusions and Recommendations

9.1 Environment and Social Assessment Conclusions

The ESIA study revealed that the proposed project has got both socioeconomic and environmental benefits and costs. It emerged that the benefits exceed the costs. Also, all the identified environmental impacts can be mitigated to a level of minimum or no significance throughout the project cycle. Further, none of the potential impacts would result to permanent irreversible damage on the ecosystem components.

9.2 Environment and Social Assessment Recommendation

Environmental monitoring is essential to track and sustain the effectiveness of the mitigation measures proposed in this report. An environmental monitoring plan has been prepared as part of the ESMMP. The focus areas of monitoring cover air, noise, traffic management, water and energy resources, occupational health and safety, as well as local employment and economic impact of the project during construction and operations. The burden of mitigation measures largely lies with the Project Contractor under supervision by the Proponent. Key observations are that most adverse impacts are short-term and will disappear once civil works ends. The Contract for the proposed project should bear relevant clauses binding the contractor to institute environmental mitigation as recommended in this study. The core monitoring strategy for this project will be through site meetings, in which case, it is recommended that the County Environmental Officers be invited to such meetings. Other stakeholders such as the County Labour Officer should also attend such meetings to ascertain that measures towards securing the health and safety of workers have been put in place.

It is the duty of the proponent to carry out annual environmental audits once it has been commissioned. This will be in compliance with the Environmental Management and Coordination Act, EMCA of 1999 and the Environmental Impact Assessment and Audit Regulations, Legal Notice No. 101 of 2003.

The tentative budget allocated to implementation of mitigation measures and in addition to the provisions of BOQ was calculated to be approximately Kenya Shillings 9,850,000. It is the responsibility of the project proponent to allocate this budget to facilitate diligent implementation of the mitigation measures and minimize potential negative impacts at construction and operational phases of the project.

The following is recommended for effective implementation of the mitigation measures for the project:
- All mitigation measures need to be specified in tender and contract documents, and must be included in the Engineering Drawings, Specifications and Bills of Quantities.
- Diligence on the part of the contractor and proper supervision by the Project Engineer during construction and the initial operation phase is crucial for mitigating impacts.
- Periodic environmental and social monitoring is required by the project proponent to ensure that mitigation measures have been implemented in order to prevent or avert any negative impacts of the project.
- The implementing agency should set up proper and applicable Grievance Redress Mechanism (GRM) for the project to deal with grievances and issues on the project.
- Reporting of the implementation of safeguards should be incorporated in the monthly reporting of the project.
- The contractor also should submit a Contractor Environmental and Social Management Plan, CESMP that comprises of an Environmental and Social Health and Safety (ESH) Plan and a Code of Conduct in this regard to enhance commitment and compliance to the project safeguards. These documents should mirror and be aligned to the project ESMMP already discussed in this report.
10 REFERENCE

3) The Constitution of Kenya 2010
4) Kenya Vision 2030
5) Nairobi Metro 2030
7) Kenya, the Urban Areas and Cities Act 2011
8) Kenya, the County Government Act 2012
12) Kenya Republic of (1994), The National Environmental Action Plan (NEAP), revised in
15) Kenya Republic, Air Quality Regulation, 2014
16) Kenya Republic, Occupational Safety and Health Act OSHA, 2007
17) Kenya, Republic of (2009), Environmental Management and Coordination Act (Noise and Excessive Vibrations Pollution Control) Regulations, 2009
19) Kenya gazette supplement Acts (1972), Public Health Act (Cap. 242) government printer, Nairobi
20) Kenya, Republic of (1996), The physical planning Act (cap 286)
22) Kenya Republic, The Way Leave Act Cap 292
25) Kenya Republic, Public Procurement and Disposal Act 2005
26) Kenya Republic, Public Roads and Roads of Access Act (Cap 399)
ANNEXES

Annex 1: Layout

[Images of the market layout]
Ground Floor Plan
SECOND FLOOR PLAN
Annex 2: SAMPLE CHANCE FIND PROCEDURES

Chance find procedures are an integral part of the project ESMMP and civil works contracts. The following is proposed in this regard:

If the Contractor discovers archaeological sites, historical sites, remains and objects during excavation or construction, the Contractor shall:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the Ministry of State for National Heritage and Culture take over;
- Notify the supervisor, Project Environmental Officer and Resident Engineer who in turn will notify the responsible local authorities and the Ministry of State for National Heritage and Culture immediately (within 24 hours or less).

Responsible local authorities and the Ministry of State for National Heritage and Culture would then be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the National Museums of Kenya. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage, namely the aesthetic, historic, scientific or research, social and economic values.

Decisions on how to handle the find shall be taken by the responsible authorities and the Ministry of State for National Heritage and Culture. This could include changes in the layout (such as when finding irremovable remains of cultural or archaeological importance) conservation, preservation, restoration and salvage.

Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities. Construction work may resume only after permission is given from the responsible local authorities or the Ministry of State for National Heritage and Culture concerning safeguard of the heritage.
## Annex 3: Grievance Redress Process

<table>
<thead>
<tr>
<th>Process</th>
<th>Description</th>
<th>Time frame</th>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of grievance</td>
<td>Face to face; phone; letter, email; recorded during public/community interaction; others</td>
<td>1 Day</td>
<td>Email address; hotline number</td>
</tr>
<tr>
<td>Grievance assessed and logged</td>
<td>Significance assessed and grievance recorded or logged (i.e. in a log book)</td>
<td>4-7 Days</td>
<td>Significance criteria: Level 1 – one off event; Level 2 – complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or the ESIA provisions</td>
</tr>
<tr>
<td>Grievance is acknowledged</td>
<td>Acknowledgement of grievance through appropriate medium</td>
<td>7-14 Days</td>
<td></td>
</tr>
<tr>
<td>Development of response</td>
<td>Grievance assigned to appropriate party for resolution</td>
<td>4-7 Days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Response development with input from management/ relevant stakeholders</td>
<td>7-14 Days</td>
<td></td>
</tr>
<tr>
<td>Response signed off</td>
<td>Redress action approved at appropriate levels</td>
<td>4-7 Days</td>
<td>Project staff at project proponent to sign off</td>
</tr>
<tr>
<td>Implementation and communication</td>
<td>Redress action implemented and update of progress on resolution communicated to complainant</td>
<td>10-14 Days</td>
<td></td>
</tr>
<tr>
<td>Complaints Response</td>
<td>Redress action recorded in grievance log book</td>
<td>4-7 Days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Confirm with complainant that grievance can be closed or determine what follow up is necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close grievance</td>
<td>Record final sign off of grievance</td>
<td>4-7 Days</td>
<td>Final sign off on by project proponent</td>
</tr>
</tbody>
</table>
Annex 4: Ruiru Market Survey Summary

**SUMMARY OF MARKET SURVEY**

**PROJECT:** NAMSIP MARKET UPGRADE PROJECT

**MARKET:** Ruiru

Team Leader: WANDER KATHARINE

<table>
<thead>
<tr>
<th>Do you know of the proposed upgrade of the market?</th>
<th>YES -</th>
<th>NO -</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What do you think will be the positive SOCIO-ECONOMIC impact to the local community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>It shall attract more investments</td>
</tr>
<tr>
<td>It shall help improve security in the market</td>
</tr>
<tr>
<td>It shall help improve on the sanitation of the market</td>
</tr>
<tr>
<td>It shall attract more customers hence increase in sales</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What do you think will be the negative SOCIO-ECONOMIC impact to the local community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>It shall bring discrimination between people when allocating the spaces in the market.</td>
</tr>
<tr>
<td>It shall bring political differences amongst the members</td>
</tr>
<tr>
<td>It shall cause disturbances in shifting of the people during the upgrade.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What would you like to see the project owner do in their</th>
</tr>
</thead>
<tbody>
<tr>
<td>He/she should take the least time possible</td>
</tr>
</tbody>
</table>
### Implementation of the Project?

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>He/She should involve the locals in the upgrade of market e.g. involve them in paper meetings.</strong></td>
</tr>
</tbody>
</table>

### Any Other Comments:

<table>
<thead>
<tr>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>If the market is upgraded on time it help improve businesses in the market.</em></td>
</tr>
</tbody>
</table>

### Observations/Recommendations:

> There is so much politics in the market. However, I recommend that the people in the market should be given detailed information on the upgrading of the market.

### Date:

December 2016
Annex 5: Samples of Questionnaire filled during stake holder Consultation

SOCIAL IMPACT QUESTIONNAIRE
PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................
Sex: Male □ Female □
Designation: .................................................................
Residence: Ruiru .............................................................
Location: Ruiru ...............................................................

Do you know of the proposed upgrade of the market?
Yes............ No.............

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

Do you or someone you know depend on the market for their livelihoods?

Yes, highly dependent for paying bills.

What would you like to see the project owner do in their implementation of the project?

Building to enhance the market's capacity and attract more vendors.

Any other comments:

The government should consider enhancing the living standards of the community and all those who depend on it.

Additional security to be employed to ensure the properties inside the market.

Date: 21/10/2016

NaMSIP_ Ruiru Market  Page 162 of 203
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male [ ] Female [ ]

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?
Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?
There will be more customers and income for the government.

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?
If there is a local design, it could reduce the customers and hence reduce the income of producers.

Do you or someone you know depend on the market for their livelihoods?
Yes [ ] No [ ]

What would you like to see the project owner do in their implementation of the project?
To improve the layout and clean the market.

Any other comments:

Date: 12/10/2016

.................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional):.................................................................

Sex: Male    [ ]    Female    [ ]

Designation:.................................................................

Residence:................................................................. Ruiru

Location:.................................................................

Do you know of the proposed upgrade of the market?

Yes.    [✓]    No.    ....

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[Note: answer to the query]

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[Note: answer to the query]

Do you or someone you know depend on the market for their livelihoods?

[Note: answer to the query]

What would you like to see the project owner do in their implementation of the project?

[Note: answer to the query]

Any other comments:

[Note: answer to the query]

Date: 12/10/2016

.................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional):..................................................................................................................

Sex: Male ☐ Female ☐

Designation: .......................................................................................................................

Residence: Ruiru..................................................................................................................

Location:............................................................................................................................

Do you know of the proposed upgrade of the market?
Yes...☐ No........

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?
.............................................................................................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?
.............................................................................................................................................

Do you or someone you know depend on the market for their livelihoods?
.............................................................................................................................................

What would you like to see the project owner do in their implementation of the project?
.............................................................................................................................................

Any other comments:
.............................................................................................................................................

Date: .................................................................................................................................

NaMSIP_ Ruiru Market
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ........................................................................................................................................

Sex: Male ☑ Female ☐

Designation: ....................................................

Residence: ........................................................

Location: ..........................................................

Do you know of the proposed upgrade of the market?

Yes ☑ No ☐

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

..........................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

..........................................................

Do you or someone you know depend on the market for their livelihoods?

..........................................................

What would you like to see the project owner do in their implementation of the project?

..........................................................

Any other comments:

..........................................................

Date: .........................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional):.................................................................

Sex: Male ☐ Female ☑

Designation:.................................................................

Residence:.................................................................

Location:.................................................................

Do you know of the proposed upgrade of the market?

Yes........ No√

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[Text]

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[Text]

Do you or someone you know depend on the market for their livelihoods?

[Text]

What would you like to see the project owner do in their implementation of the project?

[Text]

Any other comments:

[Text]

Date: 11/13/2010

.................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male       Female

Designation: ......

Residence: Ruiri

Location: Ruiri

Do you know of the proposed upgrade of the market?
Yes. ........ No. .......

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?


What do you think will be the negative SOCIO-ECONOMIC impact to the local community?


Do you or someone you know depend on the market for their livelihoods?


What would you like to see the project owner do in their implementation of the project?


Any other comments:


Date: 11/10/2016
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ........................................................................................................................................

Sex:  Male  [ ]  Female  [ ]

Designation: ..............................................................

Residence: .............................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes....  [X]  No.......  

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

.................................................................................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

.................................................................................................................................

Do you or someone you know depend on the market for their livelihoods?

.................................................................................................................................

What would you like to see the project owner do in their implementation of the project?

.................................................................................................................................

Any other comments:

.................................................................................................................................

Date: ..............................................................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male ☐ Female ☑

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes. ☑ No. ☐

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[Handwritten response]

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[Handwritten response]

Do you or someone you know depend on the market for their livelihoods?

Yes. It is the only source of livelihood.

What would you like to see the project owner do in their implementation of the project?

[Handwritten response]

Any other comments:

[Handwritten response]

Date: 12/06/2016
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ..................................................................................................................

Sex:  Male  Female  

Designation: ........................................

Residence: ........................................

Location: ........................................

Do you know of the proposed upgrade of the market?
Yes...........  No........

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

Do you or someone you know depend on the market for their livelihoods?

What would you like to see the project owner do in their implementation of the project?

Any other comments:

Date: 12/10/2016
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male □ Female □

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes........ No........

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

.................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

.................................................................

Do you or someone you know depend on the market for their livelihoods?

.................................................................

What would you like to see the project owner do in their implementation of the project?

.................................................................

Any other comments:

.................................................................

Date: .........................

.................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ..............................................................................................................................................

Sex: Male □ Female □

Designation: ROAD SIDE SALE (SIDE MARKET)

Residence:.................................................................................................

Location.................................................................................................

Do you know of the proposed upgrade of the market?

Yes........... No......

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

There will be enough space for all traders.

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

They might experience low business since most people who own vehicles don’t like getting in the market.

Do you or someone you know depend on the market for their livelihoods?

No

What would you like to see the project owner do in their implementation of the project?

The business areas to be separated with trading areas. Also, they need to be on their stands.

Any other comments:

......................................................................................................................................................

......................................................................................................................................................

......................................................................................................................................................

Date: 12/10/2016

......................................................................................................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male [ ] Female [ ]

Designation: .................................................................

Residence: Ruiru ............................................................

Location: Ruiru .............................................................

Do you know of the proposed upgrade of the market?

Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[ ] Improved hygiene and health
[ ] Increased employment due to publicity

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[ ] No negative impact as long as hygiene and waste disposal are put in place

Do you or someone you know depend on the market for their livelihoods?

[ ] Yes, the only source of livelihood

What would you like to see the project owner do in their implementation of the project?

[ ] Ensuring availability of running water

Any other comments:

[ ] All flyovers of the market to be removed to eliminate fear of accidents

Date: 11/18/2016
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male [ ] Female [ ]

Designation: [ ]

Residence: [ ]

Location: [ ]

Do you know of the proposed upgrade of the market?

Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

Increase in customer base and revenue

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

The design of the market determines the impact. Customers refuse to visit upper floors more if a market with upper floors.

Do you or someone you know depend on the market for their livelihoods?

Yes, highly dependent on the market for income and livelihood.

What would you like to see the project owner do in their implementation of the project?

Build a strong foundation.

Any other comments:

[Handwritten comments:]

Date: [ ]

[Handwritten date: 1/10/2016]
SOCIAL IMPACT QUESTIONNAIRE
PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional):.............................................................................................................

Sex: Male [ ] Female [ ]

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?
Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

If constructed through pooling, it will reduce cost incurred.

There should be more profit from one end to the other.

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

If controlled in the best way, there are no negative impacts.

Do you or someone you know depend on the market for their livelihoods?

Yes [ ] No [ ]

What would you like to see the project owner do in their implementation of the project?

Any other comments:

Date: 11/10/2016

NaMSIP_ Ruiru Market

Page 176 of 203
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................
Sex: Male [ ] Female [✓]
Designation: Market seller.........................
Residence: Ruiru.................................
Location: Ruiru.................................

Do you know of the proposed upgrade of the market?
Yes........... No.........

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?
Spending will reduce the cost of living substantially.

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?
No negative impact.

Do you or someone you know depend on the market for their livelihoods?
Yes, have been dependent since 1996.

What would you like to see the project owner do in their implementation of the project?

Any other comments:

Date: 11/16/2016...............................
SOCIAL IMPACT QUESTIONNAIRE
PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ..................................................................................................................................

Sex: Male [ ] Female [ ]

Designation: .................................................................................................................................

Residence: .....................................................................................................................................

Location: .........................................................................................................................................

Do you know of the proposed upgrade of the market?  
Yes[ ] No[ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[ ] Increased customer base

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[ ] No negative impact

Do you or someone you know depend on the market for their livelihoods?

Yes[ ] Highly dependent on my business

What would you like to see the project owner do in their implementation of the project?

[ ] Rebuilding up of new sanitation and ensuring the project is more

Note: to all above

Any other comments:

..........................................................................................................................................................

Date: 11/10/2016

..........................................................................................................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAM SIP MARKET UPGRADE PROJECT

Name (optional):.................................................................

Sex: Male [ ] Female [ ]

Designation:.................................................................

Residence:.................................................................

Location:.................................................................

Do you know of the proposed upgrade of the market?

Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

.................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

.................................................................

Do you or someone you know depend on the market for their livelihoods?

Yes [ ]

.................................................................

What would you like to see the project owner do in their implementation of the project?

.................................................................

Any other comments:

.................................................................

Date: [ ]

.................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ________________________________________________________________

Sex: Male [ ] Female [ ]

Designation: ________________________________________________________________

Residence: Ruiru ______________________________

Location: Ruiru ______________________________

Do you know of the proposed upgrade of the market?

Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

- Uplift their general standards of living
- Improve business operations
- Disease will be reduced

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

- 

Do you or someone you know depend on the market for their livelihoods?

Yes [ ]

What would you like to see the project owner do in their implementation of the project?

- Make the cover to drainage system within

Any other comments:

Date: 11/10/2016
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex: Male ☐ Female ☑

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes ☑ No ☐

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[Answer]

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[Answer]

Do you or someone you know depend on the market for their livelihoods?

Yes ☑ No ☐

What would you like to see the project owner do in their implementation of the project?

[Answer]

Any other comments:

[Answer]

Date:.................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional):......................................................................................................................
Sex:   Male   □       Female   □
Designation:........................................................................
Residence: ........................................................................
Location: ...........................................................

Do you know of the proposed upgrade of the market?
Yes...  No......

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?
........................................................................................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?
........................................................................................................................................

Do you or someone you know depend on the market for their livelihoods?
........................................................................................................................................

What would you like to see the project owner do in their implementation of the project?
........................................................................................................................................

Any other comments:
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

Date: ....................................................................................................................................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ..............................................................................................

Sex: Male ☐ Female ☑

Designation: .............................................

Residence: .............................................

Location: .............................................

Do you know of the proposed upgrade of the market?

Yes........... No.✔

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

.........................................................................................................................

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.........................................................................................................................

.........................................................................................................................

Do you or someone you know depend on the market for their livelihoods?

Yes. .........................................................................................................................

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

What would you like to see the project owner do in their implementation of the project?

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

Any other comments:

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

.........................................................................................................................

Date: 11/10/2014..................
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex:  Male  [ ]  Female  [ ]

Designation: .................................................................

Residence:  Ruiru ................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes....  No.........

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

Customers will increase as more will get engaged with the new arrangement conditions.

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

The space might be shrink limited reserved.

Do you or someone you know depend on the market for their livelihoods?

Yes .................................................................

What would you like to see the project owner do in their implementation of the project?

…………………………………………………………………………………..

Any other comments:

She has doubts whether the market will be improved.

I think the sector rent or it will be issued for free.

Date: ........................................................................

Page 184 of 203
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ________________________________________________________________

Sex: Male ☐ Female ☐

Designation: __________________________

Residence: __________________________

Location: __________________________

Do you know of the proposed upgrade of the market?

Yes ☐ No ☐

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

________________________________________________________________________

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

________________________________________________________________________

Do you or someone you know depend on the market for their livelihoods?

Yes ☐

What would you like to see the project owner do in their implementation of the project?

- Should provide free logs and bricks.
- Should ensure that the building plan is not altered during construction.

Any other comments:

________________________________________________________________________

________________________________________________________________________

Date: ____________________________

NGS

NaMSIP_ Ruiru Market

Page 185 of 203
SOCIAL IMPACT QUESTIONNAIRE
PROJECT: NAMSIIP MARKET UPGRADE PROJECT

Name (optional): ...........................................................................................................

Sex:  Male  ✔  Female  ☐

Designation: ...........................................................................................................

Residence: ................................................................................................................

Location: ..................................................................................................................

Do you know of the proposed upgrade of the market?
Yes  ✔  No  ..........

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?
__________________________________________________________

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?
If shall bring fights amongst the people in the market.
__________________________________________________________

Do you or someone you know depend on the market for their livelihoods?
__________________________________________________________

What would you like to see the project owner do in their implementation of the project?
I don't want it started.
__________________________________________________________

Any other comments:
__________________________________________________________

__________________________________________________________

Date: 11/10/16.
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): .................................................................

Sex:  
Male   □  Female  □

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes........  No.√

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

More can move space for people to engage their businesses / reduce congestion

Improved hygiene - people will stop setting them to germs and diseases

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

As population increases the number may not be manageable

Businesses may be ruined if there is no proper management & no revenue collected.

Do you or someone you know depend on the market for their livelihoods?

Yes........  No.√

What would you like to see the project owner do in their implementation of the project?

Should improve the only water to ease access

Any other comments:

Date: 12/12/2016
SOCIAL IMPACT QUESTIONNAIRE
PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional):... Zipper
Sex: Male [ ] Female [X]
Designation:...
Residence:...
Location:...

Do you know of the proposed upgrade of the market?
Yes... [X]
No...

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?
[X] Will provide employment opportunities
[X] Will bring about an increase in population in search for greener pastures
[X] Improved business environment
[X] Will increase profits to the sellers

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?
[X] Will bring about stiff competition which might bring about loss of sales to some people
[X] Pollution of the environment as a result of congestion
[X] Crime rates will increase as a result of population increase

Do you or someone you know depend on the market for their livelihoods?
Yes...

What would you like to see the project owner do in their implementation of the project?
[X] Ensure project sustainability in future

Any other comments:

Date: 12/11/2014...
SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): ........................................................................................................

Sex: Male ☐ Female ☑

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes ☑ No ☐

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

........................................................................................................................................

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

........................................................................................................................................

Do you or someone you know depend on the market for their livelihoods?

Yes ☐ No ☑

What would you like to see the project owner do in their implementation of the project?

........................................................................................................................................

Any other comments:

........................................................................................................................................

Date: 11/10/2016
Social Impact Questionnaire

Project: NaMSIP Market Upgrade Project

Name (optional): .................................................................

Sex: Male ☐ Female ☑

Designation: .................................................................

Residence: .................................................................

Location: .................................................................

Do you know of the proposed upgrade of the market?

Yes...... No.....

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

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What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

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Do you or someone you know depend on the market for their livelihoods?

Yes

.................................................................

.................................................................

What would you like to see the project owner do in their implementation of the project?

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Any other comments:

.................................................................

.................................................................

Date: 12/10/2016

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SOCIAL IMPACT QUESTIONNAIRE

PROJECT: NAMSIP MARKET UPGRADE PROJECT

Name (optional): 

Sex: Male [ ] Female [ ]

Designation: 

Residence: 

Location: 

Do you know of the proposed upgrade of the market?

Yes [ ] No [ ]

What do you think will be the positive SOCIO-ECONOMIC impact to the local community?

[Handwritten]: There will be more job opportunities. It will be better for the economy.

What do you think will be the negative SOCIO-ECONOMIC impact to the local community?

[Handwritten]: During conviction period, customers may disperse, especially the sellers in the market; hence affect business negatively.

Do you or someone you know depend on the market for their livelihoods?

Yes [ ]

What would you like to see the project owner do in their implementation of the project?

[Handwritten]: Full compensation to the county council should allow vendors to use the parcel to

Any other comments:

[Handwritten]:

Date: 12/10/2016
MEMBERS PRESENT
(List Attached)

- Agenda
- Preliminaries
- Opening Remarks from the county Market director
- Opening Remarks from Ruiru Market Chair
- Remarks from the IMPULSO Representative
- Remarks from NaMSIP ESIA Representative
- Remarks from the County Engineer
- Remarks from Chief of Trade, Kiambu County
- Remarks from CEC Minister of Trade, Kiambu County
- Questions, comments and recommendations
- Closing Remarks
- Adjournment

Min 1/ Ruiru ESIA/5-02-18: Preliminaries

The meeting came to order at 9:30 and began with opening prayers from one of the PAPs.

Min 2/ Ruiru ESIA/5-02-18: Opening Remarks from the County Director Markets

The county official, Mr Mwololo thanked all the Key Stakeholders in the meeting for heeding to the call to attend the meeting. He stated that the county has held several meetings with the PAPs as well as the Governor who passed by a few days ago to affirm his support for this project and confirmed that the market would be constructed very soon. He noted that the independent consultant SGS had come last year to conduct the public participation and consultations and market survey that are part of the ESIA report. Any participant who had any issues regarding environmental management was encouraged to raise them. Having explained the rationale of the meeting, he noted this meeting was called by NaMSIP to brief the PAPs on the status of the RAP as well as seek if there are any issues regarding environmental management for the project. It was also reported that the ESIA had also been prepared and required public participation and consultations to beef up the already conducted public participation.
He introduced the CEC Trade Ms. Isabela Waiyaki, the Chief Officer Trade, Ms Jackline Kimwaki, County Engineer Mr Mugo, Ms Doris Njambi NAMSIP expert and the market Executive committee member to the stakeholders.

**Min 3/ Ruiru ESIA/05-02-18: Opening Remarks from Eng Mugo**

Eng Mugo noted that the tender documents are being evaluated to identify a suitable contractor within a week. He stressed that World Bank is committed to support the project. He urged the PAPs to support the project and ensure smooth completion.

**Min 4/ Ruiru ESIA/05-02-18: Opening Remarks from Ruiru Market Chair**

The Market Chair explained that the meeting had been called to explain the stage of the RAP to the PAPs as well as to seek any views regarding environmental issues from the PAPs to ensure further public participation as required of any ESIA. He thanked the CEC Trade and Market Director for coordinating the meeting. He confirmed that the PAPs will support the construction of the market.

**Min 5/Ruiru ESIA/05-02-18: Opening Remarks from NaMSIP Consultant**

Ms. Doris Njambi also thanked all the traders in the meeting for heeding to the call to attend the meeting. She explained the agenda, objective and significance of the meeting, indicating that public consultation is a best practice deeply enshrined in Kenya’s Constitution in order to ensure that views from the key affected or interested parties to the development project, are collected in structured and well organized forum, recorded and their recommendations acted upon where feasible in improving the development proposal. In the Ruiru market, she indicated that the comments and recommendations from the traders will be significant in improving the ESIA Implementation process. She briefed the PAPs on the relocation site at the market site and emphasized that the area will also have cabro works, drainage improvement works and sanitary conveniences.

**Min 6/ Ruiru ESIA/05-02-18: Remarks from the Sub County Administrator**

The Sub county administrator greeted the PAPs and advised the PAPs not to disturb the contractor and engineer when they take possession of the plot to commence construction of the market.

**Min 7/ Ruiru ESIA/05-02-18: Remarks from Chief Officer of Trade and CEC Trade:**
The Chief Officer Trade greeted the PAPs and welcomed them to the meeting and she later invited the CEC Trade to give her remarks. The CEC Trade welcomed the stakeholders and thanked the Market Director for organizing the meeting. She stated that the Governor supports the project and the County Government will continue to ensure that this project is completed on time and smoothly. She advised the PAPs to support the consultants and NAMSIP for this project. She advised the PAPs that NAMSIP will mitigate against any adverse environmental impacts to the environment.

**Min 8/ Ruiru ESIA/05-02-18: Questions, comments and recommendations from the representatives of the tomatoes and potatoes:**

The PAPs inquired on a number of issues as listed below:

<table>
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<tr>
<th>Issues</th>
<th>Responses</th>
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<tr>
<td>One PAP asked if PAPs shall be relocated out of the market site?</td>
<td>The RAP consultant noted that no PAP will be moved out of the market site. The relocation site will be within the market. Eng Mugo said that the traders on the other side will be provided with shades, drainage, and a borehole. The constructed market will also have a baby crèche.</td>
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<tr>
<td>Some PAPs expressed hope that the design would include a perimeter wall to help improve on security of their goods.</td>
<td>Engineer Mugo assured traders this design had been already discussed and their concerns taken into consideration. He assured them this was a partnership with the traders and that is why we have come back yet again to listen to your views. The traders were assured the drainage is modern and very professionally done and would take care of all the issues of clogging. However, the traders will have</td>
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so that more stalls would be included. to organize themselves to ensure the new market remains clean throughout.

**Min 9/ Ruiru ESIA/05-02-18: Closing Remarks**

The Market Director, again thanked all in attendance for their positive response to attend and their contribution in the meeting.

**Min 10/ /15-06-16: Adjournment**

The meeting was adjourned at 11:00 am with a word of prayer from one of the committee members.

Name______________________ Sign____________________ Date: __________

**NB: A copy of attendance list for this meeting is attached to these minutes**
PUBLIC TRADER'S CONSULTATIVE MEETING FOR THE PREPARATION OF RESETTLEMENT ACTION PLAN (RAP) FOR THE IMPROVEMENT OF RUIRU MARKET

CONTRACT NUMBER: MoLHUD/NMED/NaMSIP/CONS-02/2014-2015

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<td>RD2</td>
<td><a href="mailto:eunabug@keigirl.com">eunabug@keigirl.com</a></td>
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<td>NaMsip-kenya</td>
<td>TA</td>
<td><a href="mailto:magarebor1@msn.com">magarebor1@msn.com</a></td>
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