



**GUIDELINES FOR ICT PROJECTS
ENVIRONMENTAL IMPACT ASSESSMENT (EIA)**

2024

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1. Introduction

The Communication Authority of Kenya (CA) is the regulatory agency tasked with facilitating the development of the Information and Communications Technology sector in Kenya. This includes management of telecommunications, postal & courier services, Radio Communications, Broadcasting and multimedia, Electronic Commerce and Cyber security, numbering and frequency spectrum resources, administering the Universal Service Fund and safeguarding the interests of consumers of ICT services.

2. Background

Prior to roll out of ICT projects, the Environmental Management and Coordination Act requires that an Environmental Impact Assessment (EIA) is carried out, and an EIA report submitted to the National Environmental and Management Authority (NEMA).

Once received at NEMA, the EIA report is forwarded to the Authority for review and commentary before NEMA makes a decision for approval or rejection of the proposed project.

In recognition of this joint mandate a Memorandum of Understanding (MoU) between the Authority and the National Environmental and Management Authority (NEMA) was ratified in 2011 to facilitate collaboration on EIA reports and related environmental issues.

Moreover, the EMCA requires sector lead agencies, in this case the Communications Authority of Kenya, to develop EIA guidelines for conducting sector EIA assessments.

These guidelines, therefore, are a response to regulatory obligations placed on sector lead agencies EMCA and KICA, 1998.

3. Objective of the EIA Guidelines

These guidelines aim to :

- i.) Establish a set of prerequisites and requirements prior to carrying out Environmental Impact Assessment for ICT projects
- ii.) Provide for consistency in the content and format of Environmental Impact Assessment reports of ICT projects

4. Scope of the EIA Guidelines

This document provides procedural guidelines for implementation of Environmental Impact Assessment (EIA) for the ICT sector. It describes procedural steps in the study, review and decision-making process for EIA reports by the Authority.

These guidelines will apply to all types of ICT projects and activities, including but not limited to Communication masts and towers (e.g., BTS towers, Radio/TV broadcast towers), data centers, electronic waste management and recycling, among others.

5. Principles of the EIA Guidelines

The Authority will evaluate ICT sector EIA applications with regard to attainment of sustainable development without degrading the natural resources and the environment. The Authority will evaluate ICT installations with regard to the following principles:

- a) The sustainable use of natural resources;
- b) The enhanced protection and conservation of biodiversity;
- c) Interlinkages between human settlements and cultural issues;
- d) Integration of socio-economic and environmental factors;
- e) The protection and conservation of natural physical surroundings of scenic beauty and the protection and conservation of built environment of historic or cultural significance;
- f) Public and stakeholder engagement

6. The Environmental Impact Assessment (EIA)

Environmental Impact assessment (EIA) is a systematic analysis of projects, policies, plans or programs to determine their potential environmental impacts, the significance of such impacts and to propose measures to mitigate the negative ones.

The output of an EIA process is the EIA report. The report shall contain:

a) General Details

The EIA report shall provide a detailed description of the proposed ICT infrastructure with:

- i. Satellite map of project location and its environs with location coordinates.
- ii. Type and height of the proposed communication facility
- iii. on-site land uses and zoning, adjacent land uses and zoning
- iv. elevation drawings of the proposed communication facility, topography
- v. The setback distance between the proposed communication facility and the nearest residential unit or public areas.
- vi. Proposed equipment components.

b) Licensing Requirements

The EIA report shall be submitted with the attached documentation:

- i. Valid Environmental impact assessment/Audit (EIA/EA) license from the National Environmental management Authority (NEMA)
- ii. Valid License from the Communications Authority of Kenya for the Owner/Operator of the proposed ICT infrastructure (where applicable).
- iii. Valid License from the Communications Authority of Kenya for the contractor of the proposed ICT infrastructure (where applicable).
- iv. Type Approval Certificate of the proposed equipment for installation
- v. Clearance certificate/license from the Local Authority
- vi. Clearance Certificate from other government agencies, e.g., Kenya Civil Aviation Authority (KCAA), National Construction Authority (NCA), Kenya Maritime Authority (KMA), etc., where applicable

c) Visual Impact

The EIA report shall provide details on the measures taken to minimize the visual impact of ICT installations as follows:

- i. The considerations made with regard to the requirement that communications infrastructure be camouflaged as provided in any related guidelines/regulations of regulatory agencies.
- ii. Considerations made to comply with installations in Special zones or environments e.g., national parks, protected areas, etc.

d) EMF Exposure Standards

The EIA report shall include measurements made of EMF exposure standards as per the prescribed forms in Annex 1.

Measurements should include:

- i. Non-Ionizing Radiation (NIR) measurements at assigned carrier frequencies.
- ii. RF Field exposure measurements at project pre- installation.
- iii. Projected RF Field exposure measurements at project post- installation.
- iv. Measurements should be taken at five distances as in the prescribed form in *Annex 1*.
- v. Measurements will be recorded in Electric Field Strength (V/m), Magnetic Field Strength (A/m) and Power Density (W/m²).

e) Site Sharing and Co-location

- i. The EIA report shall include measures taken by the ICT infrastructure owner to carry out site sharing or co-location in instances that it is technically possible.

This site sharing or co-location will include:

- a) Towers/Masts
 - b) Physical space
 - c) Building
 - d) Power
- ii. Where the above is not possible, owners of ICT infrastructure will be required to submit written documentation to show proof that site sharing and co-location is not feasible.
 - iii. For non-shared sites , the EIA report MUST include the distance to the next existing site/infrastructure in the area from the location of the proposed site in meters and degrees.
 - iv. Additionally, an Operator who declines a request to site share or co-locate shall be obliged to give their reasons to justify such refusal to site share or co-locate in writing to the requesting Operator.
 - v. All masts/Towers intended for use in the broadcast of radio and/or TV signals shall be located at sites designated for broadcast transmitters.

f) Stakeholder and Community Engagement

The EIA report shall include:

- i. Stakeholder engagement shall be preceded by education on the proposed project , its positive and negative impact, with training content and material attached as an annex to the EIA report
- ii. documented public opinions from project-affected persons/groups/businesses and concerned government authorities regarding their concerns to the proposed ICT installation.
- iii. The EIA report shall be required to address stakeholder concerns.
- iv. All documented stakeholder/community input shall be easily verifiable by the Authority with their names, verifiable identification details, mobile phone contact details and signatures appended to their concerns/remarks.
- v. Stakeholder/community input shall include residents, resident associations (where registred), local business/corporate entities (where available), Local Non-government agencies (NGO's) (where available), local government (where available), among others.

g) Power

The EIA report shall be including efforts by the owner of the infrastructure to use as much as possible green power, and if not, an explanation as to why use of green power is not possible

h) Carbon Emission Reduction

The EIA report shall contain information on how the contractor will comply with the Authority's carbon Emission Reduction framework during construction of the ICT system.

The report shall also include information on how the service provider will comply with the Authority's Carbon Emission Reduction framework during operation, decommissioning and disposal of the system and equipment

i) E-waste Management

The EIA report shall include information on the E-waste management plan during construction of the system and during operation and decommissioning of the system.

Annex 1: Prescribed EMF Measurement Form

Summary of Electromagnetic Field Readings (EMF) Levels around the (Carrier)				
RF Transmission Site (Location)				
Date:				
<p>Introduction: This report summarizes the estimation of maximum cumulative electromagnetic field readings (EMF) levels at ground level emitted from the existing and proposed antennas at the <i>Operator</i> Installation Station at <i>Location</i>.</p>				
<p>EME Health Standard Health standards are based on the KS 1847-1 guidelines</p>				
EMF Readings				
	Existing Radio System Configuration		Proposed Radio System Configuration	
	Service Type (Broadcasting/ Telecommunication /PMR)		Service Type (Broadcasting/ Telecommunication /PMR)	
	Specific technology: (e.g. GSM , 3G ,DVB-T etc)		Specific technology: (e.g. GSM , 3G ,DVB-T etc)	
Distance from Carrier antennas (meters)	Electric Field (V/m)	Power Density (mW/m ²)	Electric Field (V/m)	Power Density (mW/m ²)
0 to 50				
50 to 100				
100 to 200				
200 to 300				
300 to 400				
400 to 500				
<p><i>NB: This estimation is for the maximum level of EMF at 1.5m above the ground from the existing antennas. The estimated levels have been calculated on the maximum pick capacity anticipated for this site. This estimation does not include possible radio signal attenuation due to buildings and the general environment. The actual EMF levels will generally be significantly less than predicted due to path losses</i></p>				