

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) STUDY REPORT FOR THE PROPOSED MARITIME RESCUE COORDINATION CENTRE IN KISUMU PORT, KISUMU COUNTY

Pursuant to Section 59 of the Environmental Management and Coordination Act CAP 387, the National Environment Management Authority (NEMA) has received an Environmental Impact Assessment Study Report for the above proposed project.

The proponent, Kenya Maritime Authority, proposes to construct a Maritime Rescue Coordination Centre (MRCC) to be undertaken in two phases with Phase 1 involving construction of the MRCC building, ambulance bay, 70 car parking spaces, and Phase 2 comprising development of a 20m long jetty, a boat spillway, associated facilities and amenities in Kisumu Port, Kisumu County.

The following are the anticipated impacts and proposed mitigation measures:

S/N	IMPACTS	MITIGATION MEASURES
1	Potential conflicts with neighbors and other road users	- Liaise with County Government of Kisumu to determine access road to the shoreline - Restrict access to the construction site only and not any of the other areas - Erect warning sign along the access road to forewarn on the ongoing construction works - Liaise with KRC and install a level crossing at the railway line - Liaise with County Government of Kisumu, KPA and the BMU to determine the alternative route to the landing site
2	Reclamation of riparian land from the lake	- Apply and obtain a Permit from Water Resources Authority (WRA) to riparian land enhance man-agement conditions - Use of silt curtains during reclamation to prevent siltation/sediment flow into neighboring areas - Create an alternative green space by planting trees within the project site - Ensure the project structures can withstand changes in climatic conditions - Sustain stakeholder consultations to ensure continuous support for the project - Comply with the provision of the Physical Planning and Development Act, 2019 - Comply with the provisions of Water Resources Regulations, 2021
3	Water quality degradation	- Construction of silt traps and embankments along the shoreline area to manage storm water from the construction site - Construction could be carried out during the dry season and at times of minimal rainfall (<20mm) - Use of excavated soil material for backfilling and leveling as well as compacting - Provision of waste collection infrastructure at the site including litter bins
4	Traffic congestion	- Deploy fleet officers to manage traffic flow in and out of the site - Collaborate with KRC to enhance management of cargo transportation and construction activities - Signage and barricades should be used as part of the typical construction traffic controls. - Offload of construction materials be done on the site and not on the road reserves to ensure smooth flow of traffic - Comply with the provisions of the Traffic Act, 2016
5	Occupational safety and health risks	- Register site as workplace with DOSHS - Obtain insurance cover for workers at the site - Prepare and implement an emergency response plan - Provide well stocked first aid kits and trained personnel at the site - Train workers on first aid services and working at the lakeside area - Provide adequate and appropriate PPEs and enforce on their use - Erect safety signage at all active construction areas - Provide an incident/accident register - Carry site safety risk assessment - Install signage to forewarn people on ongoing demolition activities - Ensure demolitions are carried out by a licensed contractor - Ensure workers are given the correct hand tools and equipment for the jobs assigned - Comply with the Environmental Management and Coordination Air Quality Regulations, 2024 - Comply with Noise and Excessive Vibration Pollution (Control) Regulations, 2009 - Comply with the Occupational Safety and Health Act, 2007
6	Air pollution	- Install appropriate and adequate dust screens around the project site - Sprinkle water at active excavation areas and unpaved access road to suppress fugitive dust - Cover stockpiles of construction materials (aggregates, sand and fill material) to reduce dust emissions especially during windy conditions - Provide adequate Personal Protective Equipment and enforce on their use among personnel - Use serviceable machinery/equipment and trucks - Comply with the provisions of Environmental Management and Coordination (Air Quality) Regulations, 2024
7	Noise pollution	- Ensure excavation and construction works are limited to daytime hours only (i.e., between 8am to 5pm) - Locate peak noise producing machines away from neighboring residential developments - Provide and enforce the use of appropriate PPEs to workers and visitors accessing the peak noise producing areas - Sensitize truck drivers to avoid unnecessary hooting and running of vehicle engines - Comply with the Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009
8	Water use and effluent management	- Sensitize workers on water conservation - Monitoring water consumption streams by the project - Use of mobile toilets from a NEMA licensed waste contractor for workforce sanitation - Comply with the provisions of the Environmental Management and Coordination (Water Quality) Regulations, 2024
9	Solid waste management	- Use overburden in backfilling and landscaping the site - Procure construction material based on the Bill of Quantities to avoid wastage - Procure and strategically place adequate solid waste collection bins within the construction site. The waste collection bins should have capacity for segregation of wastes into plastics, glass, paper, metal and organic wastes to promote recycling - Maximize re-use of recyclables and minimize use of packaged materials - Create awareness on the process of solid waste collection, segregation and proper disposal among the workforce - Procure a sizeable central solid waste collection bin with chambers to accommodate separated wastes - Procure the services of a NEMA licensed solid waste handler for disposal of solid wastes from the central collection bin - Ensure timely collection and disposal of wastes - Sell of the recyclable to recycling companies - Comply with the Environmental Management and Coordination (Waste Management) Regulations, 2024 and the Sustainable Waste Management Act, 2022

S/N	IMPACTS	MITIGATION MEASURES
10	Labor influx and social concerns	- Contractor to prepare a site-specific Labor Influx Management Plan and implementation frame-work which should be approved by KMA prior to project commencement. - Implement measures to prevent, identify, address, and resolve conflicts before and when they occur including Sexual Exploitation Abused and Harassment (SEAH) at the workplace including anonymous reporting systems. - KMA to ensure development and implementation of a Grievances Redress Mechanism (GRM) by the contractor throughout the project phases
11	Potential conflicts with other lake users and stalling of the project	- Develop and implement Grievances Redress Mechanism - Install silt curtains around the jetty to reduce potential increase in turbidity in adjacent waters - Develop and implement a Water Quality Monitoring Plan during the construction of the jetty facility
12	Navigational risks	- Create awareness among the local fishermen on the construction of the jetty and its extend on the lake side - Ensure placement of marker buoys and hazard demarcations during construction of the jetty to warn fishermen of potential dangers - Ensure the barges and construction areas are well lit at night - The barge used in the construction should have old tyres affixed continuously on all sides to minimize potential impacts in case of drifting of fishermen's boats into the area
13	Increased Human – Wild-life Conflicts	- The proponent should fence off the outer fridges of areas where there is hippo grass which are the key foraging habitats for the hippos. - Liaise with Kenya Wildlife Service to manage hippos and crocodiles sighted within the area - Keep records on wildlife sightings, incidents and action taken
14	Water pollution	- Install a bio digester to manage wastewater flow from the building - Conduct quarterly water quality monitoring on the flows from the bio digester to ensure it meets the standards for discharge into the aquatic environment - Installation of solid waste screens along storm water drains and ensuring their regular maintenance and monitoring - Comply with Marpol Convention 73/78 and KMA Act, 2012 - Comply with provisions of Environmental Management and Coordination (Water Quality) Regulations, 2024
15	Oil Spills	- Provide adequate oil response kits for containment of oil spills - Ensure workers are regularly trained and sensitized on oil spill cleaning and containment - Refueling of boats to be undertaken by competent personnel - Compliance with the National Marine Spills Response Contingency Plan
16	Impacts of climate change	- Consider lake level rise in MRCC project design. The MRCC design for both the building and the jetty should consider climate change extremes which include lake level rise and recession which portend flooding and lack of access respectively - Maximize on natural lighting and ventilation by ensuring the building infrastructure such as offices rely less on air conditioners - Ensure optimal insulation to reduce heating and cooling requirements - Prepare annual carbon footprint reports and implement recommendations - Comply with the Climate Change Act 2023, National Climate Change Action Plan 20232027, and Marpol Convention 73/78 (MARPOL Annex VI)
17	Risks posed by aquatic macrophytes	Implement the Early Warning System for drifting, proliferation of aquatic macrophytes prepare by KPA in collaboration with Trade Mark Africa (TMA)
18	Loss of lives and economic decline	- Ensure regular refresher courses for SAR staff - Use navigational lights to demarcate the jetty area and install appropriate lights to forewarn other lake users on the presence of the jetty at night
19	Impacts related to electro-magnetic radiations	- Restrict entry to server rooms - Ensure regular servicing of the electronic equipment - Ensure encryption and other security measures mitigate risks of insecurity
20	Structural failure	- Ensure regular inspection of the MRCC building, jetty and the retaining walls by a licensed engineer to check its structural integrity - Ensure the design and construction of the jetty and lake wall conforms to the building code and implementation is supervised by registered engineers
21	Increased shoreline erosion	The retaining wall structure should include pressure absorption points to use up energy from wave action
22	Loss of SAR services	- Look for a suitable alternative site for MRCC - Provide alternative infrastructure for SAR services

A full report of the proposed project is available for inspection during working hour:

- 1) **Director General, NEMA**
NEMA Head Office
Popo Road, off Mombasa Road,
P.O. Box 67839-00200,Nairobi
- 2) **County Director of Environment**
KISUMU COUNTY

A copy of the EIA report can be downloaded at www.nema.go.ke

NEMA invites members of the public to submit oral or written comments within thirty (30) days from the date of publication of this notice to the Director General, NEMA to assist the Authority in the decision making process for this project. Kindly quote ref. No. **NEMA/ENVIS/SR/00419**

Comments can also be e-mailed to info@nema.go.ke

MAMO B MAMO PhD, EBS
DIRECTOR GENERAL

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