TERMS OF REFERENCE FOR AN ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) FOR THE PROPOSED REMODELING/EXPANSION OF PORTBELL IN KAMPALA AND JINJA PIER, IN JINJA IN LAKE VICTORIA

1 Introduction

1.1 Background

Originally, the Government of Uganda procured 3 wagon ferries and a floating dock in the mid 1980’s from the Belgium Ship builders’ corporation (BSC), a now defunct Belgian Shipyard Consortium. The ferries were built to Lloyd’s class +100A1 in Belgium and assembled in Uganda in the early eighties. Uganda Railways Corporation (URC) used the ferries to transport mostly grain and dry cargo in containers and covered wagons, plus some petroleum products in tank wagons, between the L. Victoria ports of Port Bell, Mwanza, Kisumu, Musoma and sometimes, Kemondo bay.

Major breakdowns occurred to the ferries with URC making only minimum interventions, forcing the ferries to sail without insurance and sometimes without safety and navigation equipment. Despite their age (>20 years), the ferries were still structurally sound but because of financial constraints, and institutional weaknesses, URC could not afford to maintain them and keep them in class, as per insurance requirements. Consequently, in June 2003; the class was suspended due to non-compliance to Lloyd’s requirements. URC owned and continued to operate the three (3) wagon ferries namely: - MV Kabalega, MV Kaawa, M.V Pamba and a floating dock. However on 8th May, 2005, M.V Kabalega sunk after collision with M.V. Kaawa. At that time, the two remaining Wagon Ferries were berthed at Port Bell awaiting repairs and upgrading to the required international standards.

Until 2004, the three wagon ferries operated by URC used to carry an average 435,617 tonnes for both import and export via the ports of Mombasa, Kisumu, Mwanza and Dar-es-salaam. This represented 60 percent of the total cargo handled by URC. After the 2005 marine accident, the tonnage of cargo carried by RVR/URC reduced drastically (refer to table below). The volume of cargo fell from an average of 126,000 tonnes per annum between 2005 to 8,100 tonnes in 2014. The reduction in volume of cargo transported by RVR/URC can be explained by three major factors which include: the ferry accident, non-operation/grounding of the remaining vessels and deterioration of Port facilities at Port Bell and Jinja pier. All these made inland water transport less competitive compared to road transport. These issues coupled with the outcome of the Presidential Round Table meeting, plans were then finalized to procure another Wagon Ferry to replace the sunken MV Kabalega and improve Port facilities at Port Bell and Jinja Pier. This was done at the backdrop of increased freight traffic on the road that had led to faster deterioration of
roads\textsuperscript{1}, accidents and the need for alternative routes to the sea just in case of any eventuality.

1.2 Current ongoing studies in the project
On 2\textsuperscript{nd} February, 2011, a contract was signed between the Republic of Uganda represented by Ministry of Works and Transport and M/S. OSK ShipTech A/S–Denmark (member in charge) in Association with M/S. CASE International Consultants Ltd, M/s Dan Marine A/S and M/S.Niras A/S to provide consultancy services for the Design and supervision of shipbuilding/construction of the proposed containership/wagon ferry to replace MV Kabalega and improvement to Port facilities at Port Bell and Jinja Pier with the objective to expand Port Bell and Jinja Pier.

1.3 Planned project works
The planned remodeling of Port Bell harbor and Jinja Piers shall entail but will not be limited to principally to the following:

a) Extension of Port Bell in eastern direction (construction of ro-ro berth, two new berths for containers and parking of trucks and sailors, establishment of bonded warehouse facility), dredging, offices, and access road and rail links; and

b) While in Jinja, the modernization of Port Jinjawill involve i.e. link span; quay surface; cargo storage; cargo handling facilities; construction of a container terminal; dredging; and improvement to access road and rail link.

The current road and rail infrastructure connecting Jinja Pier can be improved. However, for the case of Port Bell, a new road and rail access is anticipated to be built along the shore of lake Victoria up to Namanve Industrial Park. The development at the two places calls for a thorough Environmental and Social Impact Assessment (ESIA) to address the effect of this Development.

1.4 The need for an Environmental and Social Impact Assessment (ESIA)
The National Environmental Act (NEA) Chapter 153 has provisions for environmental management and protection including the need to carry out EIAs for projects listed its Third Schedule. Establishment of transportation infrastructure such as port and piers which are under water transport facilities as in Schedule 3 (f) of the Act are among projects that are likely to have significant impacts on the environment and therefore, require an ESIA approval from the National Environmental Management Authority (NEMA) under the EIA Regulations S.I. No. 13/1998 before their implementation. This therefore justifies the need for conducting the ESIA study.

It is also noted that, the project will likely be financed by the World Bank in which case, the EHS Guidelines specifically, Environmental, Health, and Safety Guidelines for Ports, Harbors, and Terminals for IFC are applicable as well as World Bank Operational Policies (OP) will be triggered by the project hence, the need to conduct detailed environmental and social impact assessment study.

\textsuperscript{1} Leading to loss of tax payers’ money and subsequently loss of GDP
1.4.1 Objectives of the ESIA
The aim of this ESIA was to draw up a framework to ensure that environmental and social impacts of the planned redevelopment or remodelling of Jinja Pier and Port Bell harbour are identified and measures to address them outlined. The ESIA shall be prepared to guide decision makers on the project based on understanding of its environmental and social consequences to facilitate the protection, restoration and enhancement of the environment.

1.4.2 Specific Objectives
The ESIA for proposed development/remodeling of Port Bell and Jinja Pier will be carried out with the following objectives:

a) Document existing environmental and social baseline information in the project areas and their surrounding areas;
b) Evaluate project options and advise on the most appropriate option taking into account, a combination of environment and social dimensions;
c) Outline project activities that will be undertaken during implementation of project works;
d) Review national, regional and international policy, legal and administrative framework relevant to the development of the project;
e) Conduct project public consultations and describe disclosure requirements;
f) Identify the negative environmental and social impacts of the project and propose feasible mitigation measures to address such impacts;
g) Outline an Environmental and Social Management Plan (ESMP) and define the institutional structure to guide the implementation of the ESMP;
h) Provide a set of recommendations for the project design to avoid and/or minimize the negative impacts and maximize the positive impacts of the project.

1.5 Scope of the ESIA Study
The consultant shall prepare an Environment and Social Impact Statement (ESIS) for the two project areas (Port Bell and Jinja Pier) and the road links connecting these Ports i.e. Port Bell to Nakawa (9km) or Port Bell to Namanve (12km), and Jinja Pier to Police round about 5km, in accordance with the Scope of Services that will include but will not be limited to the following:

1) Establishment of baseline environmental (bio-physical, social) description of the project setting including both the direct and indirect areas of influence. This should include the following aspects; water quality, overview description of the Lake Victoria and its lakeshore wetlands in the vicinity of the project areas, avifauna and other animal groups, population (including identification of vulnerable groups), economic activities, air quality conditions, climatic conditions, amongst others;

2) Provide justification for the project taking into account national and regional integration development strategies amongst others;

3) Provide detailed baseline hydrological information for the two sites taking into account the anticipated works and their implications on the hydrology of the Lake. The hydrological assessment should focus on reviewing the hydrological information and date for the proposed sites against anticipated project works and establish hydrological dynamics of the project sites based on scenarios such as with and without the project as
advise on the suitability of the sites, levels of works amongst others on the lake water dynamics, uses and values;

4) Identify concisely the uses, users and values of the Lake Victoria and its wetlands areas in the two project sites against the planned development plans and assess implications of the development on those uses, users and values of the Lake and wetland areas;

5) Identify and review national, regional and international policies, legislations and institutional frameworks governing social and environment management and relating to the project. The consultant should pay attention to EAC protocols relating to trade, environment and natural resources management and Lake Victoria management in the review process in the ESIA;

6) Identify and hold consultative meetings with key stakeholders in the project focusing on the issues of the Lake, maritime transport on Lake Victoria as well as navigational safety, economic development in the Lake Basin and in the region as a block; The consultations to be conducted twice, at the TOR stage and once the draft ESIA has been developed.

7) Identify and provide a description and an evaluation of possible project alternatives in terms of the technology, design and lay outs, levels of works in the works and location consideration of the project sites. The assessment of alternatives should cover assessment of the sites, routes and alignments for the project infrastructures. An analysis for each alternative in terms of cost and technical feasibility should be given and the best option justified. The analysis should include parameters considered along with weightage criteria for short-listing selected site;

8) Conduct ecological evaluation of the available project alternatives to compare their viability taking into account a number of considerations such as environmental costs, ecological values and uses and inherent opportunity costs against each of the alternatives; Present the preferred project design option, based on the technical and ecological alternatives evaluation.

9) Describe development activities to be undertaken in the project and map out key environmental and social impacts of the project in terms of their extent, duration and reversibility. The ESIA should provide matching feasible mitigation measures for such impacts;

10) Assess HIV/AIDS potential impacts of the project and propose measures to address such concerns during project implementation;

11) Assess noise and vibration effects associated with the construction and operation of the proposed facilities. The assessment process should focus into various activities including construction related traffic movements; construction operations and the future operations of inland port. It is expected that, noise sources in ports include cargo handling, vehicular traffic, and loading / unloading containers and ships. Atmospheric conditions that may affect noise levels include humidity, wind direction, and wind speed. The noise
assessment should be based on equivalent ambient noise levels that should not be exceeded and general recommendations for prevention and control of noise are described in the General EHS Guidelines;

12) Propose protocols for handling proper screening, acceptance, and transport of dangerous cargo based on local and international standards and regulations, including elements such as establishment of segregated and access-controlled storage areas with the means to collect or contain accidental releases; loading and unloading to and from ships, including proper shipping measures amongst others. Emergency response procedures specific to dangerous goods should be outlined in the ESIA;

13) Identify wastes from the implementation and operations of the project. These should include details of the processes for each activity, generation of wastes, types, quantity and methodology for collection, storage, treatment and disposal of wastes. Wastewater based effluents associated with port and pier activities, bilge and waste, ship sewage and vessel cleaning wastewater from ships. Ship sewage and wastewater contains high levels of BOD and coliform bacteria, with trace concentrations of constituents such as pharmaceuticals, and typically low pH levels. Wash water may contain residues such as oil. Pollutants in bilge water contain elevated levels of BOD, COD, dissolved solids, oil, and other chemicals that accumulate as the result of routine operations. Therefore, measures for effective management of such effluent waste should be outlined in the ESIA study;

14) Occupational health and safety issues during the construction, operations and decommissioning of ports are to be outlined in the ESIA in line with OHS requirements for large infrastructure in line with internationally acceptable practices and standards such as General recommendations for managing physical hazards as addressed in their General EHS Guidelines. This should comprehensively cover among others protections against, exposure to dust and hazardous materials that may be present in construction materials and demolition waste and a host physical hazards associated with the use of heavy equipment, or the use of explosives in line with this nature of project;

15) Mapping out measures for port security operators amidst security threats in the regions with a clear definition of responsibilities of the entities involved in its management and operations to guarantee security to passengers, crews, and personnel in port as well as the port installations;

16) Provide detailed Oil Spill Contingent Management Plan as well as oil, hazardous materials handling onshore or offshore mechanisms;

17) Undertake Risk Assessment and propose a Disaster Management Plan including emergency evacuation during natural and man-made disaster like floods, cyclone and or earth quakes amongst others;

18) Assess implications of possible dredging, quantities of dredged materials and measures for their safe transportation and disposal. This process should take into account
implications of the project on the wetland ecosystem uses and values in the areas where dredging is to be undertaken;

19) Assess the direct and indirect impacts of the planned project activities on the environment and propose mitigation measures;

20) Prepare an Environmental and Social Management Plan (ESMP) detailing measures for addressing potential negative environmental and social impacts of the project. In addition, the ESMP should clearly identify institutional roles, responsibilities and costs in addressing the mitigation measures that will be proposed in the ESIA; and

21) Propose a Monitoring Plan with clear monitoring indicators and institutional roles to be used in tracking the implementation and compliance of the proposed mitigation measures;

1.6 Reporting requirements
In all, the ESIA process and reporting is to be guided by the provisions in EIA Guidelines for Uganda of 1997; the National Environment Act Cap 153 as well as EIA Regulations of 1998. In this case, the process will include preparation of a Scoping Report which will be followed by detailed ESIA study. The ESIA study reports to be produced by the consultant are summarized as follows:

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<tr>
<th>Item</th>
<th>Report/Document Title</th>
<th>Number of Copies</th>
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<tr>
<td>01.</td>
<td>Draft Scoping Report within 3 weeks from date of signature of the contract.</td>
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<tr>
<td>02.</td>
<td>Final Scoping Report - 2 weeks after receipt of the comments on Draft Scoping Report from the client.</td>
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<tr>
<td>03.</td>
<td>Draft ESIA - 16 weeks from commencement of the study.</td>
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<td>04.</td>
<td>Public Hearing^</td>
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<tr>
<td>05.</td>
<td>Final ESIA - 4 weeks from date of receipt of comments on the draft ESIA from the client.</td>
<td>15</td>
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1.7 Duration of the Assignment and Timing for the ESIA
The assignment shall be completed within 4 man-months from the time of signing the Contract Agreement.

1.8 Personnel Specifications for the ESIA study
The ESIA Consultant should field the following Team of experts with specialization as follows:

1.8.1 ESIA Team Leader
The ESIA Team leader should be a holder of a postgraduate studies in disciplines such as environmental sciences, civil or environmental engineering with other trainings in Environmental Impact Assessment. He or she must have over 15 years’ experience in conducting
ESIA studies for large scale infrastructure development projects. In addition, he/she must be a registered Environment Practitioner with the National Environment Management Authority as provided in the National Environment (Conduct and Certification of Practitioners) Regulations of 2003. Experience working with World Bank projects is an advantage.

1.8.2 Port Engineer
The ESIA Team will include a Ports Engineer 10 years of related experience in ports design and management or related water transport infrastructure development projects. He/she must possess a degree in Port Engineering and should have matching experience in conducting ESIA for ports, harbors and piers. Experience in conducting similar studies in Sub-Saharan Africa should be an added advantage.

1.8.3 Water Resources Management Specialist
Should be a holder of civil or water engineering or hydrology degrees with strong background in areas of water resources management as well as planning water based development infrastructure projects. He or she should have at least 10 years in water resources assessment studies. In addition, the Specialist should have 5 years’ experience in conducting environmental impact assessments for related development projects. Good knowledge of GIS is an added advantage.

1.8.4 Fisheries Resources and Water Quality Specialist
He/she shall be a holder of at least a degree in fisheries and water resources management studies with experience of at least 10 years in conducting ESIA studies for development projects. In addition, he/she must be a registered Environment Practitioner with the National Environment Management Authority as provided in the National Environment (Conduct and Certification of Practitioners) Regulations of 2003.

1.8.5 Sociologist
He/she must be a holder of at least a postgraduate degree in any of the following fields; sociology, social work and social administration and anthropology. Must have at-least 10 years related experience resettlement/mitigation or social impact assessment studies. In addition, he/she must be a registered Environment Practitioner with the National Environment Management Authority as provided in the National Environment (Conduct and Certification of Practitioners) Regulations of 2003. Experience working with World Bank projects is an advantage.

1.8.6 Ornithologist/Birds Specialist
The Ornithologist should be at least a holder of Bachelor’s degree in zoological sciences with specialization in birds. He/she should have at least 5 years’ experience in conducting ESIA studies.

1.8.7 Occupational Health and Safety Specialist
The Expert should possess at least a university degree in fields such as civil engineering, environmental management, public health or environmental health or environmental engineering. He or she must possess post graduate training in occupational health and safety. Experience of 10 years in conducting ESIA for similar assignment is a pre-requisite.
1.8.8 Wetland Management Specialist
The Specialist should have a degree in natural resources management, environmental management, civil engineering or environmental management with specialization in wetland management. He/she must have at least 10 years’ experience of working in wetland management and sustainable development. Evidence of registration as an environment practitioner with NEMA is an added advantage.

1.8.9 Transport Economist
The Transport Economist must be a holder of at least degree in transport economics or transport planning with experience of at least 10 years. The Specialist should have hands on expertise on aspects such as evaluation of transport modes and routings options costing using appropriate models.

1.8.10 Ecological Economist
The specialist must possess at least a postgraduate degree in ecological economics or environmental economics. He/she should experience of at least 10 years in ecological valuations studies focusing on choices of options regarding changes in land uses for given ecosystems.

1.8.11 GIS Specialist
The specialist must have a degree in Geographical Information Systems (GIS) or land use planning or mapping or Surveying. He/she should have experience of at least 10 years in using applications such as ArcView and associated packages for production of maps using appropriate technologies such as GPS. Experience in conducting ESIA is an added advantage.

1.9 Services and Facilities to be provided by the client and consultant

1.9.1 Client
The client will:
\(\text{a) Designate staff to serve as coordinator for the project;}
\(\text{b) Provide documentation of previous studies conducted related to the assignment including}
\(\text{sectoral environmental management tools and policy documents;}
\(\text{c) Establish contacts with the relevant stakeholders for purposes facilitating the study process.}
\(\text{Some of the key stakeholders include, Uganda security agencies amongst others;}
\(\text{d) Provide a venue and meet costs for consultative workshops on the study outcomes or as shall}
\(\text{be agreed with the consultant;}
\(\text{e) Liaison and assistance to obtain any other information and documents required from other}
\(\text{Government of Uganda (GoU) agencies and which the client considers essential for the}
\(\text{proper conduct of the assignment.}

1.9.2 Consultant
The consultant shall be responsible for providing the following facilities for his use:
\(\text{a) Office and residential accommodation;}
\(\text{b) Computer hardware, software, communication, office supplies etc.;}
\(\text{c) All necessary vehicular transport; and}
\(\text{d) All other support facilities.}
Public Hearing will be the decision of Executive Director NEMA during the review of the ESIA Report and based on the comments on the ESIA from the review process