



Lake Victoria Fuel Transportation Project Lender's Environmental and Social Due Diligence

Environmental and Social Due Diligence Report Final Version

Prepared for and on behalf of:
**Africa Finance Corporation and
Mahathi Infra Uganda Limited**

Prepared by:
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EXECUTIVE SUMMARY

Environmental Solutions Africa (ESA), supported by Tenvicon Consulting and Greenwise Consult, has been appointed by Africa Finance Corporation and Mahathi Infra Uganda Limited (hereafter referred to as Mahathi) to undertake Lenders' Environmental and Social Due Diligence services in connection to the development of an integrated logistics project (the Project).

The Project incorporates the development of a fuel depot, jetty, barge building yard and a workers' accommodation camp. The fuel depot has 14 storage tanks with capacity to hold 70,000,000 litres (L) of fuel. This provides sufficient capacity for trade in fuel among potential destination countries (including Rwanda, Burundi and South Sudan, considering that Uganda only uses approximately 4,500,000L of fuel daily).

The jetty comprises a 220-metre-long jetty including four dedicated pipelines, one each for the four refined petroleum types. The project will be serviced by four self-propelling oil tanker barges, each with capacity of 4,400,000 litres, which approximately equates to 150 fuel trucks.

The ESDD objective was to review the existing environmental and social documentation, including the Environmental Impact Statements which facilitated NEMA approval for the Project. Impact Assessment (ESIA) and assess compliance to Lenders' sustainability criteria. Specifically, these are the Equator Principles, the International Finance Corporation (IFC) Performance Standards and the World Bank's Environmental Health and Safety Guidelines.

This report summarises the review findings regarding compliance to the Lender's sustainability criteria. The approach has been to tabulate key findings and where appropriate make recommendations for corrective or remedial action. Overall, the project has several environmental and social documentation components in place that partially meet the Reference Framework requirements for an Environmental and Social Management System. However, these are not co-ordinated, often not cross-referenced and in some instances missing or incomplete.

Nevertheless, based on our review of the available information, there are no environmental or social fatal flaws or red flags that would preclude the development of the Project. Nevertheless, we are of the professional opinion that there are two major outstanding environmental and social issues which may prevent compliance to lender's sustainability criteria.

First, the development of a robust grievance redress mechanism (GRM) and a comprehensive issues trail and response procedure; and secondly, a pre-emptive resettlement and compensation policy are recommended. The GRM and issues trail and response procedure need to be effectively communicated and distributed to stakeholders and communities, whilst the development of a pre-emptive resettlement and compensation policy would facilitate timely compliance to the lender's sustainability criteria should the Government of Uganda be delayed in undertaking the requisite processes to enable the widening of the existing 5.4km access road that connects Mahathi to the main Entebbe Highway.

Additionally, there is a need to finalise and document workers' rights and conditions. Workers' rights and conditions must be applicable to all on-site personnel. It is recommended that all information pertaining to workers' rights be consolidated into a revised version of the MIUL Employee Policy Handbook.

Finally, there are a limited number of minor outstanding issues, detailed in this report's ESAP, that we have recommended are closed within a specified period after the commercial operations date (COD).

The gaps that we have identified do not present fatal flaws and are deemed possible to manage or mitigate. The ESAP sets out how these gaps may be closed over a reasonable timeframe commensurate with risk.

1. INTRODUCTION

Environmental Solutions Africa (ESA), supported by Tenvicon Consulting and Greenwise Consult, has been appointed by Africa Finance Corporation and Mahathi Infra Uganda Limited (hereafter referred to as Mahathi) to undertake Lenders' Environmental and Social Due Diligence services in connection to the development of an integrated logistics project (the Project) with the aim of significantly reducing the cost and time of fuel transportation by utilising self-propelled barges on Lake Victoria. The Project incorporates the development of a fuel depot, jetty, barge building yard and a workers' accommodation camp. For this Environmental and Social Due Diligence report, the objective is to identify key findings (with reference to compliance with the environmental, social, health and safety aspects of the Reference Framework), and the actions necessary to address these matters.

1.1 Methodology

An Environmental and Social (E&S) review was made against Lender's sustainability criteria (hereafter referred to as the Reference Framework – *see 1.2.1*) The review process was based on documentation deposited into a virtual data room by the Sponsor prior to ESA's appointment.

1.1.1 Reference framework

The Reference Framework for this assessment comprises the following:

- Applicable local and national environmental regulations and legislation.
- Equator Principles IV (2020).
- IFC Performance Standards on Environmental and Social Sustainability (2012).
- World Bank Group EHS Guidelines – in particular the:
 - General Environmental, Health and Safety Guidelines (2007);
 - Environmental Health and Safety Guidelines for Ports, Harbours, and Terminals (2017); and
 - Environmental Health and Safety Guidelines for Crude Oil and Petroleum Products Terminals (2007).
- African Development Bank Integrated Safeguards System.
- International Labour Organisation (ILO) Conventions including Core Labour standards and basic terms and conditions of employment.

1.2 Documents Reviewed

For this Environmental and Social Due Diligence Report the following documents were reviewed:

- Environmental Impact Statement (EIS) for the Proposed Mahathi Infra (U) Limited Fuel Depot to be located on Plots 5 & 185 Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (January 2016).
- Environmental Impact Statement (EIS) for the Proposed Jetty to be located on Plot 5 Block 429 Busiro, in Bugiri-Bukasa Village, Kisubi Parish, Katabi Sub-County, Busiro County South, Wakiso District (April 2016).

- Environmental Impact Statement (EIS) for the Proposed Environmental and Social Impact Assessment of the Proposed Mahathi Infra (U) Limited Workers' Camp to be located on Plots 5 & 185 Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (April 2016).
- Environmental Impact Statement (EIS) for the Proposed Boat Building Yard to be located on Plot 5, Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (January 2017).
- Health, Safety and Environment (HSE) Policy (December 2011).
- Hazard Identification & Risk Assessment Procedure (September 2018).
- Environmental Management Plan (April 2018)
- Project Environmental Management Plan (October 2015)
- HSE Statistics (Terminal & Jetty) (April 2019).
- Environmental and Social Risk Assessment Form (Undated).
- MIUL Employee Policy Handbook (Undated).
- Climate Change Response Plan (Undated).
- Emergency Response & Disaster Management Plan (September 2018).
- Shipboard Oil Pollution Emergency Plan (SOPEP) (June 2016)
- Service-Level Agreement between Mahathi Infra Uganda Limited and NLS Waste Services Limited for Lake Victoria Project (February 2017)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Fuel Depot (March 2016)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Workers' Camp (August 2016)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Barge Building Yard (February 2017)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Jetty Extension (February 2017)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Jetty Extension (January 2021)
- Mahathi Emergency Response & Disaster Management Plan (September 2019)
- Oil Spill & Response Plan (February 2022)
- Fuel Storage Terminal & Lake Victoria Fuel Transportation Plan: Spill Prevention & Control Plan (Undated).
- Stakeholder Engagement Plan (MISPL-MIUL-STKHLPLAN-001REV0) (Undated).
- Health, Safety, Security, & Environment (HSSE) Manual (February 2022)
- Storage Terminal Construction: Occupational Health and Safety Plan (MISPL-ULVFTP-GEN-COM-003) (August 2018).

1.3 Site Verification Visits

Two site visits were undertaken to assess environmental and social performance of the project during February 2022. The site visits included interviews with key site personnel, workers, inspection of various sites / project components (yard, fuel farm, barge construction, jetty, worker accommodation) and neighbouring communities.

1.3.1 Key Findings: Constriction and Development

Health, Safety and Environment (HSE) Organisation:

The HSE aspects on Mahathi side are managed by an Environment Officer (Rakesh Kumar) and a Safety Officer (Katurebe Samuel). The team reports to the Operations and Construction Manager, who ultimately report to the Project Manager. A site nurse manages the site clinic supported by a doctor on call. There is no dedicated officer for social issues/ community liaison.

The PMC (TUV India), responsible for the terminal, storage tanks, pipelines, jetty, truck loading and pump houses provides a Safety Engineer whose responsibility includes reviewing and checking Mahathi works against applicable codes and standards. All HSE documents by Mahathi are reviewed and approved by the PMC whose team comprises a Project Manager, Safety Engineer, Civil Engineer, and Electrical/ Instrumentation Technician. The PMC team does not include either an Environmental Specialist or a Social Safeguards Specialist, thereby restricting the capacity of the PMC to adequately review safeguards documentation. Indian Register of Shipping is the PMC for the barge construction and has a similar structure.

Monitoring and Reporting:

Monthly HSE reports were on file. However, the aspects monitored and reported are effectively limited to construction related HSE issues. Key aspects include number of employees, waste generated and transported and the results of the weekly inspections. No technical equipment is utilised in monitoring, hence no available data on noise, air quality, or vibrations. Similarly, no data was available on biodiversity (terrestrial or marine) which does not seem to be subjected to any form of monitoring. It is recommended that monitoring checklists be developed to capture all physical and biological environmental and social safeguards parameters as reflected in the Project's ESMP documentation.

Compliance Audits:

It was confirmed that an environmental compliance audit was undertaken in 2021 and duly submitted to NEMA. However, there were no available records to confirm whether any audits had been undertaken prior to 2021. Environmental Compliance Audits are a conditional requirement of the NEMA authorisations and are mandatory under Ugandan environmental law. The response from NEMA acknowledges the submission of the environmental audit report (see Figure 1-1); however, outlines several non-compliant practices which it required to be addressed. Whilst the requirements to close out the listed non-compliant aspects is not regarded as arduous, it would seem that many of these have not been addressed since receipt of the NEMA response.



NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

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16th July, 2021

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RE: REVIEW OF THE ENVIRONMENTAL AUDIT REPORT FOR THE FOR THE FUEL DEPOT, LOCATED ON PLOTS 5 AND 185, BLOCK 429 BUSIRO, IN BUGIRI-BUKASA VILLAGE, KATABI SUB-COUNTY, WAKISO DISTRICT

Reference is hereby made to the Environmental Audit (EA) Report for the above-mentioned Facility, which you submitted to this Authority on 25th April, 2021, for review and consideration for approval.

The review of the EA Report has been finalised, and this Authority wishes to commend you, for aspects where compliance with the relevant laws and standards has been achieved. The areas of compliance observed during the conduct environmental audit exercise are as highlighted below:

- (a) *Good house-keeping and good waste management;*
- (b) *workers are provided with appropriate personal protective equipment;*
- (c) *noise is regulated and no complaints have been registered;*
- (d) *standby electricity generator is well-maintained;*
- (e) *the depot is well enclosed with appropriate fencing;*
- (f) *well-maintained oil interceptor.*

In spite of the above-mentioned compliance areas, however, the review of the EA Report also revealed some key aspects of non-compliance regarding the Facility operations, which require your immediate attention.

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- (a) **Inconsistency in undertaking the mandatory annual environmental audits** for this Facility, as there is evidence the recent EA is the second since after this Facility was approved in by this Authority in 2016.
- (b) The Certificate of Approval **is not displayed** at the Facility premises.
- (c) The sanitary facilities for males and females are **not segregated to enable convenient usage** of the sanitary facilities by the respective gender.
- (d) "No Smoking" signage **has not yet been installed** on site.
- (e) The drainage system is **not yet constructed.**

Considering the key issues highlighted above you are therefore, required with immediate effect, to put in measures including those highlighted below, to said issues.

- (i) Undertake the mandatory annual environmental audits on a regular basis, in accordance with the in accordance with the National Environment Act, No. 5 of 2019, the National Environment (Audits) Regulations, S.I. No. 47 of 2020, and the National Environment (Environmental and Social Assessment) Regulations, S.I No. 143 of 2020.
- (ii) Display a copy of the Certificate of Approval at a designated section of the Facility premises.
- (iii) Separate the toilets and washrooms for the respective sex of project workers, in accordance with the Public Health Act, Cap. 281.
- (iv) Post clear and legible signs reading "NO SMOKING" where smoking is prohibited at the Facility premises, in accordance with the provisions of the National Environment (Control of Smoking in Public Places) Regulations, 2004.
- (v) Put in place appropriate drainage system of adequate capacity to handle storm-water run-off from the site into the existing drainage system in the neighbourhood.
- (vi) In accordance with Section 126(6) of the National Environment Act, 2019, ensure that any other undesirable environmental impacts that may arise from the activities taking place at this Facility premises that were not foreseen at the time of undertaking the Environmental Audit, are mitigated.

You are thus, required to implement all other mitigation measures/actions outlined in the Environmental Audit Report; and, undertake (routine) proper inspection of all installed project components to ensure that the integrity and functionality of the different project components is maintained at all times.

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Figure 1-1: NEMA Response to Mahathi Environmental Audit 2021

Waste Management:

The site generates both hazardous and non-hazardous waste. There were no waste transfer forms/ notes on file and neither waste disposal certificates issued by the service provider for hazardous waste. These must be secured and maintained on file. Waste segregation at source is not practised. The project is transitioning to the operational phase, a lot of solid waste including empty paint containers, metals, wood, etc., has been generated and is being piled at the yard. Mahathi must report on the transport and final disposal of this waste including the waste recycled/ sold as scrap.

Pollution Risks:

Barge paint works done in the open. Poor management of wastewater from camp; toilet construction <50m from lakeshore. Potential for contamination. No water quality monitoring. *E. coli* contamination risk requires monitoring. The toilet and kitchen must be decommissioned as a matter of urgency.

Dust:

Blasting of equipment using copper slag is a key source of dust nuisance. No air quality monitoring done.

Noise and Vibrations:

The different works are associated with noise and vibrations. Noise was reportedly a community concern at the time when night works were done. No monitoring was done on the impact of noise and vibrations on aquatic ecology during the jetty works.

Grievance Redress Mechanism:

No formal GRM process for workers; grievances are reported to anybody where the aggrieved worker "feels comfortable". There is need for a formal GRM with clear referral path. A Grievance Log must be developed and maintained on site.

Site Security:

Site is manned by armed security guards at the entrance and at the lakeshore. It was reported that the UPDF helicopter occasionally does air patrol of the site.

Bathymetry:

Mahathi reported that the bathymetry survey along the 200km route to Kisumu has been completed. Report to be shared for review.

Parking for Tankers:

The facility is expected to serve an estimated 150 fuel tankers a day. The current materials/ equipment yard to be decommissioned and converted into a parking yard. It is estimated that it can accommodate 80-85 trucks.

Corporate Social Responsibility:

No evidence of community projects. Mahathi contribution seems to reside solely in direct employment opportunities.

Stakeholder Engagement Plan:

No evidence that the SEP has been communicated to communities and potentially affected parties. Communication with stakeholders seems to be primarily managed at a high level (e.g., Directors) in Kampala, who coordinate visits to the site including press conferences as and when the need arises.

Decommissioning:

The maintenance workshop/ equipment yard will be decommissioned. The camps may equally be decommissioned. Mahathi should prepare a decommissioning plan for such structures.

1.3.2 Key Findings: Operations

Operational phase expected by mid-2022. Operations to commence with two barges and approximately 22 staff, which is expected to increase to about 45 staff, once the facility is operating at full capacity. It is anticipated that the Project will service an estimated 150 trucks a day – 20 trucks loading per hour.

Operational Phase Risks:

Mahathi reported that the fuel farm will have an ultimate capacity of 70 million litres. 14 pumps will load an estimated 150 tankers a day. These will use the existing 5.4km access road that connects Mahathi to the main Entebbe Highway. Government of Uganda has contracted China Communications Construction Company (CCCC) to upgrade the road to bitumen standard. Section A of the road i.e., 4.48 km is about 20-30ft which can be used by the tankers while the Section B as you approach Mahathi (1.85km) is narrow ~ 12-20ft wide. The road requires expansion from the current 2-3 meters to about 5m to accommodate the fuel tankers. This triggers land acquisition and compensation. Government will meet both the compensation and construction costs, NOT Mahathi. The road civil works have not yet commenced and Mahathi is concerned that the road will not be ready soon, yet operations are planned for late April/ May 2022. The option and part of the operational plan is for Mahathi to undertake some limited civil works on the narrow sections including improving drainage.

HSE Staffing:

The current PMCs (TUV India & India Register of Shipping) will end with the construction phase. The operational phase will require strengthening HSE team including guiding traffic along the narrow sections of the access road. It was reported that the current HSE team will exit after the construction phase.

Pollution Control: The barges are double haul vessels which will contain any fuel leaks. A concrete wall around the tanks for primary containment. The area within the fuel storage tanks to be paved (Plain cement concrete) and all drainage to be channelled through the Oil Water Separator (OWS). This will be tested using a purimeter to monitor any discharge beyond 10ppm. Reinforced cement concrete for loading bays draining into the OWS.

Noise:

Two (2) heavy duty standby generators (@ 625kVA).

Fire safety:

Foam tank (20,000 liter) and water lines. Fully automated firefighting system.

Emergencies on Barges:

Two (2) lifeboats to be installed on each barge.

Community Safety: T

here is a residence that shares the perimeter wall with the site. Mahathi feels it is within the safety distance. Others are located about 100m away and a school less than 400m away. Safety risks to be reviewed. Mahathi expects to acquire more land. In case the road is not upgraded in time, Mahathi will deploy flag personnel equipped with walkie talkies to control traffic along the 5.4km access road. For the start, the trucks with capacity of 500-10,000 will be served. Trucks with capacity of >35,000 litres will require road upgrading.

Permits and Licenses:

Certification of barges to be secured from Ministry of Works and Transport.

1.3.3 Stakeholder Concerns

Stakeholder concerns were captured during a series of interviews and are summarised in the Table below (Table 1-1).

Table 1-1: Stakeholder Concerns

Stakeholder	Concerns
Environmental Health Officer – Katabi Town Council	<ul style="list-style-type: none">- Some permits had expired and required renewal- Some of the facilities had not done annual environmental audits- Lakeshore user permit seems to be missing- Need to confirm where the waste from the site is disposed- The closest Ramsar site is Lutembe wetland- Check for covid19 vigilance at the site- Need to consult MAAIF on fisheries issues- Absence of a water quality monitoring program- Risk of cumulative impacts – Mango tree project after Mahathi site and a pier expected before Mahathi site.- Site near the lake has a history of flooding – the sanitary facilities at the lake should be decommissioned.
Racheal Nakalembe Fisheries Officer – Katabi Town Council	<ul style="list-style-type: none">- No information about the project including the management plans have been disclosed to her office- The works can impact fisheries – fish cannot breed in noisy places.- Although fishing used to be done at the site, it is not a gazetted landing site- Fisheries monitoring should be done.
Fishing Community at Kikulwe Landing Site (about 2km downstream)	<ul style="list-style-type: none">- Way before the Mahathi project, the site had some fishing activity – “Mumbai landing site”. The fishermen relocated to other sites.- The barges may destroy their fishing nets- The barges may collide with fishing boats at night – the fishermen sleep in the boats at night on water

	<ul style="list-style-type: none"> - Fish species such as the Nile perch hate noise – they may migrate to quiet places. Potential impact of noise and vibrations. - Currently there are 2 ships (1 from Kenya and the other from Tanzania). They cross about 3 times a week. They follow fixed routes based on the lake profile. - The landing site has about 100 boats. - Need to mark the routes of the barges and share/ disclose their schedules to the fishing community. This is to avoid fishermen from casting their nets within the routes. - Recommend that the barges move during day. - Reported interactions between Mahathi expatriate staff and locals at the landing site – risk of diseases including HIV/ AIDS.
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1.4 Project Organisation and Description

1.4.1 Organisation

Mahathi has commenced with the development of the Lake Victoria Fuel Transport Project to provide for a higher volume, more efficient transportation system of fuel products including gasoline, kerosene, diesel-fuel and Jet A1. The fuel will be delivered by self-propelled barges from Kisumu, Kenya, where it will be stored prior to distribution to facilities both within Uganda and neighbouring countries, significantly cutting down delivery times and transport costs.

Mahathi Infra Uganda Limited is a SPV developed by a consortium comprising:

- Mahathi Infra Group of India
- Signon Group of Kenya
- Fortune Energy of Uganda.

1.4.2 Development Description

The Project incorporates the development of a tank farm, jetty, barge building yard (see Appendix 1; Plate 3) and a workers' accommodation camp.

The tank farm has 14 storage tanks with capacity to hold 70,000,000 litres (L) of fuel (see Appendix 1; Plate 2). This provides sufficient capacity for trade in fuel among potential destination countries (including Rwanda, Burundi and South Sudan, considering that Uganda only uses approximately 4,500,000L of fuel daily).

The jetty comprises a 220-metre-long jetty including four dedicated pipelines, one each for the four refined petroleum types (see Appendix 1; Plate 1).

The project will be serviced by four self-propelling oil tanker barges, each with capacity of 4,400,000 litres, which approximately equates to 150 fuel trucks.

1.5 Scope of Work and Methodology

This ESDD reviews and assesses the Project's environmental and social documentation against a reference framework comprising the environmental laws and regulations of Uganda and good international industry practice (GIIP) as represented by the Equator Principles; IFC Performance Standards on Environmental and Social Sustainability; and applicable World Bank Environmental, Health and Safety (EHS) guidelines. This was achieved through review of the Project's environmental

and social documentation as made available by the Project Sponsor and by a series of site verification visits undertaken in February and March 2022.

1.6 Applicable Standards

This review is made against the applicable national and international standards which are listed below.

1.6.1 National Legislative Framework

The relevant Ugandan environmental and statutory laws and regulations to guide NEMA in project design up to implementation and monitoring include the following:

- Lake Victoria Transport Act 2007
- National Environment Act, No. 5 of 2019
- The Uganda Wildlife Act, 2019
- Water Act Cap. 152 (1997)
- National Environment (Audit) Regulation, 2020
- National Environment (Management of Ozone Depleting Substances & Products) Regulations S.I. No. 48 of 2020
- National Environment (Waste Management) Regulations S.I. No. 49 of 2020, 153-2
- Petroleum (Waste Management) Regulations S.I. No. 3 of 2019
- Minimum Standards for Management of Soil
- National Environment (Noise Standards and Control) Regulations
- National Environment (Wetlands, Riverbanks and Lake Shores Management) Regulations 153-5
- National Environment (Standards for Discharge of Effluent into Water or Land) Regulations 2020
- National Environment (Oil Spill Prevention, Preparedness and Response) Regulations, 2020
- National Environment (Environmental and Social Assessment) Regulations S.I. No. 143 of 2020
- Strategic Environmental Assessment (SEA) Guidelines 2020

1.6.2 International Framework

The international guidelines applicable to this review are:

- The Equator Principles IV (July 2020);
- IFC Performance Standards on Environmental and Social Sustainability 2012¹ (IFC PS), namely:
 - IFC PS1 – Assessment and Management of Environmental and Social Risks and Impacts

¹ It is our professional opinion that IFC PS7 – Indigenous Peoples; is not applicable to this project.

- IFC PS2 – Labour and Working Conditions
- IFC PS3 – Resource Efficiency and Pollution Prevention
- IFC PS4 – Community Health, Safety and Security
- IFC PS5 – Land Acquisition and Involuntary Resettlement
- IFC PS6 – Biodiversity Conservation and Management of Living Natural Resources
- IFC PS8 – Cultural Heritage
- World Bank Group Industry Sector Guidelines
 - IFC General EHS Guidelines (April 2007); and
 - IFC EHS Guidelines for Ports, Harbours, and Terminals (February 2017)
 - IFC EHS Guidelines for Crude Oil and Petroleum Product Terminals (April 2007)
- Internationally Recognised Worker Rights
- Host country laws, regulations, and standards, including host country obligations under international law
- All International Labour Organisation (ILO) conventions signed and ratified by Uganda, including eight out of eight fundamental core labour standard conventions:
- ILO Conventions 87 and 98 on freedom of association and collective bargaining
- ILO Conventions 29 and 105 on elimination of forced and compulsory labour
- ILO Conventions 100 and 111 on elimination of discrimination in respect of employment and occupation
- ILO Conventions 138 and 182 on abolition of child labour
- Uganda is a signatory of the following Agreements, Conventions and Legal Instruments for the sustainable management of Lake Victoria:
- East African Community Treaty (1999)
- Lake Victoria Development Programme (2001)
- The Lake Victoria Basin Commission - established through the Protocol for Sustainable Development of the Lake Victoria Basin (the "LVBC Protocol"), which was signed on 29 November 2003 and ratified in December 2004.
- The Lake Victoria Fisheries Organization, 1994, which entered into force on 24 May 1996 and amended in 1998.
- The Lake Victoria Environmental Management Project 1994 (second phase, LVEMP II, commenced in 2010).
- The Partnership Agreement on the Promotion of Sustainable Development in Lake Victoria 2001
- The Nile River Basin Initiative 2006.

1.7 Project Classification

The series of Environmental and Social Impact Assessment (ESIA) studies were prepared by Solutions for Environmental Challenges Consults Ltd to meet Ugandan requirements including the National Environment Act Cap 153 and the associated Environmental Impact Assessment Regulations, 1998.

Please note, that the National Environment Act was amended in 2019 and the EIA Regulations have been supplemented with several other statutory instruments including the National Environment (Environmental and Social Assessment) Regulations, 2020.

None of the ESIA's completed by Solutions for Environmental Challenges Consults Ltd. a classification according to the requirements of Equator Principles is not presented within current Project documentation.

Equator Principles III Principle 1: Review and Categorisation requires that an Equator Principles Financial Institution categorises the Project as one of the following:

- Category A – Projects with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented;
- Category B – Projects with potential limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and
- Category C – Projects with minimal or no adverse environmental and social risks and/or impacts.

As per Equator Principle categorisation definitions, it is our professional opinion that the Project should be classified as a **Category A** with the potential for significant and multiple adverse social and environmental impacts. Furthermore, we are of the professional opinion that whilst potential adverse impacts can be effectively mitigated by engineering design and risk mitigation the classification of Category A should remain due to the Project being largely within the Lake Victoria environment (which contains numerous sensitive receptors) on sites which have been previously not been developed.

1.8 Status of the Environmental and Social Impact Assessment

Four Environmental Impact Statements were prepared for the project:

- Environmental Impact Statement (EIS) for the Proposed Mahathi Infra (U) Limited Fuel Depot to be located on Plots 5 & 185 Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (January 2016).
- Environmental Impact Statement (EIS) for the Proposed Jetty to be located on Plot 5 Block 429 Busiro, in Bugiri-Bukasa Village, Kisubi Parish, Katabi Sub-County, Busiro County South, Wakiso District (April 2016).
- Environmental Impact Statement (EIS) for the Proposed Environmental and Social Impact Assessment of the Proposed Mahathi Infra (U) Limited Workers' Camp to be located on Plots 5 & 185 Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (April 2016).

- Environmental Impact Statement (EIS) for the Proposed Boat Building Yard to be located on Plot 5, Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (January 2017).

Together, the four, EIS provide detail regarding the overall Project, including:

- Construction of the tank farm;
- Development of associated forecourt areas and the spillage drainage system;
- Provision for on-site surface drainage;
- Construction of the jetty;
- Specifications of the self-propelled fuel transport barges;;
- Method of site clearing and preparation;
- Sewage and wastewater systems;
- Perimeter fencing and security lights;
- Stormwater management; and
- Site access.

Whilst it is acknowledged that each EIS was compiled to previous environmental impact assessment regulations which have since been revised, each EIS does not fully assess the environmental and social risks potentially associated with the development of the project, with noticeable gaps in the baseline analysis of each EIS, insufficient stakeholder engagement and an impact analysis which is not comprehensive, omitting several critical impacts (e.g., air quality).

Nevertheless, it is anticipated that these gaps can be addressed through the development of environmental action and management plans; revisiting stakeholder engagement and expanding it to ensure all interested and affected parties are provided with opportunities to comment; and establish sufficiently robust monitoring programmes to facilitate a strong ethos of proactive environmental and social management throughout the Project's lifecycle.

The agreement between the Government of Uganda (GoU) and Mahathi suggests that engagements with other EAC governments should be incorporated into the overarching Project Stakeholder Engagement Plan. There are several key stakeholders at the transboundary level involved in the sustainable management of the Lake Victoria Basin and it is recommended that these are also actively engaged as soon as possible. Such stakeholders would include the Lake Victoria Basin Commission (LVBC) and the Lake Victoria Fisheries Organization (LVFO). The EIS does not assess the potential impacts on vulnerable groups. As a minimum, we would recommend the inclusion of traditional and artisanal fishermen whose livelihoods are dependent on the health of Lake Victoria and the inherent ecosystems contained therein.

Future assessments will need to be aligned to the National Environment (Environmental and Social Assessment) Regulations, 2020 and the National Environment (Strategic Environmental Assessment) Regulations, 2020.

We acknowledge that the Project secured written approval of 'project concept' for the transportation of fuel on Lake Victoria from the Ministry of Works and Transport (MoWT). However, to meet Lenders' Sustainability Criteria and minimise potential risk, we would recommend that the Project secure a formal

license / permit from MoWT for the transportation of fuel on Lake Victoria as a condition precedent to financial close.

Additionally, all relevant registrations, permits and licenses required under the Lake Victoria Transport Act (2007) and the Lake Victoria Transport (Maritime Safety) Regulations (2010) must be obtained. These include a Certificate of Seaworthiness for each barge and a Certificate of Safe Manning.

Each EIS includes an Environmental Monitoring Plan that recommends the establishment of a 'Monitoring Team' comprising Mahathi and Third-Party personnel. The Environmental Monitoring Plan provides an Environmental Mitigation Plan providing high-level management prescriptions to "to ensure effective implementation of the proposed project in an environmentally sound manner." However, the respective mitigation plans do not meet the standard of a comprehensive and robust environmental and social management plan (ESMP), a document intended to mitigate potential environmental and social impacts to the construction and operation of the proposed facilities.

Mahathi has compiled an Environmental Management Plan, initially in October 2015 followed by a revised version in April 2018.

To meet Lenders' Sustainability Criteria and the Reference Framework we would expect the Environmental Management Plans and Environmental Monitoring Plans to supplement the Environmental Impact Statements and deliver a robust comprehensive impact assessment which also addresses potentially material environmental and social issues.

From a lenders' perspective, we would expect the documentation to reference good internal industry practices (GIIP) guidelines as per the guidelines, principles and policies that comprise the Project's Reference Framework (refer to Section 1.2.2 of this report).

Within this framework, surprisingly, no direct reference is made to the IFC Performance Standards or the World Bank's Environmental, Health, and Safety (EHS) Guidelines.

1.9 Impact Identification

Specific industry related impacts that the EHS Guidelines for Ports, Harbours, and Terminals; and Crude Oil and Petroleum Product Terminals respectively, focus upon the following:

- Terrestrial and aquatic habitat alteration and biodiversity
- Climate change resilience
- Wastewater and Water quality
- Air emissions
- Waste management
- Hazardous materials and oil management
- Noise and vibration (including underwater).

Climate change resilience is not addressed in the current environmental and social documentation and whilst noise is assessed, underwater vibrations are not. Recommendations for air emissions are high-level and do not include any quantifiable threshold limits or guidance on how air emission impacts should be assessed.

The Project has conducted a series of Environmental Impact Statements (which seem to be high-level, abridged versions of an international ESIA), and as such does not fully evaluate all the environmental and social impacts that are associated with the nature of such a development.

There is no documented methodology for how impacts were identified, with pre-mitigation and post-mitigation impacts seeming assessed in a subjective matter with little detail on severity, magnitude, or duration of each impact. We would have anticipated that impact identification was realized through a combination of assessing the nature of the proposed project, field inspections and observations, concerns from stakeholder consultations and issues derived from recent projects and relevant literature searches

Therefore, this review seeks to supplement the existing environmental and social documentation for the Project by focusing primarily on the environmental and social aspects prescribed by GIIP for facilities such as the tank farm and jetty to identify gaps in the existing environmental documentation and provide recommendations on how these gaps may be filled in order to meet Lenders' sustainability criteria.

Specific attention is focussed on any key issues that require attention to facilitate Financial Close.

1.10 Labour and Working Conditions

1.10.1 Overview

IFC PS2 on Labour and Working conditions requires that the Project Company and EPC contractor develop and implement an HR Policy in line with the topics and commitments described in PS2, which are:

- Working Conditions and Management of Worker Relationship
 - Human Resources Policy
 - Working Relationship
 - Working Conditions & Terms of Employment
 - Workers' Organizations
 - Non-Discrimination & Equal Opportunity
 - Retrenchment
 - Grievance Mechanism
- Protecting the Workforce
 - Child Labour
 - Forced Labour
- Occupational Health & Safety
- Workers Engaged by Third Parties
- Supply Chain

Uganda is a signatory to the following International Labour Organisation's (ILO) labour standards:

- ILO Convention 87 on Freedom of Association and Protection of the Right to Organise, signed 2005
- ILO Convention 98 on the Right to Organise and Collective Bargaining, signed 1963
- ILO Convention 29 on Forced Labour, signed 1963

- ILO Convention 105 on the Abolition of Forced Labour, signed 1963
- ILO Convention 138 on Minimum Age (of Employment), signed 2003
- ILO Convention 182 on the Worst Forms of Child Labour, signed 2001
- ILO Convention 100 on Equal Remuneration, signed 2005
- ILO Convention 111 on Discrimination (Employment and Occupation), signed 2005

Uganda is also a signatory to the two United Nations (UN) Conventions referred to in IFC PS2:

- UN Convention on the Rights of the Child (Article 21), signed 1990
- UN Convention on the Protection of the Rights of all Migrant Workers and members of their Families, signed 1995

In addition, Uganda has also signed other UN and ILO Conventions that are not listed above. As such, the Project is also expected to adhere to these.

To facilitate compliance to these requirements it is recommended that the existing MIUL Employee Policy Handbook be revised to ensure that it is aligned to a complementary HR policy and procedure. Specifically, the handbook should apply not only to all Mahathi employees but also to all subcontractors, employees not directly contracted by Mahathi, and third-party suppliers who do not have their own HR policies in place or lack compliance to PS2. In addition, the handbook should provide explicit commitments on abolishment of child and forced labour; freedom of association for workers and workers' right to organise and collective bargaining; non-discrimination and equal remuneration, and a provision for retrenchment; all of which are required by PS2. These commitments will ensure that workers receive signed written contracts that stipulates their working conditions and terms of employment in line with an IFC PS2 compliant HR policy.

1.10.2 Recommendation/Update

Revise the Employee Policy Handbook to ensure that it conforms with the recommendations of IFC PS2. Implement procedures to ensure that the resulting HR policy is communicated to all employees and site personnel. IFC PS2 requires the establishment, communication, and implementation of an HR policy to protect workers' rights, including subcontractors, non-Project employees and third-party suppliers. Furthermore, regular monitoring of labour and working conditions should be undertaken to ensure compliance with HR commitments and IFC PS2 requirements.

1.11 Stakeholder engagement

1.11.1 Overview

In accordance with IFC requirements, it is noted that a Stakeholder Engagement Plan (SEP) has not been developed to guide the Project's information disclosure and public consultation activities. This is deemed critical for the project given the multiple entities involved in the development of the proposed project and allocation of environmental and social obligations amongst these entities. For example, based on the documentation received and discussions held to date, it is unclear on who are the responsible parties for payment should compensation be applicable; and how this is assessed and implemented. The project needs to ensure that it is always seen to be transparent in its dealings with all communities, focus groups and stakeholders.

The SEP includes the expected content for an internationally compliant SEP, including:

- Project description and overview
- Regulatory requirements (national and international)
- Stakeholder identification and analysis
- Stakeholder engagement activities (historical and future programme)
- Implementation timeframes and responsibilities
- Provisions for monitoring and reporting
- Grievance mechanism

The content must provide sufficient guidance for future stakeholder engagement. The SEP should also provide evidence of historical stakeholder engagement activities. The Project may consider a focus-approach for stakeholder engagement given the Project's footprint and Area of Influence.

The public participation process (PPP) that was undertaken for the Project is in most cases documented, including photographic evidence of most meetings, and attendance registers were provided. However, the PPP effort was not sufficiently comprehensive nor representative of communities and people that may be potentially affected by the development of the Project. It is recommended that Mahathi appoint a Community Liaison Officer (CLO), whose contact details must be disclosed to neighbouring communities along with information on how to submit queries or grievances.

1.11.2 Recommendation/Update

Compilation of a comprehensive Stakeholder Engagement Plan and evidence that contact details of a CLO have been disclosed to stakeholders and affected communities as well as information on how to submit queries and grievances.

1.12 Climate change resilience

1.12.1 Overview

Climate change resilience is not addressed in the EIS documentation. Jetties and infrastructure situated near large bodies of water may be vulnerable to risks related to climate variability such as increased intensity of rainfall, changing water levels, and more extreme weather events. Furthermore, alterations to shoreline processes and riverbed geomorphology by significant dredging and port infrastructure development, may result in an increased risk of inundation and higher mean water levels which in the long-term could adversely impact on the viability of operations.

The IFC EHS Guidelines for Ports, Harbours and Terminals provides high-level recommendations for design and operational aspects to be considered as part of a climate change adaptation plan for the development new ports and significant port expansions (Figure 1-2).

CLIMATE CHANGE ADAPTATION PLANNING

DESIGN & OPERATIONAL CONSIDERATIONS

Design port-related infrastructure (e.g. buildings, quays, berths, bridges, foundations, slopes, embankments, breakwaters, storm water drainage) to increase climate resiliency in the context of changing sea levels, and more extreme weather events;

Select or replace cargo handling, storage, transport equipment (e.g. considering crane stability, enclosing material stockpile bays, location of electrical equipment, corrosion protection) and review cargo transport routes (e.g. avoiding flood prone areas, improving on-site drainage systems and maintenance) to increase climate resiliency in the context of changing climate conditions and events (e.g. increased lightning, precipitation, floods, wind speeds, temperatures);

Assess the contribution of port construction and operation to incremental climate change impacts on habitats of high biodiversity value and rare, threatened or endangered species found in the vicinity of the port; identify opportunities to improve the adaptive capacity of such species and habitats.

ENVIRONMENTAL, HEALTH, AND SAFETY GUIDELINES:
PORTS, HARBOURS, AND TERMINALS (2017)

Figure 1-2: Climate Change Planning

1.12.2 GHG Emissions

Nevertheless, the Project has the potential to significantly reduce greenhouse gas (GHG) emissions attributed to the transportation of bulk fuel projects.

This is on the basis that: a) one self-propelled barge (capacity 4,400,000L) has the equivalent storage capacity of approximately 150 tanker trucks (capacity $\pm 30,000L$), and b) the road route between Kisumu and the Mahathi Bulk Fuel Storage Facility is approximately 350km, whilst the distance to travel via barge (in a 'straight-line' over Lake Victoria) between Kisumu and the Bulk Fuel Storage Facility is significantly less ($\pm 250km$).

Using these figures, we can undertake a high-level comparative analysis of GHG emissions between the Mahathi Lake Victoria fuel transportation option and the current use of road tanker trucks (see Table 1-2).

Transportation Method	Tonnes of CO ₂ equivalent (tCO ₂ e) ²
Self-Propelled Barges	7,692
Tanker Trucks (150)	172,103

Table 1-2: Estimated GHG Emissions for Bulk Fuel Transportation

This demonstrates a significantly reduced carbon footprint per trip. Whilst the calculation does not consider the potential contribution to GHG emissions from fugitive emissions during transfer and at

² Calculated using the Logward CO₂ Emissions Calculator (available at: <https://www.logward.com/co2-calculator>).

each tank within the tank farm at the bulk fuel storage facility these can be readily offset by design features including floating roof tops and environmentally conscious management of waste and water resources.

Conversely, the calculation assumes that the road journey will be undertaken on a road surface that facilitates a consistent journey, uninterrupted by road deterioration or degradation. Furthermore, the road between Kisumu and Entebbe is, in places, not conducive to uninterrupted connectivity³ and the road worthiness of many commercial tanker trucks is also questionable.

Therefore, from a GHG perspective, the Project is beneficial.

1.12.3 Recommendation/Update

Environmental and social documentation to be updated to provide detail on how the design, construction and operational phases of the project will incorporate climate change resilience and how this will be monitored. This may be reflected, for example, in the adaptation of emergency preparedness and response plans; the use of storm resilient equipment; the development of a post-storm employee management plan; or recommendations on building materials and hardened and/or elevated structures.

1.13 Biodiversity

1.13.1 Overview

The EIS provides little detail on the biodiversity asset associated with the Project and does not fulfil the requirements of IFC PS 6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources).

Lake Victoria - lake and lakeshore – and the adjacent wetland are repositories of biodiversity, including habitats to aquatic and terrestrial biodiversity. For example, the Lake Victoria Basin has exceptionally high diversity and endemism of freshwater species. Of 651 species of freshwater decapods, fishes, molluscs, Odonata (dragonflies and damselflies), and aquatic plants identified in an IUCN commissioned to assess freshwater biodiversity within the Lake Victoria Basin, 204 (31.3%) are endemic to the region.

This diversity contributes significantly to local livelihoods and regional economies within the basin, and it is this type of diversity and endemism that IFC PS 6 seeks to conserve.

The EIS suite biodiversity baseline assessment was sparse and excluded any information on several major animal and plant groups, including avifauna – birds are considered a valuable indicator species because they are readily observable, sensitive to toxicants, and live in different trophic positions. Thus, birds are considered to be good bioindicators of an ecosystems quality, productivity, and stability. It was anticipated that a bathymetric survey of the jetty area would have been undertaken; however, this is not referenced in the jetty EIS. It will be useful for the client to undertake water quality monitoring around the jetty area to detect impacts of construction on the aquatic ecology.

1.13.2 Recommendation/Update

We note that no biodiversity specialists were credited in any of the EIS documents and would therefore recommend that a reputable biodiversity expert be appointed to provide a professional opinion on

³ <https://observer.ug/business/52800-indian-firm-wins-oil-route-on-lake-victoria.html>

management practices that would facilitate the sustainable conservation of flora and fauna during the lifecycle of the Project.

Furthermore, on behalf of lenders, we would request confirmation of whether a bathymetric survey was undertaken and if so, copy of that survey to assess whether there is any risk of erosion or sedimentation. Additionally, the Project develops a control and eradication procedures for alien organisms. This should be incorporated into the ESMP.

1.14 Cumulative Impacts

1.14.1 Overview

Cumulative impacts have not been adequately addressed in the environmental and social documentation.

The cumulative effects of the planned components for the development of the Lake Victoria Fuel Transportation Project may be coarsely grouped under the following categories:

- **Traffic and Transportation** (including accessibility, congestion and transport efficiency);
- **Socio-economic Environment** (including noise, visual impact, land use planning, hazards and risks, social impacts and equity and economic impacts); and
- **Biophysical Environment** (including air quality, water quality and aquatic ecology).

These categories are not mutually exclusive. The description of the cumulative impacts will provide a broad overview and will be qualitative, as the level of information available for these developments and activities is anticipated to be variable.

1.14.2 Recommendation/Update

A qualitative analysis of the potential cumulative impacts of the proposed Project with existing and planned developments within the area should be undertaken. This will confirm whether any additional cumulative impacts from this development, other than those identified in the suite of EISs, would be expected to occur. This would enable the project to insulate itself against any claims that it is degrading the airshed, lacustrine environment, or water quality by demonstrating its contribution to that of any other activities/ projects within the area.

1.15 Transboundary Impacts

1.15.1 Overview

The project will import bulk fuel via Kisumu Port in Kenya. We understand that Mahathi has secured a berthing area / jetty at the Port of Kisumu. The lease agreement between Mahathi and Kenya Ports Authority (KPA) is subject to compliance to the environmental and social policy of the KPA and conditional requirements for ensuring all operations are undertaken in an environmentally conscious manner. and regulations of the Kenya Ports Authority. We have reviewed the Environmental and Social Impact Assessment Study Report for the Proposed Revitalization of Kisumu Port Infrastructure⁴ (2019) which contains a robust Environmental Management Plan and comprehensive Environmental Monitoring Plan, containing monitoring prescriptions for:

⁴ Available at: [https://www.nema.go.ke/images/Docs/EIA_1660-1669/ESIA_1666%20Revitalization%20of%20Kisumu%20Port%20Infrastructure%20\(SR%201663\)-min.pdf](https://www.nema.go.ke/images/Docs/EIA_1660-1669/ESIA_1666%20Revitalization%20of%20Kisumu%20Port%20Infrastructure%20(SR%201663)-min.pdf)

- Water quality
- Sediments
- Biodiversity
- Aquatic macrophytes
- Fisheries
- Noise
- Air quality

The documentation also provides a robust Grievance Redress Mechanism. Based on the documentation reviewed and the environmental performance of KPA in a similar project (Kipevu Oil Terminal at Mombasa Port). We are confident that lenders' sustainability criteria will be satisfied provided that Mahathi's operations comply with the environmental and social requirements of KPA.

1.15.2 Recommendation/Update

Mahathi should develop a monthly environmental monitoring reporting template to capture data as per the monitoring prescriptions contained within the ESIA for the Proposed Revitalization of Kisumu Port Infrastructure (Section 5). This would facilitate a robust and comprehensive environmental monitoring platform for Mahathi's operations at Kisumu Port and facilitate continuous compliance to lenders' sustainability criteria and GIIP.

2. ENVIRONMENTAL AND SOCIAL COMPLIANCE REVIEW

2.1 Overview

The assessment presented in this report is based on interviews conducted with project sponsor representatives, observations from ESA's site visits conducted during February and March 2022 and reviews of the following documentation as provided in the Virtual Data Room (VDR).

- Environmental Impact Statement (EIS) for the Proposed Mahathi Infra (U) Limited Fuel Depot to be located on Plots 5 & 185 Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (January 2016).
- Environmental Impact Statement (EIS) for the Proposed Jetty to be located on Plot 5 Block 429 Busiro, in Bugiri-Bukasa Village, Kisubi Parish, Katabi Sub-County, Busiro County South, Wakiso District (April 2016).
- Environmental Impact Statement (EIS) for the Proposed Environmental and Social Impact Assessment of the Proposed Mahathi Infra (U) Limited Workers' Camp to be located on Plots 5 & 185 Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (April 2016).
- Environmental Impact Statement (EIS) for the Proposed Boat Building Yard to be located on Plot 5, Block 429 Busiro, in Bugiri-Bukasa Village, Katabi Sub-County, Wakiso District (January 2017).
- Health, Safety and Environment (HSE) Policy (December 2011).
- Hazard Identification & Risk Assessment Procedure (September 2018).
- Environmental Management Plan (April 2018)
- Project Environmental Management Plan (October 2015)
- HSE Statistics (Terminal & Jetty) (April 2019).
- Environmental and Social Risk Assessment Form (Undated).
- MIUL Employee Policy Handbook (Undated).
- Climate Change Response Plan (Undated).
- Emergency Response & Disaster Management Plan (September 2018).
- Shipboard Oil Pollution Emergency Plan (SOPEP) (June 2016)
- Spill Prevention and Control Plan (Undated).
- Service-Level Agreement between Mahathi Infra Uganda Limited and NLS Waste Services Limited for Lake Victoria Project (February 2017)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Fuel Depot (March 2016)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Workers' Camp (August 2016)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Barge Building Yard (February 2017)

- NEMA Certificate of Approval of Environmental Impact Assessment for the Jetty Extension (February 2017)
- NEMA Certificate of Approval of Environmental Impact Assessment for the Jetty Extension (January 2021)
- Mahathi Emergency Response & Disaster Management Plan (September 2019)
- Oil Spill & Response Plan (February 2022)
- Fuel Storage Terminal & Lake Victoria Fuel Transportation Plan: Spill Prevention & Control Plan (Undated).
- Stakeholder Engagement Plan (MISPL-MIUL-STKHLPLAN-001REV0) (Undated).
- Health, Safety, Security, & Environment (HSSE) Manual (February 2022)
- Storage Terminal Construction: Occupational Health and Safety Plan (MISPL-ULVFTP-GEN-COM-003) (August 2018).

2.2 Compliance Assessment

A risk-based approach has been adopted in identifying significant issues in relation to the Project based on their potential compliance risk and/or reputational risk against the national environmental regulatory framework and good international industry practices. Potential environmental, social, health and safety (ESHS) issues have been categorised in accordance with the risk ranking detailed in Table 2-1.

Table 2-1: Environmental and Social Risk Categories and Criteria

Environmental and Social Risk Category	Definition
Low	<p>From our analysis of the information reviewed, we are of the opinion that the risk:</p> <ul style="list-style-type: none"> • When considered from the perspective of its likelihood and impacts should not have a material impact on the overall Project risk assessment • Has been allocated to an appropriate party • Is being managed according to what is regarded as good project finance practice
Medium	<p>From our analysis of the information reviewed, we are of the opinion that the risk:</p> <ul style="list-style-type: none"> • When considered from the perspective of its likelihood and impacts could have a material impact on the Project risk assessment but is being managed appropriately and is not considered sufficiently high-risk to impede financial close • Should be closed out prior to financial close but is considered non-material • May not have been allocated to the most appropriate party, but nonetheless is being managed according to what is regarded as good project finance practice.

Environmental and Social Risk Category	Definition
High	We recommend that the Project does not proceed to financial close until the allocation and/or measures defined for managing the risk are amended to enable an award of a Low or Medium risk status.

The following section presents the findings of our review of environmental and social risk associated with the proposed development against the Equator Principles IV (Table 2-2) and IFC Performance Standards on Environmental and Social Sustainability (Table 2-3).

Table 2-2: Compliance to the Equator Principles IV

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
1. Review and categorisation	-	No classification of project undertaken.	Appropriate classification of Project to be undertaken.	It is considered that the Project can be classified as a Category A with the potential for adverse social or environmental impacts located within a sensitive environment. Whilst we acknowledge that impacts can be managed by engineering design and risk mitigation, the classification is due to the Project's footprint being largely within the Lake Victoria Basin on land that has not been previously used for this form of intensive development.
2. Social and Environmental Assessment		A series (four) of Environmental Impact Statements have been undertaken and have resulted in certificates of approval by the national environmental regulator, NEMA, being issued.	EIS amendments / addendum required to facilitate compliance to prescribed Lender's sustainability criteria.	Recommend a Condition Subsequent to Financial Close but submitted for Lenders' review within three months of Financial Close.
3. Applicable Environmental and Social Standards	IFC PS 1: Assessment and Management of Environmental and	(Assessed utilising IFC Performance Standards)	See Table 2-3: Compliance to the IFC Performance Standards	-

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
	Social Risks and Impacts			
	IFC PS 2: Labour and Working Conditions	There is an existing MIUL Employee Policy Handbook which covers recruitment, training and various administrative procedures (e.g., salary advance requests and leave and temporary labour). To facilitate compliance to Ugandan Labour Law and alignment to IFC PS 2 and the applicable ILO conventions, the Project must explicitly dictate the terms and conditions for employment, including: abolition of forced and child labour, freedom of association, the right to organise and collective bargaining, non-discrimination, and fair and equitable remuneration and retrenchment.	Revise MIUL Employee Policy Handbook to incorporate all terms and conditions of employment, including an employee grievance mechanism.	Revise MIUL Employee Policy Handbook prior to Financial Close.
	IFC PS 3: Resource Efficiency and Pollution Prevention	Ambient air quality has not been established. The potential for the generation of particulate matter and fugitive emissions from	Sponsor to liaise with NEMA and other concession holders to co-ordinate information-sharing and engage an independent Air Quality	Condition Subsequent to Financial Close but submitted for Lenders' review three months after commercial operation date (COD).

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
		<p>Project activities needs to be quantifiably assessed and a determination made on how Project activities will affect the airshed. Monitoring and management prescriptions to be incorporated in a management plan or amended ESMP.</p> <p>Considerations toward climate change have not been addressed.</p>	<p>practitioner to assess whether potential contaminants will significantly increase and if so, what mitigating measures can be implemented.</p> <p>The potential effect of the Project on climate change to be assessed. Whilst we provided a high-level analysis in Section 1.8.2 of this report, we would recommend an approach which adopts the risk categories identified by the Task Force on Climate-related Financial Disclosures (TCFD) and assesses the CO₂ equivalent (CO₂e) of both Scope 1 and Scope 2 GHG emissions. We believe this would be beneficial to the Project, meeting lenders' sustainability criteria and positioning the Project to take advantage of the EU Taxonomy for Sustainable Finance, should further investment be required.</p>	<p>Undertake a Climate Change Risk Assessment as per TCFD guidelines and submitted for Lenders' review three months after commercial operation date (COD).</p>
	<p>IFC PS 4: Community Health, Safety, and Security</p>	<p>Community health, safety and security risks and impacts have not been documented,</p>	<p>Sponsor to incorporate issues trail and response procedures into the SEP and develop a</p>	<p>Stakeholder Engagement Plan to be revised and a comprehensive Community</p>

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
		<p>with appropriate mitigation measures identified. Whilst the SEP develops some protocols for community interface, there is no documented procedures to record queries, complaints or issues received from surrounding communities nor is there a documented grievance redress mechanism.</p> <p>It is acknowledged that local artisanal fisherman has been consulted and alternative berthing points established; however, this needs to be documented to satisfy lenders' sustainability criteria and address the need to safeguard and promote human rights as per EP IV.</p>	<p>grievance redress mechanism which is to be communicated to all potential stakeholders including nearby communities.</p> <p>The Project Management Contractors (TUV India for the terminal, storage tanks, pipelines, jetty, truck loading and pump houses; Indian Register of Shipping for the barges) include a Safety Engineer whose responsibilities include reviewing and checking Mahathi project documents against applicable codes and standards. Nevertheless, the PMC teams do not include an Environmental or Social Specialist, therefore Mahathi to develop a comprehensive Community Health, Safety and Security Plan, which also documents actions undertaken to date to engage and understand any concerns from nearby communities.</p>	<p>Health, Safety and Security Plan to be developed three months after COD.</p>
	<p>IFC PS 5: Land Acquisition and</p>	<p>No involuntary resettlement was triggered during site selection. Land acquisition</p>	<p>Whilst it is acknowledged that the road upgrade is the responsibility of the GoU, the</p>	<p>Resettlement and Compensation Policy to be</p>

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
	Involuntary Resettlement	<p>documentation (sales agreement and land titles) are in place. The economic displacement was limited to approximately five local fishermen who historically used the area as a landing site.</p> <p>Nevertheless, there are concerns regarding the existing 5.4km access road that connects the tank farm to the main Entebbe Highway. The road requires to be graded and sealed, and the 1.85km section that provides egress to and from Mahathi is narrow and needs to be widened from the current 2-3m width to 5m width.</p> <p>This may require land acquisition and, subsequently, compensation.</p> <p>The GoU has reportedly contracted China Communications Construction Company (CCCC) to upgrade and widen the road to bitumen standard.</p>	<p>primary driver for the road upgrade is the development of the Project. Therefore, it is recommended that Mahathi engage the District Authority and local community to develop a resettlement and compensation policy to ensure any physical or economic displacement is undertaken in a fair and equitable manner. This will safeguard reputational risk for both Mahathi and Lenders.</p>	<p>developed within six months of COD.</p>

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
		<p>The GoU Government has made a commitment to meet all construction costs and any compensation costs.</p> <p>However, the road civil works have not yet commenced, and Mahathi is concerned that the road will not be ready prior to the operational phase commencing.</p> <p>Therefore, there is an option for Mahathi to undertake some limited civil works on the narrow sections including improving drainage.</p>		
	<p>IFC PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>No substantial biodiversity assessments were undertaken.</p>	<p>Mahathi to appoint a local, reputable biodiversity specialist to provide a professional opinion on management practices that would facilitate the sustainable conservation of flora and fauna (particularly marine flora and fauna) during the lifecycle of the Project.</p> <p>Management prescriptions to be developed to safeguard against increased risks for erosion or sedimentation.</p> <p>Mahathi to develop a control and eradication procedures for</p>	<p>Biodiversity Assessment / Biodiversity Management Plan and ESMP prescriptions to be developed within three months of COD.</p>

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
			alien organisms. This should be incorporated into the ESMP.	
	IFC PS 7: Indigenous Peoples	The EIS identified no indigenous peoples and we considers that there are currently no communities with classified indigenous peoples.	Not applicable.	Not applicable.
	IFC PS 8: Cultural Heritage	No cultural heritage impacts were identified during the EIS process.	Although the land for the Project was acquired either privately or via governmental lease, a chance find procedure should be incorporated into the ESMP.	Within three months of COD
4. Action Plan and Management System	IFC PS 1	<p>Whilst some of the components for a project level ESMS are in place (e.g., environmental policy, and emergency preparedness response plan). Other components were not made available for review (e.g., Grievance Redress Mechanism).</p> <p>Environmental action and management plans did not include management prescriptions.</p>	<p>Compile a comprehensive Environmental and Social Management System including revising project specific management plans such as the SEP.</p> <p>ESMP to be revised to incorporate management prescriptions</p>	ESMS to be provided within three months of COD

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
5. Consultation and Disclosure	IFC PS 1	<p>The EIS included a record of limited engagement activities as part of the impact assessment phase.</p> <p>A Stakeholder Engagement Plan (SEP) was made available for Lender's review. However, the SEP did not incorporate an issues trail and response procedure, nor did it contain a grievance redress mechanism. A comprehensive SEP, suitable for a Project of this nature should include the following:</p> <ul style="list-style-type: none"> • Project description and overview • Regulatory requirements (national and international) • Stakeholder identification and analysis • Stakeholder engagement activities (historical and future programme) • Implementation timeframes and responsibilities • Provisions for monitoring and reporting 	Ensure that the SEP is revised and includes comprehensive communication channels and grievance redress mechanisms.	Within one month of COD.

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
		<ul style="list-style-type: none"> Grievance redress mechanism 		
6. Grievance Mechanism	PS 1, PS 2	<p>No Grievance Redress Mechanism (for either community members or employees) was submitted for review.</p> <p>The Grievance Redress Mechanism will provide a formal process of addressing any concern with the Project and recommendations to facilitate a resolution. The procedure is usually characterised by setting out the how the process will work, what actions can be taken and confirm the confidentiality by which the information will be handled.</p>	Develop Grievance Redress Mechanisms appropriate for utilisation by community members and employees, respectively. Provide evidence on how the Grievance Redress Mechanism have been communicated.	Within one month of COD.
7. Independent Review		This process (ESSD) is an independent review.	The independent review should be extended to incorporate review of all environmental and social documentation that this current review (July 2022) has recommended be either developed or revised.	Within six months of COD.

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
8. Covenants		Unknown	Principle 8 requires the inclusion of covenants regarding the implementation of the Equator Principles into legal documentation structuring the deal. This requirement makes the requirements of the Equator Principles a legally binding caveat between the contracting parties (subject to questions of enforceability and remedy depending on the status of the loan).	Appropriate loan covenants will need to be put in place by Lenders with respect to the Project's compliance with environmental and social requirements. We would be pleased to advise if required.
9. Independent Monitoring and Reporting		A summary of the environmental monitoring program to be implemented for both the construction and operation phases is tabulated in the project's ESMP. However, this is high-level and provides no management prescriptions	Sponsor to appoint a reputable local Independent Environmental and Social Consultant (IESC) to verify the project's ongoing monitoring of compliance against NEMA requirements and critical thresholds as prescribed by the World Bank's EHS general guidelines and respective guidelines for ports, harbours, and terminals, and crude oil and petroleum product terminals.	Following (detailed) monitoring programmes to be developed prior to Financial Close: <ul style="list-style-type: none"> • Air quality (focussing upon fugitive emissions) • Water quality • Traffic • Waste Recommend independent monitoring be undertaken quarterly for first 12 months following COD. Thereafter bi-annual for the next two years and annual thereafter.

Equator Principle	Relevant Section	Report Compliance	Recommended Action	Comment / Timeframe
			This will be reported to the Lenders over the life of the loan.	

Table 2-3: Compliance to the IFC Performance Standards

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts			
Environmental and Social Assessment and Management System			
Policy	Mahathi has an Environmental Policy annexed to the Environmental Management Plan. Dated 12 January 2016, the policy is authorised by Y Ravi Shankar in the capacity of Managing Director.	The Environmental Policy does not address social elements. Uncertainty as to how the policy is communicated to Mahathi and third-party personnel.	Low
Environmental and Social Management System (ESMS)	No appropriate project specific ESMS document - should incorporate: <ul style="list-style-type: none"> • Environmental policy (<i>see above</i>) • Identification of (E&S) risks and impacts (<i>see below</i>) • Management Programs • Organizational Capacity and Competency • EPRP report • Stakeholder Engagement Plan • Monitoring and review (audit) protocols. 	Confirmation that a project specific ESMS will be made available for review prior to Financial Close.	Medium
Identification of risks and impacts	A suite of four Environmental Impact Statements (EIS) were completed in 2016-7 and subsequently approved by NEMA.	Each of the EIS documents has been approved by the Ugandan NEMA; however, additional revision is required to facilitate compliance to prescribed Lender's sustainability criteria. For instance, we would recommend that unclear communication channels are rectified through the development of	Low

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		<p>comprehensive SEP; uncertainty surrounding workers' rights and conditions is addressed by the revision of the MIUL Workers' Handbook so that is aligned to not only to Ugandan Labour Law, but also IFC PS2 and ILO standards; and the lack of qualitative data is addressed by revisiting the baselines to robustly assess biophysical components such as:</p> <ul style="list-style-type: none"> • Aquatic and terrestrial biodiversity • air quality and effect on the airshed • increased traffic and effect on community health and safety • sedimentation and erosion and the potential implications on water quality. 	
Baseline data collection	Baseline data was sparse and primarily relied on third party sources with a focus on general conditions associated with the Wakiso District.	<p>Confirmation that the following studies have been undertaken (or are currently being undertaken) in the project specific area and will be made available for Lender's review:</p> <ul style="list-style-type: none"> • Socio-economic • Water quality • Ambient air quality • Biodiversity • Cultural Heritage. 	Low
Cumulative and / or trans-boundary impacts	Neither cumulative or transboundary impacts were considered during the impact assessment.	Environmental and social management and monitoring prescriptions to be developed to assess and monitor potential impacts	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		that may contribute to a transboundary or cumulative impact effect. This is particularly important for the activities on Lake Victoria, which has multi-national jurisdiction.	
Disadvantaged or vulnerable groups	The EIS documentation did not address whether disadvantaged or vulnerable groups were present in the project's area of influence.	To comply with Lender's sustainability criteria, we would recommend that the Project consider whether any disadvantaged or vulnerable groups would be impacted as these groups tend to be more susceptible to adverse impacts. This should be addressed in the ESMP or incorporated into the SEP.	Low
Environmental and Social Management and Mitigation Plan (ESMMP)	Each EIS document contains an 'Environmental Monitoring Plan' which delegates environmental management obligations to an 'Environmental Monitoring Team' comprising internal and external parties. The Environmental Monitoring Plan provides high-level management prescriptions and recommendations only. It is not aligned to the Mahathi Environmental Management Plan, which it doesn't reference.	Given the status of the project, it is recommended that an overarching Environmental and Social Management Plan is developed which provides detailed management prescriptions to facilitate environmental and social management good practice for the remainder of the Project's lifecycle. Additionally, we would recommend a responsibility matrix be developed and provided for Lenders' review, outlining each entities obligation in managing environmental and social commitments.	Medium
Organisational capacity and competency	The EIS did not include detail on organisational capacity and competency	Confirm the management relationships between the key entities (e.g., Mahathi and TUV India).	Low

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		This should be documented by the development of a Responsibility Matrix (<i>see above</i>) and complemented with an organogram depicting internal environmental and social responsibilities and reporting lines.	
Emergency Preparedness and Response	An Emergency Preparedness and Response Procedure has been compiled and is also annexed to the Mahathi Environmental Management Plan.	The Emergency Preparedness and Response Procedure is considered compliant with international requirements; however, we recommend it is updated to identify and provide basic baseline information of the neighbouring communities. Additionally, Sponsor to provide evidence that the EPRP has been disclosed to key and relevant community and emergency services.	Low
Monitoring and review	An Environmental Monitoring Plan is included within each EIS and includes general recommendations for to facilitate environmental mitigation. Responsibility is seemingly assigned to all on-site personnel, including the primary PMC and Mahathi personnel. The prescriptions are solely focused on activities that may occur within the Project's footprint.	Overarching Environmental Monitoring Plan to be developed assigning final responsibility to a specific person or office bearer is required. Management prescriptions to be developed with sufficient detail to enable personnel to address and/or rectify any environmental or social incidents. Geographic scope of monitoring to be expanded to include water at pre-selected points adjacent to the jetty and sensitive receptors (see Appendix 1; Plates 6 and 7) outside of the Project's boundaries (especially wrt to	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		<p>noise and air emissions). Critical thresholds for exceedances to be established based on whichever is stricter between national standards and the EHS documentation applicable to the project. Recommend Mahathi appoint or assign the responsibility of a community liaison officer to a permanent employee.</p> <p>Monitoring reports should be submitted to Lenders on a quarterly basis during construction and every six months once operations commence.</p> <p>The monitoring programme should be subject to an independent audit on an annual basis.</p>	
Stakeholder Engagement			
Stakeholder analysis and engagement planning	A Stakeholder Engagement Plan (SEP) (undated, but with reference MISPL-MIUL-STKHLPLAN-001REV0) was submitted for review. The SEP seems to be an overarching framework for stakeholder engagement rather than a project-driven document. It does not identify all potential affected persons and stakeholders; nor does it provide how iterative communication channels will be maintained (issues trail and response procedure). No grievance redress mechanism is incorporated.	<p>It is critical that the Sponsor develop a project-specific SEP. The SEP must incorporate the following elements:</p> <ul style="list-style-type: none"> • Stakeholder identification and analysis • Issues Trail and Response procedures • Implementation timeframes and responsibilities • Grievance redress mechanism 	Medium
Disclosure of information	Consultation meetings were conducted through a single meeting with seven residents, several	Based on our review and interviews with community members and office holders in	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	government officials, and representatives of presumably the EIS and technical teams. There is no information on how potential interested and affected parties and stakeholders were notified of the meeting, whether the audience is representative of all key stakeholders and how the Project was communicated to the audience members. Whilst meeting minutes are included there is no reference to an issues trail or how actions to address any queries or concerns will be communicated to the stakeholders.	Wakiso District, we are not convinced that the stakeholder engagement effort has been sufficiently robust to meet lenders' sustainability criteria. It is anticipated that the development of a detailed and comprehensive SEP will address this and facilitate effective ongoing information disclosure.	
Consultation and informed consultation and participation	Potential key stakeholders and interested and affected parties were not adequately engaged during the EIS process. We have no evidence whether a Background Information Document or Non-Technical Summary was made available for stakeholder review.	Mahathi to publicly disclose that the development of the Project has commenced and is scheduled to commence operations later this year. The announcement should include contact details should there be any queries.	Medium
External communications and grievance mechanism	No grievance redress mechanism submitted for review.	Grievance mechanism to be developed and communicated to all stakeholders and communities. To be addressed in the SEP.	Medium
On-going Reporting to Affected Communities	Not detailed in the environmental and social documentation supplied.	To be addressed in the SEP.	Medium
Performance Standard 2: Labour and Working Conditions			
Human resources (HR) policies and procedures	Mahathi has compiled a HR Manual ('MIUL Employee Policy Handbook'). The Employee Handbook covers recruitment, training, and	To facilitate compliance to Ugandan Labour Law and alignment to IFC PS 2 and the applicable ILO conventions, the Project must	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	<p>various administrative procedures (e.g., salary advance requests and leave and temporary labour).</p>	<p>explicitly dictate the terms and conditions for employment, including abolition of forced and child labour, freedom of association and the right to organise and collective bargaining, non-discrimination, and equal remuneration. It is recommended the Employee Policy Handbook is revised to incorporate these terms and conditions.</p> <p>The HR policy and procedures are to be applicable to all on-site personnel, including subcontractors, non-Project employees and third-party suppliers. Currently, the HR Manual seems to be applicable to only four designated bands of permanent staff.</p> <p>Mahathi should be able to demonstrate how the HR policy and procedures have been communicated to all on-site personnel.</p> <p>Additionally, it is recommended that Mahathi develop a retrenchment plan, in accordance with requirements of Ugandan legislation, IFC and ILO standards in the event of retrenchment.</p>	
Working conditions and terms of employment	<p>The Project has to operate under Ugandan labour legislation, which in itself, but also under ILO requirements, dictate the terms and conditions for employment, including abolition of forced and child labour, freedom of association and the right to organise and collective</p>	<p>As above, Mahathi to provide explicit guidance in the Employee Policy Handbook on abolition of forced and child labour, freedom of association and right to organise and collective bargaining, non-discrimination, and equal remuneration.</p>	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	<p>bargaining, non-discrimination and equal remuneration.</p> <p>No documentation was received that confirms these terms.</p>	<p>Each worker must have a signed written contract stipulating working conditions and terms of employment in line with company's HR policy and project labour commitment.</p> <p>Contractors and subcontractors are to comply with the working conditions and terms of employment as stipulated in PS2. At a minimum, the contracts should require that all third-party workers are aligned to the terms and conditions as set out in the revised Mahathi Employee Policy Handbook.</p>	
Workers' organisations	The Project must operate under Ugandan labour legislation, but also under ILO conventions, allows workers the right to organise and to bargain collectively. No documentation was received that confirms this right.	Incorporate into the Mahathi Employee Policy Handbook the right of employees to organise and join associations.	Medium
Non-discrimination and equal opportunity	No policy indicating whether or otherwise adherence to non-discrimination and equal opportunity was cited.	Policy on non-discrimination and equal opportunity drafted and incorporated into the Mahathi Employee Policy Handbook.	Low
Retrenchment	The Project must operate under Ugandan labour legislation, which provides guidance regarding retrenchment practices. The Contractor is required to develop a retrenchment plan prior to any retrenchment which is currently not anticipated.	Should retrenchment be identified as necessary, the Project may need to develop a Retrenchment Plan in accordance with requirements of the Ugandan labour law and International Labour Organisation (ILO) standards in the event of retrenchment.	Low
Labour grievance mechanism	No grievance mechanism for workers to seek	Adopt a labour grievance mechanism for	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	redress was cited	<p>Mahathi which includes specific timeframes for the resolution of grievances, provision for anonymous grievances, and commitments of non-retaliation.</p> <p>The labour grievance mechanism must be disclosed to all the contractors and subcontractors during recruitment/appointment and throughout the Project's lifecycle. The labour grievance mechanism must apply to all contractors, subcontractors, non-employee workers and third-party suppliers, where they do not have a grievance mechanism that complies with PS2 requirements.</p> <p>The Contractors must take special measures to ensure that the grievance mechanism is disclosed to workers and subcontractors in the appropriate language, and that regular monitoring, reporting and follow-up of any grievances occurs.</p>	
Child labour	The Project must operate under Ugandan labour legislation, which prohibits child labour.	Mahathi Employee Policy Handbook to include prohibition of child labour for all contractors and subcontractors.	Medium
Forced labour	The Project must operate under Ugandan labour legislation, which prohibits child labour.	Mahathi Employee Policy Handbook to include prohibition of forced labour for all contractors and subcontractors.	Medium
Occupational Health and Safety (OHS)	Mahathi has provided several OHS Plans and to avoid confusion we would recommend that the	To meet the requirements of the IFC Performance Standard 2 regarding	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	<p>document: 'Storage Terminal Construction: Occupational Health and Safety Plan (MISPL-ULVFTP-GEN-COM-003)', dated August 2018 is adopted as the basis for an overarching OHS Plan.</p> <p>Such an overarching OHS Plan would enable Mahathi to develop site-specific occupational health and safety plans that would assist in ameliorating potential adverse risks and impacts on workers' health and safety through proactive avoidance and management strategies</p>	<p>occupational health and safety management, Mahathi needs to commit to the protection for basic rights of workers, treating the workforce fairly and providing them with safe and healthy working conditions. The document 'Storage Terminal Construction: Occupational Health and Safety Plan (MISPL-ULVFTP-GEN-COM-003)' provides an appropriate basis for this and should be updated to ensure it incorporates the following elements:</p> <ul style="list-style-type: none"> • Personal Protective Equipment (PPE) – specifying mandatory PPE for all on-site personnel, including visitors. • Incident Reporting Templates – which allow on-site personnel to rapidly report on any incident occurring on-site. • Health and Safety Observation Capture Templates – encouraging personnel to report any 'near misses' or 'unsafe acts / conditions. • Personal Hygiene and Covid-19 Protocols - the OHS Plan should encourage cleanliness, through personal hygiene and good site housekeeping. Readily accessible facilities which are well-equipped with sanitizers and soap to be maintained. • Permit to Work and Stop Work Order – it 	

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		<p>is recommended that Mahathi implement a safe system of work for site activities at all times. The Permit to Work (PTW) system is used to support safe systems of work. The PTW is task-dependent and stipulates any precautions that must be taken, extra PPE requirements, and other work restrictions. Closely aligned to this is the Stop Work Order (SWO). Mahathi should authorise key site personnel (e.g., Site Manager, EHS Manager) to stop any work at any time where there is a risk of harm to personnel, the environment, or when there is non-compliance with any applicable law or any project related policy/instruction.</p> <ul style="list-style-type: none"> On-site Traffic Safety - each site should develop and implement a traffic management plan. Each plan will be dependent on the site layout and arrangements should include suitable provisions for segregation of pedestrians and mobile plant and vehicles, procedures for reversing activities, parking, and similar aspects to prevent accidents. 	
Non-employee workers engaged by third parties	Mahathi's commitments and standards are to apply to all contractors, subcontractors, and non-employee workers. This must be emphasised	The contractors or a third-party monitor should be contractually responsible for monitoring that labour rights are upheld	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	within the Mahathi Employee Policy Handbook as well.	and IFC PS2 requirements are met for third party workers.	
Supply chain	The project has not demonstrated how it will address risks in the supply chain	A review of supply chain should be undertaken within three months of commercial operations commencing, to assure employee's rights are aligned to the revised Mahathi Employee Policy Handbook.	Low
Performance Standard 3: Resource Efficiency and Pollution Prevention			
Resource Efficiency	On the basis of reports made available for review, no technical or financially feasible measures for improving efficiency of the project's consumption of energy, water, as well as other resources and material input or alternative technologies have been considered.	Consideration of alternative materials/technologies, which may facilitate climate change resilience, to be incorporated into the project documentation.	Low
Greenhouse Gases (GHG) and Climate Change Resilience	The available documentation does not address GHG assessment and reporting. A Climate Change Response Plan suggests three potential approaches to affect climate change resilience. These are the construction of bunds, extension of the jetty and reduction in the lake levels. However, the Climate Change Response Plan is high-level and does not incorporate any assessment on whether any of the approaches is either technically or financially feasible.	We would recommend that a written statement be issued on how the development has considered alternatives and options to reduce project related GHG emissions during the construction and operational phases of the project (e.g., utilisation of renewable energy). Also, no GHG emissions quantification (direct and indirect emissions) has been made available. The Project should at least indicate whether the expected annual production of CO2-equivalent will exceed 25,000 tonnes. Lenders' sustainability criteria require annual quantification during	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		<p>operation if the GHG emissions exceeds 25,000 tons.</p> <p>No landscaping or post-construction rehabilitation plan has been received for review – we would recommend that such a plan be developed or revised to proactively plant vegetation that will facilitate carbon sequestration.</p>	
<p>Pollution prevention and control (Emissions and effluents)</p>	<p>It is acknowledged that an Oil Spill & Response Plan (dated February 2022) has been prepared by Mahathi and is deemed appropriate in the case of hydrocarbon spillage.</p> <p>However, no air quality baseline study was undertaken and subsequently air pollution risk is not quantified.</p> <p>No reference is made to Volatile Organic Compounds (potentially released during fuel transfer operations) or combustive exhaust emissions (such as SO₂, NO₂, PM10, CO and CO₂) which may be generated by vehicles, mechanical equipment, and engines.</p> <p>During the operational phase, monitoring of organic air pollutants at the fuel depot including levels of combustible gases is important for leak detection.</p> <p>Additionally, frequent monitoring of wastewater, especially at the fuel depot is recommended, with the primary sources of wastewater anticipated as</p>	<p>Mahathi to indicate training provided and certification of personnel appointed to implement the Oil Spill and Response Plan.</p> <p>Baseline studies are recommended to establish the existing conditions of the water quality of Lake Victoria within the Project's Area of Influence and the status of the airshed.</p> <p>Subsequently, Mahathi should implement an Air Quality Management Plan and Water Quality Testing to quantify emissions and effluents against Ugandan national standards, or critical thresholds as recommended by the World Bank's Environmental, Health and Safety guidelines.</p>	<p>Medium</p>

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	contaminated stormwater, tank bottom water, and process wastewater.		
Water Consumption	The documentation made available for review does not quantify estimated water use with a focus on stormwater drainage and wastewater treatment/disposal.	Recommend the incorporation of a Water Consumption Management Plan into the ESMP. This should define measures in recycling and reuse of wastewater from various sources of during the Project's operations. The plan should also detail strategies for reducing water use and reducing wastewater generation.	Low
Wastewater	Sources of wastewater from the Project are identified throughout the EIS process with wastewater management options provided for each wastewater stream.	The use of the existing systems to manage wastewater is deemed appropriate for the project.	Low
Noise	No baseline noise levels were established during the EIS process. Nevertheless, given the proximity of sensitive receptors and other land users, we would anticipate that noise from the Project area is well below ambient noise guidelines and of minor significance (nuisance level). No reference to underwater noise/vibration is made within the respective EIS documents.	For the remainder of construction activities, Mahathi to consider employing standard noise abatement mitigation measures. Noise monitoring to be incorporated into the environmental monitoring protocols. Mahathi to confirm whether noise measurements and planned monitoring will incorporate (underwater) vibrational analysis.	Low
Waste and Hazardous Materials	Waste management and the handling of hazardous materials is incorporated within the EMP, and a service-level agreement has been entered into with a licensed waste management company. However, the site verification visit indicated that construction and building waste is	We would recommend that the waste management section of the EMP be revised to reflect the waste management hierarchy, with an emphasis on reduction, reuse and recycling and designated waste receptacles, within demarcated waste	Low

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	often deposited in non-demarcated areas (see Appendix 1; Plate 8)	<p>areas, installed to promote waste segregation.</p> <p>For the storage of hazardous materials, the storage areas need to have restricted access, be sufficiently labelled with hazardous pictograms and the appropriate Material Safety Data Sheets (MSDS) available for each hazardous material.</p> <p>For traceability and proper documentation of hazardous waste, it is required that a waste manifest for each consignment of hazardous waste be completed by both the waste generator and the waste handler. Examples of the waste manifests are requested for Lenders' review.</p>	
Performance Standard 4: Community Health, Safety and Security			
Community Health and Safety and safety	<p>Whilst the operations of the Project have restricted access to communities and are effectively ring-fenced from the surrounding communities, no documentation on Community, Health, Safety and Security aspects of the Project was made available for review.</p> <p>Community health and safety measures should be aligned to the Ugandan National Action Plan for Health Security 2019-2023. Within these measures, an HIV/AIDs policy and Covid 19 preparedness plan should be included.</p>	<p>It is recommended that a formalised Community Health, Safety and Security plan be developed within three months of the COD.</p> <p>This plan to be communicated to the Wakiso District Authority and proximal communities.</p> <p>Traffic impact assessment should be done to help to put in place adequate mitigation measures and plan to develop for managing the traffic during both the construction and operation phases.</p>	Low

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	Potential health and safety risks in relation to the community were identified as traffic impacts, nuisance from noise and dust (PM10).	Mitigation for the dust and noise impacts have been recommended and, if implemented, are deemed appropriate.	
Hazardous materials management and safety	No formal Hazardous Management Plan submitted for Lender's review. Nevertheless, hazardous waste and materials generated are reportedly stored appropriately which are serviced by a reputable waste management company (NLS Waste Services Limited) for proper disposal.	Hazardous waste management is part of the general Mahathi Waste Management Plan. Management prescriptions are deemed appropriate.	Low
Ecosystem services	Not referenced in the EIS documentation. Numerous studies are available on the importance of Lake Victoria and its catchment in the provision of ecosystem services. It is estimated that this ecosystem is a significant provider of food with its fisheries estimated at supporting more than three million livelihoods and contributing approximately \$500 million in revenues annually. Additionally, it facilitates climate regulation, and provides about 90 percent of Uganda's hydropower, hydropower for Burundi and Rwanda, and water supply for major urban centres like Kampala, Kigali, Mwanza, and Kisumu.	The impact of the Project on ecosystem services has not been assessed. Mitigation measures for the protection of the lake and shorelines from water surges, erosion or sedimentation is not specified, which could pose an adverse impact to water quality and current fishing practices. It is recommended that these aspects are revisited and incorporated into an addendum of the EIS documentation.	Medium
Emergency preparedness and response	Mahathi has developed an 'Emergency Response and Disaster Management Plan (ERDMP)'. The ERDMP does not stipulate how it will be communicated to emergency service providers, stakeholders, adjacent land users and	The ERDMP is considered generally suitable to cover the Project's workforce however, there is no evidence that the ERDMP has been distributed to relevant community and emergency services.	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	communities. It is recommended that proof of distribution to the respective parties be submitted prior to financial close.	Mahathi needs to ensure that it identifies all respective parties and facilitates distribution. Proof of distribution to be submitted for lenders' review.	
Security personnel	It is our understanding that security, whether directly employed by Mahathi or a third-party appointee, will be present at to protect the Project's assets and welfare of its employees. However, no protocols for how the security forces interact with the public and community members have been made available for review.	Mahathi to develop security protocols using the IFC's Use of Security Forces: Assessing and Managing Risks and Impacts - Guidance for the Private Sector in Emerging Markets.	Low
Performance Standard 5: Land Acquisition and Involuntary Resettlement			
Project design and land acquisition and resettlement responsibilities	<p>No involuntary resettlement was required.</p> <p>Land acquisition documentation (sales agreement and land titles) are in place.</p> <p>Economic displacement was limited to approximately five local fishermen who historically used the area as a landing site. Alternative landing sites have been subsequently sourced for these fishermen.</p>	<p>We have been advised that there are concerns regarding the access road.</p> <p>The existing 5.4km access road that connects the tank farm to the main Entebbe Highway is in variable condition and too narrow in places to accommodate the volume of tanker trucks that the Project will service.</p> <p>The road requires to be graded and sealed, and the 1.85km section that provides egress to and from Mahathi needs to be widened from a current width of 2-3m to 5m (see Appendix 1; Plate 4).</p>	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
		<p>This will require limited land acquisition and, subsequently, compensation (see Appendix 1; Plate 5).</p> <p>Whilst the GoJ has reportedly contracted China Communications Construction Company (CCCC) to upgrade and widen the road to bitumen standard and accepted full responsibility in upgrading the road (including costs associated with compensation for physical displacement), to date, no progress has been made.</p> <p>We understand Mahathi’s concern on this matter and have been informed that they are considering assuming some of the responsibility in effecting the required upgrades. If this eventuates, we recommend that Mahathi develop resettlement and compensation documentation to ensure that physical displacement and subsequent is undertaken in a fair and equitable manner and is aligned to the Project’s Reference Framework.</p>	
Community engagement	Engagement with the public and proximal communities undertaken during the environmental and social impact process.	The SEP provided for review includes high-level recommendations for future engagement and communication with the public and the proximal communities.	Low

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	No grievance redress mechanism or management prescriptions on how stakeholders and proximal communities can express any concerns or complaints to the Project.	No information / procedure provided on how affected parties can raise grievances and how concerns are addressed. This needs to be incorporated into the Project's SEP.	Medium
Performance Standard 6: Biodiversity, Conservations and Sustainability Management of Living Natural Resources			
Habitat Alteration	The EIS documentation provides no data, quantitative or qualitative, on the biodiversity asset, seemingly regarding it as negligible. At the very least, we would expect there to be confirmation that there are no critical habitats, species of conservation concern or protected species, and the Project does not impede the flight paths of either protected or commercially important birds and invertebrates.	Mahathi to appoint a local, reputable biodiversity specialist or wildlife manager to confirm the absence of any critical habitats, species of conservation concern, or protected species; and provide a professional opinion on management practices that would facilitate the sustainable conservation of flora and fauna during the Project's lifecycle.	Medium
Legally Protected and Internationally Recognised Areas	The Project areas are not legally protected or internationally recognised areas.	No further action required.	Not Applicable
Invasive Alien Species	There is no clear indication of management strategies to prevent or control invasive alien species – or that it is has been considered.	Please confirm that the control, eradication, and management of invasive organisms will be incorporated into the overarching ESMP.	Low
Ecosystem services	Not referenced in the EIS documentation. Numerous studies are available on the importance of Lake Victoria and its catchment in the provision of ecosystem services.	The impact of the Project on ecosystem services has not been assessed. Mitigation measures for the protection of the lake and shorelines from water surges, erosion or sedimentation is not specified,	Medium

Performance Standard Item	Project Setting / Background	Impact / Issue / Compliance	Risk Ranking
	It is estimated that this ecosystem is a significant repository of biodiversity and provider of food, with its fisheries estimated at supporting more than three million livelihoods and contributing approximately \$500 million in revenues annually. Additionally, it facilitates climate regulation, and provides about 90 percent of Uganda's hydropower, hydropower for Burundi and Rwanda, and water supply for major urban centres like Kampala, Kigali, Mwanza, and Kisumu.	which could pose an adverse impact to water quality and current fishing practices. It is recommended that these aspects are revisited and incorporated into an addendum of the EIS documentation.	
Performance Standard 7: Indigenous People			
Indigenous People	No indigenous people have been identified in the environmental and social documentation and we have seen no evidence to suggest the contrary. This PS is therefore considered not applicable.	Not applicable	N/A
Performance Standard 8: Cultural Heritage			
General	No cultural resources were identified in the EIS documentation. However, no studies or identification of potential archaeological sites seem to have been conducted for the EIS process. Although it stated that there are no known cultural heritage sites / resources in proximity to any aspects of the Project. The project should consult a local, reputable cultural heritage specialist for confirmation.	Recommend that Mahathi appoint a local cultural heritage professional who can provide a professional opinion on potential cultural heritage impacts and if required consult with community members regarding cultural heritage impacts. Additionally, it is recommended that once the professional opinion be obtained, a cultural heritage chance find procedure be developed to facilitate compliance to Ugandan regulations.	Low

3. ENVIRONMENTAL AND SOCIAL ACTION PLAN

Section 2 of this report presents the key findings of our review of actions required to address potential partial- or non-compliances against the applicable environmental and social standards of the lenders' reference framework.

This Section (Section 3: Environmental and Social Action Plan) recommends corrective actions and timeframes to address each issue. Timeframes to implement the recommended corrective actions are based on transactional terms of the lender's project financing agreement and are specified as either a Condition Precedent or Condition Subsequent to Financial Close. The Environmental and Social Action Plan (ESAP) is presented in Table 3-1.

Table 3-1: Environmental and Social Action Plan (ESAP)

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
Ugandan Environmental Laws and Regulatory Framework				
0.1	Mahathi to engage with the relevant authorities of other East African Community (EAC) governments. Lake Victoria Basin has several key stakeholders that need to be engaged before operations commence, such as the Lake Victoria Basin Commission (LVBC) and the Lake Victoria Fisheries Organization (LVFO) at the transboundary level.	Mahathi	Documentary evidence demonstrating engagement with EAC governments which have jurisdiction on Lake Victoria.	Within three months of Commercial Operations Date (COD).
0.2	Evidence that the Project has secured the formal license/ permit from the Ugandan Ministry of Works and Transport for transportation of fuel on Lake Victoria prior to commencing operations.	Mahathi	License/Permit from MoWT for transportation of fuel on Lake Victoria.	Within three months of COD.
0.3	Evidence that all relevant registrations, permits and licenses required under the Lake Victoria Transport Act (2007) and the Lake Victoria Transport (Maritime Safety) Regulations (2010) have been acquired. These include the Certificate of Seaworthiness for the barges and the Certificate of Safe Manning.	Mahathi	Certificate of Seaworthiness Certificate of Safe Manning	Within three months of COD.
Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts				
1.1	Compilation of a project-specific Environmental and Social Management System (ESMS) which incorporates <i>inter alia</i> : <ul style="list-style-type: none"> • A revised Environmental policy (which incorporates social elements) • Management Programs 	Mahathi	ESMS.	Within three months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
	<ul style="list-style-type: none"> • Organizational Capacity and Reporting Lines for Effective Environmental And Social Management • Emergency Preparedness and Response Plan • Stakeholder Engagement Plan. 			
1.2	Supplementation of the baseline data through the submission of site-specific reports relating to the socio-economic environment, water quality; air quality; and aquatic biota.	Mahathi	Specialist study with reports / professional opinion. Including: <ul style="list-style-type: none"> • Socio-economic • Water quality • Ambient air quality • Biodiversity • Cultural Heritage. 	Within three months of COD.
1.3	ESIA revision or addendum to facilitate compliance to prescribed Lender's sustainability criteria. This should include: developing the stakeholder engagement process, including identification of responsible parties; confirming workers right and conditions; and addressing the lack of qualitative data by revisiting the baseline data for: <ul style="list-style-type: none"> • socio-economic environment • aquatic ecology • ambient air quality • increased traffic and potential impact on community health and safety; and • sedimentation and erosion and the potential implications on Lake Victoria and its catchment. 	Mahathi	Stakeholder Engagement Plan (see 1.6 below) Revised MIUL Employee Policy Handbook (see 2.1 below) Additional reports incorporating baseline data for: <ul style="list-style-type: none"> • Socio-economic environment (see 1.2, 1.5 and 4.5) • Aquatic Ecology (see 1.2, 4.4 and 6.1) 	Within six months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
			<ul style="list-style-type: none"> • Air Quality (see 3.3 below) • Traffic (see 4.3 below) • Sedimentation and erosion (see 4.4 below) 	
1.4	Undertake a qualitative analysis of the potential transboundary and cumulative impacts of the Project with the other developments and activities planned for the surrounding area.	Mahathi	Cumulative Impact Assessment	Within three months of COD.
1.5	Provide data on the presence of disadvantaged / vulnerable groups within proximal communities.	Mahathi	Socio-economic baseline	Within three months of COD.
1.6	Stakeholder Engagement Plan (SEP) to be developed which is compliant with Lender's sustainability criteria, incorporating project description and overview; regulatory requirements (national and international); stakeholder identification and analysis; stakeholder engagement activities (historical and future programme); implementation timeframes and responsibilities; provisions for monitoring and reporting; and a grievance mechanism.	Mahathi	Stakeholder Engagement Plan.	Within three months of COD.
1.7	Overarching Environmental and Social Management Plan to be developed that explicitly allocate monitoring tasks, implementation of mitigation measures and corrective actions and reporting obligations. Additionally, a responsibility matrix outlining the responsible party in managing all of the Project's	Mahathi	Overarching Environmental and Social Management Plan (ESMP) Responsibility Matrix	Within three months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
	environmental and social commitments to be developed.			
1.8	Communication of the contact details of the person(s) responsible for community liaison to neighbouring communities along with information on how to submit grievances.	Mahathi	Signed receipt of contact information by community representatives.	Within three months of COD.
1.9	Monitoring protocols to be confirmed for the Project (internally and externally (independent)).	Mahathi	Monitoring programme and schedule	Within three months of COD.
1.9	Disclosure of Project Information (e.g., Emergency Response and Disaster Management Plan - ERDMP) to communities and stakeholders.	Mahathi	Signed receipt of EPRP by community representatives.	Within three months of COD.
Performance Standard 2: Labour and Working Conditions				
2.1	Revise the MIUL Employee Policy Handbook to reflect commitment to abolishment of child and forced labour, freedom of association and right to organise and collective bargaining, non-discrimination, and retrenchment.	Mahathi	Revised MIUL Employee Policy Handbook	Within one month of COD.
2.2	Ensure commitments to meet Ugandan Labour Law and IFC PS2 are included in all contractor and subcontractor contracts.	Mahathi	Contractual clauses to commit to PS2 requirements; or Undertaking that Mahathi will distribute the MIUL Employee Policy Handbook and request contractors and sub-contractors to comply to all terms and conditions for their	Within one month of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
			workers whilst working on the Project.	
2.3	Develop a workers' grievance mechanism to include specific timeframes for the resolution of grievances, provision for anonymous grievances, and commitments of non-retaliation.	Mahathi	Workers' grievance mechanism.	Within one month of COD.
2.4	All workers to have signed written contracts stipulating working conditions and terms of employment.	Mahathi	Audit on Employee files and example Employment Contracts (may be redacted).	Within one month of COD.
2.5	Provide evidence of disclosure of grievance mechanism to workers and subcontractors in preferred (mother-tongue) language.	Mahathi	Evidence of disclosure of workers' grievance mechanism.	Within one month of COD.
2.6	Formal adoption of the 'Storage Terminal Construction: Occupational Health and Safety Plan (MISPL-ULVFTP-GEN-COM-003)', dated August 2018 as the basis for an overarching OHS Plan for the entire Project.	Mahathi	Written confirmation that the Storage Terminal Construction: Occupational Health and Safety Plan has been adopted for all aspects of the Project.	Within one month of COD.
2.7	Undertake regular labour monitoring of EPC contractor and subcontractors to, <i>inter alia</i> , ensure compliance with international standards.	Mahathi	Labour audits.	Annual audits of randomly selected contractors.
2.8	Review of supply chain	Mahathi	Supply chain review.	Within six months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
Performance Standard 3: Resource Efficiency and Pollution Prevention				
3.1	Assess viability of using alternative materials/technologies, to facilitate resource efficiency and climate change resilience.	Mahathi	Written statement to confirm whether the development has considered alternatives and options to facilitate resource efficiency or reduce project-related GHG emissions.	Within three months of COD.
3.2	GHG emissions quantification (estimating direct and indirect emissions). The Project should at least indicate whether the expected annual production of CO2-equivalent will exceed 25,000 tonnes. Lenders' sustainability criteria require annual quantification during operation if the GHG emissions exceeds 25,000 tons. Landscaping or post-construction revegetation plan that may facilitate carbon sequestration.	Mahathi	GHG emissions quantification that indicates whether the expected annual production of CO2-equivalent emissions will exceed 25,000 tonnes. Landscaping / Revegetation Plan	Within three months of COD.
3.3	Undertake an air quality baseline study. Develop an Air Quality Management Plan focussing on Volatile Organic Compounds and combustive exhaust emissions (such as SO2, NO2, PM10, CO and CO2) which are generated by vehicles, mechanical equipment, and engines. The Air Quality Management Plan should provide target emission levels and set critical thresholds with reference to either Ugandan national standards or	Mahathi.	Ambient Air Quality Baseline Report Air Quality Management Plan Water Quality Plan	Within three months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
	<p>parameters recommended in the World Bank's Environmental, Health, and Safety guidelines (whichever is stricter).</p> <p>Develop a Water Quality Plan to set critical thresholds for a set of physical and chemical parameters for Project generated wastewater and the water from Lake Victoria that is within the Project's Area of Influence.</p>			
3.4	<p>Development of a Water Consumption Management Plan into the ESMP. This should define measures in recycling and reuse of wastewater from various sources of during the Project's operations. The plan should also detail strategies for reducing water use and reducing wastewater generation</p>	Mahathi	Water Consumption Management Plan	Within three months of COD.
3.5	<p>Develop noise monitoring protocols into the ESMP. Should noise levels exceed recommended thresholds as prescribed by either Ugandan Standards or World Bank EHS Guidelines, then Mahathi to employ standard noise abatement mitigation measures.</p> <p>Mahathi to confirm whether noise measurements and planned monitoring will incorporate (underwater) vibrational analysis.</p>	Mahathi	Noise Monitoring Protocols	Within three months of COD.
Performance Standard 4: Community Health, Safety and Security				
4.1	<p>Develop a comprehensive Community, Health, and Safety Plan.</p> <p>Community health and safety measures should be aligned to the Ugandan National Action Plan for Health Security 2019-2023. Within these measures, an</p>	Mahati	<p>Community Health and Safety Plan</p> <p>Traffic Management Plan</p>	Within one month of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
	<p>HIV/AIDs policy and Covid 19 preparedness plan should be included.</p> <p>The plan should incorporate a Traffic Management Plan, based on the findings of a Traffic Impact Assessment, to put in place adequate mitigation measures and management recommendations for the increased traffic volumes that the Project will generate.</p> <p>The plan must identify proximal socio-economic sensitive receptors (e.g., schools, clinics – see Appendix 1; Plates 6 and 7) and include air quality, noise, and (if applicable) water quality testing at the sensitive receptors.</p> <p>This plan to be communicated to the Wakiso District Authority and proximal communities.</p>			
4.2	<p>Mahathi has developed an 'Emergency Response and Disaster Management Plan (ERDMP)',</p> <p>Whilst the ERDMP is considered generally suitable to cover the Project's workforce, there is no evidence that the ERDMP has been distributed to relevant community and emergency services or whether it has been communicated to stakeholders, adjacent land users and communities.</p> <p>It is recommended that proof of distribution to the respective parties be submitted prior to financial close.</p>	Mahathi	Proof of ERDMP distribution (e.g., signed acknowledgement of receipt).	Within one month of COD.
4.3	<p>Development of an Ecosystem Study.</p> <p>This may be incorporated into the baseline data collection for biodiversity but should provide mitigation measures for the protection of the lake and shorelines from water surges, erosion or</p>	Mahathi.	Ecosystem Study (maybe incorporated into the supplementary biodiversity baseline studies or as an	Within three months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
	sedimentation is not specified, which could pose an adverse impact to water quality and current fishing practices.		addendum to the EIS documentation.	
4.4	Develop security protocols for how security forces interact with the public and community members, based on the IFC's "Use of Security Forces: Assessing and Managing Risks and Impacts - Guidance for the Private Sector in Emerging Markets".	Mahathi.	Security Protocols	Within one month of COD.
Performance Standard 5: Land Acquisition and Involuntary Resettlement				
5.1	Develop resettlement and compensation documentation to ensure that should Mahathi require to affect physical displacement, that is done in a fair and equitable manner and likewise resultant compensation is fair and aligned to the Project's Reference Framework.	Mahathi	Resettlement and Compensation Policy	Within one month of COD.
Performance Standard 6: Biodiversity, Conservations and Sustainability Management of Living Natural Resources				
6.1	Supplementary biodiversity baseline study to be undertaken to confirm that there are no critical habitats, species of conservation concern or protected species, and the Project does not impede the flight paths of either protected or commercially important species Biodiversity baseline study to provide management recommendations for practices that would facilitate the	Mahathi	Biodiversity Baseline Study	Within three months of COD.

Item Number	Measure and / or Corrective Action	Responsibility	Deliverable (Report / Measurement)	Deadline
	sustainable conservation of flora and fauna during the Project's lifecycle.			
6.2	Procedure for the control and management of invasive organisms to be incorporated into Project ESMP.	Mahathi	Alien and Invasive Organism Management and Control Prescriptions	Within three months of COD.
6.3	Ecosystem Services (as per 4.3)			
Performance Standard 8: Cultural Heritage				
8.1	Obtain professional opinion from a cultural heritage specialist on potential cultural heritage impacts and if required consult with community members regarding cultural heritage impacts. Develop a cultural heritage chance find procedure.	Mahathi	Professional Opinion on Cultural Heritage status Cultural heritage chance find procedure	Within three months of COD.

4. CONCLUDING REMARKS

The Project reports were assessed in terms of compliance to the lender's Reference Framework including the Equator Principles, the International Finance Corporation (IFC) Performance Standards, and the World Bank's Environmental Health and Safety Guidelines. Following review of the documents and based on discussions with Lenders, Community Members, District Administration Office Bearers, and Mahathi personnel, it is our professional opinion that the majority of identified gaps in the environmental and social documentation can be resolved within three months of the commercial operations date (COD). We have undertaken a conservative approach on several other findings and recommended these be closed out as a matter of urgency (within one month of COD). Acknowledging the timeframe to facilitate commercial and economic viability, certain other findings have been provided with a six month window (within six months of COD); however, should sufficient resources be applied to these gaps, then there is no reason that they can also be closed out within three months of COD.

The environmental and social related documentation, including *inter alia* the EIS documents are high-level and have not adequately addressed the potential biophysical and socio-economic impacts associated with the development of such a project. Nevertheless, we have not identified any red flags or fatal flaws that would preclude the Project from proceeding and are confident that if the corrective actions in the ESAP are readily applied then the Project will meet lender's sustainability criteria.

We would recommend that Mahathi prioritise the revision of the Stakeholder Engagement Plan (to incorporate a robust and comprehensive issues trail and response procedure and a grievance redress mechanism aligned to GIIP. All relevant documentation pertaining to the wellbeing of communities and third parties need to be effectively communicated and distributed to stakeholders and communities. These are to be supplemented with an overarching Environmental and Social Management Plan that would incorporate many of the information gaps and provide detailed management prescriptions and monitoring protocols.

To ameliorate potential reputational risk to lenders a further critical requirement is finalising workers' rights and conditions. Workers' rights and conditions must be applicable to all on-site personnel, whether in the direct employ of Mahathi, the PMC, or a third-party subcontractor. It is recommended that all information pertaining to workers' rights be consolidated into a revised MIUL Employee Policy Handbook.

On these provisos, and based on our review of current information, and apart from the issues discussed above, we are of the professional opinion that there no environmental or social issues that would prevent further investment.

APPENDIX 1
Photographs



Plate 1: Jetty (under construction)



Plate 2: Tank farm



Plate 3: Barge building yard.



Plate 4: Access road that requires to be widened for safe vehicle passage



Plate 5: House adjacent to the road that will need to be moved for road widening



Plate 6: Location of a school (sensitive receptor (approximately 350m from the site boundary



Plate 7: Residential homes in proximity to the Project (one is directly adjacent to the perimeter wall)



Plate 8: Construction waste, not in a demarcated or designated area.