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Environmental and Social Data Sheet

Overview

Project name:	LAGOS NIGERIA WATERWAYS SUSTAINABLE TRANSPORT
Project number:	2023-0707
Country:	Federal Republic of Nigeria
Project description:	The project aims at implementing a waterborne, urban and mass public transport network in Lagos through the construction of new ferry piers, the acquisition of electrically operated small-scale ferries for passenger transport and establishing new maintenance facilities for the fleet.

EIA required: Yes

Project included in Carbon Footprint Exercise[1]: Yes

(details for projects included are provided in section: “EIB Carbon Footprint Exercise”)

Environmental and social assessment

The project is co-financed with and led by *Agence française de développement* (AFD) under the Mutual Reliance Initiative and it benefits from an EU grant under delegation to AFD. It comprises the development of 10 main and 5 secondary lake transport routes for passengers through the construction of 25 terminals and jetties, 2 of which will be equipped with light and daily boat maintenance infrastructure, most of which will be connected to the land transport network to promote intermodality; and the dredging and demarcation of 140 km of waterways to ensure the safety and reliability of the network.

Furthermore, the project will support the establishment of an efficient and financially sustainable transport system operation through (i) capacity building of the promoter to define and manage the various service contracts with the private sector; (ii) the purchase of a fleet of electric boats; (iii) the installation of electricity generation and charging infrastructure at 12 of the 25 jetties; (iv) the deployment of intelligent transport systems; (v) the establishment of a fund to support the transition of the existing informal lake transport operators; (vi) the implementation of communication campaigns; and (vii) the recruitment of the project management and operations design consultant.

The project promoter is the Lagos State Waterways Authority (LASWA). The project includes a strong institutional support and a capacity building mechanism for LASWA. Two consultancy contracts (project management and operations design (PMOD) and engineering, procurement, construction and supervision (EPCS)) are being put in place to support LASWA with the preparation of the updated environmental and social studies, the management of the project through the strengthening of the Project Implementation Unit (PIU) with key additional staff to manage the design review, environmental and social safeguards and the supervision of the contractor prior to the start of the actual construction works.

Environmental assessment

As part of Lagos State Government’s efforts to tackle urban mobility and establish a Mass Rapid Transit System (MRTS), 11 priority ferry routes have been identified for development in the

[1] Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO2e/year absolute (gross) or 20,000 tonnes CO2e/year relative (net) – both increases and savings.

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State's Strategic Transport and Mobility Master Plan (STMMP). The said Master Plan has not been the subject of a Strategic Environmental Assessment.

If within the EU, the project would fall under Annex I of the EIA Directive 2014/52/EU of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private Projects on the environment.

The promoter has prepared an Environmental and Social Impact Assessment (ESIA) as part of the project preparatory work with the support of an external consultant, where the baseline conditions of the project area are described, the environmental, health, safety and social impacts associated to the project activities on the baseline environment are identified and assessed, mitigation measures are proposed to avoid or minimize the potential adverse impacts that emanate from the project's implementation throughout the project life cycle. The ESIA report was prepared following the Federal Ministry of Environment (FMEnv) EIA procedural guidelines and to meet the FMEnv EIA Act 86 of 1992 now EIA Act AP E12 LFN 2004 requirements and international legal requirements and guidelines, including AFD/World Bank environmental and social standards (the World Bank (WB) Environmental & Social Standard Framework (ESS1-10) and the AFD's Environmental and Social Risk Management Policy (ESRMP)).

An Environmental and Social Management Plan (ESMP) has been prepared as part of the ESIA covering all social and environmental impacts and risks.

Based on the assessment carried out in the ESIA report, the key environmental and biodiversity potential impacts of the project will predominantly occur during the construction phase as well as during the operational phase but to a lesser extent. These key potential impacts and the proposed mitigation measures include:

Identified potential environmental impacts	**Proposed mitigation measures**
Water and sediment pollution from dredging (poor management of polluted dredged sediments, resuspension of polluted sediments)	• Plan dredging activities during stable water levels to minimize impact on aquatic life. • Analyse sediments (physical, chemical, biological) before disturbance and create a plan to reduce sediment resuspension in sensitive areas. • Install physical barriers like silt screens to contain sediment spread. • Treat highly polluted sediments before disposal or reuse. • Document waste consignment notes for dredged material disposal. • Dispose of dredged materials at designated sites following guidelines from the Merchant Shipping Act, 2007, and Marine Environment (Sea Dumping) Regulations, 2012.

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Identified potential environmental impacts	Proposed mitigation measures
Poor project waste management	• Minimize waste production where possible. • Identify and classify waste (hazardous or not, solid, gaseous, or liquid) and estimate types like vegetation, packaging, and equipment. Follow proper procedures for hazardous waste. • Reuse solid waste (e.g., topsoil) from excavation as backfill; dispose of the rest per Environmental Management Protection-Law, 2017. • Identify and mark approved disposal areas; avoid discarding waste near waterbodies. • Develop an internal supervision system for waste reduction and management. • Conduct external monitoring to ensure compliance and address illegal dumping. • Clean up thoroughly after construction, removing all discharged materials. • Enforce re-use and recycling of materials, recovering recyclables for local processing.
Water hyacinth proliferation (pending water and sediment quality)	• Avoid disposing waste in the lagoon. • Physically control water hyacinth by harvesting and recycling it into compost or animal feed. • Use biological control with mottled water hyacinth weevils (*Neochetina eichhorniae* and *Neochetina bruchi*). • Combine physical and biological control methods.
Biodiversity disturbance (fish, crustaceans) and habitat loss	• Strictly manage the aquatic environment during construction with waste control and minimal disturbance techniques. • Schedule dredging and construction to minimize ecological impacts, avoiding sensitive periods like breeding seasons. • Establish construction corridors with defined perimeters. • Conduct work within these perimeters and follow the layout for terminals or jetties.
Increased noise and vibration	• Maintain equipment to comply with health and safety standards. • Prevent hearing damage by limiting exposure to noise levels over 90 dB(A) and using PPE like ear plugs. • Use mufflers on construction equipment and air compressors to reduce noise. • Reduce noise from drillers with exhaust mufflers and damping on tools. • Minimize worker exposure to high noise areas through job rotation, automation, and PPE.
Increased air emissions	• Identify construction limits to minimize the area used. • Remove excavated spoils as work progresses. • Spray or sweep excessive soil on paved areas; spray or mulch unpaved areas. • Cover stockpiled soils and trucks hauling loose materials. • Regularly spray water over unpaved areas. • Ensure effective traffic management at the site. • Sweep construction areas and access roads daily to prevent dust. • Cover trucks transporting sand and gravel. • Reduce speed to 10-20 km/h in settlements and use speed bumps. • Train drivers in best driving practices.

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Identified potential environmental impacts	Proposed mitigation measures
Poor management of end-of-life batteries	• Export of batteries to recycling. • Appropriate handling and disposal at dedicated site prior to shipment. • Manufacturer shall be responsible for the management of end-of-life batteries.

The beneficial environmental and social impacts of the project throughout its life cycle, based on the assessment made in the ESIA report, include:

- Traffic decongestion and reduction of pollution in Lagos;
- Use of sustainable construction materials;
- Use of cleaner and safer mass transit technologies;
- Electric propulsion technology;
- Safer, quicker and cheaper mode of public mass transportation;

The project-related mitigation measures will be put in place through the implementation of relevant management plans as identified in the ESIA and ESMP, among which are: Construction Environmental and Social Management Plan (CESMP), Operations ESMP (OESMP), Dredging Sediment Management Plan, Waste Management Plan, Emergency Preparedness and Response Plan, Transport Management Plans, Air Quality Management Plan and Noise and Vibration Management Plan.

As per the terms of reference, the EPCS consultancy will support the promoter in updating the ESIA and ESMP prior to the commencement of the works based on the final project detailed design.

In the event of any significant material changes in the project detailed design that may result in new risks or impacts, the promoter will need to disclose these to the public. Any relevant new comments raised by the public shall be addressed in the updated ESIA and ESMP.

The project is assessed as vulnerable to climate change risk. As part of the project preparatory work under the supervision of the lead financier a CRVA has been completed in the context of the ESIA process. The outcome of this assessment indicates and prescribes that all future design activities must consider the impact of climate change on the infrastructure and equipment to be financed under the project. Furthermore, the Bank will require the promoter to ensure that this is the case in subsequent project phases.

All physical infrastructure investment components to be financed under this project are considered activities that integrate measures to manage physical climate risks and ensure that the project's intended objectives are realised despite these risks. As such, the project is considered to partially contribute to the Bank's climate action – adaptation objectives.

Furthermore, all project components contribute to the climate action - mitigation objectives because of the use of zero direct (tailpipe) CO_2 emissions vessels for inland water urban passenger transportation as well as the construction of infrastructure enabling zero tailpipe emissions water transport.

In addition, all project components contribute to the environmental sustainability objectives because of the use of zero direct (tailpipe) CO_2 emissions vessels for inland water urban passenger transportation as well as because the infrastructure and installations that are dedicated to public passenger transport.

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The project is Paris aligned with the resilience goals as its residual climate risk is assessed as low.

EIB Carbon Footprint Exercise

The annual emissions stemming from project's operation, in a standard year of operation, were estimated at 31 kT CO_2 equivalent per year (absolute emissions). The change in annual emissions, for all other modes, stemming from the reduction of mileage of current vessels and competing road modes, resulting from the shift in demand to the project, were estimated at 41 kT CO_2 equivalent per year (baseline emissions). Therefore, the net change of emissions across the transport network due to the project operation, in a standard year of operation, were estimated to be approximately (-) 10 kT of CO_2 equivalent per year (relative emissions), a reduction of approx. 25%. These calculations are based on the current country grid[2].

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social assessment

The project is expected to improve the living conditions of the people of Lagos, particularly the most vulnerable. Through a 140 km route network connecting urban centres with socially diverse housing areas (including some remote communities that are not accessible by road), the project will improve access to essential services and jobs. It will especially benefit households that cannot afford to own their own vehicle, as the current deterioration of public transportation leaves them with no alternative but informal transport, which is less reliable, or walking.

An inclusive pricing policy provides for a 20% reduction in the average ticket price on the future network, compared to the current cost on the informal waterborne transport network or the existing public road transport network. The implementation of the new network will also initiate a sustainable transformation of the sector through the professionalization of informal operators and the improvement of working conditions. Finally, awareness campaigns focusing on the safety of the new system will help create a collective dynamic against the "fear of water."

The project is also expected to have positive impacts on gender equality, in relation to new employment to be created by the project. A Gender Action Plan (GAP) will be prepared as part of the consultancy work to be conducted prior to the start of the works. The promoter has benefited from a Gender Training Assessment. An E&S Unit will be created within the promoter's organisation during the project as reflected in the new organogram presented to AFD. Staff will be recruited to fulfil open positions. Gender will be mainstreamed through infrastructure design, construction works and under operation of the new system.

The project expects that by 2030, the percentage of promoter staff trained on gender-based violence and gender-inclusivity reaches 100%.

During pre-construction phase, the project land acquisition strategy is expected to generate moderate impacts. The ESIA also describes involuntary resettlement impact and risks of loss of livelihoods for various economic activities (e.g. informal boat operations, small fishermen, sand miners, loggers, etc.). A Resettlement Policy Framework (RPF) has been prepared to present the legal and institutional framework to resettlement, define eligibility criteria for project affected persons (PAPs), describe stakeholder engagement and consultation procedures, and provide procedure for reporting grievances and resolving disputes.

[2] EIB Project Carbon Footprint Methodologies, version 11.3, January 2023;

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A preliminary assessment of involuntary resettlement-related impacts estimates that 161 structures and 731 persons will be affected by the project. A more precise quantification of these impacts will be included in the Resettlement Action Plan (RAP) of the project because of a detailed census and asset inventory. The RAP will also incorporate a livelihood restoration component related to the loss of revenues of economic activities which will be affected by the works/operations. The Bank will require that the implementation of the RAP entitlements is completed prior to occurrence of the relevant impact.

The development of a RAP and the update of the ESIA will contribute to inform the vulnerability assessment of affected communities in the area of influence of the project. The project GAP already encompasses measures to mitigate Gender Based Violence and Harassment (GBVH) risks. The contractor's ESMP is also expected to incorporate relevant measures to protect rights and interests of the identified vulnerable groups, including violence against children (VAC), forced and child labour.

Finally, the ESMP will also incorporate mitigation measures regarding occupational and community health safety as well as provisions to ensure workers' rights are handled in accordance with national law on labour standards and obligations deriving from International Labour Organisation (ILO) conventions ratified by Nigeria.

Public consultation and stakeholder engagement

Several meetings have been organised to inform the various Ministries, Departments and Agencies (MDAs) at the federal and State level of the project and to receive their feedback in 2023. A stakeholder's scoping workshop has been held with the Federal Ministry of Environment and Lagos State to communicate the project scope and timeline to local communities, boat associations and operators, utilities and end-users.

The ESIA, ESMP and RPF documentation was disclosed on the promoter's website between 12 December 2024 and 14 January 2025. The proposals and recommendations that have been raised during the engagement process and the disclosure period will need to be addressed as relevant in the updated ESIA, ESMP and RPF documentation, before issuing the environmental decisions.

In the event of any significant material changes in the project detailed design that may result in new risks or impacts, the promoter will need to disclose these to the public. Any relevant new comments raised by the public shall be addressed in the updated ESIA, ESMP and RPF documentation.

The promoter with the help of a specialized consultant has prepared a project Stakeholder Engagement Plan (SEP) establishing a systematic approach to build and maintain a constructive relationship with project stakeholders. A Grievance Redress Mechanism complements the SEP with the aim to identify and handle emerging issues and trends and facilitating corrective action and pre-emptive engagement.

Other environmental and social aspects

The promoter has very limited experience in all areas such as environmental, climate and social management, particularly in the context of an internationally financed project.

The project therefore includes a strong institutional support and a capacity building mechanism for LASWA. Two consultancy contracts (project management and operations design (PMOD) and engineering, procurement, construction and supervision (EPCS)) are being put in place to support LASWA with the preparation of the updated environmental and social studies (ESIA, ESMP and RAP), the management of the project through the strengthening of the Project Implementation Unit (PIU) with key additional staff to manage E&S safeguards and the

supervision of the Contractor. The updated ESMP will be integrated in the construction works contracts (CESMP).

The Promoter will be required to put in place a management and compliance system for the project's E&S impacts and risks.

Conclusions and recommendations

The project is considered high risk according to EIB Group's Environmental and Social Policy and category A according to the national regulations. The measures for preventing the potential impacts are described in the ESIA, ESMP and RPF documentation. Appropriate mitigation measures will be put in place through the implementation of relevant management plans.

At the time of appraisal, the national ESIA procedures were not completed. However, the Bank will require that these are completed prior to the start of the construction works.

Conditions

Prior to all disbursements

- Evidence that the project management and operations design (PMOD) and engineering, procurement, construction and supervision (EPCS) consultancies are ongoing, in line with the applicable terms of reference, and that, when relevant, their outcomes have been duly incorporated in the relevant tender documentation for the procurement of the works and the equipment necessary for the project, in full compliance with the technical description of the project;

Prior to the first disbursement

- If required, confirmation endorsed by AFD that the project ESIA and ESMP report updated by the EPCS consultancy as per their terms of reference and that the outcomes have been duly incorporated in the relevant tender documentation;
- If required, confirmation endorsed by AFD that the relevant environmental competent authorities have provided their clearance to the project modifications;
- Confirmation endorsed by AFD that a project RAP has been developed by the EPCS consultancy as per with their terms of reference in accordance with the principles of the project's RPF;
- Confirmation endorsed by AFD that there is evidence that the updated ESIA and ESMP address any new comments raised by the public during a new disclosure process if one be required;
- Confirmation endorsed by AFD that a management and compliance system for the project's E&S impacts and risks has been prepared including roles and responsibilities and review process of the project's environmental and social performance in line with the ESIA and ESMP requirements;
- Confirmation endorsed by AFD that the GAP implementation is in progress according to its timelines;
- Confirmation endorsed by AFD that there is evidence that adequate financial resources have been set aside in the project for Lagos State to cover resettlement related costs;
- Confirmation endorsed by AFD that the project Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) is operational.

Prior to subsequent disbursements

- Confirmation endorsed by AFD that the project's ESMP, RAP, SEP including GRM, GAP and all respective management plans part of the project's management and

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compliance system for the environmental and social impacts and risks are being implemented and monitored throughout the project progress;

Prior to the start of the civil works

- Confirmation endorsed by AFD that the compensation, resettlement assistance payments and livelihood restoration measures are implemented in line with the progress of the civil works;

Undertakings

- The promoter shall promptly inform the lenders on any significant environmental claims, proceedings or investigations commenced, pending, or risk of being initiated regarding environmental and social matters affecting the project;
- The promoter shall regularly monitor and report to AFD and EIB, on an annual basis, on the environmental and social performance of the project according to the updated ESIA and ESMP commitments;
- The promoter shall ensure that all required permits, authorizations and approvals from the relevant authorities are obtained, and compliance is maintained throughout the project implementation;
- The promoter shall update and implement the operation phase ESMP and the respective management plans as part of an operation-phase management and compliance system for the environmental and social impacts and risks prior to the operationalization of the project;
- The promoter undertakes to mainstream gender in all issues related to the project, from employment to infrastructure design, construction works and operation of the new system;

Based on the above assessment, conditions and undertakings, the project is acceptable for EIB financing in environmental and social terms.