

**MSIMBAZI BASIN DEVELOPMENT PROJECT
(IDA CREDIT NO. 7215-TZ)**

**PROVISION OF CONSTRUCTION SUPERVISION CONSULTANCY SERVICES
FOR TERRACES IN FLOOD DETENTION AREA AND RIVERBANK
PROTECTION WORKS UNDER THE MSIMBAZI BASIN DEVELOPMENT
PROJECT**

TERMS OF REFERENCE

1. Introduction

1.1. Background

The Government of Tanzania, through the President’s Office Regional Administration and Local Government (PO-RALG) and the Ministry of Works (MoW) is implementing the Msimbazi Basin Development Project with financing from the International Development Association (IDA) credit (i.e., the World Bank) to the tune of US\$ 200 million. Other co-financiers are the governments of the Netherlands and Spain, with grant and credit of US\$30 million each. The project will be implemented by the Tanzania Rural and Urban Roads Agency (TARURA) and the Tanzania National Roads Agency (TANROADS) on behalf of the respective ministries mentioned above.

The project will transform the flood-prone but economically important lower Msimbazi River Basin of Dar es Salaam through a set of integrated investments that aim to reduce the impact of flooding, catalyze sustainable urban development, and improve livability. The project duration is six years (2022 – 2028).

The Project Development Objective is to strengthen flood resilience and integrated urban development in an economically important and flood prone area of the Msimbazi River Basin in Dar es Salaam.

The project comprises of the following components.

Component 1: Msimbazi River Basin Development Infrastructure

This component provides an integrated, long-term solution to substantially reduce the impacts of floods in the lower Msimbazi River Basin that will improve hydraulic capacity of the river, provide an area for flood water detention, build resiliency of key transport infrastructure, regenerate valuable land assets to control encroachment in flood prone areas and allow for public recreation and urban development, and reduce degradation of the Msimbazi watershed. Moderate to extreme climate change scenarios are used in conjunction with urbanization scenarios informing engineering designs, to substantially reduce the Basin’s and the city’s vulnerability to climate change.

Subcomponent 1.1: Flood control interventions (US\$80 million, Years 1-4)

This subcomponent will address key priorities for flood control infrastructure in the Lower Msimbazi Basin. The investments aim to improve the degraded river channel, recontouring the river and flood plain to improve flow capacity and allow for floodwater retention. The

subcomponent will finance, inter alia: (a) Recontouring the riverbed in the lower-basin flood plain area of the Msimbazi's valley, including river channeling, excavation of flood plain/river dredging and construction of multi-level flood retention area (terracing works) to improve river conveyance; (b) carrying out riverbank protection works; (c) managing river sedimentation through the construction and operation of river maintenance depots, sediment and litter traps, and equipment; (d) carrying out construction supervision activities; (e) implementing analytical studies and detail designs (including environmental and social due diligence and stakeholder engagement) for prospective flood control and redevelopment investments in the Msimbazi river basin.

Subcomponent 1.2: Resilient transport infrastructure (US\$83 million, Years 1-3)

This subcomponent will upgrade key transport infrastructure in the project area and minimize disruptions during the rainy season, incorporating climate and disaster-resilient designs. The subcomponent will finance, inter alia: (a) Widening and raising the Jangwani Bridge to accommodate flash flood events, including upgrading it to a multi-span bridge, raising embankments and improving stormwater conveyance; and (b) demolishing the extant Jangwani Bus Depot and relocating it (construction of new facilities) to a flood-proof new location.

Subcomponent 1.3: Msimbazi city park and redevelopment area (US\$37 million, Years 4-6)

This subcomponent will finance interventions to implement and sustain the land uses in the flood retention area in the Lower Msimbazi River Basin to reduce the risk of encroachment and allow for recreational and low-carbon and resilient real estate development. The subcomponent will finance, inter alia: (a) Carrying out a wetland and city park development in the lower Msimbazi river basin, including greening and mangrove revitalization, utilities infrastructure and equipment, and construction of streets and pathways, sports and recreation facilities, and market areas; (b) constructing an approximately 57-hectare site in an upper-terrace in the Msimbazi valley, as well as ancillary service infrastructure (e.g. roads, street lighting, drainage, wastewater management infrastructure, etc.) to enable a mixed-income, mixed-used urban development.

Subcomponent 1.4: Watershed management through greening, erosion control, and litter management (US\$15 million, Years 1-6)

This subcomponent will focus on nature-based solutions and improved urban services to address the environmental and social challenges that contribute directly to the reduced carrying capacity of the river through restoring natural assets and reducing waste in the river. The subcomponent will finance, inter alia: (a) Carrying out reforestation in the upstream Msimbazi and tributaries; (b) implementing an erosion prevention and urban greening works, including reinforcement of riverbanks, at critical locations in the main channel and tributaries of the Msimbazi, including an outreach campaign with information, education and communication activities on labour opportunities and watershed conservation; (c) constructing sediment management infrastructure and provision of equipment for sediment management in the middle and upper Msimbazi basin; (d) implementing a community-led solid waste management and litter control program, including provision of equipment, construction of materials-recovery facilities, design and implementation of a communications campaign, and upgrading of solid waste management/collection contracts; and (e) financing improved solid waste collection/recycling contracts through performance-based payments schemes.

Component 2: Preventative resettlement (US\$30 million equivalent, Years 1-5)

This component will finance the preventive resettlement of low-income flood-prone communities in the lower Msimbazi River Basin and Project-related Displaced Persons in compliance with the World Bank Environmental and Social Framework (ESF). Most of the resettlement will be in flood-prone areas in the lower Msimbazi valley. There are an estimated 3,552 households in flood prone areas eligible for compensation, including 1,693 owners and 395 tenants, for a total of 11,708 project affected people (PAPs). Over 60 percent of houses are currently occupied by either the owner or tenants and or both, with the remaining houses being abandoned due to dilapidated conditions, flood damage, and damages from prior evictions. Additional resettlement is anticipated for those affected by project works.

Subcomponent 2.1: Resettlement Compensation (US\$29.6 million, Years 1-4)

This component will finance, inter alia: carrying out preventative resettlement of low-income flood-prone communities and in the lower Msimbazi valley anFd Project-related Displaced Persons and implementing the Resettlement Policy Framework (RPF) and Resettlement Action Plans (RAPs) for the Project, including the acquisition of land, the payment of compensation to Displaced Persons, including in situ and in-kind resettlement. The eligible compensation is defined under the RAP based on the entitlements provided in the Resettlement Policy Framework and are consistent with the World Bank Environmental and Social Standards.

Subcomponent 2.2: Livelihood Restoration (US\$0.4 million equivalent, Years 1-5)

This subcomponent will finance, inter alia implementing the livelihood restoration program provided for in the RPF and RAPs. Livelihood Restoration Programs (LRPs) will be implemented in parallel with PAP compensation and relocation. Ninety percent of PAPs to be resettled in flood prone areas earn livelihoods in the informal economy, largely petty trading and vending, and livelihoods are dependent on their current location near the Dar es Salaam central business district. Relocation from the area could impact PAP livelihoods. The LRPs will complement the relocation of households and ensure that PAP livelihoods are maintained at, or above, pre-project level. This subcomponent will finance consultant services, equipment and works, and training related to the implementation of this program.

Component 3: Strengthening institutions for resilient urban development (US\$8.10 million equivalent, Years 1-6)

This component focuses on governance reforms, strengthening new and existing institutions, building capacity, and facilitating coordination for management of the Msimbazi River Basin, including the investments and assets created under the project, the surrounding urban area, and the watershed.

Subcomponent 3.1: MSPA Institutional Strengthening (US\$2.0 million, Years 2-5)

This subcomponent will support the formation of the institutional arrangements and management plans for the Msimbazi Special Planning Area (MSPA) and executing the land use planning, real estate transactions, city park and future development. It will finance, inter alia strengthening the institutional capacity, and facilitating interinstitutional coordination, for

the management of the Msimbazi river basin, including: (a) establishing a Msimbazi special planning area institutional structure and developing a management and financial plan for the Msimbazi special planning area; (b) developing land-use plans for the area; and (c) setting up and/or preparing the institutional framework for real estate development and transactions, including cadastral surveys, deed plans, land titling, control enforcement mechanisms, development of bidding and sale contracts, and provision of transaction services.

Subcomponent 3.2: Msimbazi River Basin Management Institutional Strengthening (US\$3.9 million, Years 2-6)

This subcomponent will support a multi-agency and stakeholder approach to manage the flooding and erosion and broader sustainability of the Msimbazi River Basin. It will finance, inter alia: (a) Strengthening infrastructure design to support flood and erosion control in the Msimbazi River Basin; (b) Enhancing enforcement of water quality regulations through pollution inventories, regular monitoring, industry audits, identifying options for controlling pollution, and capacity building for long term monitoring; (c) Development of a watershed management plan; (d) strengthening arrangements for operation of dredging and sediment management; (e) development of emergency contingency plans for lower MSPA; (f) monitoring of mangroves; and (g) purchase and installation of hydro-metrological and river flow monitoring equipment.

Subcomponent 3.3: Local Government Authorities Institutional Strengthening (US\$2.2 million, Years 2-6)

This subcomponent will provide institutional strengthening of the DLAs to support service delivery, urban planning, and development controls, in support of their associated roles in the MSPA, surrounding urban areas and watershed. It will finance, inter alia: (a) provide training, and technical assistance for monitoring and development of procedures and processes for enforcement of development controls; (b) provide technical assistance for the development of an upgrading plan for existing communities in lower MSPA; and (c) provide technical assistance for improved management of solid waste services.

Component 4: Project Management (US\$6.9 million equivalent; US\$5.7 million PO-RALG-PCT and DCC-PIT; US\$1.2 million TANROADS, Years 1-6)

This component will finance the direct costs of management and operation of the project to ensure smooth delivery and compliance with World Bank policy and guidelines. It will finance, inter alia carrying out: (a) project-management and coordination activities, through the establishment, maintenance and operation of a Project Steering Committee (“PSC”), a Project Coordination Team (“PCT”), a Dar-es-Salaam City Council Project Implementation Team (“DCC-PIT”), TANROAD’s Project Implementation Team (“TR-PIT”), as well as ancillary teams and technical support groups, responsible for project implementation, monitoring and evaluation, and reporting, including compliance with the Environmental and Social Standards (ESSs), the Environmental and Social Commitment Plan (ESCP), the Association’s fiduciary (i.e. financial management, anti-corruption and procurement) requirements and stakeholder engagement/coordination responsibilities; and (b) carrying analytical studies, identification assessments and designs for future investments in the Msimbazi special planning area.

Component 5: Contingent Emergency Response (US\$0)

This component will finance, inter alia provision of immediate response to an Eligible Crisis or Emergency, as needed. This component enables rapid response to eligible emergencies and disasters caused by natural and man-made events by providing contingent financing. Tanzania faces increasing disaster risks associated due to climate change with flooding during the rainy seasons being the most common recurring disaster. There are also seismically active areas in the country. This component will allow the GoT to access project funds to support immediate disaster response, rehabilitation, and reconstruction needs. The Contingency Emergency Response Component (CERC) will initially have no funding allocation, but upon its activation uncommitted funds from other project components will be reallocated to serve the eligible needs.

1.2. Earthworks and Riverbank Protection

PO-RALG hired the consultant to carry out the feasibility studies, preparation of preliminary and detailed engineering designs, cost estimates, bidding documents, and environmental and social due diligence for the lower Msimbazi basin. The implementation of the designs will be financed through subcomponent 1.1 of the project.

The concept for earthworks and riverbank protection was to use soil balance approach, whereby the excavated soil for increasing water conveyance will be used to create safer terraces for the city park and urban redevelopment. The terms of reference for the design did not guide the consultant to check the adequacy of the excavated materials in terms of quality and quantity for terracing. The consultant assumed that only 10% of excavated materials will be unsuitable for terracing. PO-RALG has hired the consultant to carry out the study on the excavated area to confirm the doubts before floating bids for the assignment. The consultant will also review the designs for the riverbank and terraces protections.

2. Objective of the Assignment

2.1. Overall Objective

The overall objective of the assignment is to supervise the terraces in flood detention area and riverbank protection works in the lower Msimbazi Basin.

2.2. Specific Objectives

The Consultant's Engineer/Project Manager shall perform and fulfil the following objectives.

- Carry out design review and prepare design review report and revised set of contract documents for construction.
- Carry out any required redesign and design of any new additional scope in relation to this assignment.
- Act as Project Manager for the supervision of construction contract for terrace in flood detention area and riverbank protection works.
- Supervise ESMP implementation and ensure compliance with Occupational Health and Safety (OHS) measures.
- Prepare substantial completion certificates and review/validate as-built drawings.
- Monitor Defects Liability Period (DLP)
- Contract completion and handover
- Knowledge transfer to strengthen the engineering and technical capacity of the Dar es Salaam City Council (DCC) Project Implementation Team (PIT), and PO-RALG Project Coordination Team (PCT)

- Review and develop O&M manuals to reflect the updated features during the implementation.
- Any other tasks assigned by the client in relation to this assignment.

3. Scope of the Assignment

The Consultant (firm) shall act as the Project Manager and be responsible for supervising the execution of the construction works and administering the Contractor’s contract on behalf of the Employer. Under the contract for supervision services, the Consultant will provide direct on-site supervision of the construction works under the project and after their completion as well as part-time supervision of the defect liability period. The supervision services are to be preceded by a comprehensive review of the contract documents (detailing of designs and production of required information/data for sub-projects). Furthermore, the consultant will provide technical assistance or advice on any other tasks assigned by the Client in relation to this assignment. The following are the main works (among others) that are to be supervised under the assignment:

S/N	Works Description	Unit	Quantity
1.	Demolition and removal of buildings and utilities in flood prone area as well as terracing area	m ²	340,000
2.	Clearance and grubbing and removal of existing vegetation and solid waste dumps in the project area	ha	270
3.	Demarcation of the project area by concrete beacons/posts	No.	Approx. 900
4.	Excavation and dredging of the river channels and flood plans and its removal to the locations of park and urban terraces	m ³	Approx. 2,330,000
5.	Protection of river and flood plain banks by either hidden armour protection, gabion structures or vegetated slopes for both slopes and embankments	m	35,100
6.	Filling, grading, and compaction of excavated materials on park and urban terraces	m ³	Approx. 1,560,000
7.	Importing materials for capping layer, spreading and profiling to the design terrace level	m ³	Approx. 660,000
8.	Protection of park and urban terraces’ banks and edges by either hidden armour protection, gabion structures or vegetated slopes for both slopes and embankments	m	8,100
9.	Supply and planting various types of grass mix	m ²	Approx. 260,000
10.	Construction of sediment storage depots	No.	2

The supervision services to be provided by the contracted consultant will be guided by these Terms of Reference (TOR).

4. Specific Tasks for the Assignment

The Consultant will undertake works supervision and his (its) obligations shall include, but not be limited to the following:

4.1. Contract Documents Review and Redesign

1. Review contract documents for the works including designs, briefs and concepts, technical surveys, detailed design, landscape, architectural and engineering drawings, Bills of Quantities (BoQ), technical specifications, Environmental and Social Management Plan (ESMP), Occupational and Community Health and Safety (OHS) measures, etc. so that deficiencies (if any) are identified in time and adjustments are made before starting construction work. Timely bring to the attention of the Client/Employer and PO-RALG any issues that are inconsistent or require decision making or clarification(s) and ensure they are resolved.
2. Where necessary, carry out: redesign, revision of drawings, identification/suggestion of suitable alternative design concepts, routes or construction methodology for the works, sources of construction materials, material testing/quality control, environmental and social mitigation measures, Occupational and Community Health and Safety (OHS) measures, and any other professional activities that will control cost and time as well as enhance the quality of outputs, completeness, use and effectiveness of completed sub-projects/facilities. This may also include additional technical survey works (geo-technical, topographical, hydrological, etc.). The design review should also verify any changes to the affected land, structures or other elements identified in the Resettlement Action Plan (RAP).
3. Prepare detailed engineering designs for sand traps (maximum of four) as would have been proposed from feasibility study (separately undertaken), to be constructed in the middle part of the Msimbazi Basin including confirmation of location, functionality, capacity, operation and maintenance procedures, etc., and produce final designs and bidding documents for construction of the infrastructure.
4. Design review report will be prepared and submitted for the whole scope of works.

4.2. General Supervision of Works

1. Identify and mark all utilities with the help of competent authorities and assist the Client/Employer in effecting the removal/relocation as it may require, of all utilities within the construction area, and allow the Contractor to plan for their relocation.
2. Review and appraise drawings showing the construction details, methodology, and proposals for execution of the works as submitted by the Contractors and make improvements as necessary.
3. Provide support to PO-RALG – PCT, DCC and Resettlement Consultant (under a separate contract) to ensure that all sites are cleared of any resettlement issues before contractors' mobilization in accordance with the Resettlement Action Plan (RAP) for the works, and grievance procedures are effectively administered, and continue to be functional throughout the project construction period.
4. Establish schedules and flow charts for all activities, including mitigation measures for adverse environmental and social impacts, taking into consideration the work programme submitted by the Contractor.
5. Check and ensure that Contractor adequately mobilize key staff, on-site construction personnel teams and supply all equipment and plant as per the requirements of the

works contracts and ensure that all such items/personnel remain on site until no longer required as well as the contractor provides engineers office on site within the first six months of construction as stated.

6. Ensure that the Contractor, whose contract requires the supply of selected laboratory equipment for the works, supplies, delivers, installs, and commissions the equipment as specified, and that the laboratory building is constructed or refurbished with all the stated furnishings/facilities as specified in the contract documents, that the laboratory is made ready for use in a timely manner, and that it is effectively functional. Similarly, ensure the same is done by the Contractor in the case of the supply of survey equipment or any other equipment specified in the contract.
7. Assign the necessary field staff to perform such field operations as required and be responsible for all administrative work related to project supervision requirements, including proper conduct, attendance, and performance of duties of its staff, and ensure that they properly record all equipment, materials, etc. supplied under the contracts.
8. Establish supervision survey teams, review design levels, profiles, etc. and carry out initial markings to be able to correctly assess the extent of construction works to be undertaken by the Contractors, supervise and modify as necessary and ensure they are progressively attained to completion as required.
9. Establish works inspection teams to undertake on-site supervision of construction works that will be able to check/correctly assess the quality, quantities and extent of construction works to be undertaken by the Contractors and ensure that they are progressively achieved up to the completion of the works as per the requirements of the contract. Works inspection teams should include the presence and consultation of the Resident Engineer at the onset of critical phases of construction at their discretion.
10. Ensure quality testing laboratory are established and fully equipped as per the works contract requirements as well as the availability or identification of a well-equipped and quality laboratory capable of handling testing and specifications requirements for all materials and finished works to confirm compliance to the contract standards. Timely carry out such tests in accordance with test standards specified in the specifications and document these regularly in the progress reports. In addition to that, ensure all the laboratory equipment are calibrated and calibrated certificate with the date of calibration inserted into the equipment.
11. Supervise fully, in a participatory and collaborative manner with the PIT under the DCC Project Coordinator; the construction of works with due diligence and efficiency in accordance with sound technical, environmental and social, administrative, and financial practices. Specifically, take special attention to the drainage works by ensuring that any surface run-off water or flood water is safely disposed of into a natural drainage channel or river without causing harm to the environment, surrounding communities or residents of the area; otherwise adjust the works or re-routing the water to safe final disposal facilities where necessary. Perform all duties associated with such tasks in line with the current "state of the art". Fully ensure compliance with the designs and specifications and making improvements and

modifications as will, in the consultant's opinion, result in economy without sacrificing quality of the finished works.

12. Take measurements, calculate, and record quantities by acceptable method, prepare monthly interim payment certificates, final accounts and final payment certificates and assist the Client/Employer in the taking over of the completed works at the final inspection and prepare a completion report on the works contracts. Submission of the mentioned documents will be to the City Director with copies to the PO-RALG.
13. Ensure enquiries/queries/claims by contractors are promptly reviewed and resolved and similarly, payment certificates are reviewed and cleared timely, submitted to the Employer and follow-ups are made for them to be paid within the period provided contractually.
14. Review and approve Contractors' work programs and conduct monthly management site meetings, deal with matters raised in accordance with the early warning procedures indicated in the Works contract and review plans for the remaining work. Minutes of these meetings will be included in the monthly progress reports.
15. Ensure that the Contractor fulfils its (his) obligation of giving Early Warning at the earliest opportunity to the Project Manager and Employer in accordance with the General Conditions of Contract (GCC) regarding specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works.
16. Review requests from Contractors or any situations that may lead into variations in BoQ work items or issuance of instructions to omit, add or increase in quantities of work items in the contract BoQ, adding/omitting a sub-project originally in the contract, a section of road, a facility, etc. and their implication(s) in terms of time for execution, resources, environmental and social impacts, quality of work, usability/effectiveness of the completed facility/ sub-project, related costs and the overall contract price, advise the Employer/Client accordingly and seek approvals of Employer/Client and (PO-RALG) prior to any issuance of the variation orders.
17. Keep all records updated including reports, work diaries, correspondences, instructions given to contractor(s), test records, measurement and quality calculations, payment records and all other relevant documents pertaining to the works operations and supervision contracts.
18. Study and acquire skills on the use of developed project supervision tool, train PIT and Contractors' staff on its application and assist collection of required data, clean, organize and submit them to PIT and PCT as appropriate.
19. Maintain a site diary and record all daily works carried out, plant, equipment, materials, and personnel assigned to various activities, with the contents and format to be agreed with the Client.
20. Prepare and submit to the Client the final cost of the executed works.

21. Take geo-referenced progress photographs and maintain thorough photographic documentation of conditions before, during upgrading/rehabilitation or construction and after completion of the sub-projects. Progress photographs to be part of monthly progress reports as indicated in paragraph 9(b) below.
22. Ensure that the Contractors observe Tanzania labour laws in the employment of permanent and casual labour force for the execution of the works.
23. Investigate and report, with recommendations, any unusual circumstances that may arise during construction.
24. Give the necessary instructions to the Contractors and deal with contractual claims and settlement of disputes which may arise between the Employer and the Contractors, provide timely advice on suitable and effective resolutions, and assist to resolve them.
25. Provide technical assistance to DCC PIT headed by the Project Coordinators to enable it to effectively monitor and supervise implementation of the works.
26. Organize/conduct monthly meetings during the construction period to update the Council Management Team (CMT) on the progress of the works, highlight and bring to the attention of the Management Team issues that need to be addressed/resolved or those needing decisions/follow-ups as well as getting feedback from the Council/communities/beneficiaries and addressing any concerns that may arise. Minutes of the meeting will be included in the relevant monthly report.
27. Prepare and submit to the City Director, with copies to the PO-RALG, an Inception Report, Monthly Reports and a Final Report in a manner, contents and timing as detailed under paragraph 9 of the TOR namely, "Reporting Requirements".
28. Assist in the preparation of dissemination materials/information on project activities for the public, City Council and PO-RALG when required.
29. Participate in the MBDP Technical Review Meetings and the IDA's implementation support missions or review missions and prepare respective reports on behalf of the City Council, PO-RALG, the Technical Committees, and the IDA as and when required.
30. Review Contractors' requests (if any) for extension(s) of time and the implication(s), advise the Employer/Client accordingly and seek approvals of Employer/Client and PO-RALG.
31. Receive from works Contractors, review and submit to the City Director complete set of reproducible, as-built engineering drawings of the completed works.
32. Monitor the defects liability period in collaboration with City Council to its completion. This will be done periodically as well as on occurrence of defects on the completed works, issue necessary instructions to Contractor(s) for taking remedial measures as per the works contract.

33. Assist the City Council in procurement processes that may arise during the period of the Consultant's assignment including giving advice or participating in the processes as may be requested by the Client.
34. Ensure that the Contractor delivers its ES obligations under its contract as clarified in Section 4.3 and 4.5 below.

4.3. Environmental and Social Management Plan - Implementation and Monitoring

The Consultant will ensure that the Contractor delivers its environmental and social obligations under its contract in line with the Environmental and Social Impact Assessment (ESIA) Report, Environmental and Social Management Plans (ESMPs), Resettlement Action Plans (RAPs) and any other environmental and social safeguards instruments prepared for the project.

The Consultant is generally responsible for monitoring the implementation of environmental and social impacts and mitigative measures during the construction of the works in consultation with National Environmental Management Council (NEMC). This will include daily supervision as part of the Consultant's overall supervision obligations. This includes, but is not limited to the following:

1. Review the Contractors' Environment and Social Management Plans (C-ESMP), Flood Management Strategy, Traffic Management Plan etc., including all updates and revisions at frequencies specified in the Contractor's contract (normally not less than once every 6 months).
2. Review all other applicable contractor's documents related to environmental and social aspects including the health and safety (occupational and community) manual, traffic management plan, waste management plan, labour force management (including workers code of conduct) and sexual exploitation and abuse prevention and response action plan.
3. Closely supervising execution of environmental and social safeguards on daily basis.
4. The Contractor will supervise negotiations of the associated costs of environmental and social measures that are accommodated in the BoQ as a provisional sum; these will need close supervision from the consultant.
5. Review and consider the environmental and social risks and impact of any design change proposals and advise if there are implications for compliance with ESIA, ESMP, RAP, consent/permits and other relevant project requirements.
6. Undertake, as required, audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities under its contract, to verify the Contractor's compliance with environmental and social requirements (including relevant requirements on sexual exploitation and abuse/sexual harassment).
7. Undertake audits and inspections of Contractor's accident logs, community liaison records, grievance logs, monitoring findings and other environmental and social related documentation, as necessary, to confirm the Contractor's compliance with environmental and social requirements (including relevant requirements on sexual exploitation and abuse/sexual harassment).

8. Determine remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's environmental and social obligations.
9. Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with environmental and social obligations.
10. Ensure that the Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations.
11. Review and critique, in a timely manner, the Contractor's environmental and social documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation.
12. Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential environmental and social issues.
13. Establish and maintain sub-project level Grievance Redress Mechanism (GRM - in line with the overall project GRM) including types of grievances to be recorded and how to protect confidentiality e.g., of those reporting allegations of sexual exploitation and abuse and/or sexual harassment. The GRM should function to quickly address complaints, engage with stakeholders, and maintain a positive working environment in communities and with sub-project beneficiaries.
14. Document any accidental damages to properties or assets caused by the contractor and ensure that due compensation and/or remedial actions are taken in line with the project Resettlement Action Plan (RAP). In the case of design modifications that might result in impacts to land, assets, or livelihoods, ensure that the RAP procedures are followed.

4.4. Quality Management System

The Quality Assurance/Quality Control (QA/QC) should be prepared based on best practices required to implement total quality management system through ISO 9000 series which gives requirements on how to prepare quality management system. Construction industry will be based on ISO 9001. Therefore, consultants should be based on ISO 9000 series to prepare quality management system to be adhering during construction.

4.5. Occupational Health and Safety (OHS) Supervision

The Consultant will inspect the health, safety, and security aspects of construction and temporary works to ensure that every reasonable measure has been taken to protect life and property of workers and communities. Per the project environmental and social management plan and/or standalone health and safety plan, the consultant will be responsible for activities including but not limited to:

1. Ensure that the "Certificate of Registration" issued by OSHA-Tanzania is available with contractor.
2. Ensuring that a site-specific Occupational Health and Safety (OHS) manual is developed and implemented by contractor in accordance with legal and contractual requirements related to OHS. Such manual shall include risk assessment/mitigation, hazard identification and method statement for all works to be done according to relevant safety standards. The manual shall be available before the start of work and be reviewed and approved by the Consultant.

3. Ensuring the contractor always has a designated qualified person (per OSHA requirements) on site as a health and safety focal point.
4. Establishing a programme of OHS training for the contractors and PIT.
5. Enforcing permit-to-work systems (e.g., for confined space work, working from height, pipe lifting/shifting activities) and ensuring that no activity takes place at site without an approved Safe Work Method Statement.
6. Ensuring the contractor carries out toolbox talks to brief workers on safety issues for the day's work, and supplementing with training where there are notable gaps in the contractor's capacity.
7. Ensuring that all tools, equipment, machines, and vehicles used by contractor are maintained in safe condition.
8. Maintaining an up-to-date accident/incident register including near misses, and alerting the PIT immediately of any accidents, fatalities, or major safety lapses by the contractor.
9. Ensuring consistent use of engineering and administrative controls of OHS risks and adequate PPE by labourers depending on the work being undertaken.
10. Ensuring adequate barricading, shoring, etc for any excavation work based on sound engineering practices.
11. Ensuring adequate measures including fencing, barricades and signage are in place for community protection.
12. Stopping works and issuing corrective actions to the contractor in the event of safety lapses. No unsafe work should be allowed to commence/continue.
13. Review the OHS performance on Contractor at frequency described in contract (normally every 6 months) through audits.
14. Conducting review meetings with Contractor on its OHS performance at frequency described in contract (normally every 6 months).
15. Summarize each contractor's performance in OHS compliance and performance in the Consultant's monthly progress reports, including any incidents and/or corrective actions issued.
16. Closely supervising execution of the health and safety and negotiations of the associated costs for the measures that are accommodated in the BoQ as a provisional sum as they need close supervision by the consultant.

4.6. Transfer of Knowledge (Training) Program

The main objective of skills transfer is to strengthen the engineering and technical capacity of the PCT, PIT, and DCC in general and to assist the Team in developing engineering skills and competency in project administration throughout the on-the-job training program and one-week technical excursion for exposure to best implementation practices of well-developed infrastructure projects within the African region or other suitable places elsewhere, up to twenty-five personnel. This should cover civil, geotechnical, social/resettlement, and environmental fields of expertise. The Team will need technical strengthening in the following main areas/topics:

1. Review of designs and contractor submissions.
2. International design codes and standards.
3. Project scheduling, control, and quality assurance program for client/employer.
4. As-built drawing review, design and checking.
5. Construction supervision and contracts management (World Bank & FIDIC).
6. Field testing, use of materials laboratory equipment and interpretation of test results.
7. Preparation of progress and construction management reports.
8. Contract start-up and finishing/commissioning procedures.
9. Environmental Management; and Resettlement Action Plans (RAP).
10. Health and Safety Control Measures appropriate for Construction Sites.
11. Contract accounting, financial management and preparation of final accounts.
12. Computerized project management, starting with a GANTT chart using off the shelf software such as Microsoft Project, as an example.
13. World Bank procurement and safeguard documents.
14. FIDIC and other Conditions of Contract.
15. Engineer's duties in Construction Supervision.
16. O&M planning, budgeting, and implementation for infrastructure facilities, etc
17. Any other technical areas/fields in relation to the assignment.

Prepare a suitable training program and conduct periodic on-the-job training sessions to build capacity and transfer skills to technical counterpart staff made available by DCC and PO-RALG in the fields of construction supervision of infrastructure projects, contract management, material testing, results interpretation, and general use of the laboratory and its equipment.

The cost of the Consultant in relation to the implementation of capacity building and the transfer of knowledge as well as that of the stated team members/participants in the technical excursion package above should all be included in the financial proposal.

5. Consultant's Input

5.1. Consultant's Experience

The consulting firm should have general experience in the development/implementation of infrastructure projects. The firm should have at least 10 years of experience in the design and construction supervision of infrastructure development/investments that include large earthworks and riverbank protections, environmental, and social management plans, as well as having successfully supervised at least one similar project (by size and complexity) in the last 10 years in an urban or peri-urban environment in developing countries under World Bank/Donor financing.

5.2. Required Staff and Inputs

1. Key Staff

- a. Project Manager/Resident Engineer
- b. Landscape Architect
- c. Materials Engineer
- d. Drainage Engineer

- e. Hydrologist/Modeler/River Morphologist
- f. Land Surveyor
- g. Quantity Surveyor/Cost Estimator
- h. Environmental Expert
- i. Sociologist/Resettlement Expert
- j. Occupational Health and Safety Expert

2. Short-Term Experts

In addition, short term interventions are required to fully meet the tasks described above. The composition of short-term experts and duration of their involvement is at the discretion of the Consultant but is expected to include but not be limited to: GIS Expert, CAD Engineer, additional environmental and social experts for implementation of ESMPs and RAP teams, etc.

Similarly, technical support teams (e.g., civil engineering technicians, materials technicians, road technicians, health and safety inspectors, land surveying technicians etc.) will be required to provide on-site supervision and quality control of contractor's works to completion. They must be clearly identified in the technical proposal; their numbers and positions mentioned and shown (demonstrated) to be adequate in accordance with the scope of the works to be supervised in Para 3 above to enable proper and successful execution of the supervision assignment.

5.3. Staff Qualification and Experience

1. Project Manager/Resident Engineer

The candidate for the position must be qualified in BSc degree in civil engineering or equivalent and registered with the relevant professional bodies, post-graduate qualifications in civil engineering or project management. She/he must have experience of a minimum of 15 years related to large earthworks, design and construction supervision of various infrastructure works. She/he must have served as a Resident Engineer or Project Manager in at least one construction project of similar nature (by size and complexity) for the last 10 years. Experience in contract administration under FIDIC conditions of contract is a must. She/he must have a working experience of at least 3 years in developing countries.

2. Landscape Architect

The candidate for the position must have professional qualifications in BA or BSc degree in landscape architecture or equivalent fields and registered with the relevant professional bodies and should demonstrate high level of experience in design and supervision of large recreational parks and related external works including landscaping, greenery, spatial facilities, etc. She/he must have experience of a minimum of 10 years post-qualification working experience in relevant field and at least 5 years of experience as an architect for landscaping. She/he should have worked as an architect in-charge for at least one similar project (by size and complexity) to be supervised under this assignment, in the last 10 years. She/he should possess oral and written communication skills in English and must have a working experience of at least 3 years in developing countries. The candidate will be responsible for the design review and supervision of the landscaping, greenery, external works, etc.

3. Materials Engineer

The candidate for the position must be a qualified engineer and should demonstrate high level of experience in various infrastructure works as a materials/geo-technical engineer. He/she should possess oral and written communication skills. Specifically, she/he should have first degree in civil engineering or equivalent and registered with the relevant professional bodies; post-graduate qualifications in geo-technical/highway/civil engineering. She/he must have minimum of 10 years post-qualification working experience in relevant field and at least 5 years of proven experience as materials engineer for large earthwork projects. She/he should have worked as materials engineer in at least one project of similar nature (by size and complexity) in the last 10 years and possess oral and written communication skills in English and must have a working experience of at least 3 years in developing countries.

4. Drainage Engineer

The candidate should be a professionally qualified and experienced individual with at least a first degree in civil engineering, or a relevant field, and registered or accredited with relevant professional bodies. Postgraduate qualifications will be essential. A minimum of 15 years of working experience in the field of the proposed position and successfully working on at least one similar assignment (by size and complexity) in the last 10 years. He/She should possess oral and written communication skills in English and have at least 3 years of working experience in developing countries.

5. Hydrologist/Modeler/River Morphologist

The candidate should be a professionally qualified and experienced individual with at least a first degree in hydrology, hydro-modelling, river morphology or a relevant field, and registered or accredited with relevant professional bodies. Postgraduate qualifications will be essential. A minimum of 15 years of working experience in the field of the proposed position and successfully working on at least one similar assignments (by size and complexity) in the last 10 years. He/She should possess oral and written communication skills in English and have at least 3 years of working experience in developing countries.

6. Land Surveyor

The candidate for the position must be a qualified land surveyor and should demonstrate high level of experience in surveying for large earthworks. He/she should possess oral and written communication skills. Specifically, She/he should have First degree in land surveying or equivalent and registered with the relevant professional bodies; post-graduate qualifications in land surveying. She/he must have minimum of 10 years post-qualification working experience in relevant field and at least 5 years of experience as a land surveyor for infrastructure projects. She/he should have worked as a land surveyor in at least one infrastructure project of similar nature (by size and complexity) in the last 10 years and possess oral and written communication skills in English and must have a working experience of at least 3 years in developing countries.

7. Quantity Surveyor/Cost Estimator

The candidate should be a professionally qualified and experienced individual in large earthworks with at least a first degree in construction/building economics or a relevant field and be registered or accredited with relevant professional bodies. Postgraduate qualifications will be essential. A minimum of 15 years of working experience in the field of the proposed position and successfully working on at least one similar assignment (by size and complexity) in the last 10 years. He/She should possess oral and written communication skills in English and have at least 3 years of working experience in developing countries.

8. Environmental Expert

The candidate for the position must have professional qualifications in environmental engineering, environmental science or public health engineering and should demonstrate high level of experience in designs, drafting, implementing, and monitoring of Environmental and Social Management Plans for infrastructure projects. Familiarity with Tanzania construction and environmental codes and standards as well as internationally acceptable environmental and social management practices is necessary. He/she should possess oral and written communication skills in English. Specifically, she/he should have BSc degree in Environmental Engineering, Environmental Science or Public Health Engineering and registered with the relevant professional bodies. She/he must have minimum of 10 years post-qualification working experience in relevant field and at least 5 years of proven experience as an environmental expert on infrastructure development projects with knowledge of handling social/resettlement related issues. She/he should have worked as an environmental expert in at least one project of similar nature (by size and complexity) funded by the World Bank/other Donors in the last 10 years and possess oral and written communication skills in English and must have a working experience of at least 3 years in developing countries.

9. Sociologist/Resettlement Expert

The candidate for the position must have professional qualifications in the social sciences, social studies/sociology/community development, land use planning or equivalent field and should demonstrate high level of experience in designs, drafting, implementing, and monitoring of Social Management and Resettlement Action Plans for infrastructure projects. Familiarity with Tanzania and other international construction social and environmental standards is necessary. Specifically, she/he should have at least a BA degree in Social Science related discipline. She/he must have minimum of 5 years of full-time relevant operational experience in social development with a focus on the assessment and management of social risks, resettlement, and community participation issues. She/he should have strong knowledge and experience of at least 5 years with World Bank social safeguards/social risk management (social risk assessment and mitigation & involuntary resettlement) or other International Financial institutions is highly desirable and able to prepare communications materials and engage with the public/communities. She/he should possess good oral and written communication skills in Swahili and English and must have a working experience of at least 3 years in developing countries.

10. Biologist/Ecologist

The candidate should be a professionally qualified and experienced individual with at least a first degree in botany, or a relevant field, and registered or accredited with relevant professional bodies. Postgraduate qualifications will be essential. A minimum of 15 years of working experience in the field of the proposed position and successfully working on at least one similar assignment (by size and complexity) in the last 10 years. He/She should possess oral and written communication skills in English and have at least 3 years of working experience in developing countries.

11. Occupational Health and Safety Expert

The candidate for the position must have professional qualifications in engineering, science or public health and should demonstrate high level of experience in providing site supervision on OHS of large-scale construction projects. Strong knowledge with Tanzania construction and OSHA codes and standards as well as internationally acceptable OHS standards is necessary. He/she should possess oral and written communication skills in English. Specifically, she/he should have BSc degree in Engineering, Science or Public Health, accreditation on OHS supervision and registered with the relevant professional bodies. She/he must have minimum of 10 years post-qualification working experience in relevant field and at least 5 years of proven experience as an OHS expert on infrastructure development projects and successfully working on at least one similar assignment (by size and complexity) in the last 10 years. She/he should possess oral and written communication skills in Swahili and English

12. Short-Term Experts

The short-term experts shall include but not be limited to:

- a. Arborist/Botanist/Biodiversity Expert
- b. Services Engineers
- c. Traffic Management Expert
- d. Flood Management Expert
- e. Hazardous Waste Management Expert

Required Qualifications and Experience

Short-Term Experts should be holders of at least a first degree or equivalent in relevant field, professionally registered with relevant bodies, have at least 10 years of proven working experience in the field relevant to the assignment and a minimum of 5 years of experience in similar assignments.

13. Technicians

Technical support teams (e.g. Civil Engineering Technicians for Civil Works, Materials Technicians, Services Technicians - Electrical, Mechanical, Plumbing, ICT, etc., Health and Safety Inspectors, Land Surveying Technicians etc.) that will be required to provide on-site supervision and quality control of Contractors' works to completion should be technically qualified at an officially recognised level of at least a technician (full technician certificate or equivalent) in the relevant field with site experience of not less than 5 years in infrastructure projects implementation.

5.4. Consultant's Transport and Office Space

The Consultant is expected to use own transport during supervision of the works for the first few months of commencing the assignment and in situations necessitating use of own transport during execution of the assignment (approximate total duration of 9 months) without compromising the quality of its (his) services or delaying/hindering the performance of the Contractors under its supervision – appropriate number (units) and type of vehicles provided for this purpose should be stated in the proposal for contractual records (if consultant is successful); the transport to be provided should be a minimum of four (4) units of double cabin pick-ups or equivalent to be used during this period of approximately 9 months stated above. Afterwards, for reason of efficiency and cost effectiveness, the Client will make available a minimum of six (6) units of double cabin pick-ups and one (1) station wagon for use by the Consultant during supervision of construction for terraces in flood detention area and riverbank protection works in the lower Msimbazi Basin, which at the end will revert to the Client as instructed by the PO-RALG and in accordance with the applicable contract conditions.

Moreover, to enhance collaboration between the Consultant and Client, which needs to be kept close throughout the implementation of the assignment, the Client/DCC will make available some office space to the Consultant, to be shared with counterpart staff/project staff of the Client. The operating costs for Consultant's transport and all facilities for the shared office throughout the implementation of the contract for the supervision assignment should be included in the proposal.

6. Duration of the Assignment

The overall duration of the assignment is thirty-eight (38) calendar months, which includes two (2) months at the beginning for the consultant's mobilization and design review, a twenty-four (24) months period for on-site direct supervision of the works, followed by a twelve (12) months defect liability period.

It is intended that the Consultant will spend two (2) months ahead of commencement of construction works contract in establishing its (his) office and doing the necessary preparatory work including review of designs, drawings, BoQs, checking/inspecting/verifying work sites, project site clearance or any necessary changes, environmental and resettlement issues (compensation/resettlement), twenty-four (24) months directly supervising the works contract and twelve (12) months doing final measurement, final accounts, intermittently handling defects liability period issues and generally assisting the PO-RALG PCT, DCC PIT and the Council in closing the works contract for Msimbazi; thus making a total of thirty-eight (38) months.

Note, the twelve (12) months for defect liability period will be part-time supervision by the Consultant, with input mainly of the Resident Engineer, Architect, and occasionally by the other key professional staff of the Consultant as necessary.

7. Consultant's Inputs

The total estimated level of effort for the key personnel is 162 professional person-months as listed in the table below. Please note that in the given list, the numbers and estimates of person-months are for the Key Experts/Personnel who the Client envisages to be minimum for the efficient and timely execution of the assignment, will be assessed/evaluated; and the

Consultant is expected to make a professional judgment on the Non-Key/Short Term Experts needed and level of effort for each expert as well as other support staff. Input for non-key experts is limited to approximately 50 person-months.

S/N	Key Personnel	Level of Efforts (person-month)
1.	Project Manager/Resident Engineer	32
2.	Landscape Architect	12
3.	Materials Engineer	23
4.	Drainage Engineer	12
5.	Hydrologist/Modeler/River Morphologist	12
6.	Land Surveyor	23
7.	Quantity Surveyor/Cost Estimator	12
8.	Environmental Expert	12
9.	Sociologist/Resettlement Expert	12
10.	Occupational Health and Safety Expert	12
	Total	162

8. Management of the Assignment

The Consultant will be answerable to the City Director and the first point of contact will be the DCC Project Coordinator and his/her Team in the City who will be supporting the City Director's office in the implementation of the sub-projects. The Consultant will work closely with the PCT and PIT and the relevant community and civic leaders in carrying out works supervision and submission of physical and financial progress reports. Close liaison should be maintained with the City Council on matters of land rights, civic and other local issues.

9. Reporting Requirements

The following reports shall be submitted to the City Director with copies to PO-RALG, Project Coordination Team (PCT) during the tenure of the supervision contract as indicated below:

a) Inception Report

Indicating appreciation of the assignment, the structure and type of the Consultant's staffing in the office and in the field, organization and implementation arrangements, status of mobilisation, status and plans for knowledge transfer that is agreed with the DCC, handling resettlement, environmental and OHS issues, procedures for preparing, transporting, and testing of samples and quality control of the works, format for works interim payment certificates and any other relevant issues of importance.

Number of copies and timing: two (2) copies to be submitted to the City Director and one (1) copy to PO-RALG, totalling three (3) copies, four weeks after commencement of the assignment. The report should also be submitted in soft copies (i.e., pdf and its relevant editable format).

b) Design Review Reports

The design review reports should comprise consultant's findings and comments from reviewing the contract documents including ESMP and RAP. The consultant should prepare the reports after discussing any issues or areas of improvement, potentially scope of work and gather design feedback for works as per para 3 of this TOR. However, the importance of any changes, and the cost implication for each, should ensure the design is compliant with all the Standards and Guidelines and conforms to the requirements and intent of the design objective and agreed on amendments. The design review report will be prepared for all construction works.

For each design review report, the number of copies and timing are: two (2) copies are to be submitted to the City Director and one (1) copy to PO-RALG PCT, totalling three (3) copies, to be submitted two weeks after the completion of the design review. The report should also be submitted in soft copies (i.e., pdf and its relevant editable format).

c) Revised Design Report

The report should include all agreed-upon comments from the design review report, including but not limited to revised drawings, specifications, and costs.

The number of copies and timing: two (2) copies are to be submitted to the City Director and one (1) copy to PO-RALG PCT, totalling three (3) copies, to be submitted two weeks after the completion of the design review. The report shall also be submitted in soft copies (i.e., pdf and its relevant editable format).

d) Knowledge Transfer Summary Report

The report must elaborate the objective of skills transfer to strengthen engineering and technical capacity of the PO-RALG PCT and DCC, the consultants must prepare summary report appropriate with involvement of training programme and conduct periodic on job-training sessions to build capacity and transfer skills to technical counterpart staff in the related field of construction supervision and solid waste management issues.

Number of copies and timing: two (2) copies to be submitted to the City Director and one (1) copy to PO-RALG PCT, totalling three (3) copies, to be submitted two weeks after the end of each month. The report shall also be submitted in soft copies (i.e., pdf and its relevant editable format).

e) Monthly Supervision Reports

The Consultant shall prepare progress reports every month during the construction supervision; the format and contents of the monthly supervision progress reports shall be as agreed with the Client. The reports will include but not limited to monthly and cumulative detailed physical and financial progress reports regarding works contract containing information on: stages of completion of various activities; progress photographs; amount spent; variations to the contract resulting from changes in the design, specifications or quantities; estimates of funds required to complete the project; important visitors to the site; equipment deployment schedule; contractor's labour strength; quantities of materials delivered at the site; days of inclement weather; technical and administrative problems encountered at the site, constraints, delays, cost overruns, minutes of site meetings, and any irregularities at the site,

compliance with the contractors' site-specific ESMP, and OHS compliance and any other incidents.

Other essential information to be provided in the monthly reports will include consultant's assessment of the general progress of works; claims made by contractor and requisite actions; payment status; work done or to be done by sub-contractors; relocation and resettlement plans; contractors' compliance with labour laws. The Consultant would indicate all problems encountered with recommendations for action to be taken or already taken and give detailed assessment of any adverse impact the project may have on the environment and the extent to which mitigation measures are being implemented.

Number of copies and timing: two (2) copies to be submitted to the City Director and one (1) copy to PO-RALG PCT, totalling three (3) copies, to be submitted two weeks after the end of each month. Submission of monthly reports will continue up to the end of substantial completion. The report shall also be submitted in soft copies (i.e., pdf and its relevant editable format).

f) Final ESMP Monitoring Report

The ESMP defines desired social and environmental management outcomes and specifies social and environmental indicators, targets, or acceptance (threshold) criteria to track ESMP implementation and effectiveness. To ensure the social and environmental sustainability of the project and its different components, the final report should reflect all issues occurred during project execution and their compliance with the contractors' site-specific ESMP. Furthermore, include any incidents or other essential information to be shared in the final report.

Number of copies and timing: two (2) copies to be submitted to the City Director and one (1) copy to PO-RALG PCT, totalling three (3) copies, to be submitted one month after the outset of the Defects Liability Period. The report shall also be submitted in soft copies (i.e., pdf and its relevant editable format).

g) Defects Liability Period Reports

Prepare a quarterly report that includes a schedule of defects, listing those defects that have not yet been rectified, and agree with the contractor on the date by which they will be rectified. The contractor must, in any event, rectify them within a reasonable time.

Number of copies and timing: two (2) copies to be submitted to the City Director and one (1) copy to PO-RALG PCT, totalling three (3) copies to be submitted two weeks after the reporting quarter from the start of the Defects Liability Period to the end. The report shall also be submitted in soft copies (i.e., pdf and its relevant editable format).

h) Final Completion Report

This final report shall comprise of final account of the works contract, a final inspection report, a set of "as built drawings," a list of items that should be returned to the client, and any other relevant issues of importance.

Number of copies and timing: two (2) copies to be submitted to the City Director and one (1) copy to PO-RALG, PCT - totalling three (3) copies, to be submitted one month after the end of the Defects Liability Period and subsequent issuance of the Certificate of Correction of Defects. The report shall also be submitted in soft copies (i.e., pdf and its relevant editable format).

At completion, all reports, data, and drawings should be submitted to the Client as a complete document and data package in soft copy i.e., pdf as well as editable format (Word, Excel, and DWG). The assignment will not be considered complete without a complete document and data package, including the editable files.

10. Payments to the Consultant

The Contract to be entered into between the Client and the successful Consultant for supervision of the execution of the physical works is "Time Based." Payments under the time-based supervision consultancy services contract shall be made monthly based on actual inputs for undertaking the assignments described in these Terms of Reference, to cover fees (remunerations) for approved personnel and items under reimbursable expenses as shall be described in the contract to be entered.

11. Final Account

As the work proceeds, quantities of completed works will be measured and all variations and claims will be recorded; these will be used in the preparation of monthly payment certificates upon approval of the Client/Employer and provision of proper documentation. At the completion of the works and defect liability period, the works will be re-measured, and a final account prepared as described in the contract for the works.

12. Defect Liability Period

The works shall have a twelve-month maintenance period (Defects Liability Period - DLP) after practical completion with intermittent visits by the Project Manager/Resident Engineer, Landscape Architect, and other key staff members as will be found necessary during the DLP. It is envisaged that during this period, apart from intermittent visits/inspections as necessary, at least four visits shall be made by the Project Manager/Resident Engineer & Landscape Architect, one after every three months of works completion and the final one will be for final inspection at the end of the DLP, after which a final report will be prepared.