

**TERMS OF REFERENCE FOR PROVISION OF CONSULTANCY SERVICE FOR
UNDERTAKING THE FIELD ASSESSMENT, DETAILED ENGINEERING DESIGN
AND PREPARATION OF PROCUREMENT DOCUMENTS FOR REHABILITATION
OF RAILWAY TRACK AND STRUCTURES (BRIDGE AND CULVERTS) FOR
KILOSA – GULWE - IGANDU FLOOD PRONE SECTION (120 KM)**

1. PROJECT BACKGROUND

The Government of the United Republic of Tanzania has received a credit from the International Development Association (IDA) equivalent to US\$ 200 million towards the cost of the Second Tanzania Intermodal and Rail Development Project (TIRP-2) and intends to apply part of the proceeds of this credit to eligible payments under the Contract for undertaking Field Assessment, Detailed Engineering Design and Preparation of Procurement Documents for the Climate Resilient Rehabilitation of Railway Track and Structures (Bridge & Culverts) along Kilosa -Gulwe - Igandu flood prone section (120 km).

TIRP-2 is a continuation of the previous Tanzania Intermodal and Rail Development Project (TIRP) and is implemented by the Tanzania Railways Corporation (TRC), a 100% Tanzania Government-owned company, on behalf of the Government of Tanzania, and will finance the following four (4) components:

- Component A: Strengthening of Railway Infrastructure and Support of Transport Studies
- Component B: Strengthening Climate Resilience of Kilosa – Gulwe - Igandu Section
- Component C: Operational and Institutional Support
- Component D: Contingent Emergency Response

1.1.The Project Development Objective (PDO) is to improve the safety, climate resilience and operational efficiency of the railway along the Dar es Salaam to Isaka segment (970km) in Tanzania. **Project Location**

The Project extends from Dar es Salaam – Kilosa – Itigi – Tabora – Isaka (970 km) of the existing central line meter-gauge line(s) in Tanzania Railway.

1.2. Assignment Location

The assignment is to be based in Dar es Salaam (Tanzania), although the Consultant may choose to 'home-locate' some elements of its work, as appropriate and as agreed by the Client.

1.3. Background to the Assignment

The 83 Km railway stretch, Kilosa (Km 283) – Gulwe (Km 366) floods frequency dates back as far as anybody could remember to the colonial era when Kilosa district was established under the German administration in 1929 with memorable major occurrences in the following sequence of years 1935, 1945, 1953, 1959, 1967, 1975, 1983, 1991, 1998, 2001, 2009 2016 and 2017. Recently, flooding problems have extended to cover a railway section of 120 Km (Kilosa – Gulwe - Igandu).

As per above time series the problem has been passing hands from Germany and British Governments (with several landmarks of relocation that can be traced on ground) to several railway administrations after independence i.e. East African Railways and Harbours (EAR&H), East African Railways (EAR), Tanzania Railways Corporation (TRC), Tanzania Railways Limited (TRL), Reli Assets Holding Company (RAHCO) and then Tanzania Railways Corporation (TRC).

The problem causing the Mkondoa River originates in the Rubeho and Kaguru Mountains and receives water from the Mzase, Kidibo, Mafugasa, Lumuma, and Mbori Rivers, as well as countless other seasonal rivers that join it. Furthermore, this river carries water from the adjoining regions of Kiteto (Arusha) and Dodoma into the Wami River, which flows to the Indian Ocean.

Despite periodic and emergency repairs, this section has become a bottleneck on the Dar es Salaam – Isaka route, disrupting TRC operations. The section has continued to deteriorate, consuming substantial funds and time due to the lack of a permanent solution.

Add a new para on previous studies conducted, if any

TRC, a 100% state owned company, now intends to engage a qualified and experienced Consultant to undertake Field Assessment, Detailed Engineering Design, and Preparation of Procurement Documents for the climate resilience rehabilitation of the Kilosa – Gulwe - Igandu Flood Prone Section (120Km).

The loading specification envisaged for the track will have an axle load spacing as shown in Figures 1 and 2.

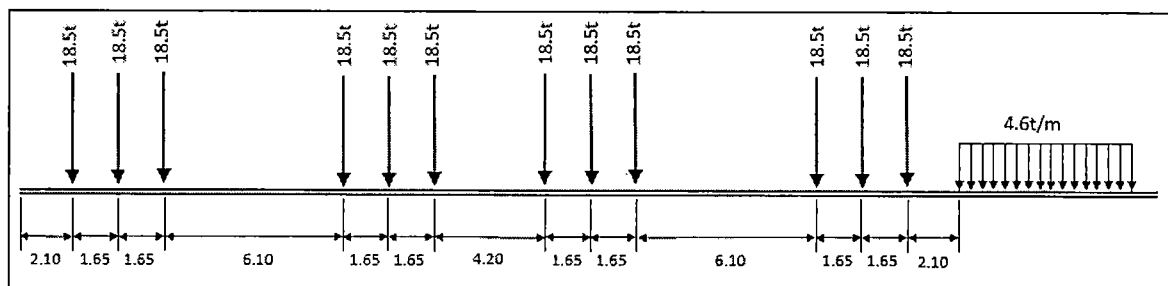


Figure 1: Container Block Train with 18.5t/Axle Loading

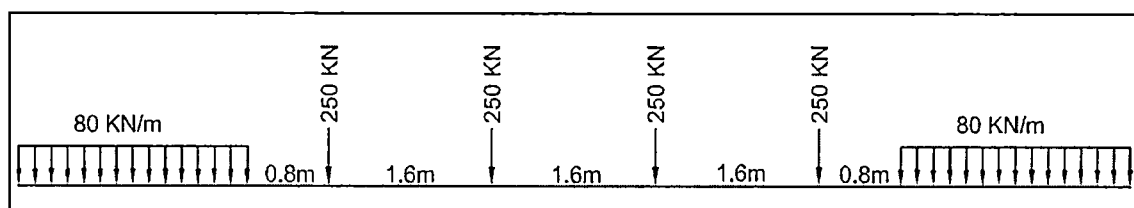


Figure 2: 25t/Axle Loading for New/Replacement Spans

2. OBJECTIVE OF THE ASSIGNMENT

The objective of this assignment is to undertake comprehensive field investigations, detailed engineering design, and preparation of procurement documents for the climate-resilient rehabilitation of the flood-prone Kilosa – Gulwe – Igandu railway section.

The assignment aims to develop technically robust, economically viable, environmentally sustainable, and climate-resilient engineering solutions that will ensure safe, reliable, and uninterrupted railway operations under present and future extreme weather and flood conditions.

3. SCOPE OF SERVICES

The Consultant shall provide all professional services, expertise, and resources necessary to achieve the above objective. The scope of work shall include, but not be limited to, the following key components:

a) Field Investigation Studies

The Consultant shall undertake all required field investigations, including:

- i. Hydrological and hydraulic studies of the catchment and drainage, including Structures (Bridges and Culverts systems;

- ii. Topographical surveys of the entire project corridor, preferably using drone-based or other advanced survey technologies;
- iii. Geotechnical investigations along the proposed alignment, with detailed site-specific investigations at flood-prone and high-risk locations to determine soil properties, bearing capacity, slope stability, and drainage requirements;
- iv. Any additional surveys or investigations deemed necessary to support the design and ensure achievement of the assignment objectives.

b) Engineering Analysis and Design

The Consultant shall undertake a comprehensive engineering analysis and develop appropriate design solutions for the rehabilitation of the railway section. The design shall:

- i. Address identified flood risks and drainage constraints;
- ii. Ensure structural stability and operational safety;
- iii. Incorporate climate resilience and adaptation measures;
- iv. Be consistent with applicable railway engineering standards and TRC design requirements (TRC-CEM).

c) Detailed Engineering Design (Subject to TRC Approval)

The Consultant shall prepare detailed engineering designs based on the preferred alignment and technical solution(s), which shall be developed in consultation with and subject to agreement by the Tanzania Railways Corporation (TRC).

The final scope of works to be taken forward into detailed design shall be confirmed by TRC following review of the Consultant's preliminary findings, analyses, and proposed alternatives.

d) Preparation of Procurement Documents

The Consultant shall prepare complete procurement documents suitable for works contracting. The Consultant shall use the most appropriate Bank-issued standard bidding documents for IPF projects applicable to works procurement under a single-stage, two-envelope bidding process, including rated criteria requirements.

3.1 Use of Existing Studies and Data

The Consultant shall be provided with and is required to review all relevant existing studies and datasets. These include, but are not limited to:

- i. Feasibility study, detailed Engineering of dams, flood Modeling, and ESIA for flood management of Kinyansungwe catchment, being conducted by the National Irrigation Commission (NIRC);
- ii. Climate and Disaster Risk Assessment study of the Dar es Salaam to Isaka Railway Line (970km) In Tanzania;
- iii. Strengthening Tanzania's Railway Infrastructure: An ITS-Led and GIS-Based Approach to Climate Resilience Flood modelling studies for the Kinyansungwe catchment;
- iv. Any additional maps, reports, or prior studies available from the Client or other relevant institutions.

The Consultant shall critically assess and integrate these materials where appropriate. However, the Consultant is not restricted by existing proposals and is encouraged to develop alternative technically, economically, environmentally, and socially optimal solutions.

3.2 Climate Resilience and Risk Considerations

The Consultant shall explicitly incorporate climate change adaptation and flood risk management considerations into all stages of the assignment.

The proposed design shall ensure resilience against extreme rainfall, flooding, and other climate-induced hazards, with the objective of safeguarding uninterrupted railway operations under adverse climatic conditions.

3.3 Deliverables and Standards

The Consultant shall prepare and submit comprehensive engineering reports, design drawings, and complete sets of contract documentation suitable for implementation.

All outputs shall:

- Conform to TRC-CEM standards and internationally accepted engineering best practices;
- Be of sufficient detail for procurement and construction purposes without omission of critical technical information;

- Be subject to review and approval by the Client (TRC).

All fieldwork, analysis, reporting, and design shall be undertaken in accordance with recognized professional standards.

4. DETAILED TASKS TO BE UNDERTAKEN

4.1 Field Investigation Tasks

4.1.1 Detailed Line Inspection of fixed Infrastructure

The Consultant must undertake a detailed inspection of the relevant section of the Scope of the Assignment on the following railway line attributes:

- i. Geographic Information System (GIS) data collection
- ii. Earthworks: Cuttings and Banks for track formation
- iii. Drainage: Side drains and Catch water drains
- iv. Curves: Geometrical status
- v. Ballast: Condition status
- vi. Sleepers: Condition status
- vii. Rails: Condition status
- viii. Turnouts: Condition status
- ix. Station yards
 - o Loop lengthening;
 - o Drainage system at yards and Turnouts
- x. Signage
- xi. Kilometer posts
- xii. Level crossings
- xiii. Track Renewal

4.1.2 GIS Data Collection

The Consultant must obtain the setting out reference point the relevant scope section ie from and To Stations. The Consultant will also locate concrete markers at other key stations in order to transfer Horizontal and Vertical Control along through the corridor of the proposed new alignment/solution thereof. A real time kinetic global navigation satellite system (GNSS) survey instrument will be used for fixing control points along the approved alignment with longitude and latitude coordinates. The collected data will be used for generating quantities, and for reference in tender documents, GNSS documents will be provided to the Client in the format of their preference including:

- i. Keyhole Markup Language Zipped (KMLZ) file;
- ii. Raw GNSS file;
- iii. Excel file (summary of reference locations with GNSS points); and
- iv. Loaded into Google Earth.

In addition, the data will be accompanied with a short narrative categorizing and briefly describing the data.

(The consultant may choose to engage specialized drone survey agency for conducting the above survey objective)

4.1.3 Earthworks

Cuttings

- i. Rock cuts are prone to rock falls. Locations of all rock cuttings must be identified in the form of chainage, coordinates and in plan-profile drawings.
- ii. Nature and extent of failures on the side slopes of each cutting must be diagnosed and remedial measures presented in acceptable standard to Client.
- iii. Using surveying measuring equipment like Global Navigation Satellite System (GNSS) and levels, produce existing and planned cutting cross-sections profiles at density not greater than 25m intervals.
- iv. Cross section drawings of critical locations along each cutting must be produced.
- v. Consultant must present planar drawings detailing side drains, catch water drains and the cutting openings.
- vi. Calculated quantities of works in sufficient details for each item of works necessary to treat/stabilize rock falls then present in the form of Bill of Quantities (BOQ).
- vii. Specifications of works, materials and machineries must be drawn in details.
- viii. Proposed works statement is to be produced to adequate coverage.
- ix. Identify material source and produce sufficient details regarding their quality, quantity, efficient haulage distance and other logistic issues must be proposed by Consultant for getting them at installation site economically.
- x. Consultant must specify economic disposal of spoil and debris.

Banks: Earthworks are required to achieve the standard cross section

- i. Identify and locate using chainages and coordinates, stretches of railway banks that are prone to bleaching, erosion and landslides caused by intense run-off, unlawful vehicular crossings including human and animal trespassing.
- ii. Using surveying measuring equipment like GNSS and levels, produce existing and planned banks cross-section profiles at density not greater than 25m centers
- iii. Nature and extent of failures and/or erosion of the side slopes and formation shoulder, of each continuous bank stretch must be analyzed, diagnosed and remedial measures presented in detail(s) acceptable to Client.
- iv. Cross section drawings of critical locations along each bank must be produced
- v. Consultant must present as part of planar drawings the banks stretches.
- vi. Calculated quantities of remedial/new works in sufficient details for each item of works necessary to treat/stabilize landslides and/or narrowing of banks then present in the form of BOQ
- vii. Specifications of works, materials and machineries must be drawn in details
- viii. Proposed works statement is to be produced to adequate coverage
- ix. Identify material source and produce sufficient details regarding their quality, quantity, efficient haulage distance and other logistics issues for getting them at installation site economically.

4.1.4 Drainage**Side drains**

Consultant is tasked to undertake field assessment, as part of failed inventory report must present observations, diagnosis and proposed remedial measures. Additionally, the Consultant is tasked to work out provision of improvised drainage systems. Minimum is the standard specified in the TRC (CEM-1998)

- i. Identify locations requiring drainage ditches in terms of chainage and coordinates. This will consist of at least all cuttings, level grounds and all station yards,
- ii. Present layout drawings with respect to track alignment
- iii. Locations and drawings of plain and lined stretches of side drains must be well differentiated in all drawings and texts.
- iv. Produce cross section drawings at 25m intervals for plain and lined drainage stretches.
- v. Produce longitudinal profile drawings of all drain's ditches.
- vi. Calculate quantities of all work items in the form BOQ for each continuous drain stretch but not that exceeding scale readable to A3 drawing paper.
- vii. Compile particular specifications for materials, works and equipment for contractions of side drains.
- viii. Proposed comprehensive method statement.
- ix. Propose material source and disposal method.

Catch Water drains

The Consultant is to follow Minimum is the standard specified in the TRC-CEM (1998). To achieve the target consultant must execute at least the following;

- i. Identify locations requiring catch water drains in terms of chainage and coordinates. This will consist of at least all cuttings, level grounds and all station yards,
- ii. Present layout drawings with respect to proposed track alignment
- iii. Locations and drawings of plain and lined stretches of catch water drains must be well differentiated in all drawings and texts.
- iv. Produce cross section drawings at 25m centers for plain and lined catch water drains stretches,
- v. Produce longitudinal profile drawings of all catch water drains
- vi. Calculate quantities of all work items in the form BOQ for each continuous drain stretch but not that exceeding scale readable to A3 drawing paper
- vii. Compile specifications for materials, works and equipment for contractions of side drains
- viii. Proposed comprehensive method statement.
- ix. Propose material source and disposal method.

4.1.5 Curves

For the new/improvised alignment the consultant shall

- i. Produce curves register having two parts, part-I: curves register for horizontal curves; part-2: curves register for vertical curves.
- ii. The Consultant must for each curve prepare curve register with informations like geometrical parameters of the curves namely radius/degree, lengths, permissible and maximum cant, cant slopes, cant deficiency and design speed.
- iii. Produce track plan and longitudinal profile to indicate horizontal and vertical curves.
- iv. Consultant must propose curve parameters that will be adopted by the Contractor.

4.1.6 Ballast

- i. The Consultant must provide quantity of works required for each one-kilometer segment in terms of ballast materials, transportation and logistics, handling equipment for screening, placing, dressing, tamping and stabilization.
- ii. Produce specification of works, materials and equipment for the detailed ballast operations established in (iii) above.
- iii. Establish stone quarries for feeding each block section with required ballast volumes. The Consultant must investigate quality and quantities of each quarry site to be standards specified in CEM-1998. Since transport components contribute a hefty share in ballast cost structure, Consultant is also encouraged to explore stone quarries report that were being used by roads projects all along the rail project route

in question, from Tanzania National Roads Agency (TANROADS), Donors or Local Government.

4.1.7 Turnouts

- i. The consultants must take account of the proposed station layouts, requirements in consultation with TRC operations. An outline specification of these proposed layouts will be prepared post assessment of the sections.
- ii. All main line turnouts should be protected by breather switches if Continuous Welded Rail (CWR) is laid up to the turnout and should be fitted with an approved point Lock, where turnouts on the main line or loops are to be removed, new plain line must be installed to at least the same standard as that laid in the main line and must be (de) stressed to meet the designated specification.

4.1.8 Signage

The consultant must establish locations, design, quantity and layout required as per current standards in the CEM-1998 and LATRA regulations.

Undertake field assessment to review existing status and identify the number, location and condition of signs of: Station name boards; Kilometer posts; Boulders Falling warning signs, Level crossing signs, shunting limits and all other signs as specified in CEM-1962 & CEM-1998'

4.1.9 Culverts and Bridges

Consultant shall undertake site visits and investigations as required to establish cost-effective and constructible design solutions especially permanent solution from floods and their corresponding material quantities. All proposed solutions must be compatible with the constraints inherent to each individual site.

The Consultant is expected to undertake all exploratory /investigation studies and not limited to reconnaissance, hydrological, geotechnical investigations etc as required to ensure the proposed solutions are safe and robust.

The Consultant is to prepare a detailed datasheet at each proposed site/section that will contain the following fields:

- i. GPS Coordinates
- ii. Type of structure
- iii. Structure geometry (incl. opening height, opening width, structure depth, number of spans)
- iv. Photographs of structure
- v. Nature of defect(s)
- vi. Abutment conditions
- vii. Remediation options

- viii. Proposed solution
- ix. Abutment work required (if any)
- x. Scour protection required (if any)
- xi. Spillway work required (if any)
- xii. Other relevant structure condition notes
- xiii. Recommended construction methodology for proposed solution
- xiv. Material and equipment requirements for proposed solution
- xv. Site accessibility issues
- xvi. Special precautions required (if any)
- xvii. Approximate execution time of proposed solution
- xviii. Operation interruptions required for proposed solution
- xix. Significant weather factors
- xx. Significant environmental factors
- xxi. Significant social impact factors
- xxii. Estimated cost of proposed solution

These datasheets will be transferred to potential contractors as part of the bid documents and should be of sufficient quality to permit the user to quickly evaluate the magnitude and nature of works required at the site.

Wherever possible, the datasheets will serve as the principal vehicle for the pricing of the Remediation of Urgent Defects.

4.1.10 Materials Investigations.

The consultant shall investigate sources and establish locations, quantity, and quality of construction materials, namely stone ballast, aggregates, earth fill, sand, and water, to reduce risk factors in pricing the bid by works contractors.

In these regards the Consultant will collect materials report(s), source location(s) from various nearby rail/road authorities who implemented the relevant projects along the relevant study scope section.

During field assessment the Consultant will identify proper sources of local construction materials and incorporate in their all reports and finally will form part of tender documentations to guide contractors.

4.1.11 Climate Risk Assessment

The consultant shall conduct the climate risk assessment by;

- i. Conducting the flood modeling for extreme events.
- ii. Assessing sediment transport and erosion risks.

- iii. Conducting the climate hazard analysis (flooding, extreme rainfall, drainage failure)
- iv. Performing the vulnerability assessments of railway assets
- v. Integrate future climate projections into design scenarios of the railway. The design scenarios must be discussed and agreed upon by the Client.

4.1.12 Environmental and Social Safeguards

The Consultant will be responsible for ensuring that appropriate Environmental and Social Safeguards are considered in the design work and communicated to potential contractors to minimize and manage the Environmental and Social Impacts of the Construction Works. Any Environmental and Social Impacts management, requirements pertaining to Contractor activities are to be explicitly stated in the General and Technical Specifications. The Consultant must complete, at minimum, the following tasks to ensure Environmental and Social Impact risks are identified and mitigated:

- i. Review the existing Environmental & Social Impact Assessment (ESIA) and Environmental & Social Management Plan (ESMP) that are to be made available by TRC.
- ii. Undertake site visits, investigations, and interviews as required to identify and update the Environmental and Social Impact of future construction works.
- iii. Clearly identify any specific Environmental and Social Impact Risks and prepare a mitigation strategy for each site on the appropriate datasheet.
- iv. Explicitly state in the General and Technical Specifications all Environmental and Social Safeguards that must be adhered to by the Contractor for the duration of the works.
- v. Abide and implement Tanzania Railways Corporation (TRC) Environmental, Social, and Governance (ESG) Policy as a guidance tool for all project parties to manage and sustain E&S aspects in the Project. TRC ESG Policy is appended hereto as Annex 1.

4.2 Engineering Design

In line with the shared studies by TRC and the conducted field investigation surveys, the Consultant shall review, analyse, and interpret the collected data and develop appropriate engineering solutions in line with the assignment objectives.

- i. Review of all available studies, survey data, and investigation reports

- ii. Establishment of design criteria, standards, and applicable codes (TRC-CEM and relevant standards)
- iii. Definition of key design parameters including hydrological, geotechnical, structural, and climatic inputs
- iv. Development and evaluation of alternative design concepts and alignment options
- v. Selection of preferred alignment and engineering solution in consultation with TRC
- vi. Hydrological and hydraulic design for drainage systems and flood mitigation structures
- vii. Railway track design, including horizontal and vertical alignment optimization
- viii. Design of embankments, cuttings, and associated slope stability and protection measures
- ix. Design of culverts, bridges, and other drainage structures (minor and major)
- x. Structural design of railway infrastructure components where applicable
- xi. Design of erosion control measures and river training works
- xii. Ground improvement and foundation design for weak or flood-prone areas
- xiii. Integration of climate resilience and flood risk mitigation into all design components
- xiv. Design of surface and subsurface drainage systems
- xv. Design of protection works including gabions, revetments, and retaining structures
- xvi. Incorporation of safety, operational, and risk considerations into the design
- xvii. Coordination of multidisciplinary inputs (geotechnical, hydrology, structural, etc.)
- xviii. Value engineering and optimization of design solutions
- xix. Incorporation of Client and stakeholder comments into final design outputs
- xx. Preparation of comprehensive design reports supported by collected site data.

4.3 Detailed Design of Structures as agreed with TRC

The Consultant shall prepare the Detailed Engineering Design Package for bridges and structures. This package must conform to 'The American Railway Engineering and Maintenance-of-Way Association' (AREMA) Guidelines. Any substitutions to this design code must be justified by the Consultant and approved in writing by TRC prior to commencement of the Works. The Detailed Engineering Design Package will comprise the following outputs:

- i. Detailed Design Calculations justifying the proposed design solution and conforming to AREMA Guidelines. The proposed design solutions shall also

be climate resilient basing on the climate related risks identified in the area of scope.

- ii. Prepare a climate resilience strategy for the railway corridor under the scope.
- iii. Recommend short-, medium-, and long-term adaptation measures that aligns with the National Climate Policies and International Frameworks.
- iv. Engineering Drawings with an appropriate scale and sufficient level of detail, as per prior approval by the Client, to allow the accurate pricing and safe construction of the Strengthening Works.
- v. Bills of Quantity (BOQs) for each specific site and for general items, to a format and level of detail acceptable to the Client. The BOQs will be of such a nature to establish efficient Work Packages.
- vi. General and Particular Technical Specifications that clearly define the Scope of Work and acceptable Work Methods and Materials for the execution of the Work Packages, taking into account environmental and social impacts. The proposed specification should complement Employers Civil Engineering Manual to eliminate any confusion for the Works Contractor.
- vii. Detailed Cost Estimate, Recommended Procurement Strategy, Plan, Work Contract Packaging strategy and Construction Schedule for the Strengthening Works and the Remediation of Urgent Defects.

4.3.1 Track Works

The Consultant shall carry out the Detailed Engineering Design required to execute the Track Works and Bridge and Culverts post detailed investigation studies in concurrence with TRC along the relevant sections of Assignment scope.

The consultant shall ensure that the proposed solution/alignment can address the floods successfully so that there is no disruption of rail services in any adverse climatic conditions.

Consultant must estimate quantities of permanent way materials required for complete track installation on the relevant assignment rail segment(s).

Must produce separate BOQs for package formed that accommodate cost of provision of properly installed 80lb-CWR stabilized and destressed track to acceptable safety level. Concrete sleepers suitable for the section shall be considered for the works. The Contractor must cost manufacture of all track components, Quality Control regimes at factory as well as during installation and after welding and final tamping, also shipment to Dar es Salaam port, clearing and forwarding costs with TPA and TRA, handling and transportation right from docked ship at Dar es Salaam port to installation site. Lastly, all pre-relaying, relaying and post-relaying operations to be specified at acceptable stabilized state of CWR-80lb track in optimized geometrical layout.

4.3.2 Bridge and Culverts Works

The detailed engineering design of bridges and structures shall involve a comprehensive review of all relevant hydrological, hydraulic, geotechnical, and topographical data to confirm structure locations and define appropriate structural solutions. The Consultant shall identify all required crossings along the alignment and select suitable structural types (e.g., bridges, box culverts, pipe culverts) based on site conditions, flood requirements, and railway loading criteria. Hydraulic and structural analyses shall be undertaken to ensure adequate waterway capacity, structural safety, and compliance with applicable TRC standards and relevant international codes.

The Consultant shall undertake full structural design of superstructures, substructures, and foundations, including abutments, piers, wing walls, and protection works, supported by detailed calculations and drawings. Scour protection, approach embankments, and transition structures shall be designed to ensure stability and durability under flood conditions. The design shall integrate climate resilience measures, optimize constructability and cost efficiency, and include coordination with geotechnical and hydrological inputs. All outputs shall be presented in complete design reports, drawings, specifications, and BOQs ready for procurement and implementation, incorporating Client (TRC) review comments.

5. TENDER DOCUMENTATION

The Consultant shall prepare complete procurement documents required for the execution of the works in accordance with applicable Standard Procurement Documents (SPDs) and World Bank Procurement Regulations available on www.worldbank.org, as well as TRC requirements. This shall include the preparation of bidding documents covering technical specifications, drawings, bills of quantities, and conditions of contract to ensure clarity, completeness, and competitiveness in procurement.

The procurement documents shall be fully aligned with the approved detailed design and shall provide sufficient technical and contractual information to enable effective tendering and construction. The Consultant shall also ensure incorporation of all design outputs, risk considerations, and stakeholder inputs, and shall revise the documents as necessary following Client (TRC) review until final approval is obtained.

6. REPORTS

The consultant shall submit the following information /reports as a part of the assignment and shall include any other information/details as required by TRC.

Inception Report

The Consultant will submit an Inception Report within three weeks of the commencement date, including a detailed work plan and summarizing the first decisive elements of the assignment. The Inception Report must include specific details on the proposed geotechnical and hydrological programs to be undertaken as part of the study, as well as an implementation plan that defines the detailed methodology required to accomplish the key tasks of the assignment.

Any additional tasks that lie within the assignment scope that could be useful to the Consultant, as well as their associated time and cost, are to be included in the Inception Report along with any modifications to the Project Management Plan.

6.2 Progress Report

During the course of the assignment, the consultant shall submit a Progress Report on a monthly basis, providing all information, not limited to the ongoing works, progress, delays, challenges (if any), documents, photographs, etc., as relevant.

The consultant shall agree with TRC over the contents of the reports and shall provide the necessary information.

6.3 Draft Final Design Report (6 copies) and Draft Tender Documents (10copies), including soft copies.

The Design Report shall summarize the findings, analysis, results and recommendations of the investigation studies, detailed engineering design, and shall consist of the rail alignment plans and longitudinal profile drawings, typical track cross-sections drawings, drainage plans, design of drainage and other structures, setting out data, bills of quantities, bidding documents, estimate of construction costs (and its price analysis including all supporting material). The design report shall comprise all the assumptions and criteria used in the analysis and design of the work, **climate adaptation strategy**, together with all details and standards used. All design calculations shall be enclosed in the form of annexes. The draft final design report shall be submitted together with the following reports, within five calendar months from the date of commencement of the assignment.

The Tender Documentation must conform to the latest Procurement Guidelines of the World Bank available on the www.worldbank.org

6.4 Final Detailed Engineering Design Report and Tender Documentation

The final report and tender documentation will incorporate all Client comments and include 'Issued for Construction' drawings. The Final Report and Tender Documentation are to be submitted to the client within one month of approval of the Draft Final Report. Consultant shall submit the following reports.

6.4.1 Detailed Track and Structures (Bridges and Culverts) Design Reports (5 copies + soft copy)

The Detailed Engineering Design Report for track and structures (bridges, culverts, and associated infrastructure) shall provide a complete technical account of the selected railway rehabilitation solution, covering track alignment optimization (horizontal and vertical geometry), formation design, embankments, drainage integration, and structural design of all bridges, culverts, and cross-drainage works. It shall include design criteria, engineering standards, hydrological and geotechnical inputs, structural analyses, foundation design, hydraulic capacity assessments, scour and protection measures, detailed calculations. The report shall also address safety, constructability, climate resilience, and operational reliability, ensuring that all track and structural components are fully coordinated and designed to support safe, durable, and uninterrupted railway operations under current and future loading and flood conditions. Other reports like, drawings, technical specifications, and Bills of Quantities will be bound as separate reports.

6.4.2 Materials Report (5 copies + soft copy)

The consultant shall establish locations, quantity and quality of civil works construction materials that include stone-ballast, earth fill, aggregates, water and sand. The report shall summarize all geotechnical findings and adoption of those findings to design quantities, and qualities of materials to be available with the corresponding excavation depth, test results and any other related information in respect of materials quarries.

6.4.3 Hydrological - Hydraulic Report (5 copies+ soft copy)

The consultant shall submit report summarizing all hydrological-Hydraulic findings and adoption of those findings in the design, layout and cross-section drawings, quantities and qualities of drainage works.

The consultant will use their expertise in providing an optimal permanent solution for the flood prone assignment section.

The consultant shall also establish locations, specify layouts, sizes and quantities of side drains and catch water drains.

The Consultant will utilize knowledge and experience of Track Design expert to identify locations needing drains works then will devise actions, quantify and specify the works for inclusion in contracts.

Measurements and remedial measures will be recorded, and form part of deliverables/reports specified under this contract.

6.4.4 Drawings

The Consultant shall prepare and submit A1 size tender/contract Engineering Drawings together with the reports, which shall include copies of the Engineering drawings photo reduced to A3 size. The drawings shall be presented as bound sets. The drawings shall include cross sections drawn at intervals sufficient to manage construction activities to all locations where remedial measures is required. The consultant shall produce layout plans showing contours and other details, typical sections, typical drawings details and specific details for track laying with regard to location and deck of all structures, together with a culverts and bridges. Consultant will submit to client all continuous survey data picked on site that are necessary for production of drawings in soft-editable format with software available with Client. All drawings should be legible and clearly show: - Designed by, approved by, with the name and signature of the responsible engineer and the date clearly displayed. The consultant shall forward to TRC one (1) complete set of originals of all drawings (Transparencies) and 2 copies SOFT COPIES in PDF and other editable format to be approved by Client.

6.4.5 Confidential Cost Estimates (3 copies)

The confidential cost estimate (+/-05%) for works and services shall be in the form of completed Bills of quantities. The estimates (+/-05%) shall be submitted together with other reports.

7 LOGISTICS AND PROJECT OPERATION MATTERS

In the specifications or condition of contract consultants must highlight all major logistics and project operation issues that potential Contractors must take into consideration during preparation for submission of works tenders.

8 RISK MANAGEMENT

Risks associated with the contract implementation must be identified, analyzed and documented. The consultant will be responsible for devising the proposed appropriate mitigation by Client.

9 QUALITY ASSURANCE PLAN FOR THE WORKS CONTRACTS

The consultant must draw up a manual for an independent quality assurance plan regarding all the contractors' activities specified in the BOQ that are mainly in two parts;

Part-1: Quality Assurance plan at manufacturing factory of all project materials. Special coverage is required on Inspection and Testing regime for Permanent Way Materials that must be witnessed by Client at Factory.

Part-2: Quality Assurance plan at installation site for all activities of works, materials and equipment.

Specifications and CEM

The consultant shall prepare Specification meeting the latest railway industry best practice and in compatible with TRC CEM.

The consultant shall ensure that there is no incompatibility in specifications/CEM leading to any confusion for the Works Contractor to be engaged for the assignment.

10 TEAM COMPOSITION AND QUALIFICATION REQUIREMENTS OF PROFESSIONAL STAFF

The professional staff input to be provided by the Consultant is estimated at 81 staff-months covered by services of a Team Leader/Senior Rail Infrastructure Engineer, Rail Infrastructure Engineer, Climate Change Expert, Structural/Bridge Engineer, Hydrologist, Geotechnical Engineer, Materials Engineer, Environmental Health and Safety Specialist, Social Specialist, GIS Expert/Land Surveyor, Chief CAD Technician, Contracts Expert and Quantity Surveyor. The Consultant is allowed to provide supporting staff up to 5% of the quantity of available key staff. The team composition will be as follows;

S/NO	POSITION	UNIT	QTY
1	<i>Team Leader/Senior Rail Infrastructure Engineer</i>	<i>Staff-Months</i>	6
2	<i>Rail Infrastructure Engineer</i>	<i>Staff-Months</i>	6
3	<i>Climate Change Expert</i>	<i>Staff-Months</i>	6
4	<i>Structural/Bridge Engineer</i>	<i>Staff-Months</i>	6
5	<i>Hydrologist</i>	<i>Staff-Months</i>	5
6	<i>Geotechnical Engineer</i>	<i>Staff-Months</i>	5
7	<i>Materials Engineer</i>	<i>Staff-Months</i>	6
8	<i>Environmental Health and Safety Specialist</i>	<i>Staff-Months</i>	4

9	<i>Social Specialist</i>	<i>Staff-Months</i>	4
10	<i>GIS Expert/Land Surveyor</i>	<i>Staff-Months</i>	5
11	<i>Signaling & Telecommunication Engineer</i>	<i>Staff-Months</i>	4
12	<i>Procurement and Contracts Management Expert</i>	<i>Staff-Months</i>	5
TOTAL			62

Duties/responsibilities of the key staff are as indicated below:

a) Team Leader/Senior Rail Infrastructure Engineer (1 No.)

The Team leader shall be responsible for the proper coordination of the entire assignment and shall be the principal contact person between the Consultant's team and the Client. She/he will develop plans, analyze procedures, and oversee performance of the team to ensure success and optimal results.

Qualifications and skills: The expert must be a registered with relevant Professional Board. Must have a degree in Civil/Railway Engineering. Postgraduate qualification in Railway Engineering is an added advantage.

General professional experience: She/he must have a minimum of twenty (20) years of cumulative experience in managing designs and construction of railway track and the associated infrastructure, and contracts management.

Specific professional experience: She/he must have served in a similar capacity on at least three (3) projects for the design of railways of similar magnitude, nature, and complexity in the last 10 years. She/he must have a working experience of at least 3 years in developing Countries. Fluency in written and spoken English is mandatory

b) The Rail Infrastructure Engineer (1 No.)

The Railway Infrastructures Engineer shall be responsible for detailed field investigations, engineering design, the production of high-quality Engineering Drawings and Design Calculations, and Packages for the Strengthening/rehabilitation Works. She/he must possess thorough knowledge in the permanent way field investigation, design, construction & maintenance.

Qualifications and skills: The Railway Infrastructure Engineer must possess a bachelor's degree in civil or railway engineering; a master's degree is an added advantage. She/he must be registered by the relevant professional board.

General professional experience: She/he must have a minimum of 15 years' cumulative experience in designing railway infrastructure.

Specific professional experience: She/he must have served in a similar position in at least three (3) railway projects of a similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be an added advantage.

c) The Climate Change Expert (1 No.)

The Climate Change Expert will be responsible for conducting climate risk assessments, integrating engineering design, conducting hydrological & hydraulic analyses, and developing a climate adaptation strategy.

Qualifications and skills: The Climate Change Expert must possess a bachelor's degree in a relevant field and a master's degree in climate change adaptation, hydraulic engineering and flood risk management, infrastructure resilience, or a similar field from a reputable, recognized institution. He/she must be registered with the relevant professional board.

General professional experience: She/he must have a minimum of ten (10) years' cumulative experience in climate resilience planning and design for infrastructure projects.

Specific professional experience: She/he must have served in a similar position in at least two (2) railway projects of a similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be an added advantage

d) Structural/Bridge Engineer (1 No.)

The Senior Structural/Bridge Engineer is responsible for detailed field investigations, engineering design, producing high-quality Engineering Drawings and Design Calculations, and Packages for the Strengthening/rehabilitation Works. She/he must have significant experience managing a team of CAD technicians and junior structural engineers.

Qualifications and skills: She/he must possess a bachelor's degree in civil or railway engineering. She/he must be registered by the relevant professional board.

General professional experience: She/he shall have a minimum of 15 years of cumulative experience in structural design with a focus on bridges. Experience with masonry abutments and arch structures is considered an asset

Specific professional experience: She/he must have served in similar position in at least two (2) railway projects of similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be an added advantage.

e) Materials Engineer (1 No)

The Materials Engineer will be responsible for conducting field investigations of materials to achieve an optimal design strategy. She/he shall source, test, and assess the materials to be used in design and rehabilitation, in charge of all geotechnical site investigations including geological research, establishing the type of site whereby investigations are needed, undertaking such investigations, geotechnical analysis and drawing conclusions and making recommendations from such analysis, will be part of the team that analyses data and categorize for incorporation into tender documents.

Qualifications and skills: She/he must possess a bachelor's degree in civil or railway engineering. A master's degree in geotechnics or engineering geology is an added advantage. She/he must be registered with the relevant professional board.

General professional experience: The material Engineer should have a minimum of fifteen (15) years' experience in civil engineering including 5 years in geotechnical investigation

Specific professional experience: She/he must have served in similar position in at least three (3) railway projects of similar nature in the last ten (10) years and must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be an added advantage.

Hydrologist (1 No)

The expert will be responsible for all hydrological site investigations, including hydrological research, establishing hydrological history at sites likely to be vulnerable to storm flows, calibrating and extrapolating data to account for climate change, conducting hydrological analysis, and making recommendations for bridge and culvert capacities based on such analysis.

Qualifications and skills: He/she must have bachelor degree in Civil Engineering. A post graduate in hydrology or water engineering will be an added advantage.

General professional experience: The expert must have at least ten (10) years cumulative experience in Hydrological Investigation of major civil engineering works.

Specific professional experience: He/she must serve in similar position in at least three (3) hydrological investigation projects of similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be added advantage.

f) *Geotechnical Engineer (1No)*

The expert will be responsible for all geotechnical site investigations including geological research, establishing the type of site investigations needed, undertaking such investigations, geotechnical analyses and drawing conclusions and making recommendations from such analyses.

Qualifications and skills: He/she must have a bachelor's degree in Civil Engineering. A post-graduate in geotechnics or engineering geology will be an added advantage.

General professional experience: The expert must have at least ten (10) years of cumulative experience in geological Investigation of major civil engineering works.

Specific professional experience: He/she must serve in similar position in at least three (3) geological investigation projects of similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be an added advantage.

g) *Environmental Health and Safety Specialist (1No)*

The Expert shall be responsible for Field Investigations, and development of implementation of the Management Strategies and Implementation Plans (MSIP) and EHS issues under the project and ensure all EHS Plans help avoid, minimize, mitigate and remediate, if necessary, any negative EHS impacts and risks from the project. The expert shall be responsible for preparation and registration of ESIA with NEMC.

Qualifications and skills: The EHS Expert shall be a registered EIA Expert, holder of a degree in environmental science and management or environmental engineering, and occupational health and safety or equivalent qualification. A postgraduate qualification in related field is an added advantage.

General professional experience: He/she must have a cumulative experience of at least ten (10) years related to EHS management in infrastructure design projects.

Specific professional experience: The Expert should have worked for a similar position in at least two (2) projects of a similar nature within the last five (5) years. He/she must have at least three (3) years working experience in Sub-Saharan Africa. The expert must be familiar with the current National Environmental Act and policy, World Bank

Environmental and Social Framework (ESF), and other relevant EHS guiding policies. Proficiency in both written and spoken English and Swahili is mandatory.

h) Social Specialist (1No)

He/she shall be responsible for Field Investigation and preparation of appropriate Social Safeguards documents. The expert shall be responsible for the preparation and registration of the ESIA with NEMC.

Qualifications and skills: The expert must have a bachelor's degree in Sociology or a related field from an internationally recognized institution. A master's degree in social science or equivalent is an added advantage.

General professional experience: The expert must have a minimum of ten (10) years cumulative experience in social impact fields.

Specific professional experience: The Expert should have worked for a similar position in at least two (2) projects of a similar nature within the last five (5) years. He/she must have at least three (3) years working experience in Sub-Saharan Africa. The expert must be familiar with current internationally recognized social standards as well as Tanzanian legal requirements and best practices, and with the World Bank Environmental and Social Framework (ESF), and other relevant EHS guiding policies. Previous working experience in Tanzania and proficiency in both written and spoken English and Swahili is mandatory.

i) GIS Expert/Land Surveyor (1 No)

The expert will be responsible for collecting all GNSS data and will undertake the analysis necessary to estimate work requirements and include it in tender documents. He/she will also prepare GNSS data and submit it in the format preferred by the Client.

Qualifications and skills: The ideal candidate must be registered with the relevant professional board. The Expert must possess a bachelor's degree in Geomatics /Civil Engineering/GIS and Remote Sensing or related field.

General Professional experience: He/she must have a minimum ten (10) years' cumulative experience as GIS/Land surveyor in major civil engineering works.

Specific Professional experience: He / she must served in similar position in at least two (2) railway projects of similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working Experience in Sub-Saharan Africa will be an added advantage.

j) Signaling & Telecommunication Engineer

The signaling expert shall be responsible for site assessment and investigation, review and proposing the design of signaling and Telecommunication system that will be necessary for improvement of safety at level crossing including appropriate source of power to energize the designed system. Compatibility of the system with respect to the available signaling and telecommunication system along the railway network. International standards shall be considered in the site assessment and investigation, review and design of proposed solution.

Qualifications and skills: The ideal candidate should be registered with the respectively professional board. He/she must possess a bachelor's degree in signaling/ Telecommunication/Electronics engineering. A postgraduate degree in Railway Signaling will be added an advantage.

General Professional experience: She/he must have a minimum of ten (10) years cumulative working experience in signaling and Telecommunication field, including five (5) years' experience in Railway signaling and safety.

Specific Professional experience: He/she must serve in similar position in at least three (3) year's railway project of similar nature in the last ten (10) years. Must be proficient in written and spoken English. Working in Sub-Saharan Africa will be an added advantage.

k) Procurement and Contracts Management Engineer (1 No)

The expert will be responsible for preparation of Tender Documentation associated with Railway tracks works, Civil works, Bridges and Culverts works that are earmarked for reconstruction, reinforcement or repairs and cost estimate.

Qualifications and skills: He/she must have a bachelor's degree in Civil or railway Engineering. A post graduate in procurement, or project management will be an added advantage.

General professional experience: The expert must have at least ten (10) years cumulative experience in procurement and contract management of major civil engineering works.

Specific professional experience: He/she must serve in similar position in at least three (3) contracts on other civil related works the last ten (10) years. Must be proficient in written and spoken English. Working experience in Sub-Saharan Africa will be added advantage.

I) *Support and Backup staff:* In addition to the above key staff the Consultant shall determine the Support and Backup staff deemed necessary to assist with successful completion of the assignment. However, their qualifications will not be considered in the evaluation of the proposals.

11 PARTIES OBLIGATIONS

11.1 Obligations of the Consultant

11.1.1 Transport & Logistics

The consultant is responsible for own arrangement of living, transport and logistics costs during operation of project assignments.

If available Consultant can make use of TRCs trolley for the inspection/assessment of the sections, the cost of which shall be paid by the consultant and will be subject to terms and conditions of TRC Operations.

Consultant will not be liable for any compensation from TRC for any delay caused by defective trolleys hired by Consultant.

The cost of all expenses shall deem to be included in the Consultant's proposal.

11.1.2 Document Control

The Consultant shall draw up a list of all documents provided by TRC and Government Administrations or produced during the assignment for the purposes of the consultancy services. The documents shall be returned at the end of this assignment. The Consultant shall be solely responsible for analyzing and interpreting data derived from the documents or from other sources. The documents shall be treated as confidential, if so required, and should be used solely for the purpose of this contract assignment.

11.1.3 Resources for the study

For the purpose of the study, the Consultant shall procure all materials necessary for the implementation of the assignment, particularly office materials and equipment, including data-processing equipment. The Consultants shall be responsible for arranging and paying their own transport logistics. During their stay, the Consultants shall give to TRC a copy of the software used for the preparation of the field investigations and office design work along with instructions and manuals for using and updating the same. The

fees for purchase of the licenses required for the appropriate software, including those that are proprietary to the Consultant, shall be included in the Consultant's bid document.

11.1.4 Office, Accommodation and Other

For the purpose of the study, the Consultant shall make own arrangement of Office, Accommodation for staff/personnel and all that is essential for the operation of project assignments. The cost of all expenses shall deem to be included in the Consultant's bid document.

11.1.5 Counterpart Staff Involvement

The Client may assign up to 2 counterpart staff relevant to the assignment during execution of the services to work with the Consultant in all aspects of the study as a way of knowledge transfer. The counterparts shall be involved in the field as well as the Consultant's home office. The Consultant will only provide shared office space for counterpart staff, and their other costs and remunerations will be provided to them directly by the Client.

11.2 Obligations of TRC

TRC will facilitate for the consultants the following:

- i. Authority to access to railway property, offices, working installations and facilities;
- ii. Authority to access to all requested and available with TRC, documents, maps, relevant documents and consultancy reports,
- iii. Introduction to government departments, customers, other public sector companies involved or having an interest in the assignment as may be asked by the Consultant;
- iv. Access to the available basic cost of recent railway works

12 REPORTING REQUIREMENTS

The Consultant shall submit field reports in English on A4 format paper for text and A3 for drawings or in any other format as requested by TRC. The Consultant shall discuss the format/paper, etc of the report in agreement with TRC

12.1 Drawings

The Consultant shall prepare and submit A1 size (scale and size to be agreed with the Employer) Drawings together with the reports, which shall include copies of the Field Investigation, Location, Typical Remedial Measures engineering drawings photo reduced to A3 size. The drawings shall be presented as bound sets.

12.2 Inception Report

The Consultant will submit an Inception Report within three weeks of mobilization.

12.3 Field Reports

The Consultant shall submit field reports in English on A4 format paper for text and A3 for drawings. Survey data for both draft and final reports shall be submitted in a format compatible to ArcGIS Veer 10.0

The Consultant shall submit a Field Assessment Report within a period of eight weeks after commencement. The Field Report shall detail the principal elements observed during field survey & inspection, material register of the existing track section detailing all class its reusability and shall define the detailed remedial measures proposed/to be undertaken for various tasks. The Consultant shall include in this report the confirmation to TOR compliance and other decisions agreed with TRC.

Six copies of the progress reports shall be submitted in English to TRC in addition to electronic copies on three CDs.

12.4 Draft Final Report

The draft final reports shall be submitted to TRC and to the WORLD BANK as follows:

- a.Ten hard copies in English language and three soft copies to TRC.
- b.Two hard copies in English language and one soft copy to World Bank.

12.5 Final Report

The Consultant shall submit to TRC two sample printouts (in English language) of the various assignment documents, briefs, and drawings with indication of the format and layout; likewise, the data media used shall be submitted in two copies. After taking into consideration the corrections and improvements made by TRC and the WORLD BANK, the consultant shall produce and submit, in English language, the Final Report. The Final Report shall be fourteen hard copies in **COLOURED PRINT**, MS Word, English.

13 ASSIGNMENT SCHEDULES

13.1 Work Program/ Schedule

The Consultant shall include in the proposal a schedule for the works showing all task interrelationships, resource requirements and duration to accomplish the consultancy works within the timelines by the employer. The program of works shall be agreed between the consultant and TRC before signing of the contract and shall form part of Annexure to the contract.

13.2 Payment Schedule

Payment schedule will be as per deliverable tabulated hereunder.

	Deliverable	Payment Schedule (%)	Condition
1	Inception Report	25% of Contract Price	Submission of Acceptable Inception Report.
2	Draft Final Report	40% of Contract Price	Submission of Acceptable Draft Final Report.
3	Final Report (once approved)	35% of Contract Price	Submission of Acceptable and Approved Final Report.

13.3 Duration of the assignment

The duration of the assignment is 6 Calendar Months

13.4 Deliverables /Expected Output

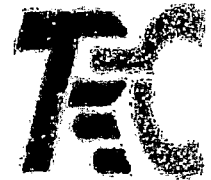
- i. Inception Report within 0.5 month from date of commencement:
- ii. Draft Final Report within 5 months from the date of commencement
- iii. Final Report within 0.5 months after approval of Draft Final Report

14 PROJECT COORDINATION

The Consultant will be responsible to the Director General, TRC, and will report to the Director of Civil Engineering Infrastructure, working closely with the TIRP Project Implementation Team (PIT).



THE UNITED REPUBLIC OF TANZANIA
THE MINISTRY OF TRANSPORT



TANZANIA RAILWAYS CORPORATION

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) POLICY

(2025/26-2026/27)

TRC SUSTAINABILITY AND ESG POLICY

a. Policy Title

TRC Sustainability and Environmental, Social, and Governance (ESG) Policy

b. Policy Statement

TRC is committed to delivering reliable, inclusive, and sustainable rail services in a manner that protects the environment, advances social well-being, and upholds the highest standards of corporate governance. This policy provides the institutional foundation for ESG integration across TRC's operations, planning, infrastructure development, procurement, and stakeholder engagement—aligned with Tanzania's national priorities, the Sustainable Development Goals (SDGs), and international disclosure standards such as GRI, IFRS S1/S2 and NBAA TP.1.2024

c. Policy Objectives

- i. Embed ESG principles into TRC's corporate strategy, performance management, and operational procedures
- ii. Promote transparency, accountability, and ethical conduct at all levels of decision-making
- iii. Minimize TRC's environmental footprint through efficient energy use, emission reduction, and climate risk adaptation and resilience
- iv. Ensure the protection, inclusion of PWDs, and safety of TRC's workforce, customers, contractors, sub-contractors, suppliers, service providers, communities and other third parties.
- v. Enhance TRC's eligibility for climate-aligned financing opportunities and ESG-linked public private partnerships

d. Scope and Applicability

This policy applies to:

- i. All TRC (directorates and units);
- ii. Contractors, suppliers, service providers and consultants operating on behalf of or under contract with TRC
- iii. Any third-party stakeholder involved in the planning, construction, operation, maintenance or oversight of TRC assets and services

e. ESG Commitments

Environmental Commitments

TRC shall:

- i. Monitor and reduce GHG emissions across traction and facilities (Scopes 1–3)
- ii. Transition toward low-carbon rail operations
- iii. Prevent pollution and manage hazardous materials responsibly
- iv. Implement climate risk assessments and resilience measures in infrastructure planning and design
- v. Promote energy, water, and material efficiency in offices, stations and workshops.

Social Commitments

TRC shall:

- i. Ensure occupational health and safety (OHS) standards are met across all works paces
- ii. Promote gender equality, inclusion of persons with disabilities (PWDs), and decent working conditions
- iii. Respect community rights, deliver fair compensation during land acquisition and strengthen grievance mechanisms
- iv. Enhance service accessibility and public safety, especially at level crossings and stations
- v. Support local employment, skills development, and community participation in decision-making

Governance Commitments

TRC shall:

- i. Uphold the highest standards of ethical behaviour and anti-corruption compliance
- ii. Maintain transparency and accountability through audited ESG disclosures and Board oversight
- iii. Integrate ESG risks into enterprise risk management (ERM) systems
- iv. Ensure ESG compliance in procurement;
- v. Ensure ESG compliance ICT policies;

f. Implementation and Oversight

- i. The ESG Coordination Team, under the Directorate of Finance is responsible for leading policy implementation.
- ii. ESG Focal Persons across directorates, units and sections will coordinate ESG data, initiatives, and reporting.
- iii. The policy will be reviewed bi-annually and revised as needed to reflect regulatory, operational, or strategic developments.
- iv. Oversight is provided by the **Audit and Finance Committee**, with periodic input from ESG coordination team and the Executive Management Team.

g. Compliance and Enforcement

- i. All staff are responsible for complying with this policy and will receive relevant training.
- ii. Non-compliance may result in disciplinary action or contract termination, in accordance with TRC's regulations and legal obligations.
- iii. ESG-related performance will be included in management reviews, performance appraisals, and supplier evaluations.

h. Date of Approval and Effective Date

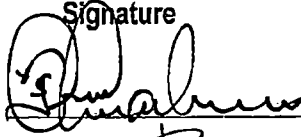
Approved by TRC Board of Directors

Effective Date 26/05/2026

Review Date Every two years or as triggered by material change

This policy is annexed in full within the ESG Framework and will be made publicly accessible via the TRC

This *Sustainability and ESG Policy* has been reviewed and approved by the TRC Board of Directors. The undersigned are duly authorized to sign on behalf of TRC to confirm official Board approval and adoption of this policy.

Name	Title	Signature	Date
MR. JAFFER MACHANO	Board Chairperson		26/05/2026
ENG. MACHIBYA M. SHIWA	Director General		26/05/2026