

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF WORKS



TANZANIA TRANSPORT INTEGRATION PROJECT (TanTIP) -P165660

TERMS OF REFERENCE

FOR

CONSULTANCY SERVICES FOR ENGAGEMENT OF MONITORING OF BIODIVERSITY MANAGEMENT FOR THE ON - GOING CONSTRUCTION OF IRINGA – MSEMBE ROAD (104 KM) AND LAKE MANYARA AIRPORT UNDER THE TANZANIA TRANSPORT INTEGRATION PROJECT (TANTIP) SUB PROJECT

AUGUST 2026

1.0 INTRODUCTION

The Government of the United Republic of Tanzania has received a credit from the World Bank towards the cost of the Tanzania Transport Integration Project (TanTIP) which amongst others, comprises the upgrading of Iringa – Msembe (104 km) and rehabilitation and improvement of Lake Manyara Airport. The Government, through Tanzania National Roads Agency (TANROADS) intends to apply part of the credit proceeds to eligible payments under Contract for Consultancy Services for undertaking monitoring of the implementation of the Biodiversity Management Plan during construction works of the Iringa – Msembe road and Lake – Manyara Airport for which these Terms of Reference are issued.

The ongoing infrastructure development projects (road and airport) passes through or are adjacent to Biodiversity Important Areas with critical habitats for wildlife bird species of ecological importance. Thus, a qualified Individual Consultant is required to undertake biodiversity monitoring and management for ongoing construction works for the upgrading and rehabilitation of Iringa – Msembe road (104 km) and rehabilitation and improvements of Lake Manyara Airport.

2.0 DESCRIPTION OF THE PROJECTS

2.1 Upgrading of Iringa – Msembe Road (104 km)

The Iringa – Msembe Road being upgraded to bitumen standard, is a regional road located in Iringa Region and linking the Iringa Regional Headquarters with the Ruaha National Park at Msembe Village. The whole road is located in Iringa District traversing in the western direction from Iringa Municipality off the Iringa – Dodoma Trunk Road T005 at the Samora Roundabout through Kalenga, Nzihi, Kidamali, Nyamahanga, Idodi, Mapogolo and Tungamalenga Villages ending at the Y-junction Msembe (Ruaha National Park).

Currently the construction Works for the upgrading of Iringa – Msembe Road are on-going and is being executed by M/s China Henan International Cooperation Group (CHICO) under supervision of M/s CIRASAS in JV with NIMETA Consult (T) Ltd. The road pavement design consists of the following layers:

- 20/10 Continuously Double Surface Dressing

- MC-30 Cut-back bitumen for priming of carriageway and shoulders;
- 150mm Base Course (CRR) from Iringa – Kalenga and 150mm CRS from Kalenga – TANAPA Gate,
- Stabilized layer, Material Class C1 200mm thick from Iringa – Kalenga and 200mm G45 from Kalenga – TANAPA Gate for subbase;
- Fill as Appropriate

Upon successful completion of the project, Iringa – Msembe Road is expected to stimulate tourism industry in the Ruaha National Park, agriculture, forestry, mining fishery and hence promote economic development of Iringa Region and Tanzania as a whole. Furthermore, upgrading of the road will lead into savings in the vehicles operating costs and travel time leading into reduction of transport costs for road users. On the other hand, road construction works may cause ecological impacts on the Ruaha National Park and nearby sensitive areas. Thus, a comprehensive biodiversity monitoring is required during the upgrading works of Iringa – Msembe Road to identify associated impacts and recommend for appropriate mitigation measures to be carried out by the project Contractor to avoid or reduce negative impact on ecosystems.

2.2 Rehabilitation and Improvement of Lake Manyara Airport

Lake Manyara Airport is located in Karatu District which is in Arusha Region approximately 150 km from Arusha city and 25 km from Karatu District Council, although the given name of the Airport is Lake Manyara it is however located in Arusha region and not in Manyara region. The airport is located Karatu District, Arusha region in north-eastern part of Tanzania serving tourists to Lake Manyara, Ngorongoro Crater and Lake Eyasi. The Manyara airport is located at the Manyara escarpment and lies between latitude 03 22 S and longitude 035 49 E having elevation of 4150ft/1265m AMSL with reference temperature of 24.0oC. The airport is identified by IATA code-LKY and ICAO code-HTLM. Lake Manyara airport can be reached via Arusha – Karatu/Ngorongoro tarmac road just few kilometers after Mto wa Mbu Township. From the main tarmac road there is existing 1 km distance access gravel/earth road leading to the Airport.

The main phases of upgrading and rehabilitation of Lake Manyara airport includes mobilization pre-construction, construction, demobilization, operation and maintenance. The proposed airport project is designed for 20 years lifespan before any need for major repair. The project among others shall involve upgrading of the

airport facilities such as new runway, taxiway and apron to a bitumen standard to accommodate ATR 42 and 72 as well as QR400 aircrafts. Therefore, the design of the proposed project includes the following main project components, namely:

- a) Construction of the new runway, taxiway and apron including asphalt pavement;
- b) Construction of new terminal building;
- c) Construction of a new control tower;
- d) New Navigational aids;
- e) Construction of new drainage system and landscaping;
- f) Construction of new rescue and firefighting station;
- g) The erection of a new security fence around the perimeter of the airport;
- h) Sewage system around the airport;
- i) Supply and installation of security and communication systems;
- j) Construction of new airport access road of 1.5km;
- k) Car parking;
- l) Aeronautical Ground Lighting (AGL);
- m) Road, Runway and apron marking;
- n) Water Supply for the airport;
- o) Power supply; and
- p) Storm water system.

The need to undertake biodiversity monitoring and management stems from the fact that the Airport is sharing part of the ecosystem with the Lake Manyara National Park at the Northern part of the existing runways adjacent to escarpment on the far end of the aircraft landline. The Lake Manyara National Park is an important biodiversity area including birds and one among the five biosphere reserves found in Tanzania. However, the airport position on the highland (1265m a.s.l.) is an advantage for air transport as the largest part of the national park is at the lower altitude (980m a.s.l.). Similarly, a comprehensive biodiversity monitoring is required for ongoing construction works for rehabilitation and improvement of Lake Manyara Airport to identify and recommend implementation of appropriate mitigation measures to be carried out by the project Contractor to avoid or reduce impacts on the surrounding ecosystems, especially birds' movement and breeding around the airport areas of influence.

3.0 OBJECTIVES OF ASSIGNMENT

The main objective of this assignment is to undertake Consultancy Services for monitoring of the Implementation of the Biodiversity Management Plan during construction works of Iringa – Msembe road (104 km) and Lake Manyara Airport on behalf of TANROADS.

The specific objectives of the Consultancy Services include:

- i. Establishing baseline biodiversity information for the project areas;
- ii. Identifying, mapping and analyses critical habitats areas within the project cores which are likely to be affected by the proposed developments;
- iii. Record periodic changes in species composition in relation to the projects' implementation; and
- iv. Recommend appropriate mitigation and management measures to address identified risks and impacts on habitats, species and overall biodiversity important areas.

4.0 SCOPE OF SERVICES

The main scope of the services is to undertake biodiversity monitoring and management for the ongoing construction works for the upgrading of Iringa – Msembe road (104 km) and rehabilitation and improvement of the Lake Manyara Airport on behalf of TANROADS, the Employer for the projects.

The focus of the consultancy services is on monitoring of biodiversity changes due to implementation of the road and airport construction projects through establishment of baseline information, identifying potential risks and impacts, developing of appropriate mitigation and management measures, checking effectiveness of the mitigation and/or management measures and recommend additional measures to the Contractors implementing rehabilitation on affected biodiversity important areas. In particular, the Consultant shall carry out the following tasks, but not limited to: -

- (a) Carry out desk study and additional field surveys to establish biodiversity baseline information for the projects;

- (b) Identify and describe any biodiversity important area that are found within the core project areas and areas of influence which may be affected by the ongoing construction activities for the road and airport projects;
- (c) Compile species list and identify flora and fauna conservation concerns as per IUCN Red Data Book;
- (d) Delineate and map the habitats and their respective sensitivities that occur within the projects area;
- (e) Describe likely biodiversity trends anticipated as well as likely development in the biodiversity with/without implementation of the projects;
- (f) Identify threats and biodiversity impacts such as natural habitat loss, wetland loss, wetland degradation, aquatic loss, water contamination, fauna disturbance by construction, fragmentation of wildlife and/or bird movement, dust emission, spread of invasive alien species, soil erosion and disturbance of ecosystem services;
- (g) Carry out risk assessment on projects' sensitive biodiversity receptors including protected and conserved areas, national parks, natural habitats, fauna, wetlands, aquatic ecosystem, wildlife corridors, birds' movement and priority ecosystem services;
- (h) Conduct thorough stakeholder consultation and community engagement to capture biodiversity conservation concerns from TANAPA, TAWIRI, TFS, NGOs, MBOMIPA, VGS and surrounding communities;
- (i) Develop mitigation and management measures to align with international standards for rehabilitation and restoration of affected biodiversity ecosystems. Such measures may include afforestation, establishment of biological corridors, creation of underpass structures, hydro-seeding, minimize vegetation clearance, prevent contamination, dust control, restoration of degraded wetlands, control of invasive alien species and limiting of construction footprint;
- (j) Conduct regular field surveys for collecting biodiversity data and checking effectiveness of the developed mitigation and management measures. The Consultant shall periodically record changes in biodiversity composition as a result of execution of the construction works. The records may include number of fauna, species translocation incidents, species abundance, vegetation condition, ground cover, trends in soil erosion, occurrence of invasive alien species, water quality and hydrological flow in wetlands;

- (k) Develop contingency plan for unexpected adversely biodiversity impacts due to projects implementation.
- (l) Prepare periodic and annual comprehensive biodiversity monitoring and management reports covering key components of the assignment as described under tasks (a) to (k) and provide recommendations for the increase performance in biodiversity conservation of the road and airport projects.

5.0 CONTRACT DURATION, ASSIGNMENT DELIVERABLES AND PROPOSED WORKPLAN

The Consultancy Services are planned to be provided in 12 Months spread over the duration of the road and airport construction period which is **24 months**.

It is proposed that, out of 12 months, the Consultant will assign one (1) month of the first quarter of the assignment for preparation of **the Inception Report and carrying out the Biodiversity Baseline Studies**. In the subsequent months the Consultant will plan to work on the assignment as per the schedule below:

SN	Physical Progress	Activities	Time Input (Person-months)	Deliverables
During Construction Stage				
1.	1-10% Completion	Tasks (a), (b), (c) and (d) under scope of services above	1.0	Inception Report
2.	25% Completion	Tasks (e), (f), (g), (h), (i), (j), (k) and (l) under scope of services	3.0	Periodic Monitoring Reports
3.	50% Completion	Tasks (j), (k) and (l) under scope of services above	3.0	Periodic and Annual Monitoring Reports
4.	75-95% Substantial Completion	Tasks (j), (k) and (l) under scope of services above	3.0	Periodic and Annual Monitoring Reports
During Defect Liability Period				

SN	Physical Progress	Activities	Time Input (Person-months)	Deliverables
5.	100% Completion	Tasks (j), (k) and (l) under scope of services above	1.0	Final Monitoring Report
TOTAL			11.0	

Note: Reports shall be submitted to TANROADS in both hard copy three (3) and electronic one (1) format.

6.0 SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT

TANROADS will make available to the Consultant all the relevant documents and data necessary for the proper and timely execution of the assignment. The Consultant will be assisted in the following:

- a) Obtaining formal consent from other authorities or persons having rights or power in connection with works or the site thereof; and
- b) Obtaining licenses and permits in connection with the works including Customs.

7.0 OTHER SERVICES TO THE CONSULTANT

The Consultant shall arrange for his own office, transport and accommodation and will charge the cost thereof in his financial proposal.

8.0 QUALIFICATIONS AND EXPERIENCE OF THE CONSULTANT

The proposed Individual Consultant:

- i. He/She shall be a holder of first degree in Ecology, Wildlife Conservation or Forestry Conservation or Natural Resource Management or Conservation Biologist or any other related discipline. A postgraduate qualification in Ecology or Wildlife Management or Natural Resources Management is an added advantage.

- ii. He/she must have a minimum of Ten **(10)** years of cumulative experience related to Biodiversity Monitoring Management and Natural Resource Management Conservation.
- iii. He/she must have at least three **(3)** years working experience in Developing Countries.
- iv. He/she mandatory be proficient in both written and spoken English and Swahili Languages.

9.0 PAYMENTS UNDER THE CONTRACT

Payment to the Consultant shall be made on **quarterly basis upon submission of acceptable deliverable** including execution of planned field works and submission of acceptable reports, as follows:

- 15% of the Acceptable Contract Amount upon submission of acceptable Inception report.
- 70% for eight (8 number of progress) payments with each acceptable quarterly monitoring report and support evidence for execution of progress field activity calculated at 8.75% of the Accepted Contract Amount; and
- Final payments at 15% of the Acceptable Contract Amount upon submission of acceptable Final Report.

Payments will be made on condition that the Consultant has executed field activities planned for the respective stage, as per approved work program, and submission of an acceptable stage monitoring report documenting field activities executed during the stage. Documentation of the field activities shall include information such as georeferenced photographs of major events, minutes of meetings, attendance list signed by Consulted, etc.

10.0 PENALTIES FOR LATE SUBMISSION OF DELIVERABLES OR NON-COMPLIANCE WITH TOR REQUIREMENTS

- a) If the Consultant fails to submit deliverable within the agreed timelines or if the deliverable does not comply with the requirements outlined in these TOR, the Client reserves the right to impose penalties,

b) The penalties shall be calculated as follows:

- i. **Late Submission:** A deduction of **1% of the total payment per deliverable per week** of delay, up to a maximum of 10% of the contract amount;
- ii. **Non-Compliance with TOR Requirements:** A penalty of up to **5% of the accepted contract amount per occurrence** for failure to meet the quality standards or specifications outlined in the TOR;
- iii. The Consultant shall be given written notice of any identified deficiencies or delays and provided a reasonable period to rectify them before penalties are applied;
- iv. Repeated non-compliance or excessive delays (exceeding four weeks) may result in contract termination as per the terms and conditions of the agreement; and
- v. The imposition of penalties does not absolve the Consultant of their obligation to complete the deliverable as per the agreed timelines and standards.

11.0 PROJECT COORDINATION

The Consultant will be responsible to the Chief Executive of TANROADS and reports to the Director of Infrastructure Planning through the Manager of Environment and Social; and TanTIP Project Manager to accomplish specific task components on daily basis.

