

United Nations Development Programme

Terms of Reference for a National Consultant (Civil Engineer) under the ‘Restoring Marine Ecosystem Services by Rehabilitating Coral Reefs to Meet a Changing Climate Future’ project

TITLE	National Consultant (Civil Engineer) for the setting up of land-based nurseries and seawater pumping system
COUNTRY	Mauritius
REGION	Africa
DUTY STATION	Port-Louis
CONTRACT TYPE	Reimbursable Loan Agreement (RLA)
DURATION	7.5 person months (150 person-days) over 24 months
STARTING DATE	15 October 2021
Project Title	Setting up of Land-based nurseries at MOI and AFRC, including installation of seawater pumping system at MOI

A. Project Description

The ‘Restoring Marine Ecosystem Services by Rehabilitating Coral Reefs to Meet a Changing Climate Future’ project was approved by the Adaptation Fund in October 2018 following a regional call for proposals under the themes of Food Security and Disaster Risk Reduction. The project budget of USD 10M will benefit Mauritius and Seychelles through coral restoration activities as well as capacity building programmes and knowledge exchange for the region. The project is implemented under the Direct Implementation Modality (DIM) by UNDP. Executing partners involved are the Mauritius Oceanography Institute (MOI) and the Albion Fisheries Research Centre (AFRC) under the aegis of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping in the Republic of Mauritius; the Marine Conservation Society (MCSS), Nature Seychelles, the Seychelles National Parks Authority (SNPA) and the Ministry of Agriculture, Climate Change and Environment (MACCE) in the Republic of Seychelles. The project implementation started in 2020 and the duration is six years (72 months).

The overall objective of the project is to reduce the impact of climate change on local communities and coral reef-dependent economic sectors in the Republic of Mauritius and the Republic of Seychelles by implementing coral reef restoration with thermal tolerant corals as adaptation to climate change.

Under this UNDP/AF project, land-based coral nurseries will be set up at the Mauritius Oceanography Institute (MOI) in an area of 0.52 hectares of land adjacent to MOI at Albion. Moreover, a seawater pumping system will be installed to supply the land-based nurseries with sea water. At the AFRC, land-based coral nurseries will be set up in an area of 600 sq. m adjacent to the AFRC building at Albion. The nurseries at the AFRC will be connected to the existing pump system available there.

This procurement exercise is undertaken to obtain the services of a Civil Engineer with experience in coastal and marine works to assist the UNDP Coral Reef Project Management Team (PMT) in the setting

up of the land-based nurseries at MOI and AFRC, including the setting up of seawater pumping system at MOI. The Engineer will assist in the procurement exercises and ensure proper implementation of works, up to and including commissioning, for the following contracts under this project:

- (i) Consultancy for the Feasibility Study, Design and Supervision of works for the setting up of land-based Nurseries at MOI and AFRC, including installation of pumping system at MOI;
- (ii) Consultancies for Environment Impact Assessments (EIA);
- (iii) Clearing of Sites; and
- (iv) Construction of land-based nurseries at MOI and AFRC including Installation of Pumping System at MOI.

For this assignment, the Engineer will sign a Reimbursable Loan Agreement (RLA) with UNDP. RLA is a contract to a company, institution or other legal entity for the purpose of hiring identified individuals to perform consultancy services. Under the RLA, the company/institution makes the services of the named consultant available to the operational unit for a specified period. The company/institution remains responsible for the actual payment of salary, taxes and other administrative charges. UNDP “reimburses” the company for payments to the identified individual.

B. Scope of Work

Key functions:

- Field Visits and Stakeholder Consultations
- Provision of effective support throughout all stages of procurement processes;
- Review, assess and finalise technical documents
- Monitoring of progress of works; and
- Provision of general office support.

1. Field Visits and Stakeholder Consultations

- Field visits to identified locations at MOI and AFRC and based on preliminary assessment, recommend best solution for project implementation;
- Conduct stakeholder consultations and prepares a programme of work for the implementation of specific tasks as required by the project;
- Carry out all the necessary research work on design and operation of the land-based nurseries and sea water pumping system;
- Review of all existing documentation such as previous EIAs and drawings and designs of existing available pumping system at MOI and AFRC;
- Arrange for all necessary surveys, tests, design and detailed drawing clearances and permits (including EIA, CEB, CWA, Forestry, etc...) from all statutory bodies as required;
- Support for initial site clearance, geotechnical studies etc as required; and
- Ensure that project activities adhere to the local legislation, construction standards, UNDP construction policies and guidelines and the UNDP Social and Environmental safeguards

2. Provision of effective support throughout all stages of procurement processes;

- Prepare the TOR and tender documents for the Consultancy services for the Feasibility studies, EIA, Design and Supervision of Works as required;
- Assist in the launching of bids, pre-bid meetings, reply to prospective bidder’s queries, evaluation and selection exercises for all the above-mentioned consultancies for the setting up of LBN and seawater pumping system;

- Advise on the best timing for clearing of sites and assist in the preparation of TOR, evaluation and procurement process for selection of contractors for site clearing;
- Finalise the Request for Proposal/ Invitation to Bid for works contract drafted by the Design and Supervision consultants and submit to UNDP.
- Assist in the launching of bids, pre-bid meetings, reply to prospective bidder's queries, bid evaluation and selection of Contractor for implementation of works for the setting up of LBNs and seawater pumping system;
- Provide a report on the compliance of bids with specifications and provide reasons in case of deviations;
- Assist in answering queries from the relevant procurement review committees - Contracts, Assets and Procurement Committee (CAP) / Regional Advisory Committee on Procurement (RACP); and
- Assist in the evaluation of consultant's/ contractor's quotes for any variation of works, if and when required.

3. Review, Assess and Finalise technical documents

- Review and ensure quality of all outputs submitted by consultants for EIA & feasibility study including EIA reports, feasibility study, and geotechnical investigations;
- Verify and ensure quality, accuracy and correctness of all technical documents and outputs submitted by the Design Consultants including preliminary designs, detailed designs, bidding documents for works contract, specifications and technical descriptions, Bill of Quantities, and cost estimates; and
- Finalise all technical documents in line with UNDP requirements to ensure high quality and compliance of the construction and operation of the Land Based Nurseries with the local legislation as well as UNDP policy on construction, and Social and Environmental Safeguards.

4. Monitoring of progress of works

- Ensure timely deliverables and quality of the work of all consultants, contractors and sub-contractors working under the project and coordinate services to be rendered by them;
- Arrange regular coordination and site meetings with relevant stakeholders during the Design & Supervision and Construction stages, including commissioning and submit regular progress reports and promptly attend to all problems arising on the project or advise on remedial actions;
- Review and validate all certificate of payments, any application for extension of time and any Loss and claim Expense from consultants and contractors engaged for this project;
- Undertake regular monitoring field visits to the project sites and report to PMT on the status of activities including suggestions for improvements;
- Prepare and maintain status reports/progress for all activities and contracts under the project and submit a monthly progress report;
- Ensure that works are implemented in line with UNDP requirements to ensure high quality and compliance of the construction and operation of the Land Based Nurseries with the local legislation, construction standards as well as UNDP policy on construction, and Social and Environmental Safeguards, and support in handling of complaints if any;
- Arrange for testing, commissioning and handing over of site at completion of works;
- Arrange for handing over complete sets of as-made drawings and operation and maintenance manuals;
- Ensure that the project is implemented within time and budget and as per the scope of works;
- Provide a final commissioning report, including all relevant technical drawings and calculations, as well as an operation and maintenance manual for the Land Based Nurseries, for ready handing over to the Government of Mauritius institutions namely the Mauritius Oceanography Institute, the Albion Fisheries Research Centre and the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping. In this respect, the Engineer shall ensure that the necessary

documents prepared by the various other consultants and contractors and handed over appropriately in hard and soft copies; and

- Finalise the service level agreement for operation and maintenance of the sea water pumping system.

5. Provision of general office support

- Support in preparation of materials for the purposes of a) annual planning, b) resource mobilization, c) collaboration with partners; and d) reporting to donors and implementing partners;
- Prepare Notes of meetings as required by the Regional Project Manager
- Assist in the provision of any initial surveys required for the preparation of TORs, if required.
- Prepare and deliver professional presentations in Powerpoint format to relevant institutions and governmental bodies, as required;
- Assist and submit report in relation to queries from funding/governmental bodies;
- Submit a quarterly report on progress of works and provide recommendations and suggestions to PMT for improvement of the Project's implementation, if and when necessary; and
- Assist in the management of logistical support to the PMT.

C. Expected outputs

The National Consultant shall be remunerated in accordance with the time schedule and deliverables approved by the UNDP. The list of Deliverables is shown in Table 1.

Table 1: List of Deliverables of the National Consultant

	Activity/Deliverable	Tentative date	% Fee	Means of Verification
1	Stakeholders' Consultation Meetings and Submission of workplan	25 October 2021	7%	Approved workplan
2	TORs and Procurement Documents for a. Feasibility Study, Design and Supervision for the setting up of land-based Nurseries at MOI and AFRC and installation of seawater pumping system at MOI b. Environmental Impact Assessments	15 November 2021	8%	Approved set of TORs and Procurement Documents which may be separate or integrated, as per UNDP PMT
3	Submission of 1 st Quarterly progress report including update on implementation plan (inc. Gantt Chart), as well as including technical review of existing documentation for the project at MOI and AFRC.	20 January 2022	2.5%	Approval of report
	Finalisation of Evaluation exercises for the Feasibility Study,		5%	Bid Evaluation reports finalised

	Activity/Deliverable	Tentative date	% Fee	Means of Verification
	Design & Supervision of Works, and EIA			and Contracts awarded
4	Support for Site Clearance works and requirements for additional studies such as geotechnical surveys, if required	28 February 2022	5%	Contract for award for clearing of sites awarded
5	Review and provide comments on Feasibility Studies and EIA reports	15 March 2022	5%	Feasibility Studies Approved and EIA reports submitted to authorities.
6	Draft Detailed Design reports for LBN and Seawater pump	20 March 2022	2.5%	Approved Reports
	Final Detailed Design Reports for LBN and Seawater pump	30 March 2022	2.5%	
7	Draft Tender documents for Implementation of works for the setting up of the LBNs, and sea water pumps	5 April 2022	2.5%	Approval of report
8	Submission of 2 nd Quarterly progress report and Final Tender Documents for Implementation of Works for the setting up of the LBNs, and sea water pumps	20 April 2022	5%	Final Approved Designs and Bidding Documents for works contract
9	Evaluation of bids for the implementation of works of land-based Nurseries at MOI and AFRC and installation of seawater pumping system at MOI	30 July 2022	5%	Approved Bid Evaluation Reports and contracts awarded
10	Submission of 3 rd Quarterly progress report, including report on mobilisation of contractors for the implementation of works covering both MOI and AFRC sites	5 August 2022	5%	Approved report
11	Submission of 4 th Quarterly Progress report, covering both MOI and AFRC sites	5 November 2022	5%	Approved report
12	Submission of 5 th Quarterly Progress report, covering both MOI and AFRC sites	5 February 2023	5%	Approved report
13	Submission of 6 th Quarterly Progress report, covering both MOI and AFRC sites	5 May 2023	5%	Approved report
14	Submission of 7 th Quarterly Progress report, covering both MOI and AFRC sites	5 August 2023	5%	Approved report

	Activity/Deliverable	Tentative date	% Fee	Means of Verification
15	Commissioning and Final verification and Handing Over of sites to MOI and AFRC and handing over of complete sets of as-made drawings and operation and maintenance manuals and Service Level Agreement	5 September 2023	20%	Approved Completion Report
16	Report on completion of assignment, providing a recap of contract details, etc of all the steps followed, issues which arose, stakeholders concerned as well as lessons learnt and any important notes for the UNDP and the Government of Mauritius	10 October 2023	5%	Approved completion of assignment report

Notes to the above:

- Payments are directly linked to deliverables.
- Price proposed must be in an all-inclusive fee, supported by a breakdown of costs.
- Contract price is fixed for the duration of the project.
- All deliverables must be submitted in an editable draft version in Word, Excel or other as well as a PDF version (for comments) and then final version, following incorporation of all comments and suggestions by the UNDP and its stakeholders.
- Contract signature does not warrant any advance payment.

All deliverables shall be submitted in **English** and in appropriate format to the following address:

Mrs Rachna Ramsurn

Regional Project Manager

Coral Reef Restoration project

Mauritius Oceanography Institute,

Albion

Email : rachna.ramsurn@undp.org

Tel : +230 206 05 60

and copied to Ms Ayesha Ameeruddy at ayesha.ameeruddy@undp.org .

The Regional Project Manager will be responsible for further distribution. The deliverables should be of high quality in form and substance and with appropriate professional presentation. The consultant should fully comply with the requirements of UNDP in terms of content and presentation.

D. Institutional Arrangement

This is a Directly Implemented Project by the UNDP with Responsible Parties in Mauritius and Seychelles. In Mauritius, the Ministry of Blue Economy, Marine Resources Fisheries and Shipping is the Responsible Party and the key institutions are the Mauritius Oceanography Institute and the Albion Fisheries Research Centre. The consultant will provide high quality services to the project management team and report to the UNDP Regional Project Manager.

For the purpose of this assignment, a technical committee comprising of UNDP staff, the project team, UNDP Regional adviser, and representatives from the MOI and the AFRC will be set up to provide feedback on all deliverables. The Regional Project Manager shall be the focal point for the technical committee.

E. Duration of the work

The duration of the consultancy services for the 'Setting up of Land-based nurseries at MOI and AFRC and installation of seawater pumping system at MOI' shall be for **7.5 person months (150 person-days) over a period of 24 months**. This is a lump sum-based contract, based on set deliverables.

F. Duty Station

The consultant is expected to work from home/parent company premises, in Mauritius and shall remain available and shall attend meetings as required at the Mauritius Oceanography Institute and AFRC, and at the UNDP. The consultant shall remain available for consultations, progress meetings, site visits, data gathering and any other discussions as required. In such cases, the consultant shall attend in person whenever required. Furthermore, the consultant shall liaise with the PMT and stakeholders to ensure that a consultative approach is adopted. The consultant should be reachable by phone/ email/ video conference throughout the entire contract duration.

G. Competencies and Qualifications

The Consultant must have the following professional and technical qualifications. Only the applicants who hold these qualifications will be shortlisted and contacted.

Education:

- Master's degree or equivalent in civil engineering or marine engineering or construction works (mechanical and civil construction) or another relevant subject.
- Or
- A Bachelor's Degree in civil engineering or marine engineering or construction works (mechanical and civil construction) or another relevant subject and a Master's Degree in Project Management or equivalent.

Experience:

- Be a Registered Professional Engineer with the Council of Registered Professional Engineers of Mauritius
- At least 10 years of professional experience post registration in the field of consulting engineering services including civil works, including coastal environment, contract management and project site management.
- Work experience with the international organizations / Government institutions, international companies and/or CSOs would be an asset.
- Proven experience in providing consulting engineering services to construction projects /sites of similar nature with a value of \$100,000 or above each) for the last 5 years.
- Proven experience in providing consulting engineering services on coastal works project of value \$100,000 or above each.

- Experience in assisting Mauritian institutions in assignments of similar nature
- Experience in preparation of Terms of Reference for EIA, Feasibility Studies, Design and Supervision contracts, as well as Tender Documents for construction works
- Experience in Bid Evaluation Exercises on behalf of Mauritian Institutions
- Experience in the usage of computers and office software packages (MS Word, Excel, MS Office, etc.).

Additional requirements

- The applicant shall provide as part of the submission package, evidence that the parent company holds a Professional Indemnity Insurance cover for consulting engineering services in the applicable fields worth USD 1,000,000 at minimum.
- The applicant shall provide the profile of the parent company showing evidence of backstopping support and/or previous experience in the various relevant fields (Mechanical, Electrical, Coastal works etc.) and shall also confirm that in carrying out the assignment, he/she shall benefit from such backstopping support.

Important note:

The requirements for the applicant to be a Registered Professional Engineer and the parent company to hold a Professional Indemnity Insurance Cover are mandatory.

Skills:

- Familiarity with the national construction legislation and construction norms and rules.
- Ability to manage a high workload and deliver to tight deadlines.
- High sense of responsibility.

Language skills:

- Fluent in English
- Knowledge of French and Mauritian Creole is an asset

Corporate Competencies:

- Demonstrates commitment to the UNDP's mission, vision and values.
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.
- Ability to work effectively with counterpart staff at all levels and with all groups involved in the project; and
- Highest standards of integrity, discretion and loyalty.

Functional Competencies:

- Shares knowledge and experience.
- Actively works towards continuing personal learning, acts on learning plan and applies newly acquired skills.

Development and Operational Effectiveness:

- Ability to report analytical outputs in a clear, concise manner to a non-technical audience.
- Ability to maintain appropriate records / uphold quality assurance integrity.
- Strong drafting, presentation and reporting skills, excellent written communication skills.

Leadership and Self-Management:

- Focuses on result for the client and responses positively to feedback.
- A good personality with strong leadership skills.
- Ability to manage conflict and creating synergies through self-control.
- Acts as a team player and facilitates teamwork

H. Scope of bid price and schedule of payments

Payment Conditions

This is a lump sum contract that should include costs of consultancy and other costs required to produce the above deliverables. In full consideration for the complete and satisfactory performance of the Services under this Contract, UNDP shall pay the Contractor based on the Certificate of Payment (CoP) and supporting documents/respective against the deliverables stipulated in Section C.

I. Recommended Presentation of Offer

The following documents are requested and should be submitted to procurement.mu@undp.org :

- Duly completed Letter of Confirmation of Interest and Availability using the template provided by UNDP;
- Personal CV or P11, indicating all experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references;
- Technical Proposal: Brief description of why the individual considers him/herself as the most suitable for the assignment (including his/her experience, samples of previous work and Tracking Tools), and a methodology on how they will approach and complete the assignment. **The technical proposal should be submitted along with the P11 in a single pdf file;** The Applicant shall ensure that the single file includes all required information including PI cover of the company and
- Financial Proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided by the UNDP. **The financial proposal should be submitted as a separate file (marked “Financial Proposal_NC/CME”) to procurement.mu@undp.org and should be locked with a password that would be provided upon request.**

J. Criteria for selection of best offer

The award of the contract should be made to the offeror which has been evaluated using the ‘Combined Scoring Method’ and determined as:

- Responsive/compliant/acceptable, and
- Having received the highest score out of a pre-determined set of weighted technical and financial criteria specified below – (Technical Criteria with a weight of 0.7 and Financial Criteria of a weight of 0.3).

Only candidates scoring a minimum of 70 marks out of 100 in the Technical Evaluation would be considered for the Financial Evaluation. The technical criteria are shown in Table 2.

Table 2: Technical Evaluation Criteria

Criteria	Max. Point
Master’s degree or equivalent in civil engineering or marine engineering or construction works (mechanical and civil construction) or another relevant subject	10
At least 10 years of professional experience post registration, in the field of consulting engineering services including civil works, including coastal environment, contract management and project site management	10
Experience in providing engineering services to construction projects /sites with a value of \$100,000 or above each) for the last 5 years	8
Experience in providing consulting engineering services for projects involving coastal works of value of \$500,000 or above each	7
Experience in engineering design, supervision, commissioning, and official handover of construction projects/sites.	10
Company profile with experience in various works of similar nature and backstopping support	5
Experience in preparation of Terms of Reference for EIA, Feasibility Studies, Design and Supervision contracts, as well as Tender Documents for construction works	5
Experience in Bid Evaluation Exercises and preparation of such reports on behalf of Mauritian Institutions	5
Experience with Donor-funded (EU, UNDP, AFDB etc) and multi-stakeholder projects	5
Use of MS Word, Excel, and other relevant software for construction projects and engineering fields	5
Proposed Methodology, Approach and Implementation Plan, including backstopping services and their CVs	30
TOTAL max.	100

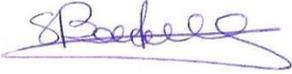
Applicants are required to provide names and contact details of Referees in order that the UNDP may conduct reference checks independently. At least 3 referees shall be provided, who shall be past Clients, at Director level, of the applicant.

Important Note:

Interested offerors above the age of 62: the UNDP Regulations require them, at their own cost, to undergo a full medical examination including X-ray report. Medical evaluation documentation does not need to be submitted with the other requested documents listed above but will be requested should the candidate be chosen.

Approved by:

Name:	Shakil Beedassy
Position:	Environment Team Leader a.i., UNDP

Signature:	
Date:	1 September 2021