ANNEX 4

TERMS OF REFERENCE

REVIEW OF BILL OF QUANTITIES (QUANTITY SURVEY CONSULTANT)
FOR CONSTRUCTION OF TWO LANDFILLS AND SUPPORTING FACILITIES IN CENTRAL SULAWESI

The Consultant shall be required to provide review of BoQ for the construction of:

- Kawatuna Landfill, Kota Palu
- Kabonga Landfill, Kabupaten Donggala

1. BACKGROUND

In 2018 Indonesia was struck by two particularly severe natural disasters: a 7.0 magnitude earthquake in West Nusa Tenggara (NTB) on 5 August and, less than 8 weeks later - on 28th September - a 7.4 magnitude earthquake, followed by a tsunami and a rare phenomenon known as ‘soil liquefaction’, in Central Sulawesi.

In Central Sulawesi, over 2,096 people are known to have died as a result of the disaster, with more than 4,438 people seriously injured and 1,373 people missing. 68,451 houses are estimated to have been directly damaged and over 173,522 people are displaced. Affected public service infrastructure includes 176 health facilities (among which two hospitals, in Palu and Parigi Moutong, have been severely impacted) and 1509 education buildings (ranging from elementary schools to universities). Local economic infrastructure has not been immune to damage: 13 marketplaces and 9718 ha of agricultural land have been adversely impacted– with extensive losses being reported in other sectors, such as fisheries and public administration.

**The programmatic response.** Beyond the immediate humanitarian and relief assistance, UNDP has initiated engagements with national and local governments and international partners in support of Central Sulawesi and NTB’s recovery efforts. The Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (‘PETRA’ in short) has been designed to contribute to such transition: from the immediate response to longer-term recovery.

**The ultimate goal of PETRA is to contribute to the rehabilitation and reconstruction of key infrastructure to support the resilient recovery of disaster-affected communities in both provinces.**

It addresses the need to accelerate the restoration of critical public services (such as health and education), improve economic livelihood opportunities for affected communities, while, at the same time, enhancing resilience to future shocks in both provinces. It will be guided and informed by the post-disaster needs assessments and will be fully aligned with relevant national and sub-national recovery plans.

PETRA will deliver two outputs, namely:

(a) rehabilitation and reconstruction of partially and fully damaged infrastructure for critical public services; and
2. INTRODUCTION

These Terms of Reference (TOR) describe the requirement for a Quantity Survey Consultant to provide accurate and timely pre-contract and post-contract cost management services on the Construction of Two Landfills and Supporting Facilities in Central Sulawesi.

Kindly note that the successful Consultant (that is selected following evaluation of the detailed Request for Proposals) will be excluded from subsequent work associated with the Construction of two Landfills and Supporting Facilities project in Central Sulawesi, including civil works as well as other consultancies.

3. PROJECT DESCRIPTION

Municipal Solid Waste Management (MSW) services in Palu were initially disrupted by the earthquake and tsunami. Collection of waste was suspended, and heavy equipment diverted to support emergency response activities. By December 2018, normal collection services had resumed with additional support from NGOs providing heavy equipment and waste collection, in particular for internally displaced persons (IDP) camps.

MSW is sent to three separate landfills in Palu, Sigi and Donggala; All of which are operated as little more than open dumps, were damaged by the earthquake, and require significant investment to be upgraded to meet Indonesian (UU18-2008) and international sanitary landfill standards.
A. Palu – Kawatuna

Kawatuna, the Palu Municipality Landfill (TPA), is located in the Kawatuna Sub-district, Mantikulore District (0° 54'27.38" S and 119° 56'13.80" E). The landfill site has a current total land area of 25 ha. However, land ownership status, which is under the Regional Government of Palu City, has only been certified for 5 hectares of the current site.

The site consists of three zones; an existing operational zone 1.2ha, Zone 2 = 1.2ha, and one closed Zone 1.5ha near the entrance. The cells have compacted earth bunds and partial HDPE liners. The site has a leachate treatment plant (LTP) consisting of a series of passive concrete lined ponds. The leachate treatment system shows signs of damage from the earthquake including cracking and collapse of baffles. There does not appear to be a working leachate collection and transfer system between the cells and the LTP, there are indications that the main leachate transfer pipe between the landfill cells and the LTP has been ruptured by the earthquake. Dinas staff report that the site has been subject to a full detailed engineering design (DED) in the past, but no compliant environmental impact assessment (AMDAL) has been done. The site is currently managed as little more than an open dump. There is little space available, operational heavy equipment and no daily/intermediate cover. There are waste pickers operating at the landfill collecting plastic, metal, paper and cardboard, although reportedly for very low prices.

The landfill site will require extensive rehabilitation and extension. UNDP hired a Design Consultant and the works that have been completed by the Design Consultant include:

- Reviewed existing documents, including upgraded full environmental and social impact assessments to meet both national (AMDAL) and international (ESIA) standards;
- Pre-feasibility and feasibility studies prepared in compliance with national regulations and international (UNDP) standards;
- Detailed Engineering Design (DED) completed and prepared for the proposed infrastructure works including, but not limited to:

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Reconstruction of Leachate Treatment Plant</td>
<td>- LTP = 2,000 m$^2$</td>
</tr>
<tr>
<td>- Rehabilitation of Cell 2 Leachate Collection System</td>
<td>- LCS Cell 2 = 4,500 m$^2$</td>
</tr>
<tr>
<td>- Reshaping, capping &amp; closure of cell 2</td>
<td>- Area of Cell 2 = 12,000 m$^2$</td>
</tr>
<tr>
<td>- Design of Cell 3 + Leachate Collection System</td>
<td>- Cell 3 = 13,000 m$^2$</td>
</tr>
<tr>
<td>- Landfill Gas Collection system</td>
<td>- LGC = 12 units</td>
</tr>
<tr>
<td>- Site Drainage</td>
<td>- Drainage = 700 m</td>
</tr>
<tr>
<td>- Internal Access Roads</td>
<td>- Roads = 1,100 m</td>
</tr>
<tr>
<td>- Perimeter Fence and Buffer Zone</td>
<td>- Fence = 1,250 m</td>
</tr>
<tr>
<td>- Operational Office</td>
<td>- PO Office = 128 m$^2$</td>
</tr>
<tr>
<td>- Mechanical Workshop</td>
<td>- MW = 96 m$^2$</td>
</tr>
<tr>
<td>- Security Post</td>
<td>- SP = 24 m$^2$</td>
</tr>
<tr>
<td>- Material Recovery Facility</td>
<td>- MRF = 200 m$^2$</td>
</tr>
<tr>
<td></td>
<td>- WS = 50m$^2$</td>
</tr>
</tbody>
</table>
- Weigh Station

- Tender documents that met the UNDP Invitation to Bid (ITB) standards will be prepared by UNDP.

B. Donggala – Kabonga

The landfill for Donggala Regency is located in Kabonga Sub-District, Banawa District, with a current total land area of 5 ha. The landfill is operated as an open dump at present, although the local authorities aim to upgrade it to meet controlled landfilling standards. The available budget for operation, maintenance and extension is limited.

Land ownership status is under the Local Government of Donggala Regency. Land certificates are available for 2.33 ha at present with a further 2.67 ha still in process.

The Kabonga landfill also has the previous detailed engineering design (DED) but no reported environmental impact assessment (either AMDAL or ESIA) has been developed.

The current reported level of solid waste collection service is 46% from 13 villages across Banawa Subdistrict; however, no figure for the quantity is available. There is still space available for future waste disposal in the current site, however, the landfill and associated infrastructure will require extensive rehabilitation and extension to meet national / international sanitary landfilling standards and future projected waste disposal requirements. The works that have been completed by the Design Consultant include:

- Reviewed existing documents, including upgraded full environmental and social impact assessments to meet both national (AMDAL) and international (ESIA) standards;
- Pre-feasibility and feasibility studies prepared in compliance with national regulations and international (UNDP) standards;
- Detailed Engineering Design (DED) completed and prepared for the proposed infrastructure works including, but not limited to:

<table>
<thead>
<tr>
<th>Description</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Rehabilitation of Leachate Collection System</td>
<td>- LCS = 3,500 m²</td>
</tr>
<tr>
<td>- Reshaping, capping &amp; closure of existing cell</td>
<td>- Area of Cell 2 = 3,600 m²</td>
</tr>
<tr>
<td>- Design of Cell 2 + Leachate Collection System</td>
<td>- Cell 2 = 10,000 m²</td>
</tr>
<tr>
<td>- Landfill Gas Collection system</td>
<td>- LGC = 8 units</td>
</tr>
<tr>
<td>- Site Drainage</td>
<td>- Drainage = 350 m</td>
</tr>
<tr>
<td>- Internal Access Roads</td>
<td>- Roads = 400 m</td>
</tr>
<tr>
<td>- Perimeter Fence and Buffer Zone</td>
<td>- Fence = 700 m</td>
</tr>
<tr>
<td>- Material Recovery Facility</td>
<td>- MRF = 200 m²</td>
</tr>
</tbody>
</table>
• Technical Specification for Construction of Kabonga Landfills.
• Tender documents that met the UNDP Invitation to Bid (ITB) standards will be prepared by UNDP.

4. OBJECTIVES

The primary objective of the assignment is to hire Quantity Surveyor Consultant to provide accurate and timely cost review and advice to the Bill of Quantity of Kawatuna and Kabonga landfills, in both pre contract and during contract implementation, to the PETRA Project Manager in order to ensure that the Project can be delivered within the available budget.

Pricing by the Quantity Survey consultant shall reflect probable construction costs obtainable in Central Sulawesi as of the date of the report (plus probable escalation to the commencement of construction) and is a determination of fair market value for the construction of this project and should not be taken as a prediction of low bid.

Pricing shall assume competitive bidding for every portion of the construction work including all subcontractors as well as the general contractor. A working knowledge of the Indonesian national construction market is essential, including access to relevant data on costs and suppliers.

It is important that the Quantity Survey consultant is, at all times, able to work with the project team and other contractors on a collegial basis, and shall undertake all efforts to be seen as a partner and integral member of the project team, and a facilitator rather than a constraint in the timely completion of the project.

The preceding description and following outline of the scope of work constitutes a guideline only. It is up to the consultant to critically review this scope and the specific requirements of each city/regency and then organize their strategy and approach to the necessary investigations, analyses, designs, etc. to deliver the required results. Therefore, the duties of the consultant during the assignment shall comprise, but not be limited to the following services and activities.

5. SCOPE OF SERVICES

5.1 The Quantity Survey consultant will be engaged to provide independent pre-contract up to post-contract cost management services to the UNDP Project Manager in accordance with these TOR.

The Quantity Survey consultant will report to the UNDP Project Manager and will be responsible for attending regular meetings with UNDP as well as the Design Team chaired by the UNDP Project Manager or Resident Engineer. The Quantity Survey consultant will be required to work collaboratively with the UNDP Project Manager and Technical Team to ensure that the project is maintained within budget at each
design review stage as approved by the Project Board. By working collaboratively with the Technical Team, it is understood that the Quantity Survey consultant will be proactive and not reactive in his/her cost advice; that is, the Quantity Survey consultant will work with the Technical Team throughout the design’s development, responding to queries on and providing advice on systems and materials to be used, appropriate to the Indonesian regional and global markets, and providing all necessary assistance to the Technical Team to enable the Technical Team to develop the contract documentation for the design and achieve tender prices for civil works that are within the available budget.

The scope of services of the Quantity Survey Consultant is to provide Cost Consultancy and Contract Administration service required by UNDP, in successfully completing the above mentioned two landfill packages under the following tasks to be carried out.

- Task A: Review of Site investigation Reports and Detail Engineering Design
- Task B: Review and Management of Bill of Quantities for the tender purpose
- Task C: Preparation of cost-related information and documentation for the bidding documents
- Task D: Assistance and guidance to UNDP in the financial evaluation of the works contracts

5.2 The Quantity Survey Consultant assist UNDP in completing above tasks under the following aspects but not limited to:

- Provide review and analysis of bills of quantities (BoQ) covering all the activities for the proposed measures and the activities for facilities in the two landfills.

- Cost estimates adopting the standard construction rates used by the Design Consultant for the project areas as pre-agreed with UNDP project.

- Provide support to UNDP in cost management of contract administration in civil works contracts.

- Provide miscellaneous information to UNDP in preparing the bidding documents with special attention to the BoQ, bidding data, contract data, particular conditions and Conditions of Contracts including post- qualification and bid evaluation criteria and the schedules.

- Provide guidance and assistance in cost management to UNDP during the bidding process and evaluation of bids of the Civil works packages.

- Attend to site visits and pre bid meetings, in order to provide necessary inputs for preparation of minutes of pre bid meetings and addendums and provision of revised drawings and BoQs as appropriately.

- On request from UNDP, provide assistance for the evaluation of bids, paying attention to the skills and experience of the bidders; adequacy of the machinery
and equipment of the bidders to execute the works; construction rates of the bid; and construction work program submitted by the bidders.

- On request of UNDP, provide inputs for the preparation of bid evaluation report.
- Attend project coordination meetings and other similar progress reviews during the contract period and make presentations on up to date progress of works.

5.3 The Quantity Survey Consultant shall maintain the confidentiality all information related to the cost estimate of BOQ and shall treat as confidential all information provided by UNDP. The Quantity Survey Consultant shall not be disclosed the result of estimate cost of BOQ to any parties including to the design consultant and any stakeholders without the prior consent of UNDP PETRA project manager and residential engineer.

6. MAIN ACTIVITIES

6.1 Review of Detail Engineering Design

The Quantity Survey consultant shall undertake:

1.) Thorough review of the Detail Engineering Design (DED) and review of available Site Investigation reports as required to fully understand the scope of work.
2.) Review life cycle costing of major building/construction systems developed by the Design consultant.
3.) Thorough review of the project budget and provide a short-written report in English on any key issues / considerations for the design, including advice on:
   - Escalation for inflation or other factors such as currency fluctuation,
   - Availability of skills, trades and products in the Indonesian market, and
   - Suitable systems, methods and materials to maximize value for money.
4.) Develop a cost plan based on quantities at the completion of the DED, for review by UNDP Technical team and approval by Project Manager, including any recommendations on cost-saving measures if required to ensure the design can be delivered within the available budget.

6.2 Review and Analysis of Bill of Quantities for both Landfills

The Quantity Survey consultant shall:

1.) Prepare a draft detailed priced pre-tender Bill of Quantities (BoQ) based on the completed drawings and specifications as the basis for an Invitation to Bids (ITB) from Civil Works Contractors for review by UNDP.
2.) Update the final BoQ for tender based on the final drawings, specifications and comments received from UNDP Technical team for approval by Project Manager.

3.) Prepare other schedules as required for inclusion in the ITB as required to ensure adequate monitoring and control of costs during the Civil Works.

4.) Provide advice as appropriate to UNDP Technical team and Project Manager on contract conditions required to ensure cost control during the Civil Works.

6.3 Tender Process Support in Cost Management

The Quantity Survey consultant shall:

1.) The Consultant will provide cost management advisory support to UNDP in conducting the procurement process and evaluation of bids, including but not necessarily limited to: attending pre-bid conferences; preparing responses to pre-bid conference questions and requests for clarifications; attending interviews with tenderers, etc. in order to understand the whole context of tender process for the better analysis of bid price.

2.) Participate in the Evaluation Panel tasked with bidder’s costs review and contractor recommendation, in accordance with UNDP regulations, policies, rules and procedures.

3.) Prepare the value-for-money assessment report aimed at summarizing the comparative findings on the financial bids received with respect to the project budget/BOQ and taking into consideration any contractor exclusions or caveats and assessing the comparative cost benefit of any alternatives offered by bidders.

4.) Assist UNDP in review of performance bonds, advance payment bonds and insurance guarantees submitted by the Contractors and advise the Evaluation Panel on their compliance or otherwise with the Contract.

6.4 Budget Analysis Support During Civil Works

The Quantity Survey consultant shall:

1.) Assist UNDP in undertaking evaluation of construction progress and certification of contractor monthly progress claims in accordance with the signed contracts.

2.) Provide cost reports to UNDP every month (or at such other intervals as may be requested by the Project Manager) in such form and with such details as the Project Manager shall require including without limitation the estimated final account, a comparison with approved contract expenditure, the cost effect of Variation Orders and Variation Order Requests under consideration, the cost effect of claims (actual and potential) for additional payments, adjustment of Provisional Sums, the status of the re-measurement of the Works as executed (where applicable) and cash flow forecasts.
3.) Assist UNDP to draft Variation Orders or requests for changes.

4.) Undertake evaluation of variations claims, propose other feasible options where possible, and submit recommendations as appropriate to the UNDP for agreement with the Contractor, and approval in accordance with UNDP rules, regulations and procedures.

5.) Maintain register of Variation Orders, both issued and under consideration, including details of approval status and estimated or agreed cost.

6.) Recommend cost management measures and strategies to UNDP, as and when necessary, in various areas of contract implementation stages and for a broad range of cost components (labor, non-labor, material, equipment, waste minimization, etc.).

All cost-related instructions to the Contractor shall be issued only upon the written authorization by the UNDP Project Manager or Resident Engineer.

7. KEY INCLUSIONS

7.1 Meetings

The Quantity Survey consultant shall liaise, report and consult with UNDP on a regular basis throughout the consultancy and shall attend:

- Regular meetings (weekly or fortnightly) with UNDP PETRA Technical team during the contract period.

- Scheduled meetings with UNDP PETRA, Procurement and Design Consultant when required particularly during the tender process and bid evaluation period.

- In addition, on an occasional basis, the Quantity Survey consultant may be required by UNDP to attend and/or present at UN Country Team and/or Operations Management Team meetings and meetings of the User Project Assurance Group.

All project meetings shall be held either virtually or directly in Jakarta or Palu.

7.2 Value Engineering

The Quantity Survey consultant shall be responsible for holding value engineering analysis as required with the Technical Team at the end of design stage to ensure that the design remains within budget. The Design Consultant shall in turn be responsible for undertaking any value engineering and re-design as required at each design review stage to bring the project within budget.

7.3 Project Budget

In accordance with UNDP rules and regulations, the Project Budget cannot be disclosed at this time. A detailed breakdown of the budget will be provided to the
Quantity Survey consultant upon award of contract. Kindly note that the project budget does not include for new Furniture, Fittings and Equipment which shall be funded from operating budgets / alternative funding sources.

7.4 Language of Outputs

All outputs by the Cost Consultant (Quantity Surveyor) shall be in English. If necessary, the Quantity Survey consultant shall provide an Indonesian translation of the BoQ as may be required for the authority approvals and Invitation to Bid.

8. GENERAL RESPONSIBILITIES/REQUIREMENTS

The Quantity Survey consultant’s cost shall be deemed included and/or surcharged in/to the consultant’s fee rates for the entire work period.

A. Facilities Provided By UNDP

No site facilities shall be provided by UNDP. The consultant shall be self-sufficient in all material aspects and support services which shall be fully covered and priced in its Financial Proposal, notwithstanding force majeure and additional services which may be requested by UNDP, warranting payment to the Consultant.

B. Facilities to be Provided by the Consultant

All required facilities for proper development of all phases of the assignment shall be its own responsibility. Unless otherwise explicitly called upon, any facilities shall be deemed included and/or surcharged in/to the consultant’s fee rates.

9. REFERENCE AND COMPLIANCE STANDARDS

The Quantity Survey consultant must be thoroughly conversant and fully compliant with the following primary Government of Indonesia standards and UNDP guidance:

- SNI Indonesia (national standards catalog)
- Specifically, materials manufacturing and installation benchmark standards impacting electrical, plumbing and structural health, safety and longevity
- Law No 28/2002 Concerning Buildings
- Daftar Standar Dan Pedoman – Bahan Konstruksi Bangunan dan Rekayasa Sipil: BADAN PENILAIAN DAN PENGEMBANGAN DPU (222pp)
- Peraturan Menteri Pekerjaan Umum Nomor: 45/ PRT/ M/2007 tentang Pedoman Teknis Pembangunan Bangunan Gedung Negara
1.) LAW AND MINISTRIES REGULATIONS

- Undang-undang no 18 tahun 2008 tentang Pengelolaan Sampah
- Peraturan Pemerintah nomor 81 tahun 2012 tentang Pengelolaan Sampah Rumah Tangga dan Sampah Sejenis Sampah Rumah Tangga
- Peraturan Menteri Dalam Negeri Nomor: 33 tahun 2010 tentang Pedoman Pengelolaan Sampah
- Peraturan Menteri Pekerjaan Umum Nomor: 03 tahun 2013 tentang Penyelenggaraan Prasarana dan Sarana Persampahan dalam Penanganan Sampah Rumah Tangga Dan Sampah Sejenis Sampah Rumah Tangga

2.) UNDP

- Sulawesi Lombok Programme For Earth Quake and Tsunami Infrastructure Reconstruction Assistance (PETRA) – UNDP Proposal, 10 December 2018
- Environmental and Social Management Framework (ESMF) PETRA UNDP Jakarta April 2019

10. DURATION OF THE SERVICES

A. Completion Date

The duration of services is 5.5 months. Thus all deliverables shall be completed within the duration of services.

B. Approval Lead Time by UNDP

Given that UNDP and its development shall be kept regularly and fully informed of the restoration program’s progress and satisfactory completion, final payment for Consultants services shall be effected within thirty days of payment approval.

C. Impacts of Delays by Donors and the Government

Reduction in PETRA funding or deferment of program implementation will have very damaging impacts on the recovery process for thousands of affected citizens thus must be avoided.

11. CONSULTANT’S PREFERRED PROFILE

A. Type of Firm and Specialization Areas

The preferred firm shall be primarily an engineering firm with experience in designing waste management facilities that is well experienced in the design of waste management facilities and restoration in post natural disaster recovery contexts.
This experience shall have designed a broad range of landfill designs. These firms will have been successfully addressed through close working relationships with local government, with strong emphasis on community participation in producing an empathetic, culturally & climatically appropriate built environment.

B. Corporate Qualifications

The preferred firm shall demonstrate commercial qualifications for the Indonesia context by submission of the following documents:

- **Company Profile** – describing the nature of business, field of expertise, licenses, certifications, accreditations.
- **Business Licenses** – Registration Papers, Tax Payment Certification, etc.
- **Latest Audited Financial Statement** – income statement and balance sheet to indicate its financial stability, liquidity, credit standing, and market reputation, etc.
- **Track Record** – list of clients for similar services as those required by UNDP, indicating description of contract scope, contract duration, contract value, contact references.
- **Certificates and Accreditation** – including Quality Certificates, Environmental Sustainability Certificates, etc.
- **Written Self-Declaration** that the company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.

C. Years of Experience

The firm shall demonstrate at least 5 years project management experience in civil works design and supervision. Any project experience in design of waste management facilities will be an added value.

D. Firms Key Attributes

The preferred firm will demonstrate a thorough familiarity with the relevant overarching National government regulations and standards and the specific standard buildings drawings and technical specifications for the Ministries of Public Works. It also shall evidence of familiarity with disaster resilient planning and building design based on international best practice enabling a Build Back Better initiative and higher standards than those currently prevailing in Indonesia.

UNDP Prioritize gender equality and women’s empowerment approach in project implementation and at workplace. Such initiatives shall also specifically address the particular needs for women & girls and the physically handicapped and for best value in energy efficient climatic comfort. All outputs/ deliverables must comply with criteria of gender sensitive and/ responsive result. In addition, sexual harassment and any discriminatory actions with regards to race, gender, religion, class, etc. held by preferred firm during the assignments will not be tolerated.
E. Team Structure and Organisation

The Consultant must propose personnel of experts necessary to complete the tasks described herein. The consultant must include all management, administration and oversight resources required to complete the assignment to the required standards.

UNDP promotes gender equality and equal opportunities of men and women to participate in all our works. Gender diversity and women’s representation in team composition of preferred firm is an added value in selection process.

F. Key Personnel

The Consultant will be responsible for proposing the team they see as necessary to complete the assignment however, the team will contain at a minimum, a Senior Quantity Surveyor and specialists from the disciplines in the Table 1:

Table 1: Minimum Key Personnel and Positions

<table>
<thead>
<tr>
<th>Position Name</th>
<th>Relevant Experience years</th>
<th>Minimum Education</th>
<th>Special Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Quantity Surveyor / Senior Procurement Engineer/ Contract Specialist</td>
<td>10</td>
<td>Bachelor’s degree in Civil Engineering, Environmental Engineering or relevant field</td>
<td>Experience in designing, preferably experience in cost management of landfills. International/ regional experience –Experience in Indonesia is an advantage</td>
</tr>
<tr>
<td>Quantity Surveyor</td>
<td>5</td>
<td>Bachelor’s degree in Civil Engineering, Environmental Engineering or relevant field</td>
<td>Experience in designing, preferably experience in Operation and Management (O/M) of landfills and in cost management. International/ regional experience –Experience in Indonesia is an advantage</td>
</tr>
</tbody>
</table>
12. **SCOPE OF PROPOSAL PRICE AND SCHEDULE OF PAYMENTS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Deliverables</th>
<th>Duration</th>
<th>Amount (IDR/USD)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Design Services</td>
<td>Review of Detail Design, Bill of Quantities and ready for tendering.</td>
<td>1.5 months</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>2.0</td>
<td>Pre-Construction and Bidding Support Services</td>
<td>Provision of technical advice on financial evaluation during the bidding process</td>
<td>2 months</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>3.0</td>
<td>Construction Supervision</td>
<td>Assistance in cost management for the first 2 months of Construction Supervision</td>
<td>2 months</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

- The Consultant is to also propose their own financial proposal. Detailed explanation for any proposed variation is required.
- The Consultant shall provide a fixed lump sum for the whole of the project, including a fixed daily/monthly rate which will be used in any amendment in the event of any unavoidable time overruns.
- Lump Sum pricing shall apply, whereby the Consultant shall be responsible for covering all costs, inclusive of fees, per diems/living allowances, domestic air travel, vehicle operating costs, office operational costs and national taxes. However, the consultant shall provide the breakdown of costs of the various cost items, in man-days/man-months, quantities required, etc.