

Terms of reference



Empowered lives.
Resilient nations.

GENERAL INFORMATION

Title: Design and Supervision Engineer for Two Market Construction

Project Name: Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA) Project

Reports to: Community Mobilization Officer PETRA

Duty Station: Palu

Expected Places of Travel (if applicable): Sigi and Donggala

Duration of Assignment: 200 days within 10 January 2021 – 30 October 2021

REQUIRED DOCUMENT FROM HIRING UNIT

	TERMS OF REFERENCE
4	CONFIRMATION OF CATEGORY OF LOCAL CONSULTANT, please select:
	(1) Junior Consultant
	(2) Support Consultant
	(3) Support Specialist
	(4) Senior Specialist
	(5) Expert/ Advisor
	CATEGORY OF INTERNATIONAL CONSULTANT, please select:
	(6) Junior Specialist
(7) Specialist	
(8) Senior Specialist	
	APPROVED e-requisition

REQUIRED DOCUMENTATION FROM CONSULTANT

x	CV or P11
x	Copy of education certificate
x	Completed financial proposal
x	Completed technical proposal

Need for presence of IC consultant in office:

- ☐ partial (explain)
- ☐ Intermittent (explain)
- ☒ full time/office based (needs justification from the Requesting Unit)

The consultant will be work based on the provided scope of works in the ToR within period of contract. The consultant shall work in line with Program Earthquake Tsunami Recovery Assistance for Palu and Lombok (PETRA) Project time line activities and often following dynamic the characteristic of Project and Programme thus the consultant need to harmonize his/her service with the emerging and relevant priorities to gain the outputs. The Engineer will work on daily basis to supervise process of design and supervision the two markets. Moreover, during the supervision period, the consultant will be full time in supervising construction in both markets with assistance by the Asst. Engineer.

Provision of Support Services:

- Office space: ☒ Yes ☐ No
- Equipment (laptop etc.): ☐ Yes ☒ No
- Secretarial Services: ☐ Yes ☒ No

If yes has been checked, indicate here who will be responsible for providing the support services:

Indriyani/Yurianto Arifin

I. BACKGROUND

The two major disasters in 2018, earthquake, tsunami and liquefaction ravaged Central Sulawesi and West Nusa Tenggara (NTB). Particularly, the liquefaction affected Palu and caused approximately 10.000 people lost their homes. Hundreds of thousands of people lost their jobs and livelihood options. Disasters triggered by the earthquakes, tsunami and liquefaction caused substantive damage to community infrastructures, including buildings, roads, bridges, market facilities, irrigation canals, and drinking water schemes. The damaged infrastructures became almost non-operational, prompting the risk of migration for affected communities.

To accelerate rehabilitation and reconstruction process in both areas, UNDP is implementing the Sulawesi / Lombok Programme for Earthquake and Tsunami Infrastructure Reconstruction Assistance (PETRA). The 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. Beyond the immediate humanitarian and relief assistance, the KfW and UNDP has initiated engagements with national and local governments to support of Central Sulawesi and NTB's recovery efforts. Key government partners include BNPB, BAPPENAS, Ministry of Finance, Ministry of Public Works, the Provincial governments of Central Sulawesi and NTB, and the local governments of all ten districts and cities impacted by the disasters. PETRA will deliver two outputs, namely: (1) Rehabilitation and reconstruction of partially and fully damaged infrastructure for critical public services; and (2) Rehabilitation of affected communities' economic infrastructure to promote more resilient and sustainable livelihoods.

Within the scope of Output (2) that aim for community infrastructure rehabilitation and reconstruction to support livelihood recovery, decisions on which activities are to be identified and prioritized by the communities themselves and further consulted with the district/ municipality. Reconstruction of essential community infrastructures will be undertaken to reconstruct 2 (two) public markets in Omu, Sigi District and Sibado, Donggala District. Expected consultant (Design and Supervision Engineer) will manage the design and supervision of these two markets.

II. SCOPE OF WORK, ACTIVITIES AND DELIVERABLES

The Senior Specialist Consultant will be appointed to support PETRA Project providing his/her technical expert to design and supervise the construction of 2 (two) public markets in Omu, Sigi district and Sibado, Donggala district of Central Sulawesi for Output 2, and to lead a small team to carry out his/her performance.

These are expected scope of works/activities that will be carried out by the consultant:

1. Detailed Designs and Portions for Bidding Documents
 - a. Establishing formal contact with local government authority (office of Industry and Trade) and including with village apparatus regarding the reconstruction plan.
 - b. Identifying design details for new structures buildings by replacing or reconstruct damaged structures necessarily.
 - c. Identifying the appropriate Public Works standard building designs to be used and the applicable technical specifications.
 - d. Coordinating the team in updating and where needed, amending site layout plans and producing construction drawings according to prevailing Gol practice and national standards engineering/ architectural drawing practice.
 - e. Using lessons learned from recent disaster damages not just Build Back Better but Build

Back Tougher.

- f. Identifying design detailing for marrying new structures into existing undamaged buildings. The engineer shall oversee and provide expert advice on all such examinations, also providing guidance on resilient design and building strategy. Outcomes shall be detailed in the detailed design report submission
- g. Working with the Assistant Engineer and the drafter to produce draft of drawings, specifications, bills of quantity¹ and confidential Engineers estimate for approval by concerned Government authorities and UNDP.
2. Pre-construction and Bidding Support
 - a. Supporting the final Invitation to Bid (ITB), which for good transparency shall include a Form of Contract pro forma, general conditions of contract and proforma special conditions schedule.
 - b. Directly approaching the contractor market through UNDP channels, industry journals/ websites and public news media directly through open competitive bidding, without prequalification.
 - c. Supporting responses in pre-bid meeting technical and procedural clarifications
 - d. Providing oversight to bid openings, bid evaluations and contract negotiation; supporting preparation of the Bid Evaluation Report and related approval processes
 - e. Participating in the pre-award contract meeting with the preferred bidder
 - f. Assisting authorities in identifying market facility equipment needs
3. Construction Supervision and Advisory
 - a. With other members of the team, responsible for oversight and direct supervision of construction activity, including managing worksite liaison with Contractor's personnel, along with representatives of Industry and Trade departments, Provincial government and community stakeholders
 - b. Instructing the works to the contractor's site management staff and trades/ labor personnel as to PETRA and stakeholder expectations on quality assurance in supply of construction materials and building practices to be applied throughout works execution
 - c. Inspecting and certifying all materials site deliveries to firm compliance with materials specifications and national standards, particularly sand, gravel, cement, & plumbing materials
 - d. Certifying the contractor's work progresses to be approved by UNDP PETRA for the payment purpose
 - e. Directing hold points at critical construction stages to enable close inspection of works in progress

Expected Outputs and Deliverable

Deliverable/Outputs	Target Due Dates	Review and Approvals	Working Days
1 st deliverable: Inception report covering workplan, environmental plan and risk assessment for the construction of 2 (two) public markets in Sigi and Donggala	31 January 2021	Community Mobilization Officer	20 working days (1 st month)
2 nd deliverable: Final construction tender document, which include:	30 March 2021	Community Mobilization	40 working days (2 nd - 3 rd)

¹ The consultants (Design and Supervision Engineer, Assistant, and Drafter) shall prepare all required technical specifications in accordance with UNDP standards for all works components designed. Furthermore, detailed BOQ's shall also be prepared of all items of works and for each component and subcomponent on separate basis. The BOQ's shall be developed to such a level of details as to allow easy estimation of construction costs, which would allow receipt of responsive contractor bids for the works under consideration. Following preparation of the BOQ's, the consultant shall utilize the data and information collected in foregoing tasks to prepare detailed cost estimates of all included works. The specifications and BOQ's shall be formatted as per an agreed format

a. Technical drawings b. Technical Specifications c. Bill of Quantities d. Priced Bill of Quantities for the use of UNDP in verifying the veracity and reasonableness of bids submitted		Officer	month)
3 rd deliverable: Technical advisory and assistance during the bidding process for construction of 2 (two) public markets in Sigi and Donggala	30 May 2021	Community Mobilization Officer	40 working days (4 th - 5 th month)
4 th deliverable: 20% progress report on supervision construction of 2 (two) public markets in Sigi and Donggala	30 June 2021	Community Mobilization Officer	20 working days (6 th month)
5 th deliverable: 50% progress report on supervision construction of 2 (two) public markets in Sigi and Donggala	30 July 2021	Community Mobilization Officer	20 working days (7 th month)
6 th deliverable: 80% progress report on supervision construction of 2 (two) public markets in Sigi and Donggala	30 August 2021	Community Mobilization Officer	20 Working days (8 th month)
7 th deliverable: 100% progress report on supervision construction of 2 (two) public markets in Sigi and Donggala	30 September 2021	Community Mobilization Officer	20 Working days (9 th month)
8 th deliverable: Final report on asset handover	30 October 2021	Community Mobilization Officer	20 Working days (10 th month)

III. WORKING ARRANGEMENTS

Institutional Arrangement

- The consultant will carry out his/her functions under the direct supervision of Community Mobilization Officer. His/her will work closely with Resilience and Reconstruction Unit to ensure effective and efficient design and supervision work.
- Any other tasks that are not included above but during the assignment period later deemed important to ensure the quality of the deliverable could be proposed by the incumbent and shall be agreed jointly.

Duration of the Work

The consultant will perform his/her assignment with the following timeline:

- He/she will have 200 totals of working days from January 2021 – October 2021 (in 10 months), he/she should be completed of assignment.
- The expected effective working date is started on 10 January 2021.
- He/she should submit the deliverable 5 (five) days before the deadline specified in contract to enable the technical officer undertaking proper review within maximum 2 weeks or 14 working days.
- Delay on submitting report will impact on the completion of works and release of payment

Duty Station

The consultant will be based in UNDP Palu Office

Travel Plan

There may be also unforeseen travel that will come up during the execution of the contract which will be agreed on ad-hoc basis.

IV. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS

The consultant will be produced outputs based on below schedule:

I. Academic Qualifications:

Bachelor degree in Civil Engineer, Architecture or other related engineering studies.

II. Years of experience:

- Minimum of 3 (three) years experiences in civil works, including design and supervision of public buildings construction.
- Experience in compiling Detailed Engineer Design (DED) and Bill of Quantity based (BOQ) on drafter inputs.
- Experience in supervising civil works carried out by developer.
- Experience in liaising and coordinating with government counterparts, as well as knowledge and familiarity with governance system, policies and procedures in civil works.

III. Competencies and special skills requirement:

- Ensuring the coordination with government and other stakeholders are done with accurate, objective, clear, constructive
- Interpersonal skill: Facilitating communication between project and other stakeholders during the process
- Performing related work as assigned by Community Mobilization Officer
- Capable of working with less supervision

V. EVALUATION METHOD AND CRITERIA

Individual consultants will be evaluated based on the following methodologies:

Cumulative analysis

The award of the contract will be made to the individual consultant whose offer has been evaluated and determined as:

a) responsive/compliant/acceptable, and

b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

* Technical Criteria weight; [70%]

* Financial Criteria weight; [30%]

Only candidates obtaining a minimum of 49 point would be considered for the Financial Evaluation

Criteria	Weight	Maximum Point	
<u>Technical (70%)</u>			
Criteria A: qualification requirements as per TOR: <ul style="list-style-type: none"> • Bachelor degree in Civil Engineer, Architecture or other related engineering studies • Minimum of 6 (six) years experiences in civil works, including design and supervision of public buildings construction. • Experience in compiling Detailed Engineer Design (DED) and Bill of Quantity based (BOQ) on drafter inputs. • Experience in supervising civil works carried out by developer. • Experience in liaising and coordinating with government counterparts, as well as knowledge and familiarity with governance system, policies and procedures in civil works. 		20 20 10 10 10	
Criteria B: Brief Description of Approach to Assignment <ul style="list-style-type: none"> • Understands the task and applies a methodology appropriate • Important aspects of the task addressed clearly • Planning logical, realistic for efficient project 		30	
<u>Financial Criteria (30%)</u>			