Scope of Work
Service Provider for Civil Engineering
of IPLT Tungkusan Assessment in Deli Serdang

Background

The USAID Indonesia Urban Water, Sanitation and Hygiene, Penyehatan Lingkungan Untuk Semua (IUWASH PLUS) program is a five-year initiative designed to assist the Government of Indonesia (GOI) in increasing access to water supply and sanitation services as well as improving key hygiene behaviors among urban poor and vulnerable populations. USAID IUWASH PLUS works with governmental agencies, the private sector, NGOs, communities and others to achieve the following "high level" results:

- An increase of one million people in urban areas with access to improved water supply service quality, of which at least 500,000 are from the poorest 40% of the population (also referred to as the "Bottom 40%" or "B40"), vulnerable groups or Indonesia's eastern provinces; and
- An increase of 500,000 people in urban areas with access to safely managed sanitation and all of whom are from the "B40", vulnerable groups or Indonesia's eastern provinces.

To ensure that improvements in access to WASH services are sustained, USAID IUWASH PLUS is guided by a development hypothesis that focuses on strengthening service delivery systems, so they can more effectively reach the poorest and most vulnerable segments of the population. In order to achieve this at scale, the program undertakes activities through four interrelated components, including: 1) improving household WASH services; 2) strengthening city WASH institutional performance; 3) strengthening the WASH financing

Activity Summary

IPLT Tungkusan, constructed in 2010, is located in Deli Serdang and not functioning at all. The Government has earmarked budget for the rehabilitation of this IPLT and IUWASH PLUS agreed to support this through the development of a participatory DED Design for this IPLT combined with a new one in Kota Tebing Tinggi (not far from Deli Serdang). This program is funded under the LSIC and the umbrella concept note, which summarizes all component of this program, is included in this SoW as Annex 1.

A quick initial review by the IUWASH PLUS team showed that the system consists of an Imhoff tank for solid liquid separation, from which the settled sludge should flow to sludge drying beds (SDB) and the liquid should flow into a baffled pond. However there is no flow to either the SDB or the baffled Ponds, for unclear reasons; Also the structural integrity of all systems is compromised, but it is not clear for how much. For a consulting firm to provide a participatory rehabilitation design (under A Fixed Price Purchase Order) they must have technical information on the existing infrastructure, how the system currently operates and if there are parts of the current infrastructure which can still be used in future designs, before they can make a technical proposal and cost estimate for the development of the DED.

For this reason, the first step outlined in the umbrella concept is a technical assessment by both an Environmental and a Civil Engineer, who in close collaboration examine the various civil components and hydraulics of the IPLT including conducting limited structural testing. Each Engineer will have their own specific tasks and deliverables for a combined technical report. This SoW outlines the tasks and deliverables for the Civil Engineer.

Objective

Complete a Civil Engineering site assessment of IPLT Tungkusan in Deli Serdang. The assessment will be combined with an Environmental Engineering assessment for a complete assessment report regarding the current condition of IPLT Tungkusan

Tasks

A. General tasks

1. Participate in Kick-off meeting in Medan with the selected Environmental Engineer, IUWASH PLUS and key officials of Deli Serdang (DINAS , UPTD).
2. Visit IPLT Tungkusan and complete a Civil Engineering site assessment.
3. Conducting interviews, observations, measurements, photographic documentation, schematic drawing sketch, etc. to collect all information regarding IPLT Tungkusan
4. Coordinate with Environmental Engineer and survey team to complete site assessment
5. Facilitate meetings with operators and key stakeholders for meetings and interviews.
6. All meeting costs will be cover by IUWASH PLUS (venue and accommodations)

B. Specific Tasks

- Complete a condition assessment of major infrastructure. This will be completed by visual inspection, assessment of concretes structural, and discussions with IPLT operators.
- Conduct and coordinate measurement with a survey team (hired by IUWASH PLUS).
    - Measure the dimensions of all major infrastructure
    - Measure all access/egress routes and parking area
- Conduct and coordinate testing (Hammer test) of concrete structural integrity with civil laboratory.
- Develop a site plan showing all major infrastructure with arrows indicating flow paths, truck emptying access/egress, sludge storage location, and desludging access/egress.

C. Prepare Technical Report

- In collaboration with the Environmental Engineer prepare a joint technical report of approximately 10 pages in length; photographs and site plans are not included in this page count and should be included as appendices,
- The report consists of 4 sections:
    - (1) General section,
    - (2) Condition of major infrastructure by Civil Engineer (specified under Task B above)
    - (3) Hydraulic condition by Environmental Engineer (in SoW for Environmental Engineer)
    - (4) Conclusions and Recommendations for follow-up in DED development
- During the initial first kick-off meeting (task A.1), an agreement will be made between two Engineers on the joined completion on Section (1) as well as content of Section (2) and (3)
- Each Engineer will summarize their own conclusions / Recommendations for section (4)
- Each Engineer will also be responsible for preparing their own presentation materials for joined presentation (following similar division as used for the report)

IUWASH PLUS Outcomes

The above proposed activities will contribute to the at the end of the assignment to stakeholders in Deli Serdang and IUWASH PLUS following IUWASH PLUS outcomes:
HR 2 : People gaining access to safely managed sanitation services.
C2-3 : Local sanitation management units with improved service delivery performance.
C2-4 : Local governments with improved WASH service delivery performance.
C2-6 : Percentage change in budget appropriations for WASH by targeted local governments.

Deliverable & Payment Schedule

There will only be **one payment at the end** of the assignment upon satisfactory completion of the joined technical report and joined presentation to the Deli Serdang and IUWASH PLUS team

No.	Deliverables/Outputs	Due Date	Payment
I	Technical Report consisting of 4 sections, as explained in detail under Tasks B and C above: (1) General section (2) Condition of major infrastructure (by Civil Engineer) (3) Hydraulic condition by Environmental Engineer (4) Conclusions and Recommendations for follow-up in DED development	End of contract	100%

Posting & Reporting Relationship
Service Provider for Civil Engineering of IPLT Tungkusan Assessment in Deli Serdang will work closely with a selected Service Provider for Environmental Engineering of IPLT Tungkusan Assessment in Deli Serdang under the supervision of the North Sumatra Urban Sanitation Specialist, who is supported by the IUWASH PLUS National Sanitation Specialist.

The assignment is expected to be completed within one month. The assignment includes at least 2 short trips to Deli Serdang

Estimated Budget

- Budget for the implementation of the activity will be provided by IUWASH PLUS from the LSIC fund to the selected service provider (Civil Engineer).
- The budget ceiling for this activity is around IDR. 26,000,000,- up to IDR 28,000,000.
- Budget also should include the cost of a Hummer Test to assess structural integrity of the concrete structures, from a recognized laboratory in Medan.
- Budget include all labor cost associated with all tasks and all required deliverables.
- All travel costs between Medan and Deli Serdang for the implementation of the assignment are included in this budget.
- If selected service provider is based outside province of North Sumatra (except Medan, Deli Serdang, Tebing Tinggi & Pematang Siantar), the required airline tickets and accommodation are covered in this budget.
- Budget for meetings / workshops will be provided by USAID IUWASH PLUS.

Required Qualifications
Estimated professional manpower required for this program is one Service Provider for Civil Engineering of IPLT Tungkusan Assessment in Deli Serdang, with the following qualification:

- S-1 bachelors' degree in Civil Engineering
- minimum 5 years' experience in water and sanitation sector, especially in the design of Waste Water and / or Sludge Treatment plans.

Selection of Service Provider and Evaluation Criteria

The Service Provider for Civil Engineering of IPLT Tungkusan Assessment in Deli Serdang will be selected based on Full & Open Competition. The potential of Service Provider for Civil Engineering of IPLT Tungkusan Assessment in Deli Serdang have to provide proposal which consist of Technical Proposal (background of the program, Task to be conducted, methodology, schedule), cost proposal and CV.

The proposal will be evaluated based on:

- Qualification 30 %
- Experience in Designing IPAL/ IPLT 50 %
- Methodology 20 %

Proposed Mechanism

Proposed mechanism of the activity will be implemented through a Fixed-Price Subcontract.