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Terms of Reference

Service/work description: Technical assessment of Liebherr cranes in the port of Hodeidah
Project: Peace Support Facility for Yemen
Expected start date: as soon as possible
Duration: 30 working days
Duty station: Home-based with travel to Amman, Jordan and Sana'a/Hodeidah, Yemen);

1. BACKGROUND

Yemen is experiencing one of the world's worst protracted political, humanitarian and development crises. One of the most affected areas in the country is the Governorate of Hodeidah, from where more than 500,000 people were displaced. The concerted effort of the United Nations and wider international community has been to avert a military confrontation over Hodeidah city and port, which would have most certainly precipitated an already dire situation. After more than two years of stalemate, the Special Envoy of the Secretary General for Yemen convened intra-Yemeni consultations in Sweden in December 2018. The Stockholm Agreement, brokered by the United Nations Special Envoy of the Secretary-General for Yemen on 14 December 2018, is seen as a foundation on which to restore peace and rebuild lives.

UN Security Council Resolution (UNSCR) 2541 was issued on 21 December 2018, calling for an immediate cease-fire in the city of Hodeidah, the ports of Hodeidah, Salif and Ras Issa and the governorate of Hodeidah. In addition, it calls for the strengthening of the UN's presence in the city of Hodeidah and the three ports and places the Organization in a leading role to support the Yemen Red Sea Ports Corporation (YRSPC) in the management of, and inspections at, the ports.

UN Development Programme (UNDP) has been tasked to take the lead in providing support to YRSPC in close coordination with relevant authorities, United Nations Mission to support the Hodeidah Agreement (UNMHA), the United Nations Verification and Inspection Mechanism for Yemen (UNVIM) and the World Food Programme (WFP). UNDP intends to support port restoration and to build operational capacity to help facilitate the entry of vital humanitarian aid and commercial shipments. UNDP's initial support aims to upgrade port facilities including, among other priorities, the replacement of navigational aids at the main port; refurbishing the training center; replacing the berth guards; and, enhancing the perimeter lighting.

In support of these efforts, UNDP organized a port assessment of Hodeidah, Salif and Ras Issa to be executed by experts from the Port of Rotterdam. This assessment was performed from 15 June – 8 July 2019. The assessment identified some priority interventions to improve the functionality and safety of operations of Ports Hodeidah, Salif and Ras Issa, which will be implemented through the UNDP project "Peace Support Facility for Yemen".

In particular, the technical assessment described is these Terms of Reference aims at assessing the possibility to repairs two ship-to-shore cranes in the port of Hodeidah, and support the development of technical specifications for their rehabilitation.

2. THE STATUS OF THE BERTH CRANES

One of the main findings of the assessment is the possibility of repairing at least one but maybe two ship-to-shore cranes instead of buying new cranes. New cranes are not only much more expensive, but also completing specifications, procurement, building and commissioning of the cranes takes a lot more time, at least two years. With repairing the cranes, the re-establishment of containerized cargo can be achieved in about a year.

On Berths 6 and 7, there are five ship-to¬-shore gantry cranes on the quay side. Three cranes have been demolished – one Mitsubishi-made and two Figee gantry cranes. They have destroyed engines and/or electrical houses and the main frames have been structurally damaged in the conflict.

The two other cranes were built by Liebherr, Germany in 2011 and have a container lifting capacity of 41-tons. Both cranes have sustained damaged from the conflict in the machine house on top of the gantry, behind the rear legs. The machine houses will need to be replaced including the hoisting engines (spreader and boom) and central electronics of the crane. Both cranes sustained collateral damage when the machine houses were destroyed. Other minor damage is due to contact with shrapnel; both cranes have minor secondary damage to all parts of the crane.

3. SCOPE OF WORK

The objective of this engagement is to deploy specific technical expertise from a contracted firm to conduct a specialized assessment of the two Liebherr gantry cranes (Model NO IR 1800-1801), and develop recommendations for ensuring their operational capacity. In particular, the assessment will look into the following areas:

1. Assess the exact status and integrity of each of the two cranes;
2. Determine whether the repair of the cranes is technically and financially feasible, providing specific recommendations on type of spare parts and maintenance required;
3. Support UNDP to develop terms of reference for the repair of the cranes, including preparation of bill of quantities, costing, and timeline.

Engagement may be required with multiple actors and success will be dependent on close coordination with several key stakeholders. Some of the key stakeholders include:

- Yemen Red Sea Ports Corporation
- Ministry of Transport
- Liebherr company
- Relevant UN agencies (e.g. OSESGY, RCO)

4. ASSESSMENT TEAM

The selected company will be required to deploy a team of two (2) technical experts to Hodeidah (Yemen) with the necessary expertise to conduct a full technical assessment of the two gantry cranes. A diversified experts' profile will be needed to cover the different technical aspects of the assessment.

The work of the technical experts will be facilitated and supported by UNDP, through its Peace Support Facility team and the Hodeidah sub-office. This includes the technical support from a national port expert, a national electrical engineer and an international electrical engineer. UNDP will also support the logistical organization of travel from Amman to Sana'a and inside Yemen, as well as provide the needed facilitation and coordination with local stakeholders.

5. DELIVERABLES

Under the supervision of the Peace Support Facility manager, and in close coordination with the Head of Hodeidah sub-office and the Team Leader for Peace Support Operations, the selected company and its two experts are responsible to prepare and conduct a technical assessment of the exact status and integrity of the two identified ship-to-shore cranes. Following the assessment, the company will develop an assessment report to recommend whether the repair of the cranes is technically and financially feasible, including recommendations on repair works and maintenance. Finally, the company will be requested to technically support UNDP to develop the specifications and bill of quantities for the required works and spare parts.

As such, the company is requested to deliver the following:

Deliverables/ Outputs	Estimated Duration to Complete	Payment %	Review and Approvals Required
Output 1: Review of available information and development of assessment methodology, including consultation with Liebherr company	3 working days (home-based)	10%	PSF Manager
Output 2: Technical assessment of the two ship-to-shore cranes	20 working days (Sana'a and Hodeidah - Yemen) *This includes 8 days in Amman, Jordan for Security training and any relevant meeting with stakeholders	50%	PSF Manager
Output 3: Assessment report on technical and financial feasibility of crane repair, providing specific recommendations on type of spare parts and maintenance required. This includes draft and final reports, incorporating UNDPs comments.	7 working days (home-based)	20%	PSF Manager
Output 3: Provision of technical inputs for development of required specifications and BOQs.	7 working days (home-based)	20%	PSF Manager
Total		100%	

UNDP will facilitate and cover the cost of the security training in Amman, the travel from Amman to Sana'a and internal travel and accommodation within Yemen.

6. INSTITUTIONAL ARRANGEMENT

- The company and its two experts are expected to liaise and collaborate in the course of performing the work with other consultants, stakeholders and UN colleagues;
- They will report to and consult with the PSF manager on regular basis;
- The company and the two experts are required to maintain close communication with the UNDP Yemen on regular and needed basis at any period throughout the assignment in order to monitor progress. In the event of any delay, the company will inform UNDP promptly so that decisions and remedial action may be taken accordingly. Delays that would affect the flow of the collaborative work and the delivery of outputs on schedule will lead to termination of contract; and
- Should UNDP deem it necessary, it reserves the right to commission additional inputs, reviews or revisions, as needed to ensure the quality and relevance of the work.

7. QUALIFICATIONS OF THE SERVICE PROVIDER

Minimum Organization requirements

Minimum number of years of experience in relevant field: 10 years;
Minimum number of projects with similar contract value: successfully completed as Main Contractor over the past 7 years [3 projects];
Full compliance of Bid to the Technical requirements and Scope of works;

Experts profile

Profile 1

Master's degree in mechanical or maritime or electrical engineering or related field;
At least 7 years of experience in maintenance, servicing, repairing, modifying and functional testing of harbor cranes and the hoist equipment.
Demonstrated experience in automation/control room of gantry cranes.
Experience in cranes with 40 tons capacity or more, and specific experience with Liebherr gantry cranes is an asset.
The expert should have formal training in the areas of: safety and design codes that are related to overhead cranes; Federal, State and local codes and standards; safe operating practices of cranes and hoists; understanding of how to write a report and documentation procedures; and understand the crane and hoist terminology to better communicate.

Profile 2

Master's degree in mechanical or maritime or electrical engineering or related field.
At least 7 years of experience in maintenance, servicing, repairing, modifying and functional testing of harbor cranes and the hoist equipment.
Demonstrated experience in structure designing & electrical diagrams of gantry cranes.
Experience in cranes with more than 40 tons capacity or more, and specific experience with Liebherr gantry cranes is an asset.
The expert should have formal training in the areas of: safety and design codes that are related to overhead cranes; Federal, State and local codes and standards; safe operating practices of cranes and hoists; understanding of how to write a report and documentation procedures; and understand the crane and hoist terminology to better communicate.

8. CRITERIA FOR SELECTING THE BEST OFFER

Upon the advertisement of the Procurement Notice, qualified Consultancy Firm is expected to submit both the Technical and Financial Proposals. Accordingly; the firm will be evaluated based on Cumulative Analysis as per the following:

a. Technical Criteria weight is 70%
b. Financial Criteria weight is 30%

Summary of technical proposal	**Score weight**	**Points obtainable**
Expertise of firm/organization	40%	40
Profile of the experts	40%	40
Proposed methodology and approach	20%	20