

TERMS OF REFERENCE
INSTITUTIONAL CONTRACT

Section:	WASH Section	Date:	28 th March 2023
Title:	Initial Market Assessment of Co-composting	Duty station:	Beirut, Lebanon
Reporting to:	WASH section WaSH Specialist	Contract type:	
Duration:	Two months (indicative)	Starting date:	May 2023

Section	Content
Background	<p>UNICEF WaSH section, Ministry of Energy and Water and the Bekaa Water Establishment have identified the need to support the Iaat Waste Water Treatment Plant (WWTP) by reducing the volume of sludge reaching the WWTP and currently disturbing the conventional treatment processes of the plant.</p> <p>UNICEF WASH section has supported the installation of an Omniprocessor (designed and manufactured by Tidetechnocrates) to demonstrate the viability of treating the wastewater and septic sludges coming from the informal settlements, resulting in an effluent that is safe for discharge into the environment, along with bio-safe solids.. The system is in the process of being refined to achieve the required standard for effluent discharge, however the biosolids are being successfully generated and options are being considered for reuse as fertiliser.</p> <p>The newly adopted Libnor standard (NL ISO 19698:2020) for using biosolids for land application will help support the development of such a market. According to the United Nations COMTRADE database on international trade, Lebanon's imports of fertilizers were US\$28.52 Million in 2021. There should therefore be potential for an internal market for fertiliser from biosolids.</p> <p>Co-composting is the controlled aerobic degradation of organics, using more than one feedstock (faecal sludge and organic solid waste). Faecal sludge has a high moisture and nitrogen content, while biodegradable solid waste is high in organic carbon and has good bulking properties (i.e., it allows air to flow and circulate). By combining the two, the benefits of each can be used to optimize the process and the product.¹</p>
Purpose and Objective	<p>UNICEF is looking to support the creation of a co-composting market that would contribute to the fertiliser needs of farmers in Lebanon while also providing income that can cover the operational cost of Omniprocessors and similar processes producing safe biosolids.</p> <p>UNICEF is looking for a company to support in conducting an initial market assessment to size the market and define the different end-users groups with common needs (market segments) the co-composting products are planning to target. This initial assessment will help in the identification of the most relevant or lucrative market and to design the co-compost accordingly.</p> <p>The awarded company will support in identifying an optimised pricing and logistics strategy, targeted towards the identified market and using available marketing channels. It will identify storage needs to store the compost and what size of packaging will be needed. The company will identify the most optimal distribution networks</p> <p>The company will provide UNICEF with the required data to enable the operator of the station to adjust its production, composition, and volume scaling throughout the distribution phase to meet market demands efficiently and optimally.</p>
Methodology	<p>The assessment would address the following :</p> <p>1st deliverable: Compost sector in Lebanon</p> <ul style="list-style-type: none"> - Assessment of the composting sector in Lebanon: <ul style="list-style-type: none"> o List of compost providers o Production centres o Source of compost o Types of available compost

¹ sswm.info/taxonomy/term/3937/co-composting

	<ul style="list-style-type: none"> ○ Nutrient content ○ Certifications ○ Geographic spread ○ Pricing ○ Market size ○ Analysis of market trends and forward trends <p>2nd deliverable: Technical assessment of the Co-compost and the desired characteristics.</p> <ul style="list-style-type: none"> - Technical assessment: <ul style="list-style-type: none"> ○ Analysis of current co-compost ○ Validity of application for the following markets: <ul style="list-style-type: none"> ▪ Horticultural market ▪ Fruit tree market ▪ Grain crops market ○ Desired Composition of the co-compost <ul style="list-style-type: none"> ▪ NPK content, micronutrient content, carbon content, hygroscopic tolerance, pH, pathogens and metals <p>3rd deliverable: Initial Market Assessment comprising the following elements:</p> <ul style="list-style-type: none"> - Market assessment: <ul style="list-style-type: none"> ○ Market acceptability of co-compost ○ Interview with focus groups with authorities and targeted end users to identify their needs, ○ Agricultural producers' surveys ○ Identification of key informants in the compost market - Feasibility and business case: <ul style="list-style-type: none"> ○ Develop a dynamic financial model including: <ul style="list-style-type: none"> ▪ Capital costs ▪ Operational costs ▪ Breakeven cost and Return on Investment (RoI) ○ Develop a SWOT analysis of the final product ○ Develop an optimized Business plan based on the findings - Legal: <ul style="list-style-type: none"> ○ Identify legal frameworks and certifications governing compost production and sales ○ Identify potential operational constraints and legal barriers to entry into the market - Explore current initiatives (national actors & development projects) addressing the composting sector in Lebanon
Profile requirement	<p>The institution consists of a team of full-time individuals who will be coordinating directly with the WaSH specialist at the UNICEF LCO. The applicants should have a combination of technical skills (understanding of composting and co-composting treatment) and an understanding of Lebanese environmental, trade and economic regulations. The team should have fluency in Arabic and English to ensure smooth communication with operators and UNICEF. The team leader should have at least seven years of work experience in the environment sector, with ideally a background in innovative wastewater treatment or operation and circular economy.</p> <p><u>Experience:</u></p> <ul style="list-style-type: none"> • Demonstrated experience in market assessment • Desired five years of experience developing market assessment and sizing products with circular economy and green lenses. <p><u>Technical knowledge:</u></p> <ul style="list-style-type: none"> • Strong understanding of the compost and wastewater treatment processes.

	<ul style="list-style-type: none"> Understands the Omniprocessor treatment process. In addition, the team needs to demonstrate experience in Logistic, compost, wastewater and sludge reuse, as well as market assessment and sizing of products <p>Languages:</p> <ul style="list-style-type: none"> Mastering Arabic and English reading, writing and speaking.
Deliverables and schedule	<p>The company will provide the following:</p> <ul style="list-style-type: none"> - One inception report a maximum of five days after the signature of the contract with a detailed work plan for validation. - The Compost assessment in Lebanon - The detailed Technical assessment report – - The initial market assessment report detailing the Market assessment, the feasibility and business case and legal component as well as the different existing initiatives on this front.
Qualifications	<p>I. Technical Evaluation Criteria:</p> <ol style="list-style-type: none"> Overall Response: Completeness of response Overall concord between requirements and proposal, with a clear methodology and approach based on an understanding of the assessment requirements. (5 points) Evidence of previous experience in undertaking Market assessment and development of similar projects with technologies and innovation. Knowledge of the Lebanese context (Lebanese communities, Palestinian refugees and Syrian refugees in Lebanon). Two previous reports for similar projects are to be submitted. (25 points) Methodology/approach to a project demonstrating how your company is the most suitable to implement the project; Project implementation and work plan showing the detailed sequence and timeline for each activity and days necessary for each proposed team member. (20 points) Details of the proposed team for the assignment including the following information (10 points): <ul style="list-style-type: none"> o Title/Designation of each team member on the project o Educational qualifications and professional experiences o Previous experience in working on similar projects and assignments- List all similar projects they worked on and their roles on those projects Demonstrated experience in writing logical and succinct reports, similar to the ones mentioned in the ToRs. Two published reports to be submitted. (10 points) <p>Technical evaluation is composed of 70 points.</p> <p>The minimum successful score for the technical evaluation is 49 points</p> <p>II. Financial Evaluation criteria:</p> <ul style="list-style-type: none"> Only bidders obtaining the minimum pass mark in the technical evaluation (49 points) will be considered for the financial evaluation. <p>Financial evaluation is composed of 30 points. The lowest financial offer will obtain 30 points.</p>

Timing	The contract should ideally start in early May 2023
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