

**TERMS OF REFERENCE FOR:
Technical Expert in Waste Management**

Project name: SWAM Akkar. Supporting Sustainable Solid Waste Management in Jurd al-Kaytee

Project reference: AICS AID 012314/01/5

Activity: A.4.1.1. Technical Expert in WASH and Waste Management

About COOPI

Cooperazione Internazionale (COOPI) is an Italian humanitarian non-governmental organization founded in Milan in 1965. For more than 50 years of long-term support and constant presence in the field, COOPI has been engaged in breaking the cycle of poverty and responding to specific emergencies in numerous sectors, including Food Security, Humanitarian Aid, Health, Socio-Economical Services, Water and Sanitation, Human Rights, Education and Training, Migrations and Sustainable Energy.

COOPI is formally registered in Lebanon since 2015, COOPI is currently implementing intervention in North Governorate and Akkar, working in the sectors of Solid Waste Management, Food Security and Livelihoods, Education and Protection. Current donors of COOPI in Lebanon include the European Union Delegation, the Italian Agency for Development Cooperation (AICS) and private donors. COOPI in Lebanon works in partnership with different actors, including international and national NGOs, National and Local Authorities.

Background of the SWaM Programme:

COOPI is requesting a Technical Expert in Solid Waste to contribute to the implementation to specific Programme activities within the implementation of a coherent waste transfer and recycling system according to the Master Plan for Integrated Sustainable Waste Management Jurd Al Kaitee.

The proposed Waste Management System main objectives are:

- To be integrated and sustainable, institutionally and financially capable to deliver proper and inclusive waste management services;
- To re-arrange and standardize collection to reduce costs, optimize efficiency and move to multiple streams collection;
- To develop resource recovery through source sorting and support the efforts towards a circular economy in the union;
- To reduce the volume of waste and the environmental impacts through treatment before disposal;
- To ensure Public Health and Environmental Protection through safe disposal.

The proposed Waste Collection System is really innovative compared to the traditional waste collection system in use. It provides for door-to-door collection of organic waste and recyclable materials and collection points for residual waste. Once collected, residual waste will be transferred directly to the transfer stations for stabilization, then it will be transferred to the legal landfill in Srar. On the other hand, organic and recyclable materials will be

transferred to the facilities and processed there: the former turned into compost, the latter to be resold on the market. In order to enable the implementation of this system, therefore, it is necessary to upgrade the MRFs in Mishmish and Fnaideck so that they can be self-sufficient, to set up two new transfer stations in Ain al Dahab (west area of UoMJK) and Fnaideck for residual waste, to rehabilitate and close the illegal landfill in Fnaideck.

The proposed activities are based on key documents designed by implementing partners and are (i) Operational Plans for residual and recyclable, (ii) Implementation Plan, (iii) Cost Recovery Plan and (iv) Governance Model. The intervention aims at the improvement of the quality of environment in the Union of Municipality of Jurd al-Kaytee, through the reduction of the pollution in Lebanon, specifically concerning the waste and water management, in line with the achievement of the SDGs of Agenda 30.

KEY FUNCTIONS AND OBJECTIVES OF THE CONSULTING SERVICE

Assignment:

The key functions and objectives of the consulting service through the recruitment of a Technical Expert in solid waste management encompass a comprehensive range of responsibilities aimed at ensuring the successful execution of the outlined scope of work. The appointed technical expert will play a pivotal role in providing specialized guidance and expertise across various aspects of solid waste management, from infrastructure design to environmental impact assessment and facility rehabilitation supervision. Their primary objective will be to facilitate the effective implementation of sustainable waste management practices while adhering to regulatory requirements and industry best practices. This entails developing detailed technical specifications for construction projects, supervising environmental impact assessments and construction works, and overseeing the procurement process for essential equipment and services. Additionally, the expert will conduct facility energy audits, provide supervision for facility rehabilitation efforts, and spearhead initiatives to reclaim and requalify illegal dumpsites. Their overarching assignment is to optimize solid waste management systems, enhance operational efficiency, and promote environmental stewardship through the adoption of innovative solutions and strategic recommendations tailored to the specific needs and challenges of the project.

Scope of Work:

1. Transfer Stations (TSs) Construction

1.1. Tech specs, layouts and BoQs for TSs construction:

- 1.1.1. Develop comprehensive technical specifications, layouts and BoQs for the construction of two transfer stations, one in Fnaidek and one in Ain El Dahab, ensuring compliance with relevant regulations and industry standards.
- 1.1.2. Create a detailed outline of the contractor contracting process, including documents on the request for quotations and contract terms at the technical level

1.2. Supervision of Environmental Impact Assessment:

- 1.2.1. Design Terms of Reference (ToR) for the Environmental Impact Assessment (EIA) process, outlining the scope, methodology, and responsibilities
- 1.2.2. Facilitate the selection process for the environmental firm responsible for conducting the EIA.
- 1.2.3. Provide oversight and supervision throughout the implementation of the EIA to ensure accuracy and compliance with regulatory requirements.

1.3. Supervision of Transfer Stations Construction Works:

- 1.3.1. Oversee all aspects of transfer station construction activities, including site preparation, structural construction, and installation of equipment.
- 1.3.2. Ensure adherence to technical specifications, safety protocols, and project timelines.
- 1.3.3. Conduct regular inspections and quality assessments to maintain

construction standards.

2. Materials Recycling Facilities (MRFs) Rehabilitation

2.1. Technical specifications, layouts and BoQs for MRFs construction:

- 2.1.1. Develop technical specifications, BoQS and layouts for upgrading facilities, including solarization, infrastructure (roof) rehabilitation, and procurement of machinery.
- 2.1.2. Specify requirements for equipment procurement, installation procedures, and performance standards.

2.2. MRFs Energetic Audit

- 2.2.1. Conduct a comprehensive audit of facility energy consumption and identify opportunities for energy efficiency improvements.
- 2.2.2. Analyze energy usage patterns, identify areas of inefficiency, and propose recommendations for optimization.

2.3. Procurement Process for solarization, machinery and roof rehabilitation

- 2.3.1. Develop procurement strategies and procedures for acquiring solar panels, machinery, and other necessary equipment.
- 2.3.2. Prepare procurement documents, including requests for proposals (RFPs), evaluation criteria, and contract negotiations.
- 2.3.3. Contribute in the procurement process from vendor selection to contract finalization, ensuring transparency and compliance with procurement regulations.

2.4. Supervision of MRFs Rehabilitation works

- 2.4.1. Provide oversight and management for the rehabilitation of facilities, ensuring timely completion and adherence to quality standards.
- 2.4.2. Coordinate with contractors and stakeholders to address any issues or challenges that may arise during the rehabilitation process.

3. Supervision of Fnaidek Illegal Dumpsite Reclamation and Requalification

- 3.1. Ensure supervision during the project design and EIA process.
- 3.2. Provide oversight and supervision during the works of requalification of the Fnaidek illegal dumpsite.
- 3.3. Ensure compliance with environmental regulations and community engagement throughout the reclamation process

4. Supervision of Solid Waste Management (SWM) System Implementation

- 4.1. Conduct an advisory report on waste reduction strategies and recyclables management to improve the efficiency of the SWM system.
- 4.2. Identify opportunities for waste minimization, segregation, and recycling initiatives.
- 4.3. Provide guidance and support for the implementation of recommended strategies, including stakeholder engagement and capacity building initiatives.

KEY DELIVERABLES

Based on the provided scope of work, each deliverable will be considered completed upon submission of the following documents:

Del. N.	Deliverable Title	Tasks	Upon submission of
1	Transfer Stations Construction	Tech specs, layouts and BoQs	<ol style="list-style-type: none"> Detailed technical specifications document Layout drawings for both transfer stations (Fnaidek and Ain El Dahab) Bill of Quantities (BoQs) for each construction project Contractor contracting process outline document
		Supervision of EIA	<ol style="list-style-type: none"> Regular Inspection Reports (n. 2)
		Supervision of TSs construction works	<ol style="list-style-type: none"> Progress reports (n. 2) including quality assessment, compliance verification documents and inspections results Coordination records with contractors and stakeholders Issue resolution documentation (if any)
2	Materials Recycling Facilities (MRFs) Rehabilitation	Tech specs, layouts and BoQs	<ol style="list-style-type: none"> Technical specifications document for facility upgrades BoQs for rehabilitation works Layout drawings for MRFs Equipment procurement specifications Contractor contracting process outline document
		MRFs Energetic Audit	<ol style="list-style-type: none"> Comprehensive energy audit report including (i) Energy consumption analysis and (ii) Energy efficiency improvement recommendations
		Procurement Process for solarization, machinery, and roof rehabilitation	<ol style="list-style-type: none"> Technical sessions for the Request for Proposals (RFPs) Evaluation criteria documents Contract Negotiation records
		Supervision of MRFs Rehabilitation works	<ol style="list-style-type: none"> Progress reports (n. 2) including quality assessment, compliance verification documents and inspections results Coordination records with contractors and stakeholders Issue resolution documentation (if any)
3	Supervision of Fnaidek Illegal Dumpsite Reclamation and Requalification	Supervision EIA Process	<ol style="list-style-type: none"> Progress Report (n. 1)
		Supervision of Closure works	<ol style="list-style-type: none"> Progress reports (n. 2) – one for works and one for DLP including compliance verification documentation/reports, community engagement records

4	Supervision of SWM System Implementation	Guidance for waste reduction strategies and recyclables management	1. Advisory report (n. 1) including waste reduction and recycling strategy recommendations, challenges, lessons learnt and good practices
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Duration

The estimated time for the service contract is up to 14 months. The consulting service will be characterized by intensive period of work and occasional/intermittent supervision and assessments, according to the tasks within the deliverables. Consultant must be present at the COOPI Office in Beirut or Tripoli when it is required (not more than 3 days per month) to coordinate with the Program Coordinator and the SWaM team.

Workplan

1. Transfer Stations Construction:

Construction of transfer stations must be completed not later than the end of September 2024. Tasks within the first deliverable should be scheduled with consideration of the time needed for project design and procurement processes, as well as for conducting and obtaining approval for the Environmental Impact Assessment (EIA).

2. MRFs Rehabilitation:

Rehabilitation of transfer stations must be completed not later than the end of September 2024. Tasks within the second deliverable should be scheduled with consideration of the time needed for project design and procurement processes, as well as for conducting the energetic audit.

3. Fnaidek Illegal Dumpsite closure:

The Environmental Impact Assessment (EIA) will take place between June and September 2024. The actual closure works of the Fnaidek Dump site are scheduled for the spring/summer of 2025. Tasks within the third deliverable should envision intermittent site visits and assessments.

4. Solid Waste System Implementation:

The implementation of an improved Solid Waste management system will take place from October 2024 to August 2025. Tasks within the fourth deliverable should envision intermittent site visits and assessments.

QUALIFICATIONS AND EXPERIENCE

Expertise requirements:

- Bachelor's degree in Environmental Engineering, Civil Engineering, Environmental Science, or a related field. Master's degree preferred.
- Minimum 3-5 years of proven experience in solid waste management, with a focus on technical aspects.
- In-depth knowledge of waste management regulations, policies, and standards in Lebanon.

- Demonstrated experience in conducting similar projects in the past five years;
- Consulting service with NGOs or UN Agencies is highly desirable
- Strong analytical and problem-solving skills
- Ability to work independently and as part of a team
- Excellent communication and problem-solving skills, with the ability to coordinate with COOPI team and contractors.

QUOTATION

The selected contractor should provide COOPI with:

1. A detailed technical proposal that is in accordance with the present Terms of Reference. It should include:
 - 1.1. General Presentation,
 - 1.2. Qualification and experience
 - 1.3. Experiences of the applicant in the Solid Waste Management and Environmental analysis and studies;
 - 1.4. Methodology
 - 1.5. Added values of the Consultancy
2. A detailed financial proposal (in USD) that is in accordance with the present Terms of Reference:
 - 2.1. Fees divided by deliverables/tasks
 - 2.2. VAT

Note: Site visits and transportation costs not to include in the consulting service fees (covered by COOPI according to internal regulations).
3. Timeline for assignment including all steps according to the dates provided in the Section "Workplan"
4. Applicant's CV (max 3 pages), including 3 contact references from previous employers or clients (one from the latest consulting experience and at least one in similar projects or with NGOs)
5. Evidence of works conducted from previous similar projects (reports, examples of previous waste management projects or initiatives)

The proposal must be sent to recruitment.lebanon@coopi.org not later than 22 May 2024. ensuring the subject line is denoted with the heading "SWAM Technical Expert".

Standards of Professional Conduct:

COOPI collaborators must adhere to the values and principles outlined in the organization Code of Ethics.

COOPI is an equal opportunity employer that does not tolerate discrimination on any basis. We actively seek out diverse backgrounds, perspectives, and skills so that we can be collectively stronger and have sustained global impact.

COOPI has zero tolerance policy for all forms of sexual violence, sexual exploitation and abuse and harassment, both against affected communities and people who serve within the organization. COOPI therefore feels obliged to guarantee that in no case, for any reason and under any circumstances, should the collaborators abuse this influence and power inequality.