

**TERMS OF REFERENCE:**  
**Faecal Sludge Management (FSM) Solutions Expert**

**1. Duty Station of the Consultancy:**

Bentiu and Malakal

**2. Duration of Consultancy:**

3 months

**3. Project Context and Scope:**

IOM in South Sudan has a broad range of programming centred around three broad areas: humanitarian coordination and support; humanitarian response and resilience; and peacebuilding, transition, and development. Humanitarian coordination and support includes leading/co-leading the Camp Coordination and Camp Management (CCCM) and Shelter and Non-Food Items (NFI) Clusters, Displacement Tracking Matrix (DTM), Water, Sanitation and Hygiene (WASH) and management of WASH and Shelter and NFI core-pipelines, humanitarian hubs and common transport services. Humanitarian response and resilience includes CCCM, WASH, Shelter & NFI, health, protection, gender equality and inclusion, mental health and psychosocial support and the management of a Rapid Response Fund. Under peacebuilding, transition and development, IOM South Sudan implements programming on housing, land and violence reduction, community development and migration management.

Under the overall supervision of the Head of Operations and the direct supervision of the WASH Program Coordinator, the Faecal Sludge Management (FSM) Solutions Consultant will support IOM South Sudan in its efforts to decrease the dependence on humanitarian aid in internally displaced people (IDPs) camps and sites in Bentiu, and Malakal Protection of Civilians (PoC) site. This goal is to be achieved by identifying feasible, contextualized, safe, cost-efficient, low-maintenance durable FSM solutions for the existing infrastructure, services and governance. A special focus will be exerted on the rehabilitation of existing FSM solutions to serve this goal. A particular emphasis will also be given to solutions which can be operated autonomously and maintained by the public authorities or local service providers, in close coordination with the community. Efforts will be exerted to integrate nature-based, climate-resilient, market-based and circular principles. The Consultant will work in close coordination with the Durable Water and Sanitation Solutions Expert in Bentiu and Malakal.

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4. **Organizational Department / Unit to which the Consultant is contributing:**

Water, Sanitation and Hygiene (WASH).

6. **Tangible and measurable outputs of the work assignment**

The main deliverable of this consultancy will be two technical reports with an in-depth evaluation of the full chain of FSM system the IDP camp and sites in Bentiu (1x), and PoC site in Malakal (1x). The evaluation will include all infrastructure, service and governance components of the collection (desludging), disposal (transport) and treatment (waste stabilization ponds) of faecal matter in Bentiu IDP camp and sites, and PoC site in Malakal. The evaluation will include an analysis of how the current system in place is functioning, against it's design and minimum performance, cost-efficiency and treatment quality standards, considering seasonal variations and flood risks. The evaluation will also include recommendations on how these components should be rehabilitated to ensure feasible, contextualized, safe, cost-efficient, low-maintenance FSM infrastructure, services and governance. A particular emphasis will be given to components which can be operated autonomously and maintained by the public authorities or local service providers. Efforts will be exerted to integrate nature-based, climate-resilient, market-based and circular principles.

This deliverable will also include the development of a sound methodology for each technical report which includes a literature research of pros and cons of relevant technological options and best practices, stakeholder consultations (community, government, humanitarian community, service providers, etc.) and an in-depth feasibility analysis with the selection of relevant technological options and best practices based on safety, context, cost and optimal technical parameters based on international standards

For each technical report, this deliverable will also include the identification of design parameters, drawings, BoQs and SOPs of recommended FSM infrastructure, services and governance. The deliverable should include an estimation of expected costs and resources, required for long-term safe FSM solutions in Bentiu and Malakal.

These deliverables will interrelate and complement the corresponding outputs of the Durable Water and Sanitation evaluation deliverables.

**Deliverable by Week 12 after technical endorsement.**

7. **Performance indicators for the evaluation of results**

- Rigorousness and extensiveness of literature research and feasibility analysis showing that all relevant technological options and best practices have been identified and analyzed.
- Design founded on technical parameters based on best international quality standards.
- Optimal design parameters identified using relevant faecal sludge management and wastewater engineering and modelling software.
- Technical design, BoQs, SoPs and drawings using faecal sludge management and wastewater engineering software.
- Governance plan for proposed FSM solutions, including an advice on the essential resources required to ensure safe long term sanitation services.

## 8. Education, Experience and/or skills required

- Master's degree in Environmental Engineering, or a related engineering field from an accredited academic institution with five years of relevant professional experience.
- Proven experience in the design, operationalization and construction management of wastewater management infrastructure in countries facing a humanitarian crisis.
- Proven experience in the design, operationalization and construction management of wastewater management infrastructure in a development context.
- In addition to the design, proven experience in long-term safe operations of FSM services in challenging contexts.
- Demonstrated know-how and skills of conventional and innovative wastewater engineering with a special focus on conventional and innovative (nature-based, circular, resource-oriented, etc.) faecal sludge management.
- Demonstrated know-how and skills on linking wastewater infrastructure to integrated water resources management, ecological engineering, environmental sustainability, food security and climate resilience.
- Advanced computer literacy in Wastewater Engineering and Modelling Software, Autocad, GIS, Hydraulic Engineering Software (Epanet, WaterCad, WaterGems, WaterHammer, etc.), Microsoft Office Suite (MS Word, Excel, and PowerPoint).
- Ability to produce thorough high-quality work within a tight timeframe.
- Ability to work with limited supervision.
- Proactivity and solutions-oriented mindset.
- Proven ability to successfully operate in a high-stress environments and maintain a high professional standards in hardship locations.
- Ability to harmoniously collaborate with a wide variety of internal and external stakeholders.
- Research experience is an asset.

## 9. Travel required

10. The position is to be based in Benitu (6 weeks) and Malakal (6 weeks).

## 11. Competencies

### Values

- **Inclusion and respect for diversity:** respects and promotes individual and cultural differences; encourages diversity and inclusion wherever possible.
- **Integrity and transparency:** maintains high ethical standards and acts in a manner consistent with organizational principles/rules and standards of conduct.
- **Professionalism:** demonstrates ability to work in a composed, competent and committed manner and exercises careful judgment in meeting day-to-day challenges.

Core Competencies – behavioural indicators

- **Teamwork:** develops and promotes effective collaboration within and across units to achieve shared goals and optimize results.
- **Delivering results:** produces and delivers quality results in a service-oriented and timely manner; is action-oriented and committed to achieving agreed outcomes.
- **Managing and sharing knowledge:** continuously seeks to learn, share knowledge and innovate.
- **Accountability:** takes ownership for achieving the Organization's priorities and assumes responsibility for own action and delegated work.
- **Communication:** encourages and contributes to clear and open communication; explains complex matters in an informative, inspiring and motivational way.