

Conceptual Design of a Faecal Sludge Management System for a rural settlement in the Republic of Moldova

Terms of Reference

15.12.2017

1 Background

The Swiss Agency for Development and Cooperation (SDC) and the Austrian Development Cooperation (ADC) are cooperating with the Government of Moldova to support the population in rural areas and small towns in Moldova. SDC and ADC are funding the third phase of the Water and Sanitation Project ApaSan for improving the life conditions of people living in villages by improving their access to water and sanitation services that are sustainable and of good quality. The ApaSan project is implemented by Skat Consulting Ltd (Skat).

The rural population in Moldova lags behind regarding access to safe sanitation: more than half of the rural population relies on unimproved pit latrines in their backyard. Government agencies and international actors supporting Moldova's water and sanitation sector lack coherent strategies and feasible options to improve the situation and consequently they take little action for improving access to safe sanitation in rural areas.

The project is working on improving knowledge and understanding on the situation of rural sanitation, promoting dialogue on how to address rural sanitation, and is introducing solutions contributing to better sanitation in rural areas. This includes introducing safely managed on-site sanitation solutions (e.g. improved latrines, UDDTs or household septic tanks) with better service levels than the predominant unimproved latrines or improvised on-site wastewater disposal facilities, but more cost-effective and appropriate for the local setting than collective sewer systems.

A rural settlement, the village of Cioresti (ca. 3000 inhabitants) has been selected as case study and for piloting sanitation solutions. One of the planned solutions is a faecal sludge management system, consisting of a faecal sludge treatment plant, the organisational set-up for collection and operation of the plant and a financing scheme. The aim of the faecal sludge management system is to safely manage the sludge from existing and future on-site sanitation facilities in the village.

Skat is looking for an experienced consultant to develop the conceptual design of the faecal sludge management system.

2 Objectives, tasks and deliverables

The objective of the assignment is to produce the conceptual design of a faecal sludge management system for the village of Cioresti, consisting of a faecal sludge treatment plant, the organisational set-up for collection and operation of the plant and a financing scheme.

The tasks required to produce the conceptual design are expected to be the following:

- Review available documentation and data collected in Cioresti by Skat
- Conduct a field assessment, including interviews of key stakeholders in Cioresti, selected households, Skat staff
- Produce estimations of sludge quantities to be collected and treated, for the current situation and future scenarios
- Proposal of a suitable and cost efficient sludge collection technology
- Selection of the treatment process for a simple local sludge treatment plant (comparison of different options) and preliminary design of a faecal sludge treatment plant
- Development of a management set-up for sludge collection and treatment

- Develop a draft business plan for the sludge management operator, including a financial analysis of management costs, possible income sources and required tariffs.

Deliverables:

- Preliminary design of a faecal sludge treatment plant
- Proposal for management set-up for sludge collection and treatment
- Draft business plan for the sludge management operator

3 Budget and time frame

The budget is to be proposed by the consultant. Tentatively, 15 working days are foreseen, including 5-10 days in Moldova.

Skat staff will assist the consultant with documentation, local contacts, logistics and organisation.

The time of the consultancy is flexible, with latest date of delivery 31.03.2018

4 Proposal

1. Expression of interest

Interested consultants are invited to submit an expression of interest (letter and CV) to Skat (florian.klingel@skat.ch) by 10.01.2018.

Among the interested consultants, three will be shortlisted and invited to submit a proposal. The selection of consultants for the shortlist will be based on the experience in faecal sludge management (technology, management, financing) and in the region.

2. Proposal

Instructions for the proposal will be provided to shortlisted consultants. The proposals will be evaluated based on experience, proposed approach and price.