

DECENTRALISED WASTEWATER TREATMENT SYSTEMS FOR HEALTHCARE CENTRES IN TAJIKISTAN



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THE PROBLEM

Sanitation has long been neglected in Tajikistan. Despite recent progress in increasing access to improved sanitation, the subsequent steps remain a challenge. In rural and peri-urban areas, wastewater is discharged into the soil without treatment, contaminating the environment. Wastewater and faecal sludge treatment facilities are lacking. Poor sanitation also negatively affects the economy (costing \$275 million per year) and health (with exposure to unsafe WASH services leading to 2.7 deaths per 100,000 people – the highest in Central Asia).

Conventional, centralised wastewater treatment systems take too long to implement and are too costly. Decentralised systems are an affordable, highly flexible, alternative. **THIS PROJECT, AS PART OF THE TAJIKISTAN WATER SUPPLY AND SANITATION (TajWSS) (PHASE III) PROJECT, PILOTED A DECENTRALISED WASTEWATER TREATMENT SYSTEM (DEWATS) FOR THE FIRST TIME IN TAJIKISTAN.**



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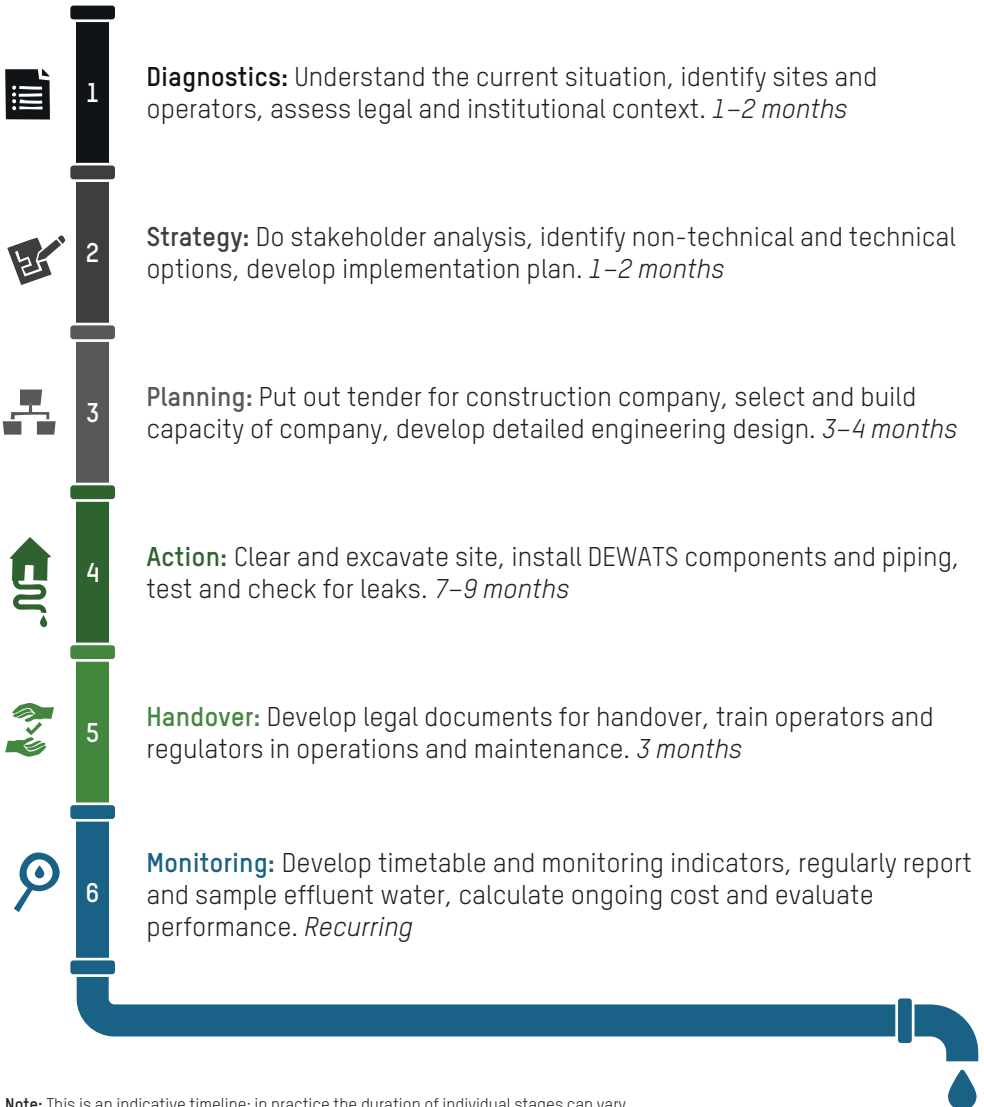
This brochure explains, in brief, how we did this and what we learned.

The TajWSS project in Tajikistan aims to improve the health status of the population by delivering long-lasting WASH services, while addressing market systems and strengthening institutions.

WHAT WE DID | Implementing a DEWATS

The project piloted a DEWATS with two hospitals in Tajikistan's peri-urban Rudaki district, to treat and recycle wastewater for further reuse. It found DEWATS to be an effective option where centralised sewer networks cannot be reached, or for institutions that aim to be self-sustainable for water. It is recommended for immediate scale-up to national level (while addressing risk factors).

A DEWATS implementation plan for replication



Note: This is an indicative timeline: in practice the duration of individual stages can vary.



The project provided an alternative sanitation solution for two hospitals in Rudaki district.

WHAT WE LEARNED

The project taught three crucial lessons for implementing DEWATS in Tajikistan.

- 1 Feasibility of application:** They should be technically feasible and cost efficient to build, understood by all parties, affordable to operate and maintain, with motivation to adopt and manage the system.
- 2 Design and implementation:** This should be done with all stakeholders, including pre-agreeing the operator, closely supervising construction, developing operations and maintenance instructions and training operators, identifying service fee, setting up a monitoring system, and clearly setting out contractual terms.
- 3 Sustainability in access:** Significant technical and financial support is needed to create an enabling environment for government investment in replication, national and local government leadership and support are needed, and a training centre should be set up at Tajik Technical University.

Our pilot demonstrates the urgent need to revise the new law on Drinking Water and Wastewater and the Construction Norms and Standards of the Republic of Tajikistan to accommodate alternative technologies in water and sanitation, and thereby ensure there is an enabling environment for DEWATS in Tajikistan.

The Tajikistan Water Supply and Sanitation (TajWSS) project is a Swiss government initiative, funded through the Swiss Agency for Development and Cooperation, and implemented by Oxfam in Tajikistan in partnership with UNDP. This brochure is part of a wider series. Read the full learning report, *Decentralised Wastewater Treatment Systems for Healthcare Centres in Tajikistan*, (and others in the series) on Oxfam Policy & Practice at: <https://policy-practice.oxfam.org/>