

FIELD TRIALLING OF SEPTIC TANK KIT.

Location: South Sudan.

Timeframe: 2021-22

Project Status: Ongoing

1. PROBLEM/GAP BEING ADDRESSED:

In rapid on-set emergencies where large numbers of people are displaced, agencies first set up communal latrines both for the community and for clinic and health facilities. Where space and the ground allow, trench latrines are still the cheapest and quickest option. However, with increasing number of displacements happening in situations where it is impossible to dig trench latrines due to rocky or water-logged ground, lack of space or permission; raised latrines have to be used. The cost of desludging these facilities is high (e.g. in Haiti, Oxfam was desludging emergency latrines every four days using a desludging tanker at a cost of US\$150/day) and therefore the ongoing costs of sanitation provision for humanitarian agencies is correspondingly high also. More significantly the public health risk through frequent handling and potential spillage of raw fecal sludge, in often very densely populated areas, is very high.

In South Sudan only 15% of households own a latrine and 4% have access to shared latrines. Seasonal flooding that submerges and destroys existing facilities, high water table and collapsible cotton soil that compromises the stability of latrine sub-structures: all pose barriers to safe FSM.

2. SOLUTION:

Invented over 150 years the septic tank is a proven and widely used technology to contain and treat human waste but it is considered a "developmental" solution which hasn't been deployed for rapid emergency response – until now. Oxfam (in partnership with BORDA and with USAID funding under the [Emergency Sanitation Project](#)) has developed a lightweight, affordable, flatpack [septic tank kit](#) which can be erected within one day to provide a FSM solution through immediate safe containment and treatment of faecal sludge in overcrowded, densely populated areas and/or in challenging ground conditions. A single kit can process waste from 500 people (upto 10 toilets x 50 persons). This makes it ideal also for communal facilities, household clusters, health centres, cholera treatment centres or schools. By providing safe containment and anaerobic treatment of faecal waste, the emergency septic tanks provide an effective barrier to faecal-oral transmission both in the short and medium term.

The kit has already undergone a control trial in Germany which confirmed its physical strength and functionality. This final stage of development is a field trial in an emergency setting to confirm i) physical functionality & durability and ii) the expected performance advantage of this bladder membrane, designed to increase the temperature of fecal sludge, accelerating anaerobic digestion and pathogen die-off.

3. RESULTS:

tbc.

4. LEARNING/APPLICABILITY ELSEWHERE:

tbc.

5. ADDITIONAL INFORMATION:

Project Documents (See [EmergencySanitationProject](#)),

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