



unicef
for every child

Supply Division



Overview

The challenge

During the onset of an emergency, UNICEF quickly deploys products to support sanitation services, including latrines. **But what happens when the latrines fill up?** A critical step is to ensure the safe treatment of human waste.

Without faecal sludge and wastewater management, human waste can overflow contaminating the environment and nearby drinking water sources which increases the risk of epidemics in already vulnerable populations. Deadly diseases, such as cholera and dysentery, can rapidly become dangerous outbreaks in crowded camps and other humanitarian settings. In fact, [diarrhoea kills more children in war than war itself](#) with children under five years living in conflict zones 20 times more likely to die from diarrhoea due to unsafe water and sanitation, than from direct violence associated with the conflict.

As UNICEF continues to respond to conflict situations and rapid onset emergencies, there is a need to have product options that treat faecal sludge and wastewater, that are quick to set up and operationalize.

The product/s or kit would support UNICEF and partners' humanitarian response in conflict zones, refugee and displacement camps and the aftermath of disasters. It may also be used in urban and densely populated areas in developing countries.

The system would function as a temporary solution and as a stop gap for longer term situations.

Ideally, the product/s or kit will be pre-positioned and/or supplied through the UNICEF Catalogue to allow for rapid response within the first 6 - 12 months of an emergency.

The response

UNICEF is working with UNICEF Country Offices, industry, manufacturers and key water and sanitation partners to determine if currently available treatment products are suitable for humanitarian settings, or if further innovation through research and development is needed.

If no suitable products exists, UNICEF will work with and encourage industry to further develop their products, and to create new products that fits UNICEF contexts.

The impact

The development of a pre-packaged deployable product(s) or kit will help UNICEF rapidly respond to sanitation needs in sudden onset emergencies.

Through this faster and more effective response UNICEF can ensure appropriate and dignified sanitation for vulnerable children and their families and reduce the number of children dying from preventable diseases outbreaks, including cholera and acute watery diarrhoea.

An appropriate product would also contribute to achieving SDG 6.2: ensure access to water and sanitation for all.

Key figures



20x

Children under five are 20 times more likely to die from diarrhoea diseases due to unsafe water and sanitation than violence in conflict.

50%

Over half of the global population (4.2 billion people) do not have access to safe sanitation.

48 million children

In 2018, UNICEF estimated that 48 million children across 51 countries were affected by war, disasters or other emergencies.

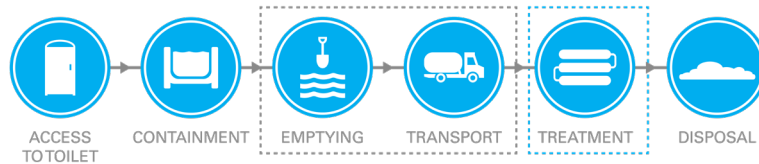
No 'out of the box' solution

UNICEF currently has no 'out of the box' system that can consistently provide high-quality sanitation solutions in emergencies.

The sanitation value chain

Whilst current UNICEF products allow for the rapid deployment of pit latrines to capture human waste, UNICEF has no products that are easy to deploy in response to humanitarian emergencies to treat faecal sludge and wastewater.

The focus of this project is treatment products. In some scenarios the product may need to be installed onsite, directly linked to the block of toilets or the containment part of the system. In other scenarios such as areas with limited space the product will be installed offsite leading to emptying and transportation of the waste. In areas where UNICEF has conducted treatment activities it largely consists of civil works and permanent infrastructure that has large area requirements, long construction time and is not suitable to deploy during emergency phase.



UNICEF's role

UNICEF is on the ground before, during and after emergencies, working to reach children and families with life-saving aid and long-term assistance. UNICEF currently leads the water and sanitation cluster of UN agencies and non-government organizations. This involves working with key stakeholders to identify best practice and consolidate, set and disseminate standards and policies. Through the global faecal sludge management technical working group, UNICEF also works with partner agencies to ensure a systematic approach to the treatment of faecal sludge in all future humanitarian crises. Any product/s developed will be a critical component of this aim with potential for wide-scale application in UNICEF and partners' humanitarian programming globally.

Faecal sludge management in one of the world's largest refugee camp

In August 2017 hundreds of thousands of Rohingya refugees fleeing violence in Myanmar crossed the border into Bangladesh. Within 10 months, the makeshift refugee camps in Cox's Bazar were home to almost 1 million people.

Humanitarian agencies rushed to provide shelter, water points and latrines in the densely populated camps. With the area prone to monsoons, landslides and flooding, the absence of comprehensive faecal sludge management presented potential health and environmental dangers. Human waste leaked from pit latrines into flooded walkways and areas where children played placing the already vulnerable population at risk of a major disease outbreak.

By July 2018, faecal sludge management systems were established by UN and NGO agencies, with pit latrines emptied manually by paid volunteers from among the refugee population who transported faeces to localized treatment facilities.

In many ways, the effort to provide safe sanitation services was unprecedented and impressive. But the scope and complexity of the crisis highlighted critical gaps. The ad-hoc systems were labour intensive, had high operating costs, insufficient treatment capacity for the population size, and were time-consuming to install and make operational.

This emergency, along with the 2010 Haiti earthquake and ongoing conflict in Syria, have demonstrated the need for easy to deploy sanitation solutions or product/s that can ideally be supplied through the UNICEF Supply Catalogue and prepositioned in advance of humanitarian disasters.

Images:

1. A team of Rohingya labourers build a latrine in Chakmarkul refugee camp in Cox's Bazar © UNICEF/UN0227743/Brown
2. A drainage channel cuts through the Kutupalong refugee camp in Cox's Bazar © UNICEF/UN0331051/Nybo
3. Paid volunteers transport faecal waste to a treatment plant in Chakmarkul camp © UNICEF/UN0226395/Brown
4. The faecal sludge treatment plant in Chakmarkul camp, July 2018 © UNICEF/UN0227745/Brown



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Esther Shaylor
Innovation Specialist
Product Innovation Centre
UNICEF Supply Division
Email: eshaylor@unicef.org

Sylvain Bertrand
Technical Manager
Water, Sanitation and Education Centre
UNICEF Supply Division
Email: sbertrand@unicef.org

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