



2018

Learning Brief: Sustainable low-cost sanitation - a reality or a myth?

Purpose

Nepal Red Cross Society (NRCS), through the Australian Government's CS-WASH Fund, has supported local institutions and communities in remote far western Nepal to achieve open defecation free (ODF) status.

To analyse the sustainability of this achievement, NRCS conducted research into households' understanding and practices related to faecal sludge management. Recognising that incorrect treatment and/or use would leave people exposed to pathogens, the research considered the impact on public safety.

Based on this research, learnings and recommendations for future programming have been developed.

Background

The Government of Nepal's National Sanitation Master Plan (NSMP) 2011 aimed to make the country ODF by 2018, progressing to Total Sanitation by 2030. To help accelerate achievement of ODF in rural areas various low-cost sanitation technologies, which mainly rely on locally-available material, have been promoted by government and NGOs as they are affordable and available to rural communities. For the most vulnerable poor families materials are sometimes provided through government subsidies or from national and international NGOs.

The Sanitation, Hygiene and Water Project (SHWMP) was implemented in Bajhang District and ran from July 2014 to June 2018. Bajhang is mountainous, up to 7000 metres above sea level, with low population density and a lack of transport and market infrastructure that limits access and service delivery. The target population was largely poor and included a number of Dalit communities. Guided by the NSMP, the project assisted these communities to address their water, sanitation and hygiene (WASH) needs so as to improve the health and wellbeing of all. Target areas have now been declared ODF and people have and are using toilets near their home. These communities are continuing toward Total Sanitation, which includes household and community hygiene and waste management indicators.

In line with government designs, the majority of households in the study area have purchased single-offset-pit-pour-and-flush latrines – these are toilets attached to a waste pit. There is a treatment that, when used correctly, breaks down the waste (sludge) in the pit, stopping the sludge being hazardous. The SHWMP approach was based on an understanding that people would be aware of, and able to, empty the pit safely, or would construct a new pit and move the toilet to this new location when the original pit was full.

Research Methods

A random sample of households in three wards in Bajhang district were surveyed (using confidence level of 95% and confidence interval of 5) and key individuals interviewed to assess their ability to treat the waste in the pit correctly and safely when it is full.

Key Findings

The study results indicate that, once the pits start getting full, there is a high risk of deterioration of health conditions in the community.

Safe desludging behaviour: The technology used and lack of knowledge regarding sludge management pose high risks to public health.

Survey results indicated that only 14% of single offset pit pour and flush latrine owners interviewed would be able to correctly sanitise the sludge using urea. Additionally, considering there is limited access to the required equipment, including protection gear, this result may in fact be even lower.

Sustained use of latrines: There is a risk that once latrines become non-functional, people will return to unimproved sanitation practices.

When pits are full, toilets start to become dirty, smelly and unpleasant, discouraging people from using them. During the survey, **28%** of respondents said that once the latrines are no longer functional (for any reason) they would either shift to open defecation in farms, beside streams or in the forest or use unimproved sanitation practices such as shallow pits.

Lessons Learnt

1. Safe sanitation practices require building understanding and commitment to both improved sanitation and faecal sludge management practices.

In the study area, the majority of the single-pit-pour-and-flush latrines were constructed around the same time as part of the campaign towards ODF. While demand creation approaches promoted low cost solutions, without an intensive education campaign regarding safe treatment and disposal this technology may in fact pose significant longer term public and environmental health risks.

2. When faced with issues related to treatment, emptying or disposal, a number of households do not appear to be committed to maintaining improved sanitation facilities.

As a result, practices may return to unimproved sanitation options or open defecation. This poses a significant risk to the whole community as, if realised, it will undermine the health benefits associated with being ODF. This indicates more focus on motivating maintenance post ODF and/or alternate technologies that reduce the need for emptying may be required.



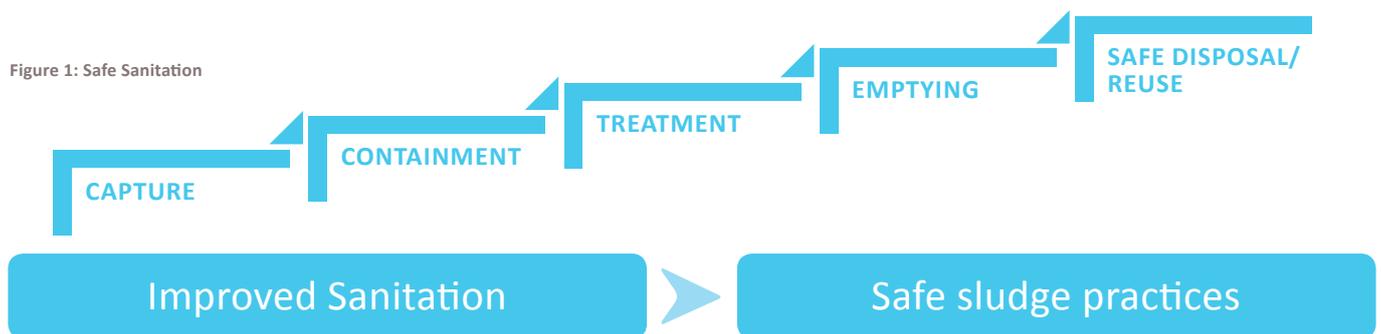
Recommendations

To ensure sustained and safe sanitary conditions at the household and community level, future programs need to focus beyond ODF/containment to disposal and reuse practices. This may include:

- Awareness raising with households and local authorities on the potential dangers associated with faecal sludge and increasing their knowledge on safe practices.
- Strengthening institutional capacity to conduct training and develop policies on sludge management.
- Developing guidelines and training material for safe emptying, disposal or reuse of pit contents.
- Conducting formative research at the start of a project to understand behavioural responses and constraints/restrictions to safe disposal (such as limited land availability) and integrate into project design and training.
- Promoting alternative technologies, such as alternate pits, that enable easy and safe pit emptying.

Underpinning these recommendations is a need for sector advocacy for legislation, backed by reinforcement, to ensure systematic management of sludge.

Figure 1: Safe Sanitation



The Sanitation, Hygiene and Water Project is supported by the Australian Government through the Australian Red Cross and implemented by Nepal Red Cross Society.

