

Process Evaluation of Tanzania's National Sanitation Campaign

POLICY BRIEF



Summary

In 2013, the UK Department for International Development (DFID) and the World Bank's Water and Sanitation Program (WSP) commissioned the Sanitation, Hygiene Applied Research for Equity (SHARE) consortium to design and implement a process evaluation of Phase I (2011-2015) of the Government of Tanzania's (GoT) National Sanitation Campaign (NSC). By reviewing the NSC's mid-term achievements - at the household and school levels - and rigorously assessing its implementation, the process evaluation sought to shed light on whether the NSC was likely to catalyse the changes anticipated and to identify potential steps that could increase the efficiency of the NSC.

This policy brief summarises the process evaluation, highlights its key findings and proposes several recommendations for maximising the NSC's effectiveness.

Key messages

- Process evaluations are useful tools for assessing whether interventions - such as Tanzania's National Sanitation Campaign (NSC) - are likely to deliver their intended outcomes.
- Despite awareness of the large health benefits of improved sanitation in Tanzania, the majority of the population still uses traditional and unhygienic pit latrines
- Lack of implementation of the NSC's behaviour change component may have hindered the campaign's overall effectiveness and sustainability.
- The importance of providing gender-specific and fully accessible sanitation and hygiene facilities in schools is an important area for the NSC to focus on.
- In Phase II of the NSC, it will be vital to address multiple faecal-oral transmission routes so that the intended health and development outcomes are achieved.

Written by:
 Alexandra Chitty¹
 Elisa Roma¹
 Sophie Durrans¹

¹ London School of Hygiene and Tropical Medicine

Background

The NSC: In 2011, as part of the Water Sector Development Programme (WSDP), the GoT launched the NSC, aiming to stimulate demand for and improve the supply of sanitation nationally with the overall goal of delivering health and education improvements. The campaign has two phases. The first phase (2011-2015) focussed on improving sanitation and hygiene conditions in households and schools in rural Tanzania. The second phase (2016-2020) will centre on improving these conditions in urban areas, in public spaces such as hospitals and health care facilities, as well continuing to support rural and school WASH (SWASH) improvements.

Coordinated and implemented by the Ministry of Health and Social Welfare (MoHSW), now renamed the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) and the Ministry of Education and Vocational Training (MoEVT), NSC Phase I sought to deliver:

- 1.3 million households with improved sanitation facilities
- 812 schools with access to improved sanitation and hygiene facilities
- 600 villages with signed Open Defecation Free (ODF) declarations
- 600 villages served by local service providers in their respective areas

These targets were to be achieved through a combination of community-led total sanitation (CLTS), social marketing and artisan training, a behaviour change campaign (BCC), and the rehabilitation or construction of appropriate WASH conditions¹ in schools.

The assumptions underlying the NSC principally centre on the premise that this body of programmatic activities will create a set of supply and demand conditions that will secure the uptake of new sanitation and hygiene behaviours by the target populations. This in turn will deliver improved health and development outcomes for those individuals.

The WASH situation in Tanzania: Despite the NSC, at the end of 2015, 94% of the population was still using unimproved sanitation facilities (WHO/UNICEF 2015) and the proportion of rural inhabitants without an improved latrine was significantly higher than that of their urban compatriots (ibid). The latest available nationally collated data on hygienic conditions shows that one in ten households had handwashing facilities near their latrines or kitchens and 28% did not dispose of children's stools appropriately [NBS,

¹ The MoHCDGEC identifies five types of latrines:

- 1) Traditional Pit Latrines (TPL) - This is a dry pit latrine which is not an Eco-san or VIP, it is classified as unimproved facility.
- 2) Improved Traditional Pit Latrine (ITPL): E.g. SanPlat has important aspects of improved toilet; a washable floor finish and privacy (lockable door and shutter).
- 3) Ventilated Improved Pit Latrine (VIP) - Dry latrine fitted with a vent pipe.
- 4) Flush Toilet- All latrines that use water for flushing fitted with a water seal
- 5) Ecological sanitation toilet. The toilet that separate feces and urine. The two excrements are used as soil conditioner.

Methods

SHARE and the GoT undertook this work in a collaborative manner. SHARE prepared the process evaluation’s design and protocol, while the MoHCDGEC coordinated data collection. The National Institute for Medical Research (NIMR) advised on protocol interpretation and fieldwork execution, the National Bureau of Statistics (NBS) selected the study area and developed the sampling methodology, and SHARE undertook data cleaning and analysis alongside a NIMR statistician, with technical inputs from DFID and WSP.

Designing a protocol

Based on the WSDP’s Theory of Change (see Section 2 of the report) and existing evaluation literature [Chen and Rossi, 1989; Van Belle et al, 2010], SHARE developed a theory-driven protocol for evaluating the behavioural and environmental determinants (enabling factors and constraints) of sanitation uptake. This allowed for rigorous assessment of the likelihood that the NSC would catalyse the health and development improvements expected (see Figure 1).

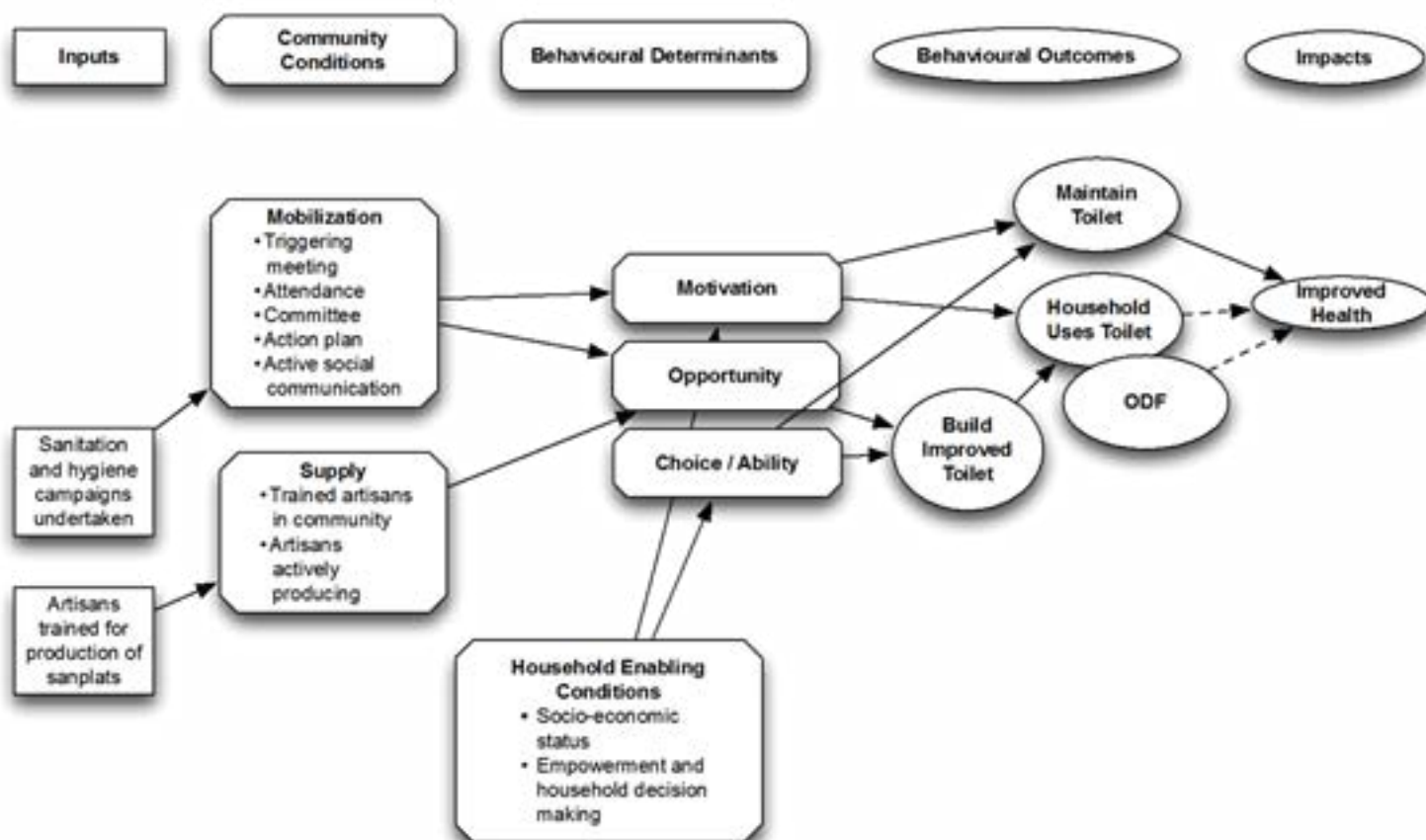


Figure 1 - Integrated framework for the process evaluation of the NSC household component

This theory-driven protocol comprised of an evaluation of the NSC’s action model as well as an evaluation of its change model. The former assesses whether the NSC’s implementation activities are taking place and reaching the target population, and the latter investigates whether proper implementation results in the expected changes in behaviour and impact.

The process evaluation comprised of four components, conducted from August-December 2014:

1. A cross-sectional **household survey** - 4,416 households from the 46 districts where the NSC was taking place at the time of evaluation
2. A cross-sectional **SWASH survey** - 70 schools where NSC sanitation improvements had been completed at the time of evaluation
3. A **community survey** to further validate whether the intended NSC activities took place at community level¹
4. **Key informant interviews** to assess the NSC’s **enabling environment** and the costs necessary to achieve expected results - 111 key informants comprising of regional and district Health Officers and Education Officers from areas implementing the NSC at the time of evaluation

Cleaning and analysis of these primary data sources took place from January- July 2015, and was complemented by analysis of secondary data sources including MoHCDGEC Quarterly Monitoring Reports (covering the implementation period January 2013- December 2014) and Aide Memoires of Water Sector Development Programme (WSDP) Joint Supervision Meetings² (covering September 2011-October 2014).

Process Evaluation				
Household survey	SWASH survey	Community survey (incomplete)	Key informant interviews	MoHCDGEC Quarterly Monitoring Reports & Aide Memoires of the WSDP Joint Sector Meetings

Figure 2: Process Evaluation Components

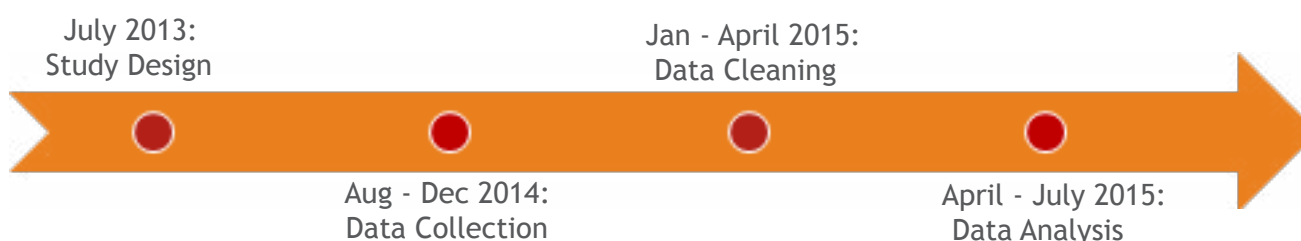


Figure 3: Process Evaluation Timeline

¹ This dataset was invalidated due to problems with data collection.

² The National Sanitation Campaign (NSC) is a four-year programme (2011-2015) falling within the rural water supply and sanitation component of the Water Sector Development Programme (WSDP). The WSDP adopts a sector wide approach programme, which incorporates all activities undertaken in the water sector in Tanzania, funded by development partners and the government of Tanzania. The WSDP has periodic missions to assess progress of the Programme.

Findings

The Action Model: The GoT, both the MoHCDGEC and MoEVT, have demonstrated potential for managing and delivering a sanitation programme at national scale. The ability to engage communities through CLTS and establish training and monitoring mechanisms were impressive. Several barriers to successful implementation of the NSC Phase I were identified and will need to be addressed during the design of Phase II. These include:

1. Systematic delays in disbursing funds from national to regional and local governments, as well as limited capacity at regional and district levels to manage budget allocation. This resulted in 19% of the budget not being disbursed by the final year of the NSC campaign.
2. Capacity gaps and lack of human resources and incentives at the local level led to challenges around monitoring NSC outcomes and coordinating NSC activities. In Phase I, over 50% of the quarterly monitoring and financial expenditure reports were delayed or were not submitted. Many of those that were submitted were of poor quality, which raises questions concerning the validity of the NSC's output data.
3. Reported irregularities and procurement delays at central level relating to the selection of marketing agencies and development of NSC messaging., This resulted in a crucial NSC component, the BCC, not being implemented alongside the CLTS component. The process evaluation's findings suggest this may have affected the NSC's effectiveness, as without addressing and the drivers of behaviour change along multiple faecal-oral transmission routes, it would be challenging to realise the full health impacts envisaged by the NSC. This is in line with another study by Briceño et al. [2015], evaluating the impacts of a sanitation marketing campaign implemented by the World Bank in some rural district of Tanzania.

Further details of the action model-related constraints to success, identified by the process evaluation, are outlined in the full report.

The Change Model: When assessing whether the NSC inputs resulted in the expected behaviour changes and outputs in household and school settings, the process evaluation found that:

1. A small minority reported to have built a new latrine during the period of the NSC.

61% of respondents stated they had heard of the NSC in the past 6 months. 16% of households reported having made improvements to their latrines and 10% of these reported having built a new latrine in the past year. Neighbours were the principal source of information for latrine construction (53%), with masons playing only a marginal role (32%).

2. Respondents had a good understanding of the social and health benefits of improved sanitation.

86% of respondents recognised that using or building an improved latrine is good for one's health and safety, and confers financial savings. Strong social norms were also reported, with the status that having a clean, improved toilet for visitors and visible to neighbours being deemed important for 97% of respondents and open defecation being perceived as an unacceptable practice for children and adults by 90% of respondents.

3. Coverage of improved sanitation and handwashing facilities was low.

25% of the households surveyed were observed to have an improved latrine, with 18% lacking a sanitation facility. 9% were observed to have functional handwashing facilities, with 4% having soap and water present.

4. Traditional pit latrines are the main type of sanitation facility used.

57% of the facilities observed were traditional pit latrines in poor hygienic conditions. Approximately half of the latrines observed (48%) were reported to smell, have flies (52%) or have visible faeces outside the cubicle (24%). The majority had no door (68%) and 49% were observed to have a functional superstructure. 18% of the households surveyed did not have sanitation facilities.

5. Half of the schools surveyed met the toilet to student ratio set by the MoHCDGEC.

43% of schools met the toilet to female student ratio of 1:40, while half of the schools met the toilet to male student ratio of 1:50. This is below the WHO/UNICEF 2011 guidelines which recommend a 1:25 ratio for female students [WHO & UNICEF, 2011]. Additionally, 90% of the schools had one toilet block, with no separate, detached facilities for boys and girls, rendering these non-user friendly for girls. Additionally, 74% had no facilities accessible to learners with physical disabilities.

accessible to learners with physical disabilities.

6. Half of the schools had appropriate water, sanitation and hygiene facilities.

66% of schools had a functional water supply system and 53% had a regular supply throughout the year. The most common type of toilet facility in schools was the ventilated improved pit latrine. 37% of schools reported regularly providing anal cleansing materials for students. More than half of schools featured handwashing stations, and 39% reported availability of soap.

Overall, the process evaluation's findings highlight that the NSC's Theory of Change could not be fully realised because some of its core components were not implemented due to the challenges outlined above (action model). The process evaluation suggests that these may have affected the NSC's outcomes as indicated by the above change model data. However, it should be noted that the design of the process evaluation is such that the changes in behaviours and NSC outputs cannot be attributed to the NSC alone; spillover may have occurred from other ongoing interventions in Tanzania.

Moreover, the process evaluation's design and the lack of standardised baseline data available precludes analysis of progress against the NSC's four key deliverables (outlined on page 1 of this brief). The process evaluation's findings do, however, offer a representative overview of the prevalent sanitation and hygiene conditions and behaviours in the intervention areas which will be of particular interest to those designing Phase II of the NSC.

Recommendations

Design

1

A behaviour change campaign that takes into account the multiple behavioural drivers identified in the process evaluation should be designed.

2

The GoT should ensure that a behaviour change campaign is tested and delivered through existing local government structures.

Planning and Budgeting

3

Ensure appropriate planning and budgeting for activities based on a Theory of Change developed for each component of the programme.

4

Develop a sound accounting system at the district, regional and national levels for each of the NSC's activities.

5

Increase resources for improving the enabling environment present in schools, particularly the ratio of latrines per male and female learners, and maintenance of facilities.

Implementation

6

Improve coordination between stakeholders, through a NSC coordinating unit, clear terms of references for roles and responsibilities, and corrective mechanisms for non-compliance.

7

Ensure sufficient and skilled human resources are allocated exclusively to implementing and monitoring NSC activities.

Recommendations

Monitoring and Evaluation

8

Strengthen the monitoring and evaluation component of phase II by conducting multi-stage process evaluation, as well as a nationally representative baseline of WASH conditions to assess progress.

9

Establish a standardised monitoring mechanism with key indicators and milestones which all stakeholders will use for reporting on activities.

10

Establish rigorous and independent monitoring mechanisms for reporting outputs at local (village), district and regional levels, which take into account the challenges of incentives and resources experienced by ward and village level data collectors.

References

Black, R.E., Allen L.H., Bhutta, Z.A., Caulfield, L.E., Onis, M., Ezzati, M., Mathers, C., Rivera, J. and the Maternal and Child Undernutrition Study Group, 2008. Maternal and child undernutrition: global and regional exposures and health consequences. *Lancet*, 371, pp. 243-260.

Briceño, B., Coville, A. and Martinez, S., 2015. Promoting Handwashing and Sanitation: Evidence from a large scale randomised trial in rural Tanzania. Policy Research Working Paper, 7164, World Bank: Washington DC.

Brombacher, A., Batchelder, K., Mulcahy-Dunn, A., Dick, A., Downs, P., Nordstrum, L., King, S. Cummiskey, C. and Davidson, M., 2014. Assessment of School Quality for Education and WASH in three regions of Mainland Tanzania namely Mbeya, Iringa, and Njombe. A report prepared by RTI International for UNICEF, Tanzania.

Chen, H. and Rossi, P., 1989. Issues in the theory-driven perspective. *Evaluation and Program Planning*, 1989. 12(4), pp. 299-306.

Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., Strupp, B., and the International Child Development Steering Group, 2007. Developmental potential in the first 5 years for children in developing countries. *Lancet*, 369 (9555), pp. 60-70.

National Bureau of Statistics (NBS) (Tanzania) 2014. Tanzania Household Budget Survey 2011/12. Dar es Salaam, Tanzania: NBS. [online] Available from: <http://www.nbs.go.tz/tnada/index.php/catalog/36>

Van Belle, S.B., Marchal, B., Dubourg, D., and Kegels, G., 2010. How to develop a theory-driven evaluation design? Lessons learned from an adolescent sexual and reproductive health programme in West Africa. *BMC Public Health*, 10, p. 741.

Victora, C.G., Wagstaff, A., Schellenberg J.A., Gwatkin D., Claeson M., Habicht J.P., 2003. Applying an equity lens to child health and mortality: more of the same is not enough. *Lancet*, 362, pp. 233-41.

WHO and UNICEF (2011). WASH in Schools Monitoring Package. WHO: Geneva and UNICEF, New York. [online]. Available from: http://www.unicef.org/wash/schools/files/wash_in_schools_monitoringpackage_.pdf

WHO/UNICEF, 2015. Progress on Sanitation and Drinking Water. 2015 Update and MDG Assessment. Geneva: WHO and New York: UNICEF. [online]. Available from: http://www.unicef.org/publications/files/Progress_on_Sanitation_and_Drinking_Water_2015_Update_.pdf

Research for sanitation and hygiene solutions

The world is seriously off-track in meeting the Millennium Development Goal on sanitation and 2.6 billion people are still without a safe toilet.

SHARE aims to address these challenges by accelerating progress on sanitation and hygiene in developing countries by generating rigorous and relevant research and ensuring new and existing solutions are adopted at scale.

The consortium conducts research across four pillars:

- Health
- Equity
- Urban
- Markets

SHARE’s activities primarily take place in its focus countries:

- Bangladesh
- India
- Malawi
- Tanzania

The DFID-funded SHARE consortium is led by the London School of Hygiene and Tropical Medicine. Its other partners are the International Centre for Diarrhoeal Disease Research, Bangladesh, International Institute for Environment and Development, Shack/Slum Dwellers International and WaterAid.

November 2016

Contributors



This material has been funded by UK aid from the Department for International Development (DFID). However, the views expressed do not necessarily reflect the Department’s official policies.

