

Community-Led Total Sanitation (CLTS) 
Case Study

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IRC International Water and Sanitation Centre

November 2013

ACKNOWLEDGMENTS

This case study is part of the Learning from Innovation: One Million Initiative in Mozambique project and was jointly produced by UNICEF Mozambique and IRC International Water and Sanitation Centre.

The UNICEF Mozambique team is acknowledged for their valuable and collaborative inputs, in particular: Samuel Godfrey, Americo Muianga, Carlota Isac Muianga, Matteus van der Velden, Alberto Cumbane and Angelina Xavier.

This study is written by Charles Pendly and Ana Lucia Obiols.

Cite this work as follows: Pendly, C. and Obiols, A.L., 2013. *Learning from innovation: One million initiative in Mozambique, Community-led Total Sanitation case study*. The Hague: IRC International Water and Sanitation Centre.

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ABBREVIATIONS

APEs	Agentes Polivalentes Elementares (multi-purpose agents)
CATS	Community Approach to Total Sanitation
CTLS	Community-Led Total Sanitation
DNA	<i>Direcção Nacional de Água</i> (National Directorate of Water, Mozambique)
EAS	Social Area Enterprises
GoM	Government of Mozambique
GoN	Government of The Netherlands
IRC	IRC International Water and Sanitation Centre
MDG	Millennium Development Goals
NGO	Non-governmental Organisation
OD	Open Defecation
ODF	Open Defecation Free
OMI	One Million Initiative (of the UNICEF, the Government of The Netherlands and the Government of Mozambique)
PEC	Zonal District-wide Participatory Education and Training
PHAST	Participatory Hygiene and Sanitation Transformation
PRA	Participatory Rural Appraisal
PRONASAR	<i>Programa Nacional de Abastecimento de Água e Saneamento Rural</i> (National Rural Water Supply and Sanitation Program, Mozambique)
RWSS	Rural Water Supply and Sanitation
SDEJT	<i>Serviço Distrital de Educação Juventude e Tecnologia</i> (District Service of Education, Youth and Technology)
SDPI	<i>Serviço Distrital de Planeamento e Infra-estruturas</i> (District Services for Planning and Infrastructure)
SDSMAS	<i>Serviço Distrital da Saúde, Mulher e Acção Social</i> (District Service of Health, Women and Social Action)
SINAS	<i>Sistema de Informação Nacional de Água e Saneamento</i> (National Information System for Water and Sanitation)
WASH	Water, Sanitation and Hygiene
WSP	Water and Sanitation Program (of the World Bank)

EXECUTIVE SUMMARY

This case study examined Community-Led Total Sanitation (CLTS) as an approach to improve sanitation and hygiene in communities and schools in the One Million Initiative (OMI) in Mozambique. OMI is a large-scale rural water, sanitation and hygiene (WASH) programme jointly implemented by the Government of Mozambique (GoM) and UNICEF, with financial support from the Government of The Netherlands (GoN).

CLTS was adopted by the *Programa Nacional de Abastecimento de Água e Saneamento Rural* (PRONASAR) and a number of other programmes and projects in the country. It was instrumental in developing guidelines for safe sanitation in rural Mozambique. For its efforts to implement CLTS, Mozambique received an international award.

Given its integration within district-wide Community Participation and Training, known as PEC Zonal in OMI, CLTS has contributed to introducing more sustainable ways of managing sanitation and hygiene in rural Mozambique. As part of PEC Zonal, CLTS developed the management capacity of local small-scale providers, such as artisans and activists.

CLTS has achieved promising, though uneven, results so far. The findings of the case study demonstrate that CLTS should be given more time to achieve its full potential on a larger scale. Whilst piloting was successful in testing scaling up from the community to locality¹ level—further information on CLTS's long-term contributions to the delivery of sustainable sanitation services should be collected over a longer time period, and documented and disseminated in Mozambique and internationally.

A number of gaps that must be addressed to improve CLTS as an approach to service delivery include: added capacity building and training on sanitation design using local materials; better understanding of the supply chain for sanitation services and products; understanding the limitations in soil conditions for construction of facilities to meet the criteria for safe sanitation; analysing costs of replacement/reconstruction of latrines; advocating for local government commitment to continue implementation of CLTS; deepening analysis on financing to facilitate/ sustain payments based on community values and norms; and ensuring consistency in the quality of triggering when scaling up CLTS.

Recommendations to address these identified gaps, with a focus on rural Mozambique, are presented.

¹ The locality is between the community and district. It is a cluster of communities, similar to a ward.

1 INTRODUCTION

The *Direcção Nacional de Água* (DNA) is responsible for the implementation of PRONASAR which was officially launched in March 2010, and legally established by decree 258/ 2010 on 30 December 2010.

PRONASAR is the framework for implementing the Rural Water Supply and Sanitation Strategic Plan (PESA-ASR) 2006-2015. Its aim is to reach the Millennium Development Goals (MDG) target of 70 per cent of people in rural areas having access to water supply, and 50 per cent having access to sanitation. PRONASAR also addresses aid harmonisation and institutional reforms in the RWSS sub-sector, with particular focus on capacity development at district and local levels.

The four key components of PRONASAR are:

- Support to sustainable increase in rural water supply and sanitation (RWSS) coverage;
- Development of appropriate technologies and management models for RWSS;
- Capacity building and human resource development in the RWSS sub-sector; and
- Support to decentralised planning, management, monitoring and financing of RWSS activities.

Two case studies were undertaken by DNA (PRONASAR PIA, 2012) to identify approaches that enhance sustainability of water and sanitation services within the framework of a Community-Based Management Model: communities taking responsibility for managing water supply and sanitation.

The first initiative, supported by the Water and Sanitation Program (WSP) of the World Bank, was to study water supply systems that have been effectively working for more than five years.

In partnership with UNICEF Mozambique, IRC International Water and Sanitation Centre (IRC) built on this work to support the development of four case studies² from the OMI, with the generous support of the Water Services That Last, or Triple-S³, programme.

These case studies distilled lessons and experiences from rural water and sanitation activities in Sofala, Tete and Manica provinces in central Mozambique, which were commissioned and handed over to communities in 2008, but where post-construction support activities are still in progress.

The four case studies were:

- Community Participation and Training at District Level (PEC Zonal)
- Community-Led Total Sanitation
- Contract Management of Service Providers
- Sustainability Check

The case studies offered lessons and recommendations to PRONASAR for the revision of approaches (e.g., *Manual de Implementação de Programas de Água Rural*) and provided guidance on how to move from stand-alone WASH projects and programmes to integrated and harmonised initiatives that build the capacity to deliver WASH services that last.

² Systems where improved WASH infrastructure has been handed over to communities that have been functioning for two to five years.

³ More information on Triple-S is available at www.waterservicesthatlast.org.

This case study analysed one of the four innovations identified for analysis in the OMI: Community-Led Total Sanitation (CLTS). The following questions were addressed:

- What can we learn from CLTS for scaling up more effective WASH implementation approaches and practices?
- What are the gaps in CLTS to be addressed vis-à-vis factors for sustainability from international experience, which are consistent with the policy and strategy framework in Mozambique?
- What is needed for more effective implementation of CLTS and how can we move from effective implementation to a programmatic and sustainable service delivery approach to rural sanitation in Mozambique?

2 METHODOLOGY

2.1 SANITATION SERVICES VERSUS TECHNOLOGIES

The contribution of WASHCost's⁴ approach to assessing sanitation service levels was a set of globally comparable sanitation service levels comprising service indicators, rather than sanitation technology options as set out in sanitation ladders commonly used today⁵.

TABLE 1: SERVICE PARAMETERS OF THE WASHCOST SANITATION LADDER	
SERVICE PARAMETERS⁶	SERVICE INDICATORS
Accessibility	Distance from households, effort required for use, safety, privacy ⁷ , dignity, minimises flies and bad odours, acceptable waiting time for communal facilities.
Use	Safe and hygienic use by all members of the household, day and night and in all seasons, and infant faeces disposed in the latrine.
Reliability	Effort required for operation and maintenance of the toilet, e.g., pit desludging (mechanical) or emptying (manual). Operation and maintenance safe for users and service providers. Longevity and robustness of top and underground structures.
Environmental protection	Environmentally-safe containment, collection, treatment, disposal and reuse of excreta and urine. Productive re-use of safe by-products.

Source: Potter, et al., 2011.

⁴ See Potter, A., with Klutse, A., Snehaltha, M., Batchelor, C., Uandela, A., Naafs, A., Fonseca, C. and Moriarty, P., 2011. *Assessing sanitation service levels*. [pdf] The Hague: IRC International Water and Sanitation Centre. Available at: <<http://www.washcost.info/page/902>> [Accessed 4 July 2013].

⁵ For Mozambique-specific sanitation levels, see Potter, A., Uandela, A. and Naafs, A., 2011. *Sanitation service levels: assessing sanitation service levels in rural and peri urban Mozambique*. [pdf] Maputo: WASHCost Mozambique. Available at: <http://www.washcost.info/media/files/sanitation_service_levels> Accessed [5 November 2013].

⁶ Service parameters can be thought of as composite service indicators. Scale and affordability are also important service parameters and can be addressed through data aggregation and analysis.

⁷ This indicator does not refer only to individual household latrines. Privacy is also possible with communal facilities and this indicator refers to having a door and walls for privacy and safety.

Based on the above service parameters, the reality of sanitation services in WASHCost’s focus countries (Burkina Faso, Ghana, Mozambique and Andhra Pradesh, India), and considering the functional areas of a sanitation service delivery chain—a sanitation service ladder with four broad categories/ levels was developed. The limited service category was included (below basic) in recognition of efforts to achieve an acceptable service level which may fall below the WHO/ UNICEF’s Joint Monitoring Programme’s (JMP) basic standard.

The parameters used to differentiate between service levels are shown below:

TABLE 2: SERVICE LEVEL INDICATORS				
SERVICE LEVELS	ACCESSIBILITY	USE	RELIABILITY (O&M)	ENVIRONMENTAL PROTECTION
Improved service	Each family dwelling has one or more toilets in the compound	Facilities used by all household members	Regular or routine O&M (including pit emptying, moving or redigging) requiring minimal user effort	Non-problematic environmental impact disposal and reuse of safe by-products
Basic service	Latrine with impermeable slab at national norm distance from household	Facilities used by some members of household	Unreliable O&M (including pit emptying, moving or redigging) requiring high user effort	Non-problematic environmental impact and safe disposal
Limited service	Platform without impermeable slab separates faeces from users	No use or insufficient use	No O&M (including pit emptying, moving or redigging) taking place and an extremely dirty toilet	Significant environmental pollution, increasing with increased population density
No service	No separation between user and faeces, e.g., open defecation	N/A	N/A	N/A

Source: Potter, et al., 2011.

The two levels of acceptable sanitation services are described as follows (IRC, 2010):

Improved service: Each family dwelling has one or more convenient, private, safe, robust sanitation facilities, used by all household members, with minimal effort required for de-sludging and long-term maintenance, and there is non-problematic environmental impact and/ or reuse of safe by-products.

Basic service: Each family dwelling has access at national norm distance to a safe, relatively robust sanitation facility with an impermeable slab, which is used by most members of the household, with relatively weak de-sludging and other long-term maintenance provisions, and non-problematic environmental impact or safe disposal of sludge. This is typical of most improved rural and peri-urban sanitation services, and aligns with the JMP standard for basic, except describing the slab as impermeable rather than cement.

With the proliferation of traditional latrines in many developing countries, including Mozambique, in order to represent an improvement from the practice of open defecation—a limited service level was included: at which a household has access to a latrine with a platform (of any material) separating faeces from the user.

2.2 ANALYTICAL FRAMEWORK

As set out above, defining sanitation service levels involved an assessment of indicators related to use, accessibility, reliability and environmental protection (Potter, et al., 2011). These indicators were used to define service levels ranging from none to limited, basic and improved. While it was beyond the scope of

the study to assess sanitation service levels resulting from CLTS against these indicators (national standards were used), safe sanitation standards were found to be equivalent to basic service levels, in terms of accessibility and use (see Table 3).

TABLE 3: RURAL SANITATION SERVICE STANDARDS

MOZAMBIKAN STANDARD: SAFE SANITATION	INTERNATIONAL: BASIC LEVEL OF SERVICE
Improved pit latrine (an improved latrine using local materials) with wall, roof, privacy, lid to avoid human contact with faeces and handwashing facilities. Promotion of hygiene practices and sanitary education at family and community level.	Basic sanitation service which means all household members have reasonable access to and use a safe, clean facility, weak maintenance provisions and non-problematic environmental impact or safe disposal of sludge.

Source: DNA, 2012.

For the purpose of this study, WaterAid’s definition of sustainability of WASH (WaterAid, 2010), was adapted as follows:

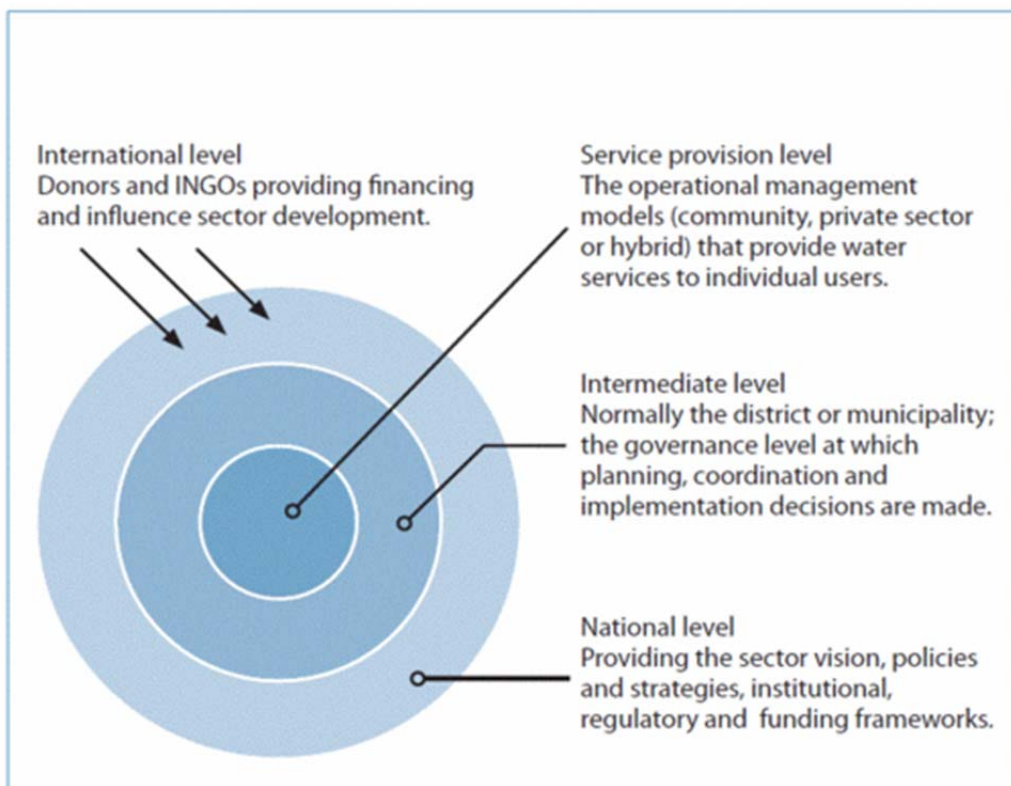
Sustainability is about whether or not WASH services and good hygiene practices continue to work and deliver benefits based on the capacity of a local service provider, responding to peoples’ perceptions and willingness and ability to pay for a desired level of services over time. No time limit is set on those continued services, behaviour changes and outcomes. In other words, sustainability is about lasting benefits achieved through the continued improvement and enjoyment of water supply and sanitation services and hygiene practices.

Five factors related to the sustainability of WASH services were assessed by this study, using the lens of a service delivery approach (see Figure 1):

- Technical/ environmental factors related to infrastructure that is appropriate to use and context.
- Financial factors related to ensuring availability of funds to keep the service running.
- Social/ community factors related to keeping users motivated and satisfied with services.
- Governance/ institutional factors related to having an enabling environment to support and regulate service provision.
- Service provision factors, including skills, systems and tools, required to keep the service running

A focus on service delivery rather than infrastructure provision broadened the scope of analysis from effective implementation of a WASH project, to facilitating the analysis of roles and functions of stakeholders, at different levels, to ensure the sustainable delivery of water and sanitation services. Visually depicted in Figure 1, the approach analyses the potential of innovation for service delivery by level: starting from **service provision** (infrastructure and management model), to the **service authority** (governance, planning and regulation – intermediate level), to the **enabling environment – national level** (sector policy and strategic level) and finally, the **international level** (which provides financing and influences sector development).

FIGURE 1: SERVICE DELIVERY APPROACH⁸



Source: http://www.waterservicesthatlast.org/resources/concepts_tools/service_delivery_approach

2.3 DATA COLLECTION

2.3.1 Desk study

Documentation from sustainability checks, baseline, mid-term impact reviews and evaluations, additional strategy papers and research related to OMI were reviewed⁹. Information was also used to assess the efficiency and effectiveness of NGOs and contractors.

2.3.2 Qualitative analysis

A qualitative analysis was conducted on information collected—through field visits and interviews with key informants from district government, NGOs/ social area enterprises (EAS), artisan associations, local mechanics and communities—to understand outcomes, achievements and constraints of factors influencing sustainability. Two districts were selected: one by UNICEF as a good practice, and the second, randomly.

Within each district, three localities were chosen, each with different technical and social characteristics (e.g., different water table depths, distance from main roads and availability of transport and communication networks).

Within each locality, six households were randomly selected and interviewed to collect information about WASH practices. Focus group discussions (FGDs) were conducted with community members using water

⁸ For more information, visit the Triple-S website at: <http://www.waterservicesthatlast.org/>

⁹ Quantitative data in this case study was drawn from secondary information sources provided by UNICEF.

from a protected source¹⁰. Information from household interviews and FGDs was used to guide interviews with water and sanitation committees and better understand issues highlighted by community members.

3 THE ONE MILLION INITIATIVE

The seven-year programme (September 2006–December 2013) known as OMI was the result of a partnership between GoN, UNICEF and GoM. It supports GoM in achieving sustainable progress towards target ten of the MDG to ‘halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation’¹¹, and links this with other MDGs (poverty reduction, infant mortality reduction, basic education, gender equality, HIV/ AIDS and partnerships) to ensure improvements in child survival and development.

The OMI is being implemented in 18 districts in Manica, Sofala and Tete provinces in central Mozambique. The total budget for the programme is € 32.64 million, of which 65 per cent is provided by GoN, 19 per cent by UNICEF, 13 per cent by GoM, and three per cent by its beneficiaries.

FIGURE 2 : OMI LOCATIONS

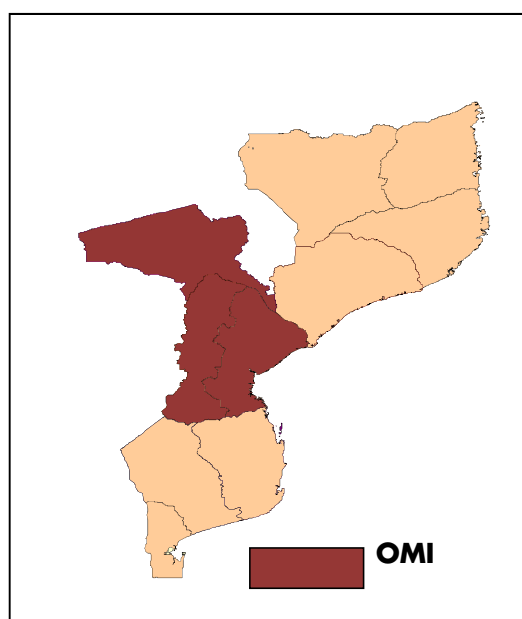


Table 4 shows OMI’s expected outputs by the end of the programme in 2013, and what has been achieved during its first six years.

¹⁰ A protected well, borehole or small pipe system.

¹¹ See <http://www.unmillenniumproject.org/goals/gti.htm>.

TABLE 4: EXPECTED OMI OUTPUTS

EXPECTED OUTPUTS (2013)	ACHIEVED (2006-2011)
One million people in the rural areas use safe drinking water through the construction of new sources of water supply.	770,000 new users through 1,470 new water points and 10 small pipe systems.
200,000 people use safe drinking water through the rehabilitation of their sources of water supply.	200,000 new users through 324 rehabilitated water points.
One million people use adequate sanitation facilities.	1,210,759 people using hygienic sanitation facilities through 250,020 self-constructed household latrines in 679 ODF villages, including 58 ODF+ villages.
1.2 million people adopt appropriate hygiene practices.	1,210,759 people with appropriate hygiene practices such as handwashing with soap or ash.
400 primary schools (with a total of 140,000 pupils) use appropriate drinking water, sanitation and hygiene facilities.	214 primary schools with hand pumps, benefiting 74,900 learners and 101 schools ¹² with adequate sanitation complexes benefitting 35 schools.
18 districts and three provinces have strengthened technical and management capacities for the planning, coordination and implementation of programmes for water supply, sanitation and hygiene education.	Sustainability of water infrastructure improved from 54% to 82% between 2008 and 2011.

Source: UNICEF, 2012a.

OMI supports the rural water supply and sanitation sub-sector not only by increasing coverage and access to services, but also by reducing morbidity and mortality due to waterborne disease, and contributing to increasing primary school attendance, particularly among girls. It aims to change water, sanitation and hygiene practices, and indirectly improves livelihoods and alleviates rural poverty by reducing time spent collecting water; typically a task for women and girls.

3.1 OMI COMPONENTS

The OMI has two main components: access to water and sanitation, and capacity building—comprising rural water supply, community and hygiene and sanitation promotion, and school sanitation and hygiene promotion, as described below:

- **Rural water supply** – Boreholes fitted with handpumps are the main technology. Other types of water supply (e.g., mini-pipe systems) are implemented in larger communities with high population densities. Management models include community management for boreholes with handpumps, and private operators for mini-pipe systems.
- **Community hygiene and sanitation promotion** – Community self-analysis and joint decision making for behavioural change, i.e., ODF communities. The Community Approach to Total Sanitation (CATS) merges CLTS with an awards scheme for recognition of achieving ODF status.
- **School sanitation and hygiene promotion** – School-based interventions that are gender sensitive and address water and sanitation needs of girls in schools through the construction of water supplies and separate latrines for girls, boys. CLTS is adapted for schools—School Led Total Sanitation.

¹² School latrines were not accounted for in previous reports.

- **Capacity building** – Creating an enabling environment for sustainable services including building capacity at user, district, provincial and national levels; and supporting spare parts supply chains and private and public sector. Also creates capacity at local level for implementing CLTS at local government level, schools, NGOs and communities.

OMI’s sustainability strategy (UNICEF, 2012b) is based on a holistic approach to sustainability starting at community level, with the demand for water and sanitation services generated by increased hygiene awareness. The sustainability of services depends on local management capacity and effective support from service providers, bolstered by an enabling policy environment. OMI involves provincial authorities as intermediate service authorities to provide guidance, coordination and monitoring, as well as annual planning and budgeting and contract management. OMI aims to strengthen the supply of spare parts, introduce and support a bottom-up monitoring system, and promote contracts between community water and sanitation committees and local artisans and mechanics.

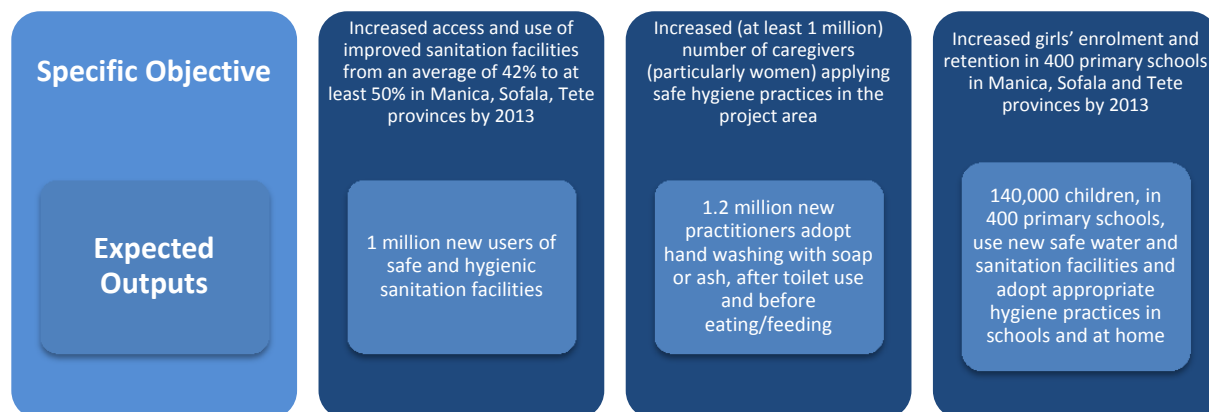
4 COMMUNITY-LED TOTAL SANITATION

4.1 OBJECTIVES AND TARGETS

According to the WHO/ UNICEF Joint Monitoring Programme (2010), in 2010 only nine per cent of the population had access to improved sanitation facilities. There was a disparity between urban and rural access, with 21 per cent of the urban versus five per cent of the rural population using improved sanitation facilities. Sanitation coverage in Tete, Manica and Sofala provinces was found to be below the national average in 2007.

Figure 3 below shows the objectives and expected outputs of OMI related to CLTS.

FIGURE 3: CLTS OBJECTIVES AND EXPECTED OUTPUTS



Source: UNICEF, 2012a.

4.2 WHY CLTS?

OMI was originally designed to use the Participatory Hygiene and Sanitation Transformation (PHAST) approach complemented by strengthening supply mechanisms through sani-centres and trained artisans at

district level. However, little demand was generated, and the sani-centres sold few slabs for improved latrines¹³.

In the 1990s, *palestras* (presentations/ talks to groups) were used to promote sanitation and hygiene. In early 2000, the PHAST approach was introduced in Mozambique. PHAST sought to facilitate participatory problem solving through the use of pictures to help map faecal-oral contamination routes and barriers. As PHAST required skilled facilitation, in many cases, the shift from the use of *palestras* as didactic rather than participatory tools was not achieved.

CLTS is a relatively new approach in Mozambique, with both opportunities and challenges (Haq and Bode, 2008). CLTS appealed to strong emotions such as self-respect, shame and disgust. A central tenet of CLTS is that behaviour change occurs when emotional responses are combined with cognitive understanding. CLTS uses three main triggers to bring about behaviour change.

- Direct observation of defecation practices, hands-on demonstration and handling of faeces provoke shame and disgust when participants realise that faeces can get into everybody's mouth. If this trigger is effectively executed, a collective sense of urgency for change is created.
- Instead of focusing on households, CLTS creates a collective sense of disgust and uses peer pressure to generate a need for collective action.
- CLTS uses public, visual monitoring of achievement and recognition of successes. It maintains the momentum of change by motivating pride and competition to boost the household's commitments in public¹⁴.

A potential weakness of CLTS is that the effectiveness of the triggering process depends on external factors such as the quality of the facilitator, and the degree of participation. If a triggering session is not done properly, the collective disgust and resulting call for change is not effective.

4.3 EVOLUTION OF CLTS APPROACHES

4.3.1 Introduction

OMI engaged with local NGOs/ EASs to implement software activities as part of PEC Zonal. UNICEF selected the Community Approach to Total Sanitation (CATS) to promote sanitation. CATS combined the CLTS approach with awards for ODF communities.

In 2008, CLTS mentor Kamal Kar trained 74 facilitators from the central, provincial and district governments, as well as UNICEF and NGOs/ EASs. After three months, 34 of 173 communities that had been "triggered" achieved ODF status and 49,822 latrines, mostly traditional pit latrines, were constructed.

4.3.2 CLTS in Mozambique

An evaluation of CLTS in 2009 (WSP, 2009) recommended the following for scaling up:

- Build capacity of master trainers at provincial and district level to disseminate CLTS and train local staff to conduct triggering sessions at community level.
- Promote improved traditional latrines with a lid on the drophole to prevent flies from entering the pit.
- Promote construction of improved latrines by local artisans.

¹³ The high cost of the cement slabs and high cost and difficulty encountered in their transportation discouraged communities from purchasing slabs.

¹⁴ Additional information is available in Godfrey, 2009. See reference section in this paper.

- Involve the District Services for Planning and Infrastructure (Serviço Distrital de Planeamento e Infra-estruturas, SDPI), Health (Serviço Distrital da Saúde, Mulher e Acção Social, SDSMAS) and Education (Serviço Distrital de Educação Juventude e Tecnologia, SDEJT) district services to expand CLTS.
- Reduce the prize system, with a prize only for the leader of an ODF community, allowing greater financial viability for national scaling up.

The impact of CLTS continued to be high even though the prize system was considerably reduced. In 2009, 151 communities achieved ODF status, increasing to 248 communities in 2010 and 591 (an additional 246) by the end of 2011. By the end of 2011, 1,210,759 inhabitants were using hygienic sanitation facilities through 250,020 self-constructed household latrines in 679 ODF villages, including 58 ODF Plus villages. (UNICEF, 2012b).

Initially, the criteria for ODF did not include the construction of an improved latrine¹⁵, but only that 100 per cent of households had access to and use of a latrine and that there was 100 per cent absence of faeces in a given community. The Policy and Operations Evaluation Department of The Netherlands' IOB Mid-Term Assessment (IOB and UNICEF, 2010) found that 50 per cent of households with a latrine in 2010 changed the location of, or emptied, the latrine at least once in the last two years, and 11 per cent did so more than once. Few latrines actually satisfied all conditions for safe sanitation, and were therefore not reflected in coverage statistics at national level or in the Joint Monitoring Programme's assessment of the achievement of the MDGs.

In 2010, the GoM introduced the concept of safe sanitation and provided guidelines to ensure that traditional improved latrines separated faeces from human contact (see Annex 2). The criteria used for safe sanitation are as follows:

- A durable and washable slab (made from any local material).
- Lid that properly covers the hole.
- Superstructure with walls and door for privacy.
- A roof to prevent rain water from damaging the slab.
- A safe pit to prevent collapsing due to soft or sandy soils.
- Presence of a handwashing facility with soap or ash.

Following Godfrey's (2009) suggestion, neighbouring communities were selected for initial CLTS triggering sessions and locality leaders (one level above community leaders in the local administrative hierarchy) were involved as natural leaders for triggering communities; subsequently expanding to include the administrative post level in 2012.

In 2011, a pilot activity to upgrade communities from ODF to ODF Plus status aimed at supporting GoM's initiative to move up the sanitation technology ladder by assisting communities in understanding the faecal-oral transmission route and the minimum requirements to achieve safe sanitation. The pilot supported 58 communities that had already achieved ODF status to move up the sanitation technology ladder, benefiting over 16,000 people. Less than five per cent of households in those communities still had an unimproved latrine, while 70 per cent had improved traditional latrines, and over 20 per cent had moved up the ladder with improved latrines.

4.4 IMPLEMENTING CLTS

CLTS consists of three main phases including pre-triggering, triggering and post-triggering. It generally takes between three and six months for communities to achieve ODF status. Adaptation to local social norms and cultural values is a necessary condition for successful implementation of CLTS.

¹⁵ An improved pit latrine with a cement slab was the minimum service level requirement in Mozambique before 2011.

TABLE 5: CLTS IMPLEMENTATION PROCESS

STAGE	TIME	NGO/ EAS STAFF	TOOLS	REMARKS	EXPECTED OUTPUT
Pre-triggering	Half a day to one week	Two supervisors	Pre-design form to collect information Household visits Interviews with leaders	Search for favourable/ challenging conditions of the community	Baseline information and report Selected community Setting time for first triggering session
Triggering (with communities)	PART I Three to five hours	Two facilitators from NGOs / EAS Two to four natural leaders selected during the meeting based on performance	The walk of disgust Mapping defecation areas Faeces, food and flies Calculation of faeces Glass of water	Do not educate or promote good practices Let community facilitate their own solutions Only intervene to encourage them to find local solutions they can afford and suggest listening to natural leaders	Community members realise they are eating one another's faeces. Community starts planning to stop open defecation
	PART II Proceed to action plans only if all community members agree with immediate solutions	Two facilitators from NGO / EAS Two to four natural leaders selected during the meeting based on performance	Facilitate action plan with dates for completion If time is > three months urge to think how long they will keep eating one another's faeces Facilitate formation of committee to follow up and enforce implementation of the action plan Encourage champions to come forward (see status within the community) and see how others can follow the champion's example Promote local solutions for handwashing facilities Ensure public commitment from all with dates for completing latrine construction	If not, just thank them and request permission to leave If there is someone committed to immediate action ask that person to share how s(he) plans to do it If all become interested facilitate action planning If some are interested agree to follow-up visits If only a few are interested thank them and ask permission to leave	Community action plan Public commitment from all community members with dates for completing action plan Community map for monitoring Leave paper and markers to transfer the map on the floor to the paper with name and dates for completing commitments
Post-triggering	Three weeks to three months	Visits the same week to those that are committed	Follow up achievements Public recognition to those achieving targets Highlight community support to those with handicaps Highlight joint construction efforts or share facilities to eradicate OD Highlight innovative solutions responding to local needs	Be aware of people requesting subsidies, misleading or interfering with CLTS triggering Raise awareness among other organisations about CLTS Promote cross visits with successful communities Promote natural leaders to	Updated visual monitoring of household achievements Public recognition of those achieving targets and supporting others in achieving their



TABLE 5: CLTS IMPLEMENTATION PROCESS

STAGE	TIME	NGO/ EAS STAFF	TOOLS	REMARKS	EXPECTED OUTPUT
			Motivate community monitoring, recognition and sanctions to support achievement of commitments Highlight leaders, women and children emerging as natural champions	support CLTS in nearby communities When a cluster of communities have been simultaneously triggered, convene a joint meeting for evaluation and sharing experiences	commitments Public recognition of joint construction initiatives or sharing facilities to immediately eradicate OD

Source: Author's compilation.

OMI followed up with communities that achieved ODF status by assessing whether latrines met safe sanitation standards and supported communities to find a solution to prevent faecal-oral contamination and the possibility of damage during rains.

TABLE 6 : PROCESS FOR UPGRADING TO ODF PLUS

STAGE	TIME	NGO / EAS STAFF	TOOLS	REMARKS	EXPECTED OUTPUTS
Post-triggering beyond ODF to ODF +	Three weeks to three months	Visit ODF communities	Follow up achievements Evaluation of existing latrines and problem solving analysis to avoid faecal-oral contamination and reconstruction costs due to poor quality Share characteristics of a safe latrine to stop faecal-oral contamination and promote local solutions Nominate a focal point to link with suppliers for low-cost improved latrines Public recognition to those achieving targets Highlight community support to those with strong limitations Highlight joint construction efforts or sharing facilities to eradicate OD Highlight innovative solutions responding to local needs Motivate community monitoring, recognition and sanctions to support timely achievement of targets	Coordinate and raise awareness among other organisations about ODF Plus Promote cross visits with successful communities Promote natural leaders to support the process in nearby communities When a cluster of communities are simultaneously triggered, convene a meeting to evaluate and share experience Promote ODF+ at locality level	ODF+ Action Plan Public recognition to those achieving targets and supporting others to achieve their commitments Public recognition of joint construction initiatives to upgrade to safe sanitation status OD+ community and locality

Source: Author's compilation.

4.5 CLTS TOOLS

CLTS makes use of Participatory Rural Appraisal (PRA) tools such as transect walks, participatory mapping, demonstrations, action planning and participatory monitoring and evaluation.

- **Transect walk** –Walk through the village during which areas of open defecation (OD) are pointed out, as well as the types of latrines currently in use.

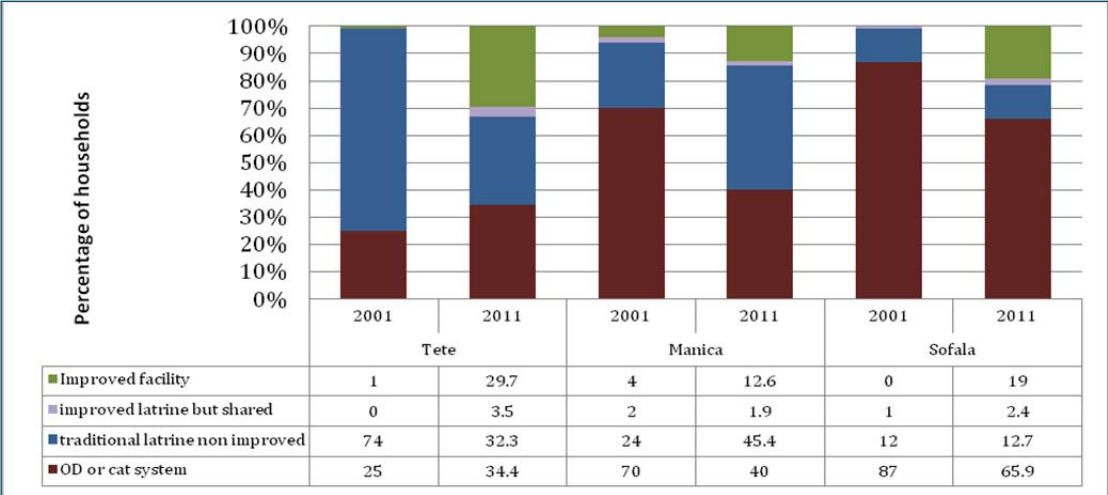
- **Mapping OD areas** – Participatory mapping of households, water sources, OD areas and boundaries between OD areas, water sources and households drawn using locally available materials.
- **Calculation of faeces** – Scope of the sanitation problem is illustrated by calculating the amount of faeces produced.
- **Action planning** – Activities include forming sanitation action group with representatives from neighbourhoods in the community; listing or mapping households showing their access to sanitation; digging pits as temporary latrines; getting wealthy households to start constructing latrines immediately or allowing poor families to use their latrine in the short term.

5 ACHIEVEMENTS

5.1 SANITATION

Between 2001 and 2011 the population using improved sanitation facilities increased from 1.35 per cent to 21.15 per cent in the three OMI provinces (QUIBB, n.d.) and PRONASAR baseline study conducted in 2011¹⁶. Increase in the use of sanitation facilities did not only include traditional latrines, but also improved latrines. Also of interest was the increase in shared improved latrines in Tete province by 11 per cent, while the percentage of the population using improved sanitation facilities decreased by about 20 per cent in Sofala province (see Figure 4 below).

FIGURE 4: USE OF SANITATION FACILITIES BY PROVINCE – IN 2001, 2011



Source: QUIBB, n.d.

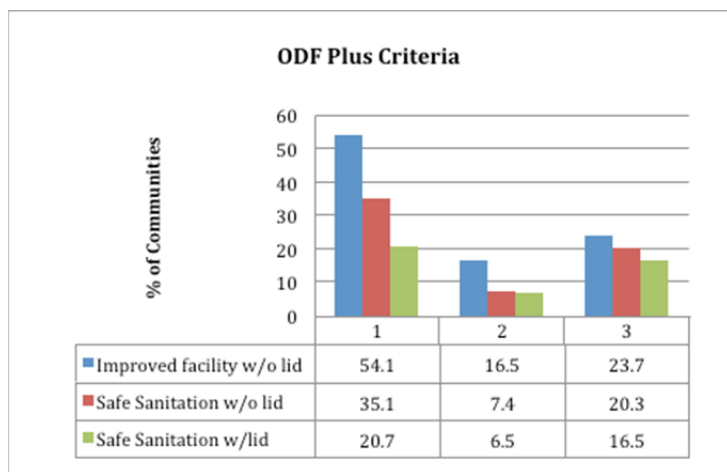
Comparing the type of latrine used in the target provinces¹⁷ in 2011, the worst case was Tete, where 54 per cent of the population used improved latrines, but without a lid, 35 per cent used improved latrines with lids, but only 20 per cent used latrines that meet all safe sanitation criteria.

¹⁶ Also refer to the PRONOAR baseline study of 2100 conducted by WE consult. Contact WE consult at: Mozambique@we-consult.info

¹⁷ The OMI programme targeted provinces but not every district in each province. The figure refers to the use of improved latrines in all the districts in the target province.

It is important to highlight that people might have the possibility to build an improved latrine, but were not conscious of the need to block the faecal-oral contamination route.

FIGURE 5: CLTS EFFECTIVENESS BY PROVINCE (2011)



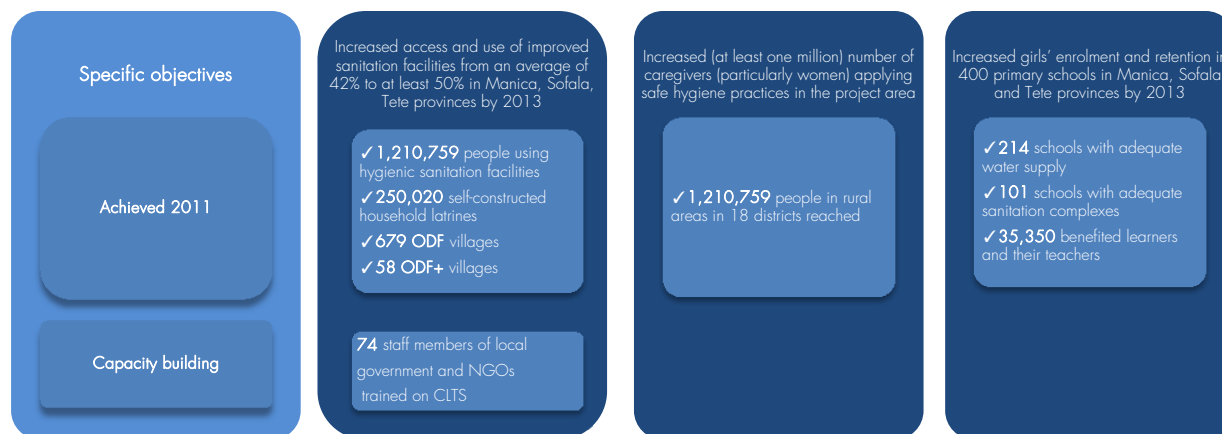
Key: 1-Tete; 2-Manica; 3-Sofala

Source: OMI Sustainability Checklist, 2011.

5.2 CLTS OBJECTIVES AND TARGETS

Outputs related to hygiene and sanitation promotion in communities and schools in OMI's target districts are shown in the table below. These achievements were largely the result of the CLTS approach used by OMI since 2008.

FIGURE 6: OMI ACHIEVEMENTS BY OUTPUT (2007-2011).



Source: UNICEF, 2012a.

OMI also focuses on creating capacity to implement CLTS at the local government level, schools, NGOs and communities.

5.3 REPLICATION AND RECOGNITION: A DOMINO EFFECT

By 2010, 13 other water and sanitation programmes adopted CLTS. CLTS was considered a potential approach in PRONSAR¹⁸ and was included in Mozambique's rural sanitation strategy (DNA, 2010b). In November 2010 in Addis Ababa, the African Council of Ministers for Water (AMCOW) gave the Third Africa Conference on Sanitation and Hygiene (AfricaSan) award to Mozambique for its efforts to scale up CLTS.

6 LESSONS

6.1 LIMITATIONS OF THE COMMUNITY APPROACH TO TOTAL SANITATION

6.1.1 CATS sustainability: reducing the award system

CATS is a combination of the CLTS and an award system. The award system was controversial, and some believed that achievements were only due to the prizes.

AWARD LEVEL	AWARD	2008	2009	2010/2011
District administrator	Photocopier/ computer	Yes	No	No
Chief of administration	Mobile phone/ radio	Yes	No	No
Community leader	Bicycle	Yes	Yes	Yes
Community	Water point Classroom	Yes	No	No
Community households	Hygiene kit	Yes	Yes	No

Source: UNICEF, 2012a.

An evaluation of CLTS determined that the award system was unsustainable but found that community leaders were a key element in the ODF process (WSP, 2009). It was recommended to reduce prizes at community, administrative post and district level, but continue with prizes to publicly recognise community leaders in ODF communities (UNICEF, 2012). A subsequent study found that there was no significant difference in the number of ODF communities before (25 per cent) and after (21 per cent) the reduction of prizes (IOB and UNICEF, 2010).

6.1.2 Effectiveness of CLTS

Assessments of CLTS yielded varying results. A sustainability check in 2011 by UNICEF (2012) showed that less than half of communities met ODF criteria and less than half met safe sanitation criteria¹⁹. Of the interviewed communities, most had latrines, but many did not meet safe sanitation criteria due to the quality of construction, possibly due to construction without the assistance of a local artisan.

¹⁸ For further reference, see: <http://www.communityledtotalsanitation.org/country/mozambique>.

¹⁹ See Annex B.

Achieving ODF and safe sanitation status are characteristically linked with behaviour change demonstrated by the following:

- Use of (at least) improved traditional latrines.
- Handwashing after defecation or handling children’s stools.
- A lid on the drophole to prevent flies from entering the latrine.

The low number of communities that adopted these practices showed variation in the effectiveness of CLTS triggering sessions. Impact was limited after the first session of transect walk to evoke shame and quantify the faecal load. The session on counting faeces had greater impact on preventing OD and building a latrine. The “glass of shit”, “plate of food”, and “eating or shaking hands after defecating” triggering sessions used to demonstrate the faecal-oral transmission route (Kar and Chambers, 2008) had limited impact, since only a little more than half of triggered communities used handwashing facilities with soap or ash. Slightly less than half of the triggered communities had latrines with no lid on the drophole to prevent flies from entering the pit. This means that about half of communities that stop OD were not eligible for ODF Plus status.

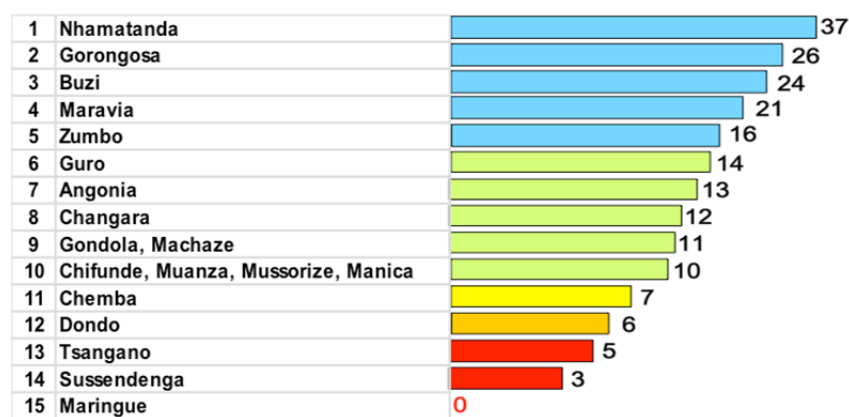
There was a large variation in communities meeting ODF or safe sanitation criteria across provinces (DNA, 2010a; DNA, 2010b). This could have been the result of poor facilitation skills or poor supervision. The size of the communities may also have affected the effectiveness of CLTS. More than 85 per cent of communities recognised as ODF had less than 1,200 inhabitants (about 240 households) (Godfrey, 2009). Technical assistance to construct safe latrines and the quality and consistency of CLTS implementation across provinces and districts during the triggering process required further improvement before scaling up.

6.2 WHAT IS INNOVATIVE ABOUT CLTS?

6.2.1 ODF communities

Between 2007 and 2011, 679 communities and 401 schools were declared ODF, mostly through the construction of traditional latrines. A multi-sector committee was responsible for the annual ODF evaluation comprising staff from local and central government, including representatives of public works and housing, health, education, environment and UNICEF. A monitoring system at sub-district level was used to identify communities achieving 100 per cent ODF status. During the evaluation, all households were visited to confirm ODF status according to clear, publicly-disseminated criteria. The criteria were: all households have a latrine, all latrines have a lid, a handwashing system with soap or ash; no visible faeces in the environment; and no open air defecation (UNICEF, 2012).

FIGURE 7: ODF PERFORMANCE BY DISTRICT (%)



Source: UNICEF, 2012c.

Between 2007 and 2011, 101 schools received sanitation facilities, benefitting 35,350 students and teachers, corresponding to 25 per cent of the target. Due to increased unit costs and limited funding, it was found difficult to scale up this component. Discussions on topping-up funds are now ongoing.

6.2.2 Climbing the sanitation technology ladder

In 2010, GoM defined safe sanitation as a standard for determining national sanitation coverage. OMI supported this process by selecting 58 ODF communities and informing them of the criteria for meeting national standards. The following criteria were used in selecting communities:

- Presence of about 50 families.
- Presence of active leadership.
- Availability of good quality local materials, such as lime or clay.
- Located in the same administrative post

Triggering sessions focused on identifying problems with existing latrines. Problem solving sessions helped communities identify culturally- and economically-sound solutions.

A multi-disciplinary committee, including staff from provincial (DPOPH, DPSMAS, DPE, UNICEF and DPCAA) and district (SDPI, SDEJT, SDSMAS) organisations evaluated the possibility of movement to ODF plus status of triggered communities three months after the triggering process.

TABLE 8: ODF PLUS COMMUNITIES BY PROVINCE (2011)

PROVINCE	TETE	MANICA	SOFALA	TOTAL	ODF Plus evaluation criteria included: <ul style="list-style-type: none"> ■ 100% of families with improved safe latrine ■ 100% of latrines in use ■ Latrine with walls and roof to offer privacy ■ Latrine with lid to stop flies ■ Slab easy to clean ■ Absence of faeces ■ Handwashing facility near the latrine
Evaluated communities	22	23	31	76	
ODF + communities	17	15	26	58	
People with safe sanitation	4,718	4,381	7,098	16,197	
Improved latrines	718	1,028	1,122	2,868	
Effectiveness	77%	65%	84%	76%	

Source: UNICEF, 2012a.

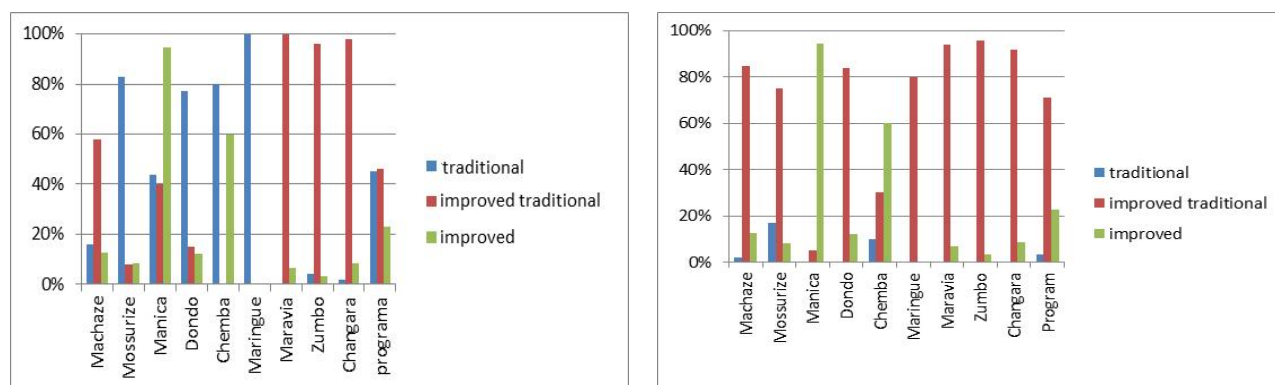
Using the criteria in Table 8, results of the ODF Plus evaluation revealed a high level of effectiveness, with 76 per cent of triggered communities having declared ODF Plus. Sofala province showed the greatest improvement at 84 per cent. Manica province the lowest with 65 per cent, compared with 28 per cent in 2009 (UNICEF, 2009).

Upgraded latrines increased, from 41 per cent traditional latrines in 2010 to 77 per cent improved traditional latrines and 22 per cent improved latrines in 2011, benefitting 16,197 inhabitants.

In 2011, as shown in Figure 8, most districts showed an increase in latrines constructed and use of improved traditional latrines, while in Manica and Chemba districts a significant number of households upgraded from traditional to improved latrines (DHV, 2011).

In new communities receiving CLTS interventions, triggering sessions included information on the criteria for latrines to meet safe sanitation criteria. This new generation of ODF Plus communities are expected to benefit from local artisans with improved skills.

FIGURE 8: TYPE OF LATRINE BY DISTRICT – 2010 AND 2011



Source: DHV, 2011.

Traditionally, efforts to increase sanitation coverage have focused on households. With the introduction of the total sanitation concept, the focus shifted to communities. CLTS was scaled up from community to locality and district levels as a result of contracting NGOs/ EASs as implementing agencies for district-wide PEC (PEC Zonal). They became responsible for implementing CLTS—involving district and sub-district authorities and leaders who were already collecting information on water and sanitation for the manual database²⁰, providing public recognition of the contribution made by local leaders.

6.2.3 Handwashing

CLTS has motivated households to use protected water sources, construct latrines and use soap or ash for handwashing (Elbers, et al., 2011).

While a small percentage of households did comply with all the conditions necessary to reduce waterborne diseases, handwashing, use of clean latrines and safe water handling were considerably improved between the baseline study and the mid-term review of OMI, as shown below:

- According to IOB and UNICEF (2010), 62 per cent of households had access to latrines.
- Over 93 per cent of adults owning a latrine used it and over 90 per cent of latrines were clean or very clean.
- Over 40 per cent of adults and 32 per cent of school children who received CLTS interventions practised handwashing after defecation.
- Safe water handling and storing water in a covered container, showed an increase of 18 per cent of households in 2010 from the 2008 baseline.

Hygiene promotion was found to have an effect on the reduction of waterborne diseases (Elbers, et al., 2011). The study found a three per cent reduction among sampled households, which represented ten per cent of the disease prevalence in the sample. The study suggested that benefits to children from access to improved water sources were enhanced when combined with promotion of WASH using CLTS approach. Health impact of CLTS interventions is mainly attributed to reducing open defecation, but was also partly due to the use of improved water sources.

²⁰ Manual database is a handwritten flipchart used at community, locality and administrative posts to monitor water and sanitation indicators.

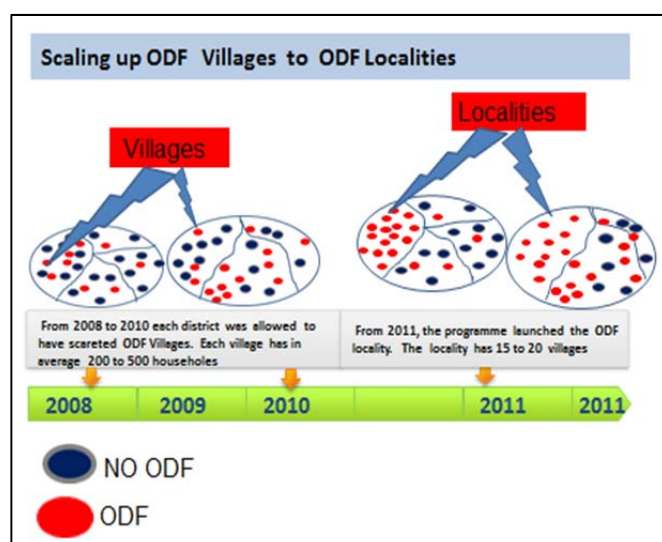
6.2.4 Post-construction activities

The manual database provided timely and relevant information to strengthen post-construction support. Based on this information, sustainability action plans were prepared by district governments and NGOs/EASs to provide post-construction support. Latrine construction, ODF status and functionality of handpumps were regularly monitored.

It was the responsibility of PEC Zonal, through activists, to train local leaders and committee members to collect household information. Activists collected information from communities and compiled the information at locality and administrative post level. The manual database played a key role in motivating communities and localities to achieve ODF status. CLTS has not only benefited neighbouring communities, but also assisted communities in moving up the sanitation ladder while scaling up to locality and district levels.

Monitoring information was linked with the National Information System for Water and Sanitation (SINAS). After the information was compiled at district level, it was sent to the provincial Departments of Public Works and Housing, which in turn submitted it to SINAS at central level. The manual database provided valuable information on the type of sanitation facilities and the status of ODF and ODF Plus communities. It served as the basis for external evaluations and assessments to revise and improve upon the CLTS approach, as needed.

FIGURE 9: SCALING UP FROM COMMUNITY TO LOCALITY



Source: UNICEF, 2012b.

District governments intend to continue their work on the manual database²¹, even during the post-construction period, to monitor the performance of water and sanitation facilities and use it as a motivational tool for communities to continue to improve their WASH practices. Two options for providing post-construction support were identified:

- Integrating activists who are currently PEC Zonal staff into the government structure at the administrative post or locality level; and
- Contracting local NGOs for continuous post-construction support, monitoring and promotion of CLTS.

²¹ These databases show population data; numbers of working and broken handpumps; information about user contributions to O&M costs; and numbers of improved and traditional latrines, bathrooms, drying racks and rubbish pits.

During the quarterly meeting with stakeholders in each province in July 2012, the need to define a percentage of the district budget that local governments should allocate for post-construction activities was discussed. While district administrators were committed to finding ways to continue the manual database and provide post-construction support, frequent turnover of government officials can slow momentum and result in loss of capacity to continue monitoring and other post-construction support.

6.3 SUMMARY OF LESSONS LEARNED

Community commitment strengthened

There was a commitment to community action plans to achieve and maintain ODF and upgrade to ODF Plus status.

Main influencing factors included:

Clear information about community targets and eligibility criteria to become ODF and ODF Plus encouraged local leaders to engage in the process as natural champions and help communities achieve their targets. ODF status is publicised at locality level.

Public recognition of leaders through the annual ODF evaluation by a multi-sector committee with members from local, provincial and central government was effective in supporting community efforts.

District government involvement in sanitation promotion and allocating resources for monitoring and support activities was effective in supporting community efforts to achieve and maintain ODF status, and to become ODF Plus.

Publication of results from the manual database provided timely information about latrine construction and supported the improvement and maintenance of latrines by stimulating peer-to-peer pressure between households, communities and localities. The manual database provided timely information at the sub-district, district, provincial and national levels. Most importantly, it supported decision making and corrective action at the sub-district level.

Moving up the sanitation technology ladder

CLTS can motivate households to construct improved latrines that separate faeces from human contact. The further up the position on the sanitation ladder, the greater the need for technical advice and support. The supply side of latrine construction and the capacity of local artisans to provide technical assistance on the choice of design and construction techniques using affordable, locally available materials need to be strengthened.

Scaling up

District wide PEC Zonal increased the number of ODF localities. NGOs/ EASs implementing PEC Zonal were also responsible for implementing CLTS. Their expanded scope of work supported scaling up CLTS from community to locality and district levels.

Involvement of district and sub-district authorities was easier facilitated when CLTS was implemented through PEC Zonal since they were already involved in collecting information for the manual database. The commitment of local leaders was enhanced by publicising the results of the manual database, which increased competitiveness and gave recognition to the performance of local leaders.

Scaling up from community to the locality and district level made economies of scale possible. By increasing the size of a potential market and adopting latrine designs oriented to the local market, latrine construction can be an attractive business for local masons.

Problem solving and information about minimum standards for safe latrines help identify latrine designs that are appropriate for local conditions. The participation of local leaders and natural champions also help identify appropriate technologies that respond to the needs, culture, capacity and willingness to pay. Easy

payment arrangements motivate households to invest in new and improved latrines that comply with safe sanitation criteria.

Technical assistance

Technical assistance to communities to achieve safe sanitation standards need further refinement before scaling up.

7 WHAT IS NEEDED TO STRENGTHEN CLTS?

Evidence so far showed that CLTS is useful in delivering sustainable sanitation and hygiene services, as in the case of Mozambique. CLTS has achieved promising results and should be given more time to reach its full potential on a larger scale. Further evidence of CLTS's long-term effectiveness in the delivery of sustainable sanitation services should be collected over a longer period of time, and documented and disseminated within Mozambique and internationally.

Towards bridging the gap between CLTS and sustainable sanitation, a gap analysis of service delivery from CLTS—derived from a comparison with international best practices, strategic approaches and related projects in Mozambique—was carried out. The analysis identified the following gaps which need to be bridged when moving CLTS from a programmatic to a service delivery approach.

TABLE 9: GAP ANALYSIS AND SOME WAYS FORWARD

DOMAIN	GAPS TO BE ADDRESSED	SOME WAYS FORWARD
Technical	<p>Need for additional capacity building on designs using local materials.</p> <p>Better understanding of supply chain for sanitation services and products.</p> <p>Knowledge of limitations in soil conditions where self-construction ensures safe sanitation.</p> <p>Use of local materials in unstable or waterlogged soils.</p>	<p>Provide on-the-job training and follow-up to support activists to facilitate their full understanding and mastery of CLTS tools and concepts.</p> <p>Emphasise elements of sanitation supply chain and build capacity to deploy construction techniques that use affordable local materials, design latrines that are well-suited for unstable soils and high water tables, and ensure that local artisans can competently provide appropriate technical assistance to communities.</p> <p>Educate activists and artisans on the latest sanitation guidelines.</p>
Financial	<p>Need for analysis of costs of replacement/ reconstruction.</p>	<p>Conduct household affordability analyses during the CLTS pre-triggering phase to identify realistic payment terms and methods for households in need, including savings, micro-credit and loan schemes, to help pay for improved sanitation facilities.</p> <p>Allocate resources for post-CLTS support by adding the achievement of ODF status and/ or post-construction/ triggering monitoring and support for district government staff (e.g., SDPI and district health and education services) as part of the annual local government plans and budgets (PESOD) at district level.</p>
Governance	<p>Local government commitment to continue implementation of CLTS.</p>	<p>Ensure components of sanitation guidelines are cascaded to necessary agencies and individuals.</p> <p>Clarify mandates across various stakeholders and address overlaps. Define roles and responsibilities and coordinate activities horizontally (across districts) and vertically (from district to provincial to central levels).</p> <p>Promote multi-sector collaboration and coordination (e.g., health</p>

ABLE 9: GAP ANALYSIS AND SOME WAYS FORWARD

DOMAIN	GAPS TO BE ADDRESSED	SOME WAYS FORWARD
		and education sectors) to ensure consistency in targets, approaches and messages ²² . Aim to coordinate and harmonise activities through thematic groups and collaborative forums at national, provincial and district levels.
Social	Analysis to facilitate payments based on community values and norms.	Consider CLTS as an instrument that promotes community empowerment and management capacity, which improves the community’s health and wellbeing. Empower communities to “take charge of their own sanitation” and reduce dependency on externals.
Going to scale	Ensure quality of triggering when scaling up CLTS.	<p>Ensure quality and effectiveness of CLTS by gaining full understanding of the supply chain aspects of sanitation and assessing the quality of CLTS implementation before replication or scaling up. Examine carefully variation in the effectiveness of CLTS triggering sessions and its sustainability when replicated post-OMI.</p> <p>Assess the contributions of CLTS not by the number of latrines constructed, rather by the service level achieved: incorporate sanitation service level indicators—use, accessibility, reliability and environmental protection—into monitoring frameworks to assess the service levels of sanitation facilities.</p> <p>Monitor service levels for corrective action to scale up use of the manual database and strengthen linkages to national monitoring systems (i.e., SINAS).</p>

²² For example, local volunteers known as *Agentes Polivalentes Elementares* (APEs) are trained by the health sector to promote construction of latrines and WASH practices at the locality level. Cooperation and coordination at this level could provide follow-up support to improve the impact and sustainability of sanitation services.

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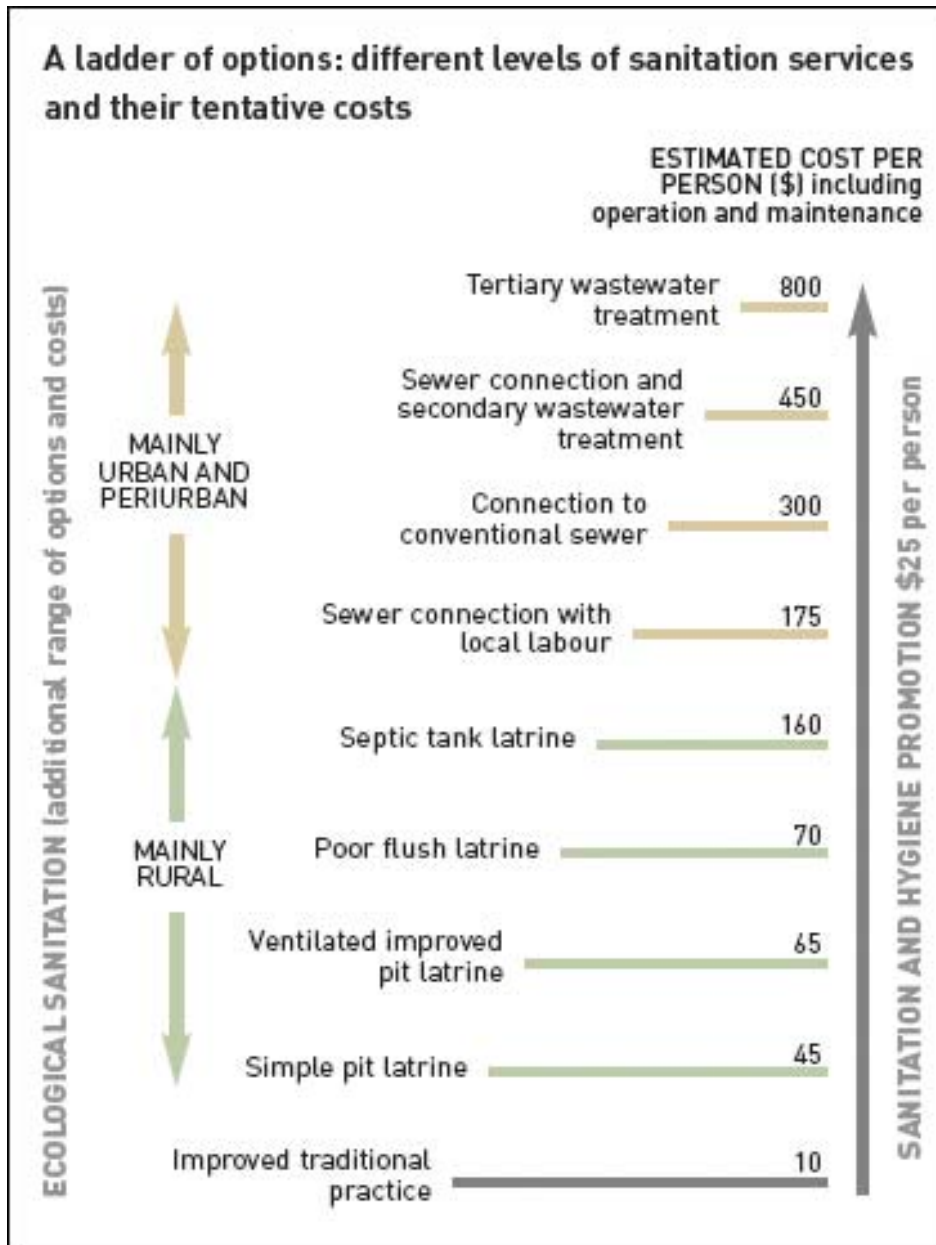
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ANNEX 1: BUILDING BLOCKS FOR SUSTAINABLE SERVICE DELIVERY

PROFESSIONALISATION OF COMMUNITY MANAGEMENT	Community management entities supported to move away from voluntary arrangements towards more professional service provision that is embedded in local and national policy, legal and regulatory frameworks.
RECOGNITION AND PROMOTION OF ALTERNATIVE SERVICE PROVIDER OPTIONS	A range of management options beyond community management, such as self-supply and local private operators, formally recognised in sector policy and supported.
MONITORING SERVICE DELIVERY AND SUSTAINABILITY	Monitoring systems track indicators of infrastructure functionality, service provider performance and levels of service delivered against nationally agreed norms and standards.
HARMONISATION AND COORDINATION	Improved harmonisation and coordination among donors and government and alignment of all actors (both government and non-governmental) with national policies and systems.
SUPPORT TO SERVICE PROVIDERS	Structured system of direct (post-construction) support provided to back up and monitor community management entities and other service providers.
CAPACITY SUPPORT TO SERVICE AUTHORITIES	Ongoing capacity support provided to service authorities (typically local governments) to enable them to fulfil their role (planning, monitoring, regulation, etc.) in sustaining rural water services.
LEARNING AND ADAPTIVE MANAGEMENT	Learning and knowledge management supported at national and decentralised levels to enable the sector to adapt based on experience.
ASSET MANAGEMENT	Systematic planning, inventory updates and financial forecasting for assets carried out and asset ownership clearly defined.
REGULATION OF RURAL SERVICES AND SERVICE PROVIDERS	Regulation of the service delivered and service provider performance through mechanisms appropriate for small rural operators.
FINANCING TO COVER ALL LIFE-CYCLE COSTS	Financial frameworks account for all life-cycle costs, especially major capital maintenance, support to service authorities and service providers, monitoring and regulation.

Source: Own elaboration (2013), Adapted from Lockwood and Smits (2011).

ANNEX 2: THE SANITATION TECHNOLOGY LADDER



ANNEX 3: GAP ANALYSIS

Domain	INTERNATIONAL BEST PRACTICES – CLTS AND SANITATION ²³	CLTS PLUS	SANITATION STRATEGY	WSP-ASNANI CLTS CASE STUDY	OMI CONTRIBUTION TO SUSTAINABLE SANITATION	GAPS
Technical	Locally appropriate technical options need to be developed for latrines in sandy soils or where there is a high water table Quality of construction needs to be monitored Latrines constructed need to meet national standards for safety	Access to affordable products and services Product attributes to meet national standards as well as be culturally and economically appropriate	Capitalise local designs of latrines Sanitation demonstration centres that sell latrine materials Latrine options and acceptance of improved traditional latrine under safe-sanitation criteria Several options, VIP, EcoSan, etc			Capacity building on designs using local materials Limitations of local materials in sandy soil or other unstable conditions Limited soil conditions where self-construction ensures safe sanitation Analysis of costs of replacement / reconstruction
			N/A	N/A	Pilot ODF +: self-construction of sanitary latrines based on information about its requirements Latrine options and acceptance of improved traditional latrine under safe-sanitation criteria Self-construction of improved traditional latrines and traditional latrines using local materials	
Social	Involve champions and local NGOs Involve the local authorities Monitoring of behavioural sustainability	High-quality CLTS triggering Willingness to pay	Needs high-quality CLTS triggering Integrated WASH promotion through participatory methodologies with emphasis to women throughout the project cycle Importance to break faecal-oral route by informing about the requirements needed of a safety and sanitary latrine Household should consider the maintenance costs of the different options			

²³ From *Building blocks for sustainable service delivery* from a Service Delivery Approach to Water Supply <http://www.waterserviceshatlast.org/content/download/1217/7>, the *Triple-S principles framework* (<http://www.waterserviceshatlast.org/Resources/Concepts-tools/Service-delivery-approach>) and *Most Commonly Cited Factors For Post-Construction Sustainability* (review by Aquaconsult for the WB), interim product, assessing sustainability in rural water supply: the role of follow-up support to communities, literature review and desk review of rural water supply and sanitation project documents, Lockwood, H., Bakalian, A., Wakeman, W. .<http://www.aguaconsult.co.uk/uploads/pdfs/WBAssessingSustainability.pdf>. More on the project: <http://www.worldbank.org/watsan/bnwp>.

			when deciding technical options Community-local artisans / mechanics-district / provincial vendors model			
				<p>High social capital Responding to social norms and momentum such as moving away from OD CLTS promotes a collective decision to stop OD Household self-construction of latrines using local materials Emphasise community leadership during and after triggering. Extreme variation on quality performance of artisans on applying CLTS triggering sessions Natural leaders involved in participatory planning to construct household latrines</p>		
				<p>Individual and collective pride, competitiveness and well being Triggers for demand creation Undertake community awareness session and training of animators to facilitate community action plans to achieve ODF status</p>		
Financing	<p>Cost effectiveness of CLTS needs to be documented and shared with WASH partners and relevant ministries, local governments and development partners CLTS needs to be seen in the context of ongoing services – What needs to be in place to ensure that behaviour change is sustainable? Regular follow-up is critical. This is not a one off intervention and will need to be repeated</p>	<p>Easy payments based on community values and norms Sanctions and enforcement for undesirable behaviour Competing priorities (i.e., seasonal work) Appropriate costing and payment options according to affordability</p>	<p>Local government should ensure quality control and monitoring according to legal mandates and sector guidelines Communities are responsible for cross subsidies, exceptions, self-help mechanisms to support poor or vulnerable households Households responsible for capital cost, maintenance and replacement of latrines Households responsible for negotiating and paying for latrines built by local artisans/masons</p>			<p>Cost effectiveness analysis to facilitate easy payments based on community values and norms</p>
			<p>Post-construction monitoring and capacity building and WASH promotion is not included in sub-sector budget guidelines</p>	<p>Local artisans investing in WASH promotion as a marketing strategy for latrine construction</p>	<p>Post-construction monitoring, capacity building and WASH promotion from programme resources</p>	



Governance	<p>National policy development – If CLTS is included in policy, it should be led by one of the ministries (e.g.,MOH) and involve key WASH stakeholders</p> <p>There is a danger that CLTS is seen as a methodology implemented outside the context of integrated public and environmental health. It needs to be integrated into sanitation and hygiene service delivery and ongoing support</p> <p>Harmonised CLTS approach: While CLTS has shown its effectiveness, a prerequisite for its effective application – no subsidies or incentives for attaining ODF status -should be agreed upon by all sector actors</p> <p>Institutionalising support to communities to ensure ODF status and safe toilet habits are sustained</p> <p>Assessing sanitation service delivery includes assessing access, use, reliability and environmental protection. Need to assess efficacy of CLTS against all of these indicators</p> <p>The role of the services authority (local government) and service providers is critical – public and environmental health concerns do not cease when ODF status has been achieved</p> <p>Improved district capacity and uptake: skilled facilitators are critical for effective CLTS implementation and it is therefore important to build capacity for scaling up in this respect</p> <p>CLTS training guide needs to be made available. The environmental health staff at sub-county and district levels need support, including joint planning with agencies working on WASH to monitor and replicate the use of CLTS in new areas; equipping their departments with data management tools; and regularly involving them in ODF verification exercises</p>	<p>Good policy in place</p> <p>Clear roles and responsibilities</p> <p>Continuous monitoring and feedback</p> <p>Participatory WASH planning</p> <p>Benchmarking performance to enable districts to understand their performance and motivate them to improve.</p> <p>Monitoring and evaluation for sustainability in line with national reporting systems</p>	<p>Local government responsible to support CLTS and local artisans</p> <p>Procedures and guidelines for total sanitation</p> <p>Multi-sector evaluation teams with national and local staff for ODF communities and localities</p> <p>Annual evaluation of ODF status based on safe sanitation guidelines with Ministry of Health and MICOA in evaluation team</p> <p>Plans are prepared by DPOPH and SDPI; need to involve health and education staff</p> <p>Promote involvement of local and natural leaders</p>		<p>Sanitation supply and marketing</p> <p>SaniFOAM framework analysis</p> <p>Service delivery approach</p> <p>Local government commitment to continue implementation of CLTS</p> <p>Post project support</p> <p>Ensure quality of triggering when upscaling CLTS</p>

Service Delivery	<p>CLTS also needs to be seen within the context of the whole sanitation chain: from containment (e.g., in a latrine) to collection, treatment, safe disposal and (potentially) re-use of excreta and solid and liquid waste mainly in the peri-urban and urban settings, although not too relevant in rural setting</p> <p>To ensure service delivery requires partnerships between the state (public sector), private households / communities and the private sector, for the construction of latrines, sustainable hygiene and solutions for moving up the ladder and for maintaining safe sanitation practices. The question of what happens when the pit is full or when the rains wash it away must be addressed</p> <p>CLTS is more effective when implemented uniformly, a mix of approaches can undermine its effectiveness</p> <p>Facilitators' skills are critical</p> <p>CLTS can be an effective method for achieving ODF and latrine construction</p> <p>Local artisans need to be developed for construction</p> <p>Local private production of sanitation technology options needs to be promoted to respond to demand created in triggered communities.</p> <p>Monitoring quality of construction</p> <p>Community- based monitoring of technical and environmental sustainability</p>	<p>Knowledge of where to ask for support or buy products</p> <p>Skills related to construction technologies</p> <p>WASH service provider has access to skills training and capacity building</p>	<p>Private sector involvement for construction and delivery of sanitation goods and services directly contracted by households</p> <p>Support the construction of demonstration centres for local training, marketing and production of different latrine options</p> <p>Supports the establishment of local artisans through training on latrine construction and business plan</p>			<p>Supply chain professional advice</p>
			<p>Involve private sector: artisans and suppliers</p> <p>Several options, VIP, EcoSan, etc.</p>	<p>Committees trained in PHAST</p> <p>CLTS implemented by local artisans involved in hand pump repairs and hygiene promotion</p> <p>Two artisans, vendors trained at administrative post level</p> <p>CAS follows up post-triggering activities and contracts NGOs / EASs</p> <p>Local artisans provide assistance for informed choice at community level</p> <p>Local artisans construct improved latrines</p>	<p>Local purchase of materials</p> <p>Support to local leaders</p> <p>Creating local capacity for latrine construction</p> <p>Creating demand for skilled masons</p> <p>CLTS implemented by NGOs / EAS without direct participation of local artisans who support communities on request</p>	

Source: Authors' own elaboration, 2013.

