Keeping Track: CLTS Monitoring, Certification and Verification

CLTS KNOWLEDGE HUB LEARNING PAPER

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CLTS Knowledge Hub

Strengthening and broadening
Community-led Total
Sanitation at scale

Sida

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Contents

Front Page Image: Community standing in front of the ODF board Kenema District, Sierra Leone
Credit: **Emily Bamford**

Abbreviations

CBO	Community Based Organisation
CLTS	Community Led Total Sanitation
DPHO	District Public Health Officer
GPS	Global Positioning System
GSF	Global Sanitation Fund
JMP	Join Monitoring Programme of the World Health Organisation and UNICEF
MDG	Millennium Development Goals
MIS	Management Information System
NGO	Non-Governmental Organisation
OD	Open Defecation
ODF	Open Defecation Free
SDG	Sustainable Development Goal
STBM	Sanitasi Total Berbasis Masyarakat = Community Led Total Sanitation
TSSM	Total Sanitation and Sanitation Marketing
UNICEF	The United Nations Children's Fund
VDC	Village Development Committee
WASH	Water, Sanitation and Hygiene
WSSCC	Water Supply and Sanitation Collaborative Council
WSP	Water and Sanitation Programme of the World Bank

1   Introduction

Monitoring, verification and certification are essential for ensuring initial success and ongoing sustainability of ODF at community up to national level. Traditionally, CLTS implementers invested a lot of effort into the triggering process, but post-triggering and post-ODF monitoring are as important. Verification and certification provide a goal for communities and help implementing agencies and governments to ensure consistency and reliability of desired ODF outcomes.

This Learning Paper gives an overview of what is meant by monitoring, verification and certification, provides detail on what is being measured and verified, who is involved, typical indicators, methods for collecting data, as well as emerging challenges and experience in addressing them. Many of the early adopters of CLTS have now evolved protocols and practices that are in widespread use. These can offer lessons for other countries or agencies in the earlier stages of applying CLTS. However, whilst there is great value in sharing ideas and approaches that are proving successful, it is important also to acknowledge differences between countries and contexts. One size certainly does not fit all.

As the CLTS approach has gone to scale, new issues and challenges have begun to emerge. There are dangers that the innovative and dynamic processes of a participatory approach gradually transform into rigid and systematised practices, potentially losing the fundamental aim of learning and change. Whilst formal government led processes and procedures are important to ensure rigour, consistency and continuity, CLTS is ultimately a community-led endeavour, and local ownership of monitoring, verification and certification processes and outcomes should remain a central consideration.

Government and other larger implementing agencies are also grappling with the challenges of data collection and management at scale, and ensuring that information and lessons from monitoring are effectively feeding into improved policy and practice.

2   Overview of CLTS monitoring, verification and certification

This section reviews the concepts and broad practices involved in monitoring, verification and certification.

2.1   Monitoring

Monitoring is a key element of the post-triggering follow-up phase in the CLTS process. Monitoring at this stage assesses and documents progress towards the end goal of an ODF community. Once the community is satisfied that it has reached ODF then they tend to make a declaration to the relevant authorities to request verification. Monitoring should continue post-ODF to strengthen and sustain behaviour change over the long term and ensure sustainability.

Process monitoring assesses the quality and effectiveness of the CLTS intervention: the facilitation style, engagement of Natural Leaders, regularity and extent of follow-up, use of songs and slogans and emergence of community sanctions. Government or non-governmental agencies may carry out process monitoring to ensure a high standard of CLTS implementation. It is less common than progress monitoring. In Pakistan, UNICEF use an external consultancy organisation to monitor the quality of the CLTS process as well as the outcome. This can help ensure that triggering and other community follow-up and monitoring is being done correctly (UNICEF, 2014a). This approach could be beneficial in country contexts where unchecked scaling-up has led to bad facilitation.

Progress monitoring assesses movement towards the achievement of ODF communities, districts, regions and nations. Progress may be monitored by the community, based on locally or nationally defined indicators of what constitutes ODF, leading up to declaration. Many countries are producing guidelines of indicators of ODF which are used for verification, such as construction of household

toilets, reduction in OD, handwashing facilities, expected standard of toilets (fly proof, washable, private, etc), and evidence of use. These are therefore typically the indicators being monitored by communities and local agencies (government or non-government).

Local agencies (government or NGO) are also collating progress within communities in order to monitor achievements across a locality (e.g. sub-district, district, etc.). National agencies (government and others) are collating monitoring data to assess the progress of their particular programmes and achievement of national targets, including the Sustainable Development Goals (SDGs).

	By community (e.g. Natural Leaders or volunteer health extension staff)	By local agencies: government and / or non-governmental	By State or National government or national / international agencies
Process monitoring	Ensure good process in the community	Ensure CLTS implementing agency is performing well	Ensure high standard of CLTS implementation nationally Report to donors.
Progress monitoring	Check progress within the community towards ODF indicators in readiness for ODF declaration	Check progress in communities and assess need for follow-up Collate progress results to know performance across locality	Collate progress results to know performance across the country. Monitoring of international processes like SDGs. Report to donors
Post ODF monitoring	Ensure that ODF is sustained in community Check progress of post ODF activities	Ensure that ODF is sustained in all communities in the locality Check progress of post ODF activities	Ensure that ODF is being sustained across the country / lesson learning

Table 1: Stages and stakeholders for pre and post ODF monitoring

Post ODF monitoring is key in order to sustain ODF status over the long term, improve the range of positive hygiene behaviours, and promote upgrading of latrine facilities. Often ODF achievements are fragile. Over time, toilets collapse or fill up and some people revert to old behaviours. A study by Plan International in 2013 across four countries found that 87% of the 4,960 households surveyed more than 2 years after becoming ODF still had a functioning latrine, representing a 13% slippage rate. However, reversion rate back to open defecation was 21% and reversion from handwashing with soap or ash was as much as 75% (Tyndale-Biscoe et al., 2013). This study concluded that a lack of post ODF support was a significant contributor to the slippage, and that this was an important area for future attention. In a study of CLTS in government policy in 12 East Asia and Pacific countries, none showed evidence of adequate post ODF monitoring systems and procedures and only three showed signs of moving towards such criteria in CLTS programming (UNICEF EAPRO, 2015). NGOs often withdraw once ODF is achieved and move onto new locations, meaning there is no adequate post-ODF follow-up (Wamera, 2016).

Post-ODF follow-up and monitoring are key to sustained behaviour change. They can motivate wider hygiene and sanitation behaviour changes, including technology upgrading, leading to further levels of verification and certification. Robinson and Gnilo (2015) concluded that a phased approach to achieving sanitation goals: first ODF, then ODF plus additional goals and behaviour changes, can lead to more sustained outcomes, particularly if the later goals receive financial support.

2.2 Verification and certification

Verification is the process of assessing ODF and hygiene behaviour change in a community for the purposes of certification. Certification is the official recognition resulting from the full achievement of ODF and other related conditions.

The process of verification, leading to certification, provides an additional motivation for communities to achieve total sanitation and be recognised for this achievement. In the early years of CLTS, different agencies within a country tended to use different definitions and indicators for verification with consequences for the perception of its credibility. There has been a marked shift in recent years towards standardisation by a government led body, with the production of procedures for verification. Verification usually starts with an internal assessment by local leaders leading to community 'self-declaration' to the local authorities or a facilitating NGO. This may be followed by one or more stages of verification (see Section 3.5).

Based on the criteria for ODF of a particular country, the process of verification may assess a variety of different indicators to determine whether a community (and later ward, district or region) has achieved the standard required for certification. Variation in definitions of ODF within and between countries can lead to a wide range of different indicators (see Section 3.1).

Certification is the final stage in the verification process. In some countries a single successful verification visit will result in certification. In other countries ODF status has to be sustained for a period after verification, e.g. 2 months in Kenya, 3 months in Ethiopia and 6 months in Nigeria before a final certification visit. Verification and certification may be conducted by the same team or agency, or by different people and agencies. The quality of ODF certification is sometimes ensured by random sample checks, e.g. 10% of the villages certified by county level teams in Kenya (Kenya Ministry of Health, 2014) and an undetermined number of ODF villages in Nigeria (UNICEF and FMINA, no date).

Principally, it is the community that is certified as ODF, but certificates may also be given to acknowledge the roles of Natural Leaders, fast adopters or other significant change agents within the community. Certificates increasingly tend to be prepared and awarded by government but where CLTS is not an official approach they may be given by other non-government agencies. ODF wards, districts and regions are also verified and certified as CLTS achieves impact at scale. Once the community has been verified and certified it is common for a board to be put up at the entrance to a village, declaring it to be ODF. Furthermore, a celebration event is encouraged. The aim is to acknowledge their achievement and to create wider awareness of successes to encourage replication by other communities. In some cases rewards are given to communities who achieve ODF. In some countries, communities are prioritised for community investment, e.g. hand pumps, road construction, etc. (Nepal: Pasteur and Prabhakaran 2016; Indonesia: Mukherjee 2012; Pakistan Ministry of Environment, 2011).

3   Themes, practices and challenges

This section looks in detail at issues or themes relating to monitoring, verification and certification in the CLTS process, as well as areas of emerging best practice and ongoing challenges.

3.1   What should we be monitoring, verifying and certifying?

A clear definition of the goal or expected outcome of the CLTS process is an aid to effective monitoring, verification and certification. Whilst the basic premise of elimination of open defecation is typically at the core of any definition, behaviour change is not easy to measure. Furthermore it must be sustained and practiced by all members of the household. In the past, the simple existence of a toilet was a

typical indicator of sanitation progress, however, this alone is no longer considered adequate. Increasingly ODF status is being adopted as a clear goal or outcome of any sanitation programme. What is defined as the goal clearly determines what will be monitored, verified and certified. As Mukherjee has noted: "redefinition of goals catalyses all other changes" (2016, p61).

However, achieving a goal such as ODF is no guarantee of sustainable success. For example, poor maintenance of latrines and a lack of handwashing can become problems over time. Therefore, a whole range of different proxy indicators of ODF status are often added, relating to the standard of toilet required, its location (away from water sources), the availability of handwashing facilities, other safe water practices, and even solid waste management and maintenance of communal spaces (see Box 1).

Box 1: A selection of proxy indicators for measuring elimination of Open Defecation

- No evidence of open defecation
- Every household has a latrine
- 100% *access* to latrine, but may be through sharing
- Evidence of regular use, cleanliness or maintenance of latrine
- Use by all members of the household
- Standard of latrine (cleanable, water seal, fly proof cover, VIP, privacy, safety, etc)
- Toilets in schools and other public places / institutions
- Existence of sanctions and ongoing monitoring plan
- Existence of handwashing (with soap or ash)
- Institutions / schools have latrines
- Distance of latrine from water source
- Disposal of baby faeces
- Safe management of water
- Solid waste management
- Clean compounds or communal spaces

A common mistake is focusing solely on toilet coverage and standard, neglecting usage which is much more difficult to monitor. In Bareilly District in Uttar Pradesh, India, where school sanitation coverage was reported to be universal, latrines in all seven schools in the three gram panchayats studied were overflowing and unusable (Hueso and Bell 2013). Evidence of usage for both monitoring and verification could include a worn path to the toilet, no cobwebs, a container of water at site for cleaning or handwashing, etc. The Nigerian verification guidelines even suggest using a long stick or dropping in a stone to check availability of faeces in a toilet (UNICEF and FMINA, no date).

Indicators for elimination of OD, or other stages of becoming a sanitised community should be appropriate for the national situation. For example, in Vietnam there is little open defecation but high use of unhygienic toilets, therefore indicators relating to larine standards are more relevant than reference to OD and the existence of a toilet. The Ministry of Health is defining relevant criteria suited to their situation (Mukherjee, 2016).

Box 2: Protocols, guidance and training for monitoring, verification and certification

Where there is little government or other leadership on CLTS, different agencies tended to implement, monitor and verify CLTS according to their own methodologies and organisational practices. However, national protocols or guidance can lead to clear expectations, improved consistency of practice and a higher degree of trust in ODF outcomes. A good ODF protocol should outline the indicators to be monitored at community, subnational and national levels, along with the recommended processes for data collection, compilation, analysis and verification. National verification and certification protocols can be found for 12 countries on the CLTS Knowledge Hub website (www.communityledtotalsanitation.org), and are also listed in Annex 1.

Capacity support to government in producing protocols and facilitating training has often been provided by international agencies such as UNICEF, WSP (Water and Sanitation Programme), the Global Sanitation Fund (GSF), WSSCC (Water Supply and Sanitation Collaborative Council) and some international NGOs through their respective programmes of support. Original guidance is now at the stage of being reviewed and updated in some countries based on a number of years of practice, e.g. Kenya. National protocols for post ODF monitoring are still lacking.

Training manuals and courses in monitoring and verification concepts, approaches, attitudes and methodologies are important to ensure translation of protocols into effective practice on the ground. International agencies and NGOs have been particularly supportive in producing manuals and guidance, e.g. USAID Southern Africa, 2016; UNICEF 2014b; Uganda Ministry of Health, no date.

Different 'stages' of hygiene behaviour change have emerged as definitions and indicators have been developed. These stages relate to movement up the sanitation ladder or towards a healthier, more sanitary community, e.g. Total Sanitation (Nepal, Nigeria), Model Clean Community (Ghana), ODF ++ (Malawi), ODF Stages 1, 2 and 3 (Kenya) and Grades 1, 2 and 3 (Philippines, Timor Leste). Robinson and Gnilo (2016) note that having various stages to sanitation certification can help efforts and resources be more strategically deployed, encouraging post ODF intervention and ongoing monitoring leading to sustained behaviour change.

3.1.1   Ongoing gaps in what is being monitored and verified

Keeping a look out for partial usage is important in monitoring and verification but appears rarely to be considered. Partial usage includes households where not all members practice hygienic sanitation or where people do not do so all of the time. Coffey and Spears (2014) note a lack of disaggregation of household members in sanitation survey questions used in various studies in India. They suggest asking about open defecation and latrine use separately for each individual household member, and that observation helps assess whether the latrine is in regular use.

Equity of access and participation, including by age, gender, poverty level, disability, cultural or ethnic groups, are all factors to be taken into account in CLTS. There is little evidence of systematic and regular monitoring of these issues. They are sometimes covered in evaluation studies carried out by funding agencies but as the issues are only looked at late in programme implementation the findings are often weak (Robinson, 2016; UNICEF, 2014) and do not lead to changes. Wilbur and Jones (2014)

consider approaches to monitoring disability access and usability, through marking disabled households on the community map and involving households with disabled members in the monitoring teams. Monitoring of menstrual hygiene management, schools hygiene, access to female toilets, and disposal of baby faeces are issues that could be addressed in monitoring or verification indicators.

Though still rare, increasing attention is being paid to the issue of post-ODF sustainability monitoring (Wamera, 2016, UNICEF EAPRO, 2015). Stronger sustainability monitoring could help to identify problems early, and allow local staff to respond appropriately (Robinson, 2016). In some cases this is linked to post ODF programming which alongside achieving new sanitation goals, also monitors for any slippage in behaviour change (Robinson and Gnilo, 2016). In other cases, regular monitoring of ODF status is a community responsibility, or is integrated into roles and responsibilities of other local professionals in education, health or community development (Wamera, 2016). Monitoring of post ODF sanitation technology supply, maintenance and upgrading is being carried out by BRAC in Bangladesh as they encourage a shift from single to double pit latrines (A. Islam, pers comm, September 2016).

It would appear that relatively little health impact monitoring specifically of CLTS (e.g. diarrhoea reduction, changes in stunting, nutrition or child growth) is currently taking place. An evaluation of 8 of Plan's CLTS country programmes, found that only one (Ethiopia) had collected any health impact data (Robinson, 2016). Other forms of impact measurement, e.g. on incomes, livelihoods, social cohesion, follow on collective activities, etc. seem to be anecdotal (e.g. examples from Madagascar in Milward et al, 2014). Monitoring unintended environmental impacts such as groundwater contamination were raised as an unmet challenge by Frank Greaves of Tearfund (pers comm, September 2016). To effectively measure impacts requires advanced planning from the start of a programme and the collection of baseline data. However, positive and significant results could provide useful data for advocacy for CLTS efforts.

3.2   Who monitors, verifies and certifies?

Monitoring of progress to ODF and of maintenance of ODF status may be done both internally within the community, and externally by the CLTS implementing agency. Community monitoring tends to be led by Natural Leaders or other community health volunteers whilst also involving chiefs, religious leaders, health volunteers, teachers, etc. Community monitoring improves ownership of the process, ensures ongoing enforcement of locally devised sanctions, and therefore contributes to the sustainability of the ODF outcome.

Pre- and post-ODF monitoring are also ideally integrated into roles of local NGO or government health, education or community development professionals who carry out both process and progress monitoring in a number of communities within their purview. Typically, those who do the monitoring are the same staff that facilitated CLTS triggering. In other cases, such as Madagascar and Nepal, WASH Coordination Committees made up of both government and civil society are also involved in monitoring (Milward et al 2014; Pasteur and Prabhakaran, 2015).

Who does the monitoring also raises the question of who the monitoring is for. The pressure for upward reporting by NGOs and government staff can lead to less focus on encouraging and facilitating the process of internal community monitoring to strengthen ownership. NGO and other WASH agency staff have suggested that their monitoring and reporting systems are often designed to respond to donor requirements rather than project needs (Robinson, 2016, Francis, 2016). Real local ownership of monitoring processes and outcomes, as well as integration of monitoring activities into community leadership (chiefs, Natural Leaders, sanitation teams, health volunteers) and local professional roles

(school teachers, government health or community development staff, etc.) is key to long term sustainability. It is necessary to build strong local ownership of the WASH agenda, and this will help to ensure that monitoring is seen as an opportunity for being more effective (Francis, 2016), and that it continues past ODF certification (Wamera, 2016).

Where governments have taken ownership of the CLTS approach, verification and certification are typically carried out by a team designated by a government protocol, involving government stakeholders. Teams may also include community members from other local or more distant villages and representatives from external agencies. Involvement of school staff is recommended by Plan in Ethiopia (Ethiopia Ministry of Health, 2012). Typically a lead person is specified for the verification team, for example in Kenya the District Public Health Officer (DPHO) must lead verification at community level (Kenya Protocol 2014). Who does the verification is key to its credibility. Revolving membership of verification committees is recommended to reduce dangers of corruption. Third party verification is also used to help improve impartiality as discussed in Section 3.4.

3.3   Methods for monitoring, verification and certification

A variety of methods have evolved for monitoring, verification and certification as reviewed in this section.

3.3.1   Reporting formats or checklists

Reporting formats or checklists are the most common approach to monitoring. Reporting formats may draw their data from visual methods or house to house visits, exchanges or community meetings (described below). The data is typically collated by the facilitating agency either for project level monitoring or for feeding into a larger Management Information System (MIS) on CLTS or wider sanitation aspects for the district, region or country.

Formats and checklists are also the most common approach to verification and certification. Twelve out of twelve government procedures for verification and certification reviewed by the author included a checklist or format to be completed by verifiers (see Annex 1). Most protocols are accompanied by suggested methods of data collection such as household visits, inspection of latrines, interviews and community discussion. Examples of formats for post-ODF monitoring are less common. SNV, working in Kalikot district, Nepal, have developed an early detection checklist aimed at identifying gaps or slippage in post-ODF status (Regmi, 2016). This aims to identify new houses without toilets, slippage in usage, any upgrading taking place, and any need for re-triggering.

Formats are easily understood and managed by external staff and aid transfer of data into government or NGO management systems. However, they do not necessarily facilitate the participation or ownership of the community unless combined with other more engaging methods.

3.3.2   Visual methods

A variety of methods which make progress visible have been used in communities. One of the most widely encouraged approaches to monitoring is the use of a visual map, marking households as they gain access to a latrine, e.g. in Uganda, Indonesia, Ghana, Mauritania, Haiti, etc (Uganda Ministry of Health, no date; Mukherjee, 2012; pers comm). Different colours or symbols can be used to denote progress of each household (e.g. construction, improved / unimproved, handwashing). This is typically a replica of the map produced during the triggering exercise. It is displayed publicly in the community for all to see, and should be updated regularly. Data may be collected by government officials for upward monitoring (Mukherjee, 2012).

In Angola, a red rope is tied outside houses with no latrine. In Indonesia and Nepal, stickers are used on the outside of houses to denote progress (Mukherjee, 2012; Pasteur and Prabhakaran, 2016). In

Ethiopia, flags of yellow (at 50%) and green (at 100%) indicate the progress towards ODF reached by the community as a whole, whilst a white flag denotes secondary sanitation achievements and a red flag denotes slippage (Ethiopia Ministry of Health, 2012). The benefits of these methods are the the community tend to take an active role thus increasing ownership of the process, and the visibility of households' ODF status adds to the pressure for behaviour change amongst late adopters.
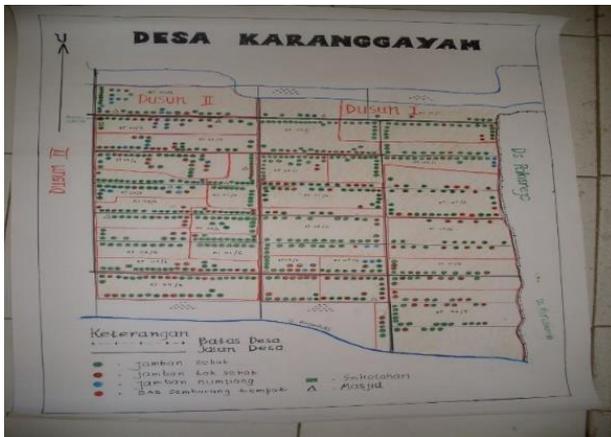

Figure 1: Community map used for monitoring (Mukherjee 2012)

Figure 2: Sticker used on outside of house to monitor progress to total sanitation in Nepal (Pasteur and Prabhakaran, 2016)

3.3.3 House to house, exchange visits and community meetings

Sometimes monitoring is done informally through house to house visits by Natural Leaders, sanitation teams and community health volunteers, as well as by external government or NGO staff or WASH committee members. House to house visits are also a common method for verification and certification. Where there are a large number of households in a community, a proportion may be randomly selected or all of the community divided amongst the verification team members.

Communities monitoring and verifying one another can also be very effective. In Madagascar, community members agreed a set of criteria for rating toilets on maintenance, cleanliness, handwashing, availability of soap, etc. Each month a group of health volunteers would walk around and rank every latrine. Neighbours could also rate each other's latrines. Results were displayed in a communal place (Myers et al 2016). A similar approach was used by Plan Ethiopia (A. Beyene, pers comm, June 2016). Verification teams often include members from other communities and they can be perceptive when it comes to detecting ongoing OD practice.

Other tools involve visiting former OD sites, conducting household or key informant interviews, focus group or informal discussions, and a transect walk. In Ghana an innovative monitoring methodology has been developed, though is perhaps not yet in use at scale. School children carry out periodic rapid (30 mins to one hour) surveys of all the households and then feed their findings back to the community in a public meeting (Shah, 2016). School children are also engaged in Ethiopia where one member of the six-person "Shit Eradication Committee" is a schoolchild who collects data and reports for the approximately 30 households in their development unit (No Author, 2011). A useful element of any verification is a feedback discussion with community members to discuss observations, the verification outcome and any action that still needs to be taken.

Verifications often aim to have an element of surprise so that communities have not cleaned up in anticipation of the verification team visit. However, this should not go to the extent whereby strangers are wandering around the community unannounced, creating a sense of fear (EHSD, 2015).

3.3.4 Mobile phone and social media

There's growing use of mobile phone technologies to collect systematic data, for example in Indonesia (Robiarto et al, 2014), India (Kumar and Singh, 2012), Kenya (Pasteur and Prabhakaran, 2015) and Zambia (UNICEF ESARO). Data and photos can be entered into the mobile phone and automatically uploaded to a computer database. This tends to involve household level data collection on progress towards toilet construction, handwashing, toilet upgrading, etc. Mobile phone systems have also been used for surveys for end of project and ex-poste evaluations (Robinson, 2016). Various technologies are emerging for collating and processing the data including Akros (akros.com), SeeSaw (greenseesaw.com) and Poimapper (poimapper.com), making this method of data management increasingly accessible to a wider range of organisations.

Less formally documented is the use of social media tools such as blogs and the WhatsApp phone application for informal monitoring within and between communities in Mathare slum in Nairobi, Kenya. These media were spontaneously used by local people to share photos and locations of open defecation around the slum neighbourhoods (Rose Nyawira, pers comm, June 2016). This demonstrates the potential of these informal but increasingly accessible information sharing applications for use in more systematic manner for community monitoring.

The advantages of ICT tools are a reduction in paper based monitoring which can be cumbersome. Data can be entered directly into computer-based systems meaning it can quickly and easily be analysed and shared, including online. Data can include photos which can help overcome miss-reporting or corruption. On the other hand, many smartphone based systems often require technology hardware to be provided by donors. Phones may be lost or stolen, they quickly require upgrading, and battery power may be quickly depleted when using GPS. Software skills are often required, as well as a high degree of backstopping. Security presents an issue in countries such as Pakistan (S. Safique, pers comm, September 2013). Many ICT systems appear to be more extractive rather than community-owned as the data goes directly to an NGO or government office and community members are unable to access it.

3.4 Reliability and accuracy

Monitoring data may be passed along several stages in a chain from community, through extension workers, to local government or partners, and then aggregated perhaps at a national level. There may be few mechanisms to keep track of the reliability or accuracy of the data as it passes along this chain. Estimates of impact often prove to be over-estimates, and reports of local and national progress are therefore inaccurate. A Plan Kenya project often presented rough estimates of progress made by its local government partners, which eventually proved to over-estimate actual progress by more than 500% (Robinson, 2016). These challenges can be overcome with closer supervision and increasingly with the use of mobile phones for monitoring, which can transfer data in real time to a computer system, and include photos of latrines as evidence that households have actually been visited (discussed in Section 3.3.4).

Some propose investigating very high rates of passing or failing CLTS verification procedures to ensure that all aspects of the process are working well. High pass rates raise questions as to whether criteria and their application are adequate. High fail rates call into question the standard of triggering and follow-up facilitation. In Ghana it is recommended that districts are penalised if more than 20% of the

communities they refer are not ready to pass the regional level verification (EHSD, 2015). This helps improve the quality of triggering, follow-up and supervision of community self-declaration.

Third party verification has been used in a number of countries with the aim of ensuring that local vested interests do not lead to misreporting, and is also helping to maintain a suitable degree of transparency and replicability in the process. A truly third party agent should come from another district or region or should represent an organisation with no links to CLTS implementation in the communities in question, and should therefore have no vested interest whatsoever in the outcome of the process. The verifiers may be Natural Leaders, government or non-government staff, researchers, consultants, other officials or volunteers. There may be third party members to a verification team, or the whole team may be from a single third party agency (e.g. NGO or consultancy).

There are a number of pros and cons to third party verification. On the plus side, it aids credibility and objectivity; it helps ensure standardisation and replicability across the country, and the process can be more impartial. Plan International Nepal indicated concern over the credibility and authenticity of declarations in some VDCs because the same WASH-CC is responsible for implementing CLTS and verifying ODF status (Venkataramanan, 2015). On the other hand, bringing in external agents from other districts can be time consuming, leading to delays. There are cost implications, whether for payment for services, or for travel expenses. Third party consultants introduced and paid for by another agency (e.g. UNICEF in Ghana and Pakistan) may later result in a financial burden on government that cannot be met (UNICEF, 2014). Even third party verifiers may still have some personal bias, and when using a fully independent organisation, they may not have a complete understanding of the nature of the CLTS process or the need for a participatory and supportive approach unless well trained.

In Chhattisgarh, India the verification of a panchayat (collection of villages) is done by a team from a different block (district subdivision). Similarly, once a block declares itself ODF a team from a different district has to come and verify. This exchange process reduces internal false reporting, and promotes exchange of experience and lessons (M. Geetha, pers comm, Sept 2016). In Ghana, a third party verification arrangement was designed as part of a UNICEF support partnership for scaling-up CLTS (2013-2014). The NGO SNV were engaged and were successfully considered to be an "uncompromising and firm independent verifier" (EHSD). However, key challenges included: poor coordination between government teams and the independent verifier; time wasting due to ill prepared communities being recommended for verification; long delays between request and verification; and inadequate numbers of communities verified in one day (EHSD).

Pros	Cons
- Aids credibility and objectivity - Helps ensures standardization and replicability across the country - Should be more impartial	- Is time consuming and can lead to delays - There are cost implications - There is still a possibility of personal bias - May not be a participatory or supportive process

Table 2: Pros and Cons of Third Party Verification

3.5 Attitudes

A critical issue in monitoring, verification and certification is the attitude of those carrying out the activity towards the community. These processes should ideally be community-led and participatory, ensuring that there is acceptance of the process and results by community members and that lessons are learned leading to appropriate change. Particularly in the case of verification, it appears that the

move towards more formal processes has led to a 'fault-finding' approach, often leaving the community demoralised or humiliated.

Whether failing or passing, verification should be a positive experience, encouraging pride and self-respect and reinforcing sustainability of positive achievements. With participation in verification, a non-ODF community should be able to clearly understand why they have not achieved ODF status. If verification outcomes are discussed in a public meeting, a plan can then be developed to address the problem issue and people should be left motivated to do it promptly. A date should also be set for a repeat verification.

The methodology used by Plan in Kenya encourages the community to suggest their own verification result based on feedback and observations from the verification team in a community meeting. If OD or other challenges were observed, they would usually willingly fail themselves, and therefore took ownership of the outcome and were keen to address the problems promptly (S. Musyoki, pers comm, July 2016). Verification teams should receive clear orientation on appropriate behaviours and attitudes to ensure it is a learning process (Kumar et al., 2010).

3.6   Timing and timeliness

Monitoring should ideally be integrated into the post-triggering follow-up phase, starting shortly after triggering has taken place. In Uganda it is recommended that monitoring should be done 3 times over 3 months by which time ODF should be achieved. Whilst monitoring toilet construction is often considered to be a one-time activity, regular monitoring of usage is required to ensure behaviour change is ongoing.

It is often expected that a defined period of time should pass between community self-declaration and final certification to ensure that ODF can be sustained. There may be one or a number of external verification stages depending on the country protocol (see Box 3). Having several levels or stages to the verification can aid objectivity and credibility of the process. As the stages will inevitably be staggered over time, it can also ensure that ODF is sustained for a period until the final verification. It ensures that districts do not become lax in their verification in order to achieve faster progress.

There have also been reports that long delays between declaration and verification can lead to frustration resulting in slippage back to OD. Problems have emerged where CLTS has gone to scale very fast or where there is inadequate capacity in place to respond within the mandated time period, as happened in parts of Ghana (EHSD, 2015) and in East Java, Indonesia (Mukherjee, 2012). Uganda proposes a minimum response time of one month to avoid this kind of delay.

> **Box 3: Examples of numbers and timings of verifications.**
>
> - **Tanzania:** a single verification exercise is carried out by staff from ward level and neighbouring villages. The timing of verification is not determined in the protocol (Tanzania Ministry of Health, 2016).
> - **Uganda:** 3 verification visits over three months by Parish, Sub-County and District. No more than one month should pass between notification and verification.
> - **Nigeria:** up to 9 separate, unannounced verification visits by three different teams, spread over 6 months (UNICEF and FMINA, no date).
> - **India:** at least two verifications, the first verification within three months of the declaration to verify ODF and a second after around six months of first verification to determine sustainability (Government of India, 2015)

Requiring periodic reverification is a form of post-ODF monitoring that is sometimes recommended. In Pakistan ODF certification expires after six months and the verification team should visit again (No Author, 2011). In Botswana a six-monthly post-ODF certification survey is recommended (USAID Southern Africa 2016). Ensuring long-term allocation of responsibility and supervision of these reverifications is key if they are to be effective. There is no consensus of the number of reverifications required before sustainable behaviour change can be assumed.

3.7 Incentives

Pre and post-ODF monitoring, verification and certification processes all require time and skills. Clearly integrating these roles into a paid, long term position, e.g. within an NGO or government department is key to sustainability. But others, such as Natural Leaders, or WASH committee members may also be involved in a voluntary capacity. In either case, incentives are relevant to ensure that the job is done effectively and that volunteer roles are sustained in the long term.

Time spent by paid staff or Natural Leaders and other volunteers on pre and post-ODF monitoring can be considerable. In Indonesia the speed of scaling up of CLTS meant that health extension workers could not keep up with manual data collection. Whilst triggering requires just one or two visits to a community, monitoring will tend to require many regular visits up to and beyond ODF certification, sometimes with implications for transport, fuel budgets and refreshments. Ensuring that appropriate time and budget has been allocated for this, by government or from other funding programmes, is key. Post-ODF monitoring, in particular, is currently often not routinely planned or budgeted for by governments or NGOs, and needs prioritising (Wamera, 2016).

Where funds are not available for volunteers, these roles have been successfully linked to income generation opportunities. These can be linked to WASH to help provide a financial incentive for the related voluntary activities e.g. selling water treatment or sanitation products in Kenya (Wamera, 2016), or managing a public toilet in Ethiopia (A. Beyene, pers comm, June 2016). Forming networks or associations of Natural Leaders, and developing their role as sanitation entrepreneurs, has been found to help sustain motivation for post-ODF activity in Ethiopia, Malawi, Madagascar, Kenya and Nigeria (Wamera, 2016). Training, capacity building and general support and encouragement can help monitoring to be prioritised both by paid staff and volunteers. If volunteers and staff are convinced of the purpose of ongoing monitoring, and they see that the information they are collecting is acknowledged, checked and utilised, they are far more likely to do it (Wamera, 2016; Robinson, 2016).

There are similar implications regarding capacity and incentives for verification and certification processes. Where government staff are involved, integration into job descriptions is key. Budgeting for verification and certification is important. Where external agencies are involved (e.g. third party verifiers) they are likely to require some form of payment. Even government staff may receive additional payments for travel and subsistence (e.g. in Mauritania). The Government of Kenya explicitly state that the implementing agency for any CLTS programme will be expected to budget for the verification and certification exercises as well as the celebrations. Where implementers are NGOs, public health officers are encouraged to point this out at the onset of any CLTS intervention so as to minimize any misunderstanding (Republic of Kenya, Ministry of Health 2013). Where external organisations are paying for a third party verifier, e.g. UNICEF in Ghana and Pakistan, the sustainability of this financial burden post donor programme is a concern.

3.8   Management Information Systems

As well as government coordination around methods and lesson learning, coordination is increasingly required around the management of data collected under monitoring systems. A review of 12 Asian countries found that basic government CLTS monitoring data was not readily available at either national or programme levels, and ten out of 12 of the countries reviewed struggled to provide current CLTS progress data (UNICEF EAPRO, 2015). Non-government agencies may not fare much better, as the final evaluation of the Plan Pan Africa programme also found progress and sustainability monitoring systems to be inadequate in at least half of the country projects (Robinson, 2016).

The lack of a centralized place for consolidating data and monitoring progress in several countries in the UNICEF EAPRO study was striking, especially those with a longer history of CLTS such as Cambodia and Timor-Leste. There were exceptions. Indonesia has an online national monitoring system through STBM that shows triggered and ODF communities and types of sanitation by location. Lao PDR was able to provide a spreadsheet which had clear details for all implementers by location (UNICEF EAPRO, 2015). International donors have been supporting several countries (e.g. Indonesia, Ethiopia, Tanzania, India, Zambia) in the development of health MIS systems and the integration of CLTS progress data within those and in overcoming some over the challenges relating to effective data collection and utilisation (Jones, 2015; Mukherjee, 2016; Kumar et al 2010, Coombes et al 2011, UNICEF ESARO, 2015).

One challenge is the limited demand for, and utilization of, CLTS progress data resulting in little incentive for staff to regularly collect, process and report information. The UNICEF study found little evidence of data being systematically analysed and used for decision making or rethinking strategic approaches (UNICEF EAPRO 2015). The requirements for monitoring of Sustainable Development Goal 6 should now provide additional motivation. A well-functioning monitoring system can also help to effectively target resources, identify emerging lessons leading to necessary adaptation of approaches, and allow for progress to be reported against targets (Jones 2015).

Ensuring that any (particularly donor funded) MIS system is fully owned and managed by relevant sector institutions and policy makers is key, as well as capacity building in effective utilisation and communication of the resulting information (Mukherjee 2016, Coombes et al 2011, UNICEF ESARO, 2015). Government leadership and a centralised system of data management is important in order to bring together data currently being collected by a variety of different institutions and systems, often with slightly different indicators and definitions. Alignment between indicators, definitions, collection systems and management can radically improve progress reporting and the effectiveness of strategic decision-making by all institutions involved (Coombes et al 2011).

Transparent data sharing, e.g. via publicly accessible websites can aid public accountability as well as competition between communities, districts and regions within the country. Some countries have aimed to produce league table data on a public website to encourage competition (e.g. India www.sbm.gov.in/sbmdashboard/; Nepal www.wash-rcnn.net.np/nwa/odf-updates.html) but keeping data up to date is an ongoing challenge. Ghana's district ODF league tables are yet to be effective in that no district has become ODF (www.UNICEF.org/ghana/media_9697.html).

Additional challenges include the lack of adequate resources to establish and effectively run WASH monitoring systems and problems with staff capacity and motivation. In Ethiopia, WSP report a lack of financial resources available at the woreda level to undertake data collection along with an inability to identify and retain personnel with the right skills (Jones, 2015). In Zambia, UNICEF report that using a mobile to web system has reduced costs compared with paper documentation, and as an incentive

community champions who submit required data reports by the expected deadline are rewarded with free talk time at the end of the month (UNICEF ESARO, 2015).

Mobile phone monitoring should not yet be considered a silver bullet. Many of the systems cited above are relatively recent. They are often heavily supported by donors, whether financially or with human resources capacity. They require a sustained enabling environment in terms of finance, human resources, and institutional responsibility (UNICEF ESARO, 2015). Their long term success and sustainability has yet to be assessed.

3.9 Structures and processes for coordination, learning and sharing

Many governments who are using CLTS as their main national approach to sanitation have established structures and stakeholder platforms for training, communication, lesson learning. This helps to ensure uniformity of standards, availability of trained verifiers, coordination between stakeholders and the sharing of good and bad practice, and thus aids smooth functioning of monitoring, verification and certification processes. Finding budget and time for, as well as cultivating a culture of, reflection and learning are always a challenge, but structures and processes help to keep it part of the agenda.

In East Java, Indonesia, WSP's Total Sanitation and Sanitation Marketing (TSSM) project initiated stakeholder platforms for knowledge sharing. Learning was incentivised through offering annual Leaning Champion awards and by publicly recognising innovators. Post-TSSM, the platforms are now funded and maintained by the provincial and district governments. Four further provinces have adopted CLTS and instituted similar learning mechanisms. Learning and sharing is also coordinated through a national Secretariat (Mukherjee, 2016). In Nepal and Madagascar, WASH Coordination Committees have been established at national, down to local level which play key roles in monitoring, verification, certification and lesson learning (Pasteur and Prabhakaran, 2016; Milward et al, 2014). In Kenya, the National Inter-agency Coordination Committee has Technical Working Groups at national and county level which reflect on emerging issues (Pasteur and Prabhakaran, 2015).

3.9.1 International learning and reflection

There is considerable opportunity for learning and replicating within regions. Indonesia began implementing CLTS several years before Lao PDR and Vietnam. The followers are benefitting from the learning from the innovators' experience and therefore are making much more rapid progress, including in the establishment of effective monitoring, verification and certification policies and procedures (Mukherjee 2016).

Several international agencies like UNICEF, World Bank and Plan have commissioned studies to reflect on or compare experiences across their own funded programmes (Tyndale-Biscoe, et al., 2013; Hanchett, 2016; UNICEF EAPRO, 2015; Venkataramanan, 2016; Robinson, 2016). Reflection on factors such as speed and rates of conversion from triggering to ODF, effective budget allocation, or which communities sustain practice in different contexts, are thus able to identify the key conditions for future success (UNICEF EAPRO, 2015; Robinson, 2016). The CLTS Rapid Appraisal Protocol (CRAP) devised by CLTS Foundation with UNICEF, aims to aid rapid assessment of the general status and quality of CLTS practice in a country (UNICEF ESARO, 2016). Agencies such as the IDS CLTS Knowledge Hub (www.communityledtotalsanitation.org) and the CLTS Foundation (www.cltsfoundation.org) play a key role in carrying out independent studies or bringing together and sharing lessons and best practice.

Whilst external evaluations and studies are undoubtedly useful, it is unfortunate if these are principally extractive and do not contribute to strengthening wider national capacity and practice. A study by WaterAid (Battle, 2016) noted that whilst donors are ramping up their internal monitoring,

post-project evaluation, and learning efforts, there was no equivalent discussion of efforts to build host-country monitoring capacity and platforms. Further study is required to assess the effective functioning of national and agency platforms or research studies, the ways in which they are funded, how well they are prioritised, and the utility and uptake of any findings or lessons.

4   Frontiers and ways forward

This section highlights a number of themes that are emerging as frontiers in the field of CLTS monitoring, verification and certification that would benefit from further innovation, research and analysis.

4.1   Mainstreaming post ODF monitoring

Post ODF monitoring is key to ensuring long term sustainability of behaviour change, taking into account incoming population, filling up of toilets, collapse of toilets, and other factors. Ensuring that it takes place and that it continues requires planning for long-term community monitoring during the triggering follow-up and integration of ongoing monitoring into government responsibilities at various levels, as well as building an organisational culture that fosters and rewards monitoring and learning.

Mainstreaming post-ODF monitoring would benefit from changing project or programme funding to ensure interventions do not simply end once ODF is achieved. Phased WASH programming that aims for additional post-ODF behaviour change relating to handwashing, household cleanliness, solid and liquid waste management etc. creates space for keeping a long term check on sustained ODF status. Further research and reflection could help to identify the length of time until a community has fully changed behaviour and the conditions that facilitate longer term sustainability.

4.2   Monitoring around emerging themes

Ongoing CLTS practice is revealing a number of themes which would benefit from more systematic learning, whether based on regular monitoring or more frequent evaluation studies. These themes include: sanitation marketing and upgrading; factors contributing to sustainability; inclusion; equity; and impact. There are opportunities for experience sharing leading to the development of tools and guidance. Monitoring of health impacts in particular can be quite complex due to the variety of potential indicators, specialist knowledge and access to information required (e.g. from other health professionals) and the need for baseline data. Specialists may need to be engaged to help devise health monitoring, data collection and analysis protocols that will yield statistically valid results (Robinson 2016).

4.3   Systems for feeding lessons from monitoring back into improved practice

As noted above, several countries are investing in improved Management Information Systems (MIS) to collate monitoring findings and keep track of progress. There are several benefits to this for upward reporting. However, greater attention could be paid to the multiple ways in which this information might improve practice including: feeding directly into government policy or investment decision making; enhancing wider accountability through making the information accessible; creating competition between communities districts and regions through availability of league tables; and ensuring that lessons learned are channelled back down to the local / facilitator level. Further study could assess the effective functioning of national and agency platforms, the ways in which they are funded, how well they are prioritised, and the utility and uptake of any findings or lessons.

4.4   Learning lessons from mobile phone and other ICT monitoring

The greater availability and access to mobile phones has opened the door to using this technology for field level monitoring, offering the benefits of real time data transfer and enhanced reliability. Other

social networking media also offer opportunities for monitoring and accountability. However, these experiences are still in their early days. The range of possible benefits and challenges of using them at scale are just becoming fully apparent. Lesson learning around the potentials and pitfalls of these mechanisms would be hugely valuable at this stage.

5 Conclusion

As CLTS achieves impact at scale, gaps and challenges in monitoring, verification and certification have been emerging. The immensity has only become apparent as there is now a bulk of communities that have become ODF and many sustainability studies have shown that results are often fragile. The challenges include monitoring of the sustainability of behaviour change post ODF certification, of sanitation marketing and technology upgrading, looking at issues of equity and inclusion, and assessing short and longer term impacts (e.g. on wider WASH outcomes, on a range of health impacts, and on empowerment).

Whilst clarifying definitions of ODF and creating guidance on processes for monitoring, verification and certification it is important that these do not become too systematised and extractive, and that the fundamental principles of a community-led approach are not eroded. The roles and processes of government and other external agencies are key to motivating communities to track progress for their own needs, as well as for organisational learning and accountability. Balancing this tension requires effective and empowering facilitation at all stages.

After several years of practice, countries and agencies will increasingly be looking to update existing guidance and thus there are ongoing opportunities for improving the national monitoring, verification and certification processes. It is an important time to be sharing lessons and experiences of experiences to date to ensure that procedures and practice are continually improved.

6 References

No Author (2011) Taking Community Led Total Sanitation to Scale with Quality Monitoring, Evaluation, Learning and Information Management Systems at Scale. Lukenya Notes Taking CLTS to Scale with Quality. No 6. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/6_Lukenya_Monitoring_Evaluation.pdf

UNICEF (2015) Sanitation Monitoring Toolkit. http://www.sanitationmonitoringtoolkit.com/ UNICEF December 2015

Battle, C. (2015) Monitoring results of complex systems change. Measuring and assessing the changes fundamental to sustained WASH services. Discussion Paper. WaterAid. UK. http://www.WaterAid.org/~/media/Publications/Monitoring-results-of-complex-systems-change.pdf

Coffey, D. and D. Spears (2014) How can a large sample survey monitor open defecation in rural India for the Swatch Bharat Abhiyan? Working Draft. December 4 2014. http://www.susana.org/_resources/documents/default/3-2176-7-1424791330

Coombes, Y., P. Mwakilama, and U. Singh (2011) Utilizing Community-Based Registers to Monitor Improved Access to Sanitation and Hygiene in Tanzania. Water and Sanitation Program (WSP) Learning Note. January 2011.

EHSD Government of Ghana (2015) Third Party Verification Review and Learning Report. Environmental Health and Sanitation Department, Government of Ghana with UNICEF, July 2015.

Ethiopia Ministry of Health (2012) CLTSH verification and certification protocol. Ethiopia Ministry of Health. January 2012. Downloaded from http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/Verification_Certification_Protocol_Ethiopia.pdf

Francis, N. (2016) Monitoring and evaluation – moving beyond the data graveyard. Blog Post. CLTS Knowledge Hub: Community Led Total Sanitation. 21 October 2016. Accessed at: http://www.communityledtotalsanitation.org/blog/monitoring-and-evaluation-moving-beyond-data-graveyard

Government of India (2015) Guidelines for ODF Verification. Informal Document. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/India_Guidelines_for_ODF_Verification.pdf

Jones, Oliver (2015) Monitoring sanitation and hygiene in rural Ethiopia: A diagnostic analysis of systems, tools and capacity. Water and Sanitation Program, Africa / World Bank Group. June 2015. Downloaded from: https://wsp.org/sites/wsp.org/files/publications/WSP-Monitoring-Sanitation-and-Hygiene-in-Rural-Ethiopia.pdf

Kenya Ministry of Health (2014) Protocol for Implementing CLTS in Kenya. Ministry of Health with UNICEF. January 2014, Nairobi, Kenya

Kenya Ministry of Health (2012) Community – Led Total Sanitation (CLTS) Facilitators Manual. Department of Environmental Health 2012. Republic of Kenya, Ministry of Health.

Kenya Ministry of Health (2013) Verification and Certification of ODF Communities Guidelines, Processes and Tools. Republic of Kenya, Ministry of Health

Kumar, A. and U. Singh (2012) You Manage What You Measure: Using Mobile Phones to Strengthen Outcome Monitoring in Rural Sanitation. WSP Field Note, October 2012. Water and Sanitation Programme, New Delhi. https://www.wsp.org/sites/wsp.org/files/publications/WSP-Manage-What-You-Measure-Using-Mobile-Phones-Strengthen-Outcome-Monitoring-Rural-Sanitation.pdf

Kumar, A., U. Singh, and M. Prakash (2010) Monitoring Systems for Incentives Programmes. Learning from Large Scale Rural Sanitation Initiatives in India. Water and Sanitation Programme (WSP), November 2010.

Hanchett, S. (2016) Sanitation in Bangladesh: Revolution, Evolution, and New Challenges. In P. Bongartz, N Vernon and J. Fox, Sustainable Sanitation for All, Experiences, Challenges and Innovations. Practical Action Publishing, Rugby.

Hueso, A. and B. Bell (2013) An untold story of policy failure: the total sanitation campaign in India. Water Policy, 15: 6, 1001–1017. November 2013.

Malawi Government (2011) Open Defecation Free (ODF) Malawi Strategy 2011-2015. Ministry of Agriculture, Irrigation and Water Development.

Meek, A. (2013) ODF Verification and Celebration Process Options Tools Ideas ODF. Malawi Annual Review Powerpoint Presentation. March 20-21, 2013. Engineers Without Borders Canada http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/WATSAN_ODF%20Strategy_Annual_Review_Verification%20Presentation.pdf

Milward, K, S. Pradan, and K. Pasteur (2014) Promising Pathways. Innovations and Best Practices in CLTS at Scale in Madagascar. CLTS Foundation, Salt Lake City.

Ministry of Local Government and Rural Development, Environmental Health and Sanitation Directorate (2010) Checklist for ODF Verification and Certification. The National CLTS Task Force, Government of Ghana. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/ODF_checklist_Ghana.pdf

Mukherjee, N. (2012) Experiential learning from Total Sanitation and Sanitation Marketing(TSSM) Project, 2007-10 on Monitoring Progress and Program performance, and Sequencing of CLTS and Sanitation Marketing. Powerpoint presented at IDS Workshop on Monitoring CLTS. Malawi. August 2012, WSP World Bank.

Mukherjee, N. (2016) Building Environments to Support Sustainability of Improved Sanitation Behaviours at Scale: Levers of Change in East Asia. In P. Bongartz, N Vernon and J. Fox, Sustainable Sanitation for All, Experiences, Challenges and Innovations. Practical Action Publishing, Rugby.

Pakistan Ministry of Environment (2011) Pakistan Approach to Total Sanitation (PATS). March, 2011. Ministry of Environment, Government of Pakistan. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/PATS.pdf

Pasteur, K and P. Prabhakaran (2015) Lessons in Urban Community Led Total Sanitation from Nakuru, Kenya. The experiences of the project - Realising the Right to Total Sanitation Project in Nakuru Low Incomes Settlements. Practical Action Report, January 2015. http://infohub.practicalaction.org/oknowledge/bitstream/11283/550995/1/PracticalAction_LessonsOnUrbanCLTSNakuruKenya_Apr2015.pdf

Pasteur, K and P. Prabhakaran (2016) Achieving Open Defecation Free Gulariya Municipality. Experiences from a Project of Practical Action and ENPHO In Bardiya District, Nepal. Practical Action Report. April 2016.

Regmi, A.K. (2016) Tools for embedding post-ODF sustainability: experiences from SNV Nepal. In P. Bongartz, N Vernon and J. Fox, Sustainable Sanitation for All, Experiences, Challenges and Innovations. Practical Action Publishing, Rugby.

Robinson, A. (2016) Final Evaluation: Pan African CLTS program 2010-2015. Plan Netherlands, June 2016. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/PlanPanAfrica_Evaluation_full.pdf

Robinson, A. and M. Gnilo (2016) Beyond ODF: A Phased Approach to Rural Sanitation Development. In P. Bongartz, N Vernon and J. Fox, Sustainable Sanitation for All, Experiences, Challenges and Innovations. Practical Action Publishing, Rugby.

Robiarto, A., E. Sofyan, D. Setiawan, A. Malina and E. Rand (2014) Scaling Up Rural Sanitation Scaling Up Indonesia's Rural Sanitation Mobile Monitoring System Nationally. WSP Learning Note. Water and Sanitation Programme. December 2014

Shah, S. (2016) Children's Rapid Survey Team (CRST). Informal Report.

Tanzania Ministry of Health (2016) National Guidelines for Verification and Certification of ODF Communities. Environmental Health and Sanitation Section Ministry of Health, Community Development, Gender, Elderly and Children. April, 2016

Tyndale-Biscoe, P., M. Bond and R. Kidd (2013) ODF Sustainability Study. Plan International, December 2013

Uganda Ministry of Health (no date) Community Led Total Sanitation Training of Trainers Manual. Uganda Ministry of Health, WSP and Plan.

UNICEF and FMINA (no date) Protocol for Certification and Verification of Open Defecation Free and Total Sanitation Communities. UNICEF and Federal Ministry of Information and National Orientation, Nigeria.

UNICEF (2014a) Evaluation of the UNICEF Sanitation Programme at Scale in Pakistan (SPSP) – Phase 1 (2013-14). Evaluation Report. December 2014. UNICEF, New York.

UNICEF (2014b) Sanitation Monitoring Toolkit. December 2014. UNICEF, New York. http://www.sanitationmonitoringtoolkit.com/

UNICEF EAPRO (2015) Second Review of Community-Led Total Sanitation in the East Asia and Pacific Region Regional Report UNICEF East Asia and Pacific Regional Office, December 2015

UNICEF ESARO (2015) Real-Time Monitoring of Rural Sanitation at Scale in Zambia using Mobile to Web Technologies. UNICEF Eastern and Southern Africa Regional Office. WASH Field Note, April 2015.

UNICEF ESARO (2016) CLTS Rapid Appraisal Protocol (CRAP): A Tool for the Rapid Assessment of Community Led Total Sanitation. UNICEF Eastern and Southern Africa Regional Office. WASH Technical Note. April 2016.

USAID Southern Africa (2016) CLTS Monitoring and Evaluation Toolkit and Manual. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/Botswana_SAREP_CLTS_ME_Toolkit%20English_2016.pdf

Venkataramanan, V. (2015) CLTS Learning Series: Nepal Country Report. Chapel Hill, USA: The Water Institute at UNC. https://waterinstitute.unc.edu/files/2015/09/learning-series-nepal-country-report-2015-08.pdf

Venkataramanan, V. (2016) CLTS Learning Series: Lessons from CLTS Implementation in Seven Countries. Chapel Hill, USA: The Water Institute at University of North Carolina.

Wamera, E. (2016) Who is Managing the Post-ODF Process in the Community? A Case Study of the Nambale Sub-county in Western Kenya. In P. Bongartz, N Vernon and J. Fox, Sustainable Sanitation for All, Experiences, Challenges and Innovations. Practical Action Publishing, Rugby.

Wilbur, J. and H. Jones (2014) Disability: Making CLTS Fully Inclusive. Frontiers of CLTS: Innovations and Issues. Issue 3, July 2014. CLTS Knowledge Hub at the Institute of Development Studies, Brighton.

Annex 1: Examples of national protocols and tools for monitoring, verification and certification

Ethiopia: CLTSH verification and certification protocol. Ethiopia Ministry of Health. January 2012 http://www.communityledtotalsanitation.org/resource/federal-democratic-republic-ethiopia-ministry-health-cltsh-verification-and-certification

Monitoring Chapter in Community-Led Total Sanitation and Hygiene (CLTSH) Facilitators Training Guide Ethiopia Ministry of Health January, 2011 http://www.cmpethiopia.org/content/download/476/2759/file/CLTSH_TRAINING_manual.pdf

Ghana: Checklist for ODF Verification and Certification. Ministry of Local Government and Rural Development, Environmental Health and Sanitation Directorate. http://www.sanitationmonitoringtoolkit.com/images/SMTdocuments/6_Ghana_CHECKLIST_FOR_ODF_verification%20and%20certification.pdf

India: Guidelines for ODF Verification. Ministry of Drinking Water and Sanitation. Government of India. 2015 http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/India_Guidelines_for_ODF_Verification.pdf

Indonesia: Guidance Book on Verification of Community Based Total Sanitation. Directorate of Environmental Health, Ministry of Health, Republic of Indonesia 2013 http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/STBM_Verification_Guideline.pdf

Kenya: ODF Rural Kenya: Verification and Certification of ODF Communities: Guidelines, Processes and Tools. Ministry of Health, 2013. http://www.sanitationmonitoringtoolkit.com/images/SMTdocuments/4_ODF%20RURAL%20KENYA%202013_Verification%20and%20Certification%20Guidelines.pdf

Mali: Protocole Pour L'Evaluation et la Certification De La Fin De Defecation A L'air Libre. Republique de Mali, UNICEF. 2014 (in French) http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/ProtocoleEvaluationCertificationATPC_Mali2014.pdf

Niger: Critères d'évaluation des performances et de certification des villages ATPC. No publication details http://www.communityledtotalsanitation.org/resource/crit-res-d-valuation-des-performances-et-de-certification-des-villages-atpc-niger

Nigeria: Protocol for Certification and Verification of Open Defecation Free and Total Sanitation Communities. UNICEF and Federal Ministry of Information and National Orientation, Nigeria. No date. http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/ODF_Guidelines_Nigeria.pdf

Sierra Leone: Verification and certifying ODF Status. No publication details. http://www.sanitationmonitoringtoolkit.com/images/SMTdocuments/5_ODF%20sierra%20leone_Verification%20andCertification.pdf

Tanzania: National Guidelines for Verification and Certification of ODF Communities. Environmental Health and Sanitation Section Ministry of Health, Community Development, Gender, Elderly and Children. April, 2016.

http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/ODF_VERIFICATION_Tanzania.pdf

Uganda: Extract of Handbook on Community Led Total Sanitation in Uganda. Uganda Ministry of Health, WSP and Plan. http://www.communityledtotalsanitation.org/resource/odf-verification-and-certification-process-uganda

Monitoring chapter in Community Led Total Sanitation Training of Trainers Manual. Uganda Ministry of Health, WSP and Plan. NO date http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/ToT_Manual_Uganda.pdf

Zambia: Verification Procedure. Ministry of Local Government and Housing. No date. http://www.sanitationmonitoringtoolkit.com/images/SMTdocuments/7_Zambia_MLGH%20Verification%20Procedure.pdf

Certification Procedure. Ministry of Local Government and Housing. No date. http://www.sanitationmonitoringtoolkit.com/images/SMTdocuments/8_Zambia_MLGH%20Certification%20procedure.pdf

Keeping Track: CLTS Monitoring, Certification and Verification

Monitoring, verification and certification are critical elements of the CLTS process and contribute to ensuring sustainability of ODF as well as learning about changes that are needed to improve implementation. Monitoring includes both process and progress monitoring. Verification tends to be led by NGOs or government with clear criteria and methodologies being developed, often incorporating multiple assessment visits over an extended period of time. Certification and celebration of ODF communities acknowledge their achievement and helps to raise awareness in the surrounding areas. The adoption of CLTS as a national approach in many countries has resulted in national protocols and guidance documents as well as various methodologies for community engagement and data collection to aid the processes of monitoring, verification and certification.

Increasingly, the importance of post ODF monitoring is being recognised. We need to know more about how to incorporate this into implementation to ensure longer term sustainability of behaviour change and of toilets. Similarly, effective collection, management and utilisation of data are a challenge. Other emerging issues relate to reliability and accuracy of monitoring and verification; encouraging appropriate attitudes to encourage learning rather than fault finding; and how to incentivise staff involved in monitoring and verification. We also need to know more about monitoring for long term sustainability of behaviour change and inclusion. Many of these issues are being investigated through local, national and international learning processes.

This Learning Paper summarises challenges, innovations and gaps in knowledge in the area of monitoring, verification and certification.

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