Urban community-led total sanitation: a potential way forward for co-producing sanitation services

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Community-led total sanitation (CLTS) has been proved to be a successful strategy for tackling the challenge of open defecation in poor rural communities across Africa and Asia. This article explores whether a similar approach can be used in peri-urban and urban areas to help co-produce sanitation facilities and services with inputs from communities, duty bearers, and other sanitation stakeholders. It is argued that an urban CLTS approach does not mean a copy and paste of tools and methods which have proved successful in the rural environment but following a set of similar principles. Based on field experiences different steps are suggested that incorporate these principles and respond to the specific urban sanitation problem. This article helps to articulate and better define urban CLTS as well as giving practical guidance for those wanting to use this kind of approach.

Keywords: co-production, urban, community-led total sanitation, participation, sanitation

OVER 20 YEARS AGO a report released by the World Bank stated that 'involving users in the design and management of water and sanitation services provides a means of revealing demand, and of ensuring that services match what people want, are willing to pay for and will strive to maintain' (Watson, 1995: 1).

Community-led total sanitation (CLTS) was pioneered in Bangladesh in 2000 by Kamal Kar together with VERC (Village Education Resource Centre), a partner of WaterAid Bangladesh. It has since spread to over 60 countries across Asia, Africa, Latin America, the Middle East, and the Pacific. Rural communities are facilitated to conduct their own analysis of open defecation and take their own actions to become open defecation free (ODF). Urban poverty will only be significantly reduced when those living in poverty are able to influence decision making processes and given the space to design and implement their own initiatives (Satterthwaite and Mitlin, 2013). CLTS is promoted as an effective way of doing this as well as tackling the challenge of open defecation.

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The CLTS Knowledge Hub, with support from Plan International Ethiopia, convened a workshop on the use of CLTS in peri-urban and urban environments. All participants had been directly involved in implementing CLTS-like approaches in urban areas or were urban sanitation experts. The principles and the different stages presented in this article were discussed in great detail and agreed upon over the course of the three-day workshop.

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The approach was designed for and predominantly used in rural villages with a limited number of examples of its use in peri-urban and urban environments; however there are a growing number of cases and evidence base demonstrating its applicability.

The urban challenge

Unimproved, basic, and dirty latrines, open defecation, and the unsafe and unhygienic management of faeces pose a serious risk to human health in towns and cities across the developing world. Although rural populations have a much higher proportion of people relying on unimproved sanitation, high population densities, socio-economic inequalities, and the slow rates of access to safely managed sanitation services increase the urgency of the challenge in urban settings (McGranahan, 2015).

The quality of sanitation services cannot be judged on an individual household basis, it is a collective problem. Even if one household has an improved toilet they still run the risk of faecal contamination as a result of others continuing to openly defecate or practise unsafe faecal sludge management (FSM) (Satterthwaite, 2016). Furthermore, faecal pollution is not just created in communities; it can also enter from outside (Myers, 2016). Very serious problems are being faced across the sanitation chain and any solution posed must tackle this not just at a community level but also across an entire town or city.

History of co-production in urban sanitation

Elinor Ostrom described co-production as the 'process through which inputs used to produce a good or service are contributed by individuals who are not "in" the same organisations' (Ostrom, 1996: 1073). She demonstrated how co-production helped sanitation infrastructure improvements in Brazilian cities pointing out that a key to the process was the 'activation of local citizens to participate from the very start in the planning of their own condominal system' (ibid.: 1074). She argued that co-production was particularly relevant in poor urban neighbourhoods in developing countries where there is a 'severe underutilisation of the knowledge, skills, and time of residents – which means the opportunity costs of devoting these inputs to the creation of valued public outputs are low' (ibid.: 1080).

The co-production of services will not occur spontaneously and there are still very few avenues or ways to move forward (Ostrom, 1996). Co-production faces the challenge of getting communities to coordinate their demands as private service providers and states are unlikely to respond to demands from disorganized communities (McGranahan, 2013). There are few examples of scale and small improvements are rarely part of government strategy or officially endorsed. A few examples of co-production of sanitation facilities and services are listed below.

Orangi Pilot Project (OPP)

The OPP was started in 1980 in Orangi, an informal settlement in Karachi, Pakistan. OPP recognized that NGOs are unable to tackle challenges such as sanitation

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on the scale required, so developed a strategy to promote community organization and management. The programme provided technical and organizational support enabling low-income communities to construct, manage, and maintain pour-flush latrines and an underground sewer system using their own energy and funds (McGranahan, 2013).

In each lane, consisting of 20–40 households, residents came together to tackle their shared sanitation challenge. The lanes were a small enough unit for cohesive organization while improvements within a lane needed co-operation between all households and changes at that level provided enough of an incentive for households to work collectively (Hasan, 2010; McGranahan, 2013).

Residents built sanitary latrines in each house and worked together to build underground sewers in each lane and a collector sewer in each neighbourhood. This was then connected to a trunk sewer provided by the state, which also dealt with disposal and treatment (Pervaiz et al., 2008; McGranahan, 2013). Residents co-operated, acted collectively, and co-produced improvements in their sanitation situation with each other and eventually with public service providers who were forced to act as sewage was not only polluting Orangi but flowing freely throughout the city (McGranahan, 2013).

Community-led urban environmental sanitation

Community-led urban environmental sanitation (CLUES) is an approach for planning and implementing sanitation infrastructure and services for disenfranchised urban communities. It is a multi-sector approach encompassing water supply, sanitation, solid waste management, and storm drainage. It also involves a range of different actors including households, local councillors, community-based organizations, municipalities, provincial, district and community-level, and urban development authorities, NGOs, and private service providers. It emphasizes the participation of all stakeholders from the very beginning of the planning process (Lüthi et al., 2011). To date the approach has been used in:

- Raipur, India
- Vientiane, Laos
- Nala and Tikapur, Nepal
- Kampala, Uganda
- Dodoma, Tanzania

In Nala a study found that inclusive and sustained community participation through the planning and implementation stages helped ensure the sustainability of community-led projects (Bright-Davis et al., 2015). The approach is technology neutral (ibid.) and aims to offer different solutions for the poor and those living in unplanned urban areas (Lüthi et al., 2011).

Slum Dwellers International

Slum Dwellers International (SDI) is a transnational network of national federations of savings groups located primarily in urban informal settlements. The groups consist of residents, mainly women, from low-income neighbourhoods who save,

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share resources, and address common needs collectively. The groups engage in a number of different community-driven initiatives including:

- data collection;
- making connections with other grassroots groups and social movements;
- building relationships with local authorities;
- upgrading informal and squatter settlements;
- improving tenure security;
- offering residents new development opportunities.

Over the past three years SDI affiliates have been engaged in an action research project in Blantyre (Malawi), Chinhoyi (Zimbabwe), Dar es Salaam (Tanzania), and Kitwe (Zambia). The first step involved community-led profiling and surveying. Secondly, federations identified and constructed sanitation solutions that have the potential to work at scale. Finally federations worked with local authorities to prepare city-wide sanitation strategies for more inclusive services (McGranahan and Mitlin, 2016).

Can CLTS add value?

Getting the right community-wide agreement and action in urban areas is too complex in the urban environment for the traditional rural CLTS model to be used. However, there are good reasons to be optimistic (McGranahan, 2013).

Although the use of CLTS in urban areas has been described as an attractive possibility (Lüthi et al., 2010) it has also been argued that CLTS is only suited to smaller, rural, and homogeneous communities. In rural Indonesia is was found that CLTS was counterproductive in villages with low social capital (Cameron et al., 2015). A recent study in Nigeria found a traditional CLTS approach in more urbanized settlements of at least 20,000 people was ineffective with no significant impact (Abramovsky et al., 2016). However, urban CLTS (U-CLTS) does not mean strictly following processes and tools that have proved successful in rural communities across the world, but rather adhering to similar principles and designing an intervention based on the context of a specific town.

These principles include:

- Commitment to *participation and empowerment.* Community members are at the heart of the process and drive the agenda, making their own decisions and being encouraged to take their own actions where possible.
- *Collective behaviour change and collective action* requires the process to focus on all, everyone must change unsafe sanitation practices in order for the risk of faecal contamination to be reduced.
- A community-led process cannot deliver all water, sanitation, and hygiene (WASH) needs across the sanitation chain in urban areas. However, *community ownership* is important. This can come about directly through communities taking their own actions but can also be built symbolically through high levels of community buy-in and involving all stakeholders in decision-making processes.
- The process of demand creation includes *triggering*, a set of tools used to evoke powerful emotions, usually disgust, and to confront the negative impacts of open

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defecation and poor sanitation collectively. The aim is to get community-level agreements on the need to take action and recognize that by working together the quality of sanitation can be improved.
- In a CLTS process *Natural Leaders*, community-based activists and champions, emerge throughout the process and help lead and support subsequent activities.
- Linked to the need for collective action an *ODF environment is an objective***.** It is not the only objective, however; any intervention, whether in an urban or rural environment, is not considered successful unless all have appropriate sanitation facilities that are used and use is sustained over time.

CLTS has been adapted to specific urban contexts by a range of different larger international NGOs and smaller organizations across Africa and Asia. For example, Plan International has implemented U-CLTS in Ethiopia, Kenya, and Uganda (Plan Netherlands, 2016). Practical Action has used it in Nakuru, Kenya (Pasteur and Prabhakaran, 2015), and Gulriya, Nepal (Bhatta, 2015). UNICEF has used CLTS on the outskirts of small towns in Mozambique (Thomas and Alvestegui, 2015), in peri-urban parts of Eritrea, and in Mauritania and Zambia. UNICEF has also been working with World Vision using a CLTS approach in eight small towns across Ethiopia. SEED Madagascar has been using it in Fort Dauphin in southern Madagascar (Azafady, 2015).

Examples of scale

Projects have begun to show increased access and use among large populations, demonstrating scale. For example, Practical Action's project in Nakuru, Kenya, reached 190,000 people and in Gularyia, Nepal, a town of 30,000 became ODF within 6 months. Thanks to a UNICEF project in Rosso, Mauritania, 32,000 people are now living in an ODF environment (Myers et al., 2016).

Examples of government support

Co-production processes require not just bottom-up community input, but must also be coupled with policy support. There are examples of government support for U-CLTS processes. In Tanzania, the Ministry of Health, Community, Development, Gender, Elderly and Children recently released national guidelines for U-CLTS to assist urban local authorities (2016). The Indonesian Government, through the IUWASH programme, has produced a guide to urban sanitation which includes CLTS (2016). In Rosso, Mauritania, UNICEF pursued a U-CLTS before any rural CLTS because the Mayor of Rosso was a champion of the approach (Myers et al., 2016).

Steps in U-CLTS

Taking into account the different experiences, the principles, and the complex and messy challenge of urban sanitation, appropriate steps in any U-CLTS programme have proved to be the following:

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- *Situational and stakeholder analysis*. Owing to the greater complexity in urban areas, gaining a thorough understanding of the context and identifying the range of relevant stakeholders is critical. Any further activities, including triggering and follow-up, should be designed based on findings from these analyses. It is important to acknowledge that the context is likely to change throughout a project and a learning component should be integrated with other activities.
- *Stakeholder engagement*. Partnerships and relationships with multiple stakeholders are essential; it is important to get strategic players to understand, support, and complement implementation. It will involve building and maintaining relationships between relevant actors. This has been done in past U-CLTS projects in a number of ways, including training sessions, interagency visits, community exposure visits, and showcasing of global CLTS successes. Institutional triggering, used to trigger governments, service providers, and the private sector, can be used to mobilize action among duty-bearers and change mindsets of urban sanitation professionals.
- *Triggering* has to compete with other interests and is unlikely to reach all community members. Events should be fast, exciting, and enticing and multiple triggering events may be needed. Triggering units need to be identified. The particular tools used need to be designed based on the practicalities of a given area. It also needs to be one part of a much larger behaviour change communication campaign which can be included in post-triggering follow-up (see below). Triggering will often not lead to households constructing toilets but can unify demand and help to identify and elicit champions and activists who can mobilize urban communities to demand their right to services.
- *Post-triggering follow-up* is about maintaining momentum and getting people engaged in building, fixing, cleaning, and maintaining toilets. Efforts to ensure community engagement and action after a triggering event are likely to be more complicated and take much longer. Competing demands also make this stage critical in building and maintaining momentum. This stage also includes capacity development and support that natural leaders might need, including the development of skills such as leadership, communication, or conflict management.
- *Technological options and solutions*. Simple pit latrines will not be suitable in most urban areas; a range of appropriate solutions for a given context should be explored. U-CLTS must tackle challenges along the sanitation chain from safe containment to safe transportation and disposal and waste.
- *Facilitating supply.* Products may not be available in local markets or costs may be too high; programmes should enable access to appropriate and affordable sanitation products and services. Barriers faced could include the challenge of affordability, a high regulatory standard unattainable for the urban poor, or a lack of skilled labour. Facilitating support can involve getting appropriate models to market, developing and leveraging financing options, or working with municipalities to agree to pro-poor designs.

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- *Safe management of faecal sludge.* Population density and a lack of space requires a focus not just on containment but also on ensuring safe management across the sanitation chain. There are some circumstances when FSM services can be community planned and managed; however responsibility should not be placed entirely on community members. Planning and assessing service options should still involve all relevant stakeholders and can help build symbolic ownership. Any system should promote total access to emptying services rather than having a system only a few can afford or use.
- *Beyond ODF and wider service provision.* Thinking beyond ODF to consider other sanitation and hygiene related services like solid and liquid waste management (SLWM) and FSM (mentioned above) is important for gaining and maintaining a clean and hygienic environment.
- *Monitoring, verification and certification.* Because community units are harder to identify and shit enters communities through a number of different ways, what should be monitored is less obvious and difficult to standardize. Furthermore, as getting to ODF in urban areas is extremely challenging, celebrating small steps along the way could help maintain momentum.

Recommendations

A better and clearer definition is needed. A U-CLTS process, despite sharing certain principles, is and should be different from the traditional rural approach. What it looks like will also change depending on the specific town or city as each programme must reflect the on-the-ground realities. Urban sanitation contexts will have physical, social, economic, environmental, and institutional differences that must be understood and considered when planning for sanitation service delivery (Lüthi et al., 2010). Any description needs to articulate its difference from rural practice and other urban sanitation approaches alongside building in enough flexibility to account for a complex array of factors. Furthermore, the role of duty bearers, government, municipalities, and utilities needs to be better outlined.

CLTS is often boiled down to triggering and is not viewed as part of a longer process of community development with many different stages, facets, and pathways. A deeper, more comprehensive understanding is needed. Triggering is unlikely to reach all people living, staying, or working in a particular area. Triggering in U-CLTS is only one element of a much larger behaviour change communication strategy which in turn needs to be embedded into a wider city or town-wide sanitation strategy.

Anyone proposing a community-led solution must consider why it is they are asking for community engagement. It will not be appropriate in many urban situations. Even where there is potential it should not be pursued in order to remove responsibility from duty bearers. U-CLTS involves triggering a range of different stakeholders and facilitating a relationship between them. Institutional triggering mentioned above is about making sure municipalities and private utilities play their part in the co-production process. Participation from communities is sought in order to find the solutions (facilities and services) they want, will maintain and use consistently over time.

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As a relatively new approach in the urban context, there needs to be more experimentation alongside documentation. What other ways can the different principles be applied to lead to pro-poor, viable, and scalable solutions to the dire sanitation challenge? There have already been great innovations in different U-CLTS programmes across the different steps suggested above.

Conclusions

Urban sanitation is a massive and complex challenge. In order to rise to it a range of different methods, tools, and approaches will be needed. What is being proposed is not households building their own latrines but rather the co-production of long-term and safe sanitation services with the involvement of citizens and the support of duty bearers. Stakeholders are more than just a community living in a particular impoverished neighbourhood or slum, but different parties across the sanitation chain. With this in mind it is hoped that in some towns and cities this approach has the potential to plug the gap in city-wide sanitation facilities and service provision for the poorest urban environments, making sure that no one is left behind.

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