

Progressing towards the millennium development goals for sanitation through CLTS

The Experience of Mali

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According to a reader survey in the British Medical Journal, sanitation is the most important medical advance since 1840. Today, 2.6 billion people, including almost one billion children, still live without even the most basic sanitation. Every 20 seconds a child dies as a result of poor sanitation, i. e. 1.5 million preventable deaths each year.

The UN made an impressive commitment when sanitation was included in the targets of the Millennium Development Goal (MDG) No. 7, "To halve by 2015 the number of people without access to safe drinking water and sanitation". This is an ambitious target!

Today, halfway to this target, achievements in sanitation are slow in 74 countries. **At the current rate of progress, the target is not likely to be met in sub-Saharan Africa until at least 2076! This lack of progress in sanitation and hygiene will have a significant impact on other MDG goals.**

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The Joint Monitoring Program (JMP) is the only international monitoring tool that measures the progress towards improving access to potable water and improved sanitation. The JMP uses the same equitable calculation method for all countries based on the data produced in DHS surveys. Therefore the successes and failures as well as lessons learnt from our efforts to increase access to improved sanitation are principally validated through JMP figures.

In Mali, 1,000,000 people per year must gain access to improved sanitation in order to reach the MDGs, consequently all forms of interventions are being investigated.

The two key ongoing programs for the development of individual household sanitation are:

- (i) The African Development Bank funded Program: its objective is to build 9,000 individual latrines between 2009 and 2014 with a subsidy covering 90% of the construction costs. The project is about to begin with the construction of 150 of these latrines.
- (ii) CLTS: the approach was introduced in Mali in March 2009 and so far, more than 370 villages have been triggered, 65% of which have reached the Open Defecation Free status¹, more than 7,000 new latrines have been built, 3,500 existing latrines have been rehabilitated and around 9,000 of these latrines have been equipped with functional hand-washing devices benefiting to a total population of more than 250,000 inhabitants from most vulnerable communities. As many implementing actors have adopted the CLTS approach as defined by the National Directorate of Sanitation, the resources are available to develop CLTS in more than 1,500 additional villages by 2014.

From a quantitative aspect, this experience is compelling evidence that it is possible to improve access to sanitation at the required pace to meet MDG #7 through soft approaches such as CLTS.

However, from a qualitative point of view, the main objective of CLTS is not latrinisation and the link between CLTS and developing access to improved sanitation needs to be clarified.

¹ Criteria of the ODF status defined by the government of Mali : (i) Each family has a latrine equipped with a cover that limits the proliferation of flies from the pits ; (ii) All members of the family exclusively use such latrine to defecate ; (iii) Each latrine is equipped with a hand washing device (water + soap / water + ash bucket).

For MDG monitoring, “an improved sanitation facility is defined as one that hygienically separates human excreta from human contact”. More into details, the minimum standard for improved sanitation is the “Pit latrine with slab” defined as a “a dry pit latrine that uses a hole in the ground to collect the excreta and a squatting slab or platform that is firmly supported on all sides, easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit. The platform has a squatting hole, or is fitted with a seat”. See Annex 1

Most of the latrines built under CLTS in Mali are composed of a platform made of wooden structure and lateritic mud fill-in and coating and a superstructure of lateritic mud compressed bricks + mud coating. The platform is thick and built above ground level.

Can these latrines be considered as improved means of sanitation ?

→ In the definition of JMP, “easy to clean” is very often interpreted as “a concrete slab”.

Cement slabs are obviously easier to clean. But from our experience in Mali, technically, the lateritic mud + wooden structure platforms can be cleaned: the platform needs to be swept regularly and, as for the superstructure, people add a new layer of lateritic mud coating around twice a year, notably after the end of the rainy season. Other households have covered the floor of the latrines with gravel to protect the lateritic mud layer and avoid contact with liquids.

More importantly, having a “clean platform” implies maintenance and cleansing by the users; therefore, in ODF villages, people who built their own latrines (mainly with traditional techniques, lateritic platforms) know and understand why they need a latrine and why it is important to keep it clean. As a result, these latrines are often much cleaner and safer than many of the concrete slab latrines that one might find in urban settings.

Therefore, most of the latrines built under CLTS in Mali are clean, and are odourless. They do not attract flies, which is one of the principal health concerns related to providing access to improved sanitation. In addition, they provide a safe environment for defecating that separates users from their excreta, which has known health benefits (insert reference?)

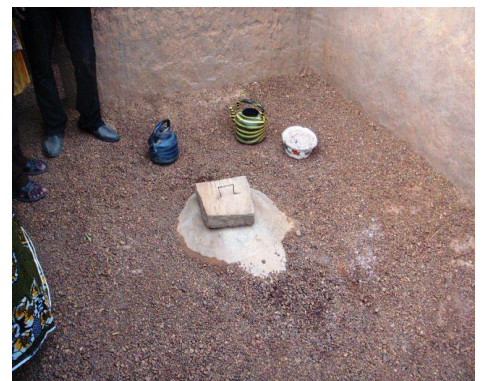
→ The other issue is the question of sustainability.

From an engineering point of view, considering the strength of materials and structures, cement slabs, or ceramic / PVC squatting pans are more sustainable.

But the traditional platforms that we can find in ODF villages in Mali and in other countries are solid and their lifespan is probably around 2 to 4 years.

Beyond the technical aspects, the main important factor to consider when thinking about sustainability is perhaps the behavior change aspect. Shifting from a situation where “defecating is a taboo so every one does as he wishes” to another social norm based on a consideration such as “because we do not have appropriate sanitation means, we are eating each-others’ caca so we should move on within our own community and show the world what we can do” is maybe the best guarantee of ensuring sustainability than being endowed by external support with a concrete latrine.

The behavior changes that we could observe in triggered villages in Mali is



based on 3 core aspects: (1) the strength of the triggering process when people realize the amount of excreta spread in the open per year, and the amount of health expenses related to diarrheas, etc., (2) the pride and dignity prevailing in the communities and the form of competition/rivalry to show the best results that exists among communities and (3) the intensity of the follow-up carried out after the triggering process with CLTS facilitators and national authorities who return to each triggered village about twice a week for at least 3 months (i.e. about 24 visits to each village).

Another very important component of the CLTS approach in Mali is the rigorous certification process that has been piloted and then institutionalized. It involves 3 key authorities (the Mayor of the commune, the Chief of Health and the Regional Director of Sanitation) + the developing agency supporting the program. After several evaluations where the final recommendations are given to the community, if the ODF criteria are met, these 3 authorities engage their responsibility by signing the ODF certificate. After the certificate is awarded, an important celebration takes place to recognize the efforts of the community.

Taking the above into account, the position of the National Directorate of Sanitation regarding the definition of the minimum standard for improved means of sanitation should consider:

1) The following indicators:

- (i) A latrine equipped with a platform strong enough in the sense that it can reasonably perform its function without risk of collapsing and that prevents contact with human excreta. Notably, this platform will be equipped with a device that prevents the proliferation of flies from the pits (ventilation tube with a net on the outlet / tight lid on the hole of the pit)
- (ii) A latrine equipped with a superstructure that gives the user adequate privacy in the sense that he cannot be seen directly by people outside passing by

2) The following recommendations:

- (iii) Avoid contamination of groundwater and surface water
- (iv) Equipping the toilet with a hygienic hand washing device: a sealed container containing water + soap or ash.

Following these minimum standards, lateritic mud platform latrines built under CLTS can be considered as improved sanitation. This is feasible in Mali because the evaluation/certification process of the ODF status rigorously ensures that points (i), (ii) and (iv) above are respected.

This is also likely feasible in other countries where latrines without cement slabs are built using creative methods that utilize various cheap materials available locally in communities. For instance in Madagascar, latrines are built in a similar manner as in Mali, however in some parts of the Country, the surface of the clay platform is coated with a layer of river sand which is swept and replaced frequently to ensure a clean environment around the hole.

CLTS brings consistent results for sanitation. In our context, with appropriate follow-up and with rigorous monitoring/certification procedures, it is definitely a realistic and productive approach to increase access to improved sanitation, and therefore the latrines built under CLTS should be counted as such under the JMP definition.

Through CLTS, thanks to the commitment of the Government, the communities and the development agencies who ensure that measures are taken to achieve consistent results, sanitation programs are scaling-up in Mali and it would be a shame not to have this reflected in the JMP figures.

Now, if these latrines can be counted as an improved means of sanitation, the main challenge would be the training of the enumerators who carry out the Demographic Health Surveys (from which JMP data are established) to take into account the two indicators proposed (i & ii) for the questions linked to improved sanitation.

Beyond improving the access rate to improved sanitation, CLTS contributes to promote other key hygienic practices such as appropriate hand-washing; moreover, it has proved to be a great contribution to community empowerment laying the ground for other important community approaches developed in the framework of MDGs other than #7.

CLTS is not a silver bullet, rather it is a strong and consistent starting point of which we can build on to trigger behavior changes among the population and encourage the construction of latrines. Beyond the ODF status, additional follow-up and mobilization are required to sustain the achievements. Beyond CLTS, sanitation programs should promote latrine improvements for increased comfort and sustainability. The idea is to promote

improved hygiene and sanitation services, including sanplat slabs, soap, bleach..., etc., to allow people to step-up the sanitation ladder little by little, in accordance to their financial capacities.

Annex 1: definition of improved sanitation facilities for JMP

For MDG monitoring, an improved sanitation facility is defined as “one that hygienically separates human excreta from human contact”.

Sanitation categories

"Improved" sanitation:

Flush toilet uses a cistern or holding tank for flushing water, and a water seal (which is a U-shaped pipe below the seat or squatting pan) that prevents the passage of flies and odours. A pour flush toilet uses a water seal, but unlike a flush toilet, a pour flush toilet uses water poured by hand for flushing (no cistern is used).

Piped sewer system is a system of sewer pipes, also called sewerage, that is designed to collect human excreta (faeces and urine) and wastewater and remove them from the household environment. Sewerage systems consist of facilities for collection, pumping, treating and disposing of human excreta and wastewater. [v]

Septic tank is an excreta collection device consisting of a water-tight settling tank, which is normally located underground, away from the house or toilet. The treated effluent of a septic tank usually seeps into the ground through a leaching pit. It can also be discharged into a sewerage system. [v]

Flush/pour flush to pit latrine refers to a system that flushes excreta to a hole in the ground or leaching pit (protected, covered). [v]

Ventilated improved pit latrine (VIP) is a dry pit latrine ventilated by a pipe that extends above the latrine roof. The open end of the vent pipe is covered with gauze mesh or fly-proof netting and the inside of the superstructure is kept dark. [v]

Pit latrine with slab is a dry pit latrine that uses a hole in the ground to collect the excreta and a squatting slab or platform that is firmly supported on all sides, easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit. The platform has a squatting hole, or is fitted with a seat. [v]

Composting toilet is a dry toilet into which carbon-rich material (vegetable wastes, straw, grass, sawdust, ash) are added to the excreta and special conditions maintained to produce inoffensive compost. A composting latrine may or may not have a urine separation device. [v]

Special case. A response of "flush/pour flush to unknown place/not sure/DK where" is taken to indicate that the household sanitation facility is improved, as respondents might not know if their toilet is connected to a sewer or septic tank. [v]

"Unimproved" sanitation:

Flush/pour flush to elsewhere refers to excreta being deposited in or nearby the household environment (not into a pit, septic tank, or sewer). Excreta may be flushed to the street, yard/plot, open sewer, a ditch, a drainage way or other location. [v]

Pit latrine without slab uses a hole in the ground for excreta collection and does not have a squatting slab, platform or seat. An open pit is a rudimentary hole. [v]

Bucket refers to the use of a bucket or other container for the retention of faeces (and sometimes urine and anal cleaning material), which are periodically removed for treatment, disposal, or use as fertilizer. [v]

Hanging toilet or hanging latrine is a toilet built over the sea, a river, or other body of water, into which excreta drops directly. [v]

No facilities or bush or field includes defecation in the bush or field or ditch; excreta deposited on the ground and covered with a layer of earth (cat method); excreta wrapped and thrown into garbage; and defecation into surface water (drainage channel, beach, river, stream or sea). [v]