School-Led Total Sanitation

Enquiring child participation in School-Led Total Sanitation (SLTS) programs in Ghana

Vincent van den Ouden
MSc Thesis
Wageningen University
December, 2013

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Chapter 1 - Introduction

1.1 - What is CLTS?

Among the diverse approaches for delivering or implementing sanitation, the Community-Led Total Sanitation Approach (CLTS) has gained immense popularity in recent times. CLTS focusses on rural communities in general. Specifically directing its attempts and energy on children and school communities the approach is known under the term School Led Total Sanitation (SLTS).

CLTS & prior/traditional approaches

Held in the light of prior approaches CLTS and SLTS indicate a shift from top down, technological, supply-based and subsidy driven approaches to a knowledge based, participatory, demand and non-subsidy driven approach (Kloot & Wolfer, 2010; Khale & Dyalchand, 2009; IDS, 2009).

The traditional top down approaches are characterized by (directly) providing sanitation hardware, technologies and subsidizing the cost of these. The position of the community is that of a passive group without the means or abilities to help itself. They compliantly assimilate the hardware and technologies given to them from the government and other external agents.

A common remark against this traditional approach is that the mere provision of sanitary facilities does not guarantee the utilization, or actual adoption of these by a community. Subsidy approaches are believed to have resulted in uneven adoption, long-term sustainability issues and only partial use/adoption. These approaches created a culture of dependence on subsidies and did not successfully eradicate the present sanitary issues (open defecation, faecal-oral contamination and spread of disease) (CLTS-site, 2011).

What CLTS is

CLTS is an integrated approach. Its goal is to put a stop to the practice of open defecation (OD) and to safely dispose of human faeces, however the program’s focal point is on igniting a change in sanitation behaviour rather than in constructing toilets. This is done through a process of *social awakening*, in which facilitators play a crucial role (Kar & Chambers, 2008).

External facilitators guide community members in an analysis on their OD practices and the consequences of this (Chambers, 2011, Kar & Chambers, 2008). Participatory Rural Appraisal tools[1] are central within the program and are intended to sensitize the community. Sensitization must help communities in seeing open defecation as the matter of disgust and shame, and improved hygiene and sanitation as a matter of dignity. This sensitization should result in a so called ‘trigger’ effect. Triggering refers to the (collective) steps the community takes to become open defecation free (ODF).

It must be remarked the CLTS program is a ‘hands-off’ approach, in the sense that it leaves the decisions and actions to become ODF up to the community. Facilitators however do stimulate collective action and joint decision making.

Rather than imposing unwanted, external solutions and technologies, CLTS envisages to bring about a process of communal awareness (social awakening) on current practices and from this point on creating a demand/wish for communally approved, sound, local sanitary solutions. Instead of

[1] e.g. social and defecation mapping, transect walks (walk of praise, walk of shame), faeces calculation, flagging in OD areas, exposure visits, street drama, door to door visit program

provisioning the materials and financial means the facilitating organisations endorses self-help efforts by the community. CLTS programmes do not provide hardware subsidies.

The knowledge based side in this approach means that rather than bringing technologies to communities, people are informed of the various sanitation options that are possible, leaving them free to consider and decide for themselves what is best applicable or what they can do with their local resources. People are not just considered 'empty vessels' and the external agent/teacher as the expert with the available solution. People are considered knowledgeable and having the potential to jointly learn, decide on their fate, come up with solutions (Kloot & Wolfer, 2010).

Ending the practice of OD is one of the outcomes CLTS can have. CLTS programmes can further lead to adoption and improvement of latrine design, the adoption and improvement of hygienic practices, solid waste management, waste water disposal, protection and maintenance of drinking water sources, and other environmental measures. Kar & Chambers (2008) mention that in many cases CLTS triggers a series of collective local development actions.

1.2 - The popularity of CLTS

As an approach to tackle current shortcomings in (rural) sanitary means, CLTS has gained large momentum since its initial roll out in Bangladesh in 1999. The approach has succeeded in drawing attention from 'at least a dozen banks and donors and over 20 major international NGOs' (CLTS-site, 2011b). One of these donors is the Bill and Melinda Gates foundation, which has as a main sanitation strategy: *'the testing and improvement of sanitation delivery models that stimulate community demand for improved sanitation, increase the availability of desirable products, build local capacity, and strengthen the enabling environment'* (Gates Foundation, 2012). Demand led programs like CLTS are seen to be a step forward in this direction and grants of several millions have been allotted over the past years to organizations such as Plan USA, WaterAid, Project Concern, BRAC (Gates Foundation, 2012; CLTS-site, 2011b; WaterAid, 2012). The World Bank's Water and Sanitation Program (WSP) played an important role in the initial spread of CLTS (Kar & Pasteur, 2005) and currently still supports the further development and diffusion of the approach (Peal *et al.*, 2010; WSP, 2013). A 2012 WSP report states: *'WSP's experience has been that CLTS is a powerful mechanism to stop the practice of open defecation and create demand for sanitation facilities'* (WSP, 2012). Other organizations and donors such as IDS, IRC, USAID, DFID, CIDA aim to accelerate, support and implement CLTS and its principles.

Among the main non-governmental organizations implementing CLTS around the world up to date are UNICEF, Plan, WaterAid, Concern Worldwide, SNV, Save the Children. Though many countries are currently not on track in meeting the sanitation goals, there is a sense of optimism around CLTS as Bevan (2011) – working for UNICEF West and Central Africa – opts: *'if gains under CLTS continue to progress at the same rate, it has the potential to bring many of the region's countries on target for the sanitation goals of 2015 (MDG7)'.* Bevan & Thomas (2009) state: *total sanitation approaches*[2] *have the promise to improve safe excreta disposal, and, as a result, to reduce related disease burden'.* In another report by Hickling & Bevan (2010) it is stated: *'speed of implementation and results has been seen as a very positive selling point for CLTS'*. Hence CLTS in the case of UNICEF, seems to bear the promise of enabling countries to (in time) reach their sanitation goals.

[2] This refers to the also known as 'community-wide approaches': CLTS, CATS, TSC

A third indicator of CLTS's recent popularity is the approach spread across a vast number of countries over the past years, starting from Bangladesh in 1999. Table 1 shows this spread in chronological sequence. Figure 1 indicates CLTS's geographical spread. As by 2011 CLTS was introduced in 34 countries in Africa of which 13 countries institutionalized CLTS in their national sanitation strategies (Kar, 2011 & CLTS-site, 2011c).

Table 1: chronological global spread of CLTS approach. Source: based on country profiles CLTS-site (CLTS, 2011f)

Year	Countries
1999	Bangladesh
2002	India
2003	Nepal
2004	Cambodia, Indonesia, Pakistan, Nigeria
2005	China
2006	Ethiopia, Bolivia, Yemen, Ghana
2007	East Timor, Kenya, Malawi, Tanzania, Eritrea, Uganda, Zambia
2008	Burkina Faso, Mali, Sierra Leone, Afghanistan, Angola, Ivory Coast, Vietnam, Laos, Mozambique, Zimbabwe
2009	Mauritania, Chad, Gambia
2010	Niger, Democratic Republic of Congo, Central African Republic, Guinea Bissau, Myanmar, East Timor, South Sudan
2011-2013* *Exact year of introduction unknown	Cameroon, Burundi, Congo Brazzaville, Senegal, Togo, Sudan, Benin, Djibouti, Egypt, Guinea Conakry, Liberia, Papua New Guinea, Haiti, Madagascar, Philippines

Figure 1: marcation of countries where CLTS approach is applied as from 1999 till present (2013). Source: CLTS-site, 2011f

CLTS's global diffusion took off by a group of interested policy makers from India, visiting Bangladesh to learn more about the approach. The visits were facilitated by WSP-South Asia. Representatives from the Indian state of Maharashtra were among the visitors. Maharashtra state would soon

formulate a strategy to end open defecation, based on visits to Bangladesh and gained experiences in workshops (WSP, 2007). In 2002 CLTS was successfully piloted in two districts in Maharashtra, resulting in the state-wide scale-up of CLTS in 2005 (Kar & Pasteur, 2005; WSP, 2007) and other Indian states as well started to take an interest in the approach. WSP India and WSP South Asia, which offices of both are located in Delhi, further directed the spread of CLTS across the Asian continent. The 2003 South Asia Conference on Sanitation (SACOSAN) provided an international podium for CLTS. At the conference, agency representatives and government staff of diverse organisation - Plan, WaterAid, DFID, the World Bank, UNICEF – became familiarized with the approach and its new set of principles. Slowly the approach would gain momentum among donor and development partners to spread further, first across Asia and later on to various parts of Africa and South America. Subsequent workshops during following years in Pakistan, Indonesia, Nepal, Cambodia introduced the approach to more governmental officials and international agencies such as: Concern Cambodia and Pakistan, Plan Pakistan, WaterAid Nepal, Red Cross Nepal, UNICEF Cambodia(Kar & Pasteur, 2005). Take up of CLTS in other countries such as Mongolia, China, Zambia and Uganda tell similar stories. During training or workshop events, national operating agencies invited CLTS endorser Kamal Kar for presenting and training on the CLTS approach, which provided a stage among government officials and development workers. These in turn, in Africa particularly UNICEF and Plan (see Hickling & Bevan, 2010: scaling up of CLTS in sub-Saharan Africa; CLTS-site, 2011d; Bevan, 2011; Sah & Negussie, 2009; 4), ensured the further scale-up off the approach.

1.3 - How/why CLTS is used?

Given the popularity of CLTS, the questions arises how come the approach had the opportunity to position itself on a short notice among donors, implementing agencies and numerous countries worldwide. A first answer to this question comes from the on-going lack of adequate sanitary means[3] to safely dispose of human faeces, by some also referred as the 'sanitation crisis' (Gates Foundation, 2012) or the 'sanitation challenge' (CLTS-site, 2011e; WSP, 2011).

The on-going burden of inadequate sanitation

Overall, sanitation and its delivery remains a challenge throughout the world. Approximately 2.5 billion people, roughly 38% of the world population, still lack adequate sanitary means and are thereby unable to safely dispose of human faeces (Khale & Dyalchand 2009; Tripathi *et al.*, 2010), a primary source of diarrhoeal pathogens which poses a direct threat to human life. In 2004, diarrhoeal diseases were the third leading cause of death in low-income countries, 6.9% of overall deaths (WHO, 2013). It is the second leading cause of mortality within the age group of under five years old (WHO, 2005). Recurring diarrhoeal diseases such as: ascariasis, hookworm, helminth infection, schistosomiasis, trachoma and guinea worm (Khale & Dyalchand, 2009) inhibits day to day life of those affected. On a nation scale socioeconomic development is strained by a loss of labour days and increased school absence rates (UNICEF, 2008). In a study carried out by the Water and Sanitation Program (WSP) on the economic costs of poor sanitation in Ghana, an annual loss of 290 million US dollar was calculated, equivalent to 1.6% of the national GDP. Around 75% of these costs is attributed to premature fatalities, as a result of diarrhoea. About 20% is associated with health seeking behaviours (consultation, medication, transportation, hospitalisation) in response to diarrheal disease. (WSP, 2012).

[3] UNICEF and the WHO bespeak of the following sanitary means referred to as a lack of adequate sanitation: public sewer connections, septic system connections, pour-flush latrines, ventilated improved pit latrines and simple pit latrines.

Efforts to turn this trend and reduce diarrhoeal death and disease burden are based on cutting the pathways by which pathogens enter the host, shown in Figure 2. Improved sanitation, improved water quality, increased water quantity and hand washing are measures that effectively lower diarrhoeal incidence rates (Curtis & Cairncross, 2003).

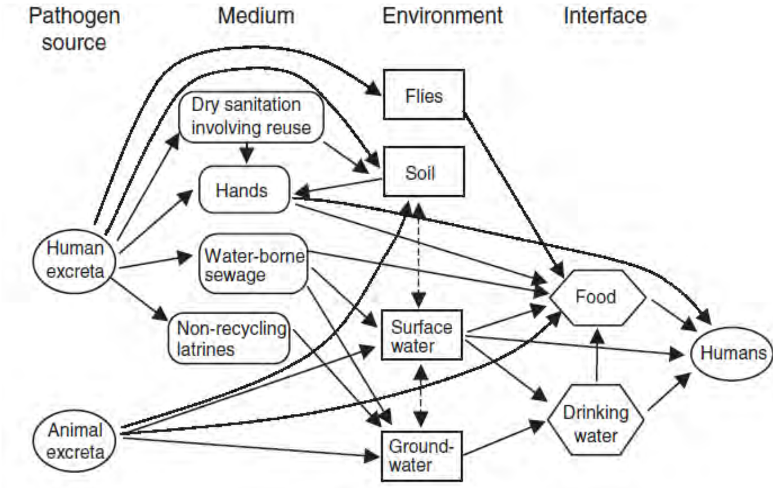


Figure 2: transmission pathways of human & animal excreta pathogens, source: Prüss-Üstün et al., 2004

Although the causes of diarrhoea are well known, its devastating effects unfortunately still present a harsh reality in third world countries, Figure 3. Efforts to turn this trend have fallen short, becoming clear from many countries' 'off-track record' regarding the sanitary related set Millennium Development Goals (MDGs).

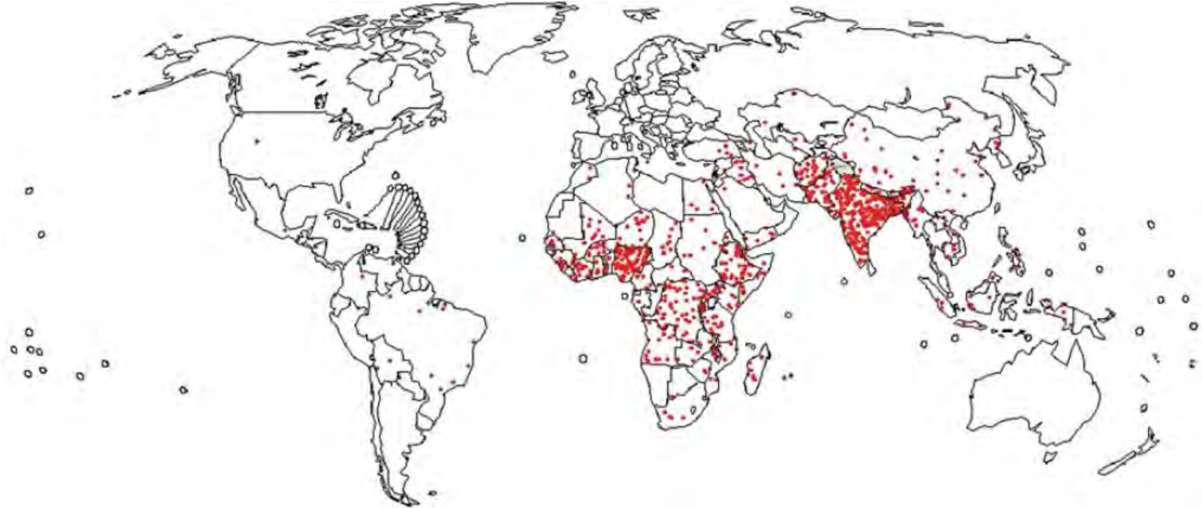


Figure 3: Global burden of childhood diarrhoea. Distribution of estimated number of deaths due to diarrheal disease among children under-5 in the year 2004 (1,000 deaths per dot). Source: Boschi-Pinto et al. (2008)

Not reaching sanitation targets

In January 2013, the United Nations Secretary-General Ban Ki-moon reminded governments and heads of state at the African Union Summit that there were only *''1.000 days left to reach our Millennium Development Goals (MDGs). Now is the time to finish the job by accelerating progress''* (UN-website, 2013).

Graphically explained in Figure 4 below, the sanitation target is part of MDG 7, target 7.C. Target 7.C's achievement is measured by type of two indicators; one taking into account the use of improved drinking water (indicator 7.8), and one regarding the share of people using an improved sanitation facility (indicator 7.9).

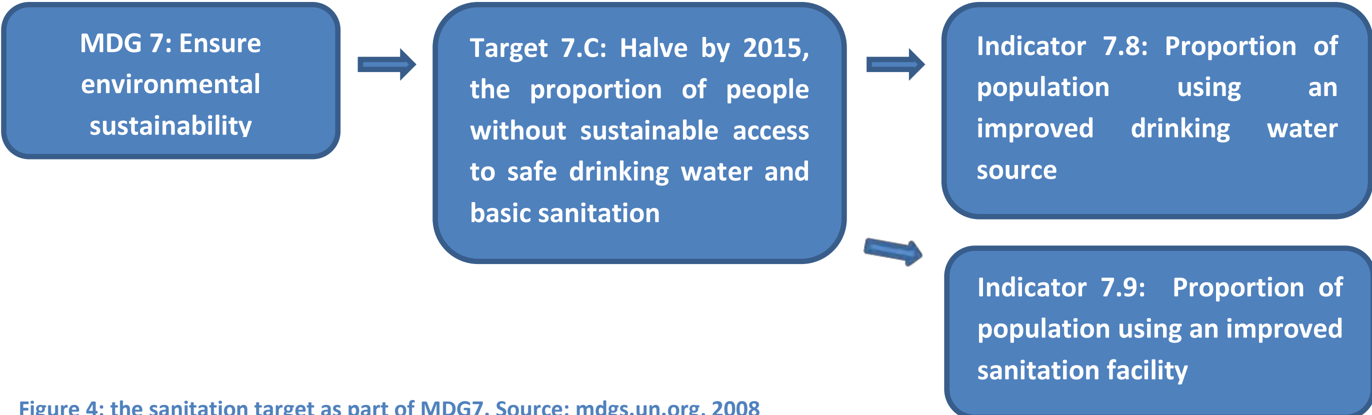


Figure 4: the sanitation target as part of MDG7. Source: mdgs.un.org, 2008

Monitoring of these indicators showed that the MDG drinking water target was one of the first MDG targets to be met. Whilst in 1990 the estimated number of people without access to an improved drinking water source was 24%, in 2010 this figure was at 11% and still improving[4]. Coming down to 2 billion people which gained access to drinking water over this period of time. On account of the MDG sanitation target progress is lagging behind compared to the MDG drinking water target. Sub-Saharan Africa and several populous countries in Southern Asia are among the regions, that are particularly falling short in achievement of this goal. Figure 5 indicates this situation for the African continent and Sub-Asian continent. (JMPWSS, 2012)

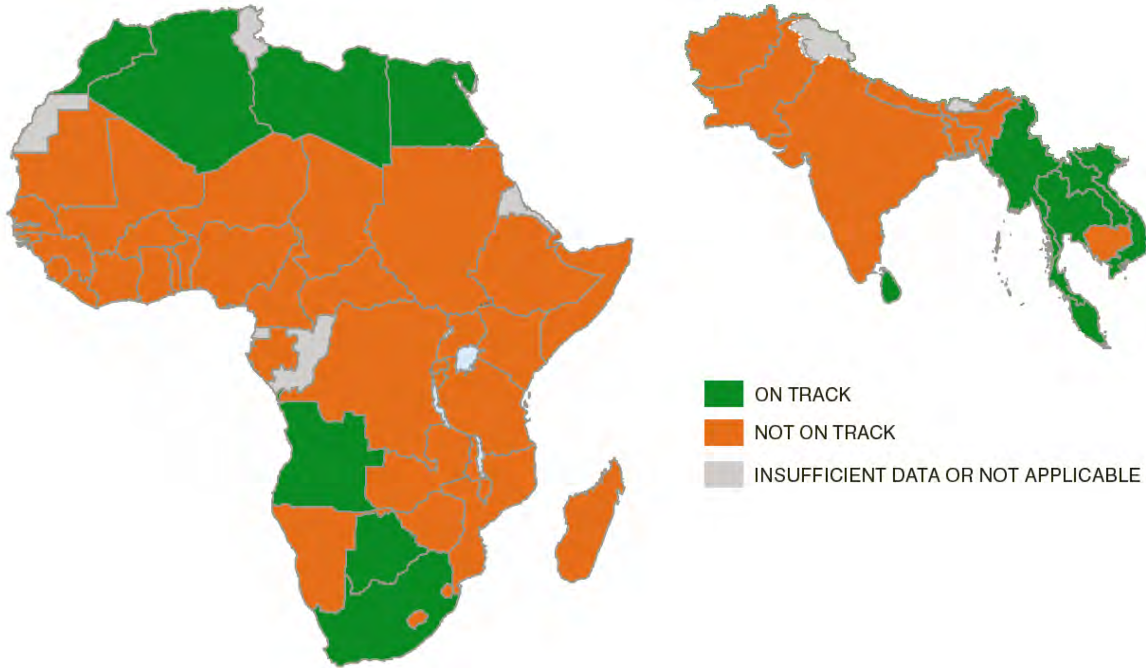


Figure 5: Progress towards meeting the MDG sanitation target on the continent of Africa and Southern Asia. Source: JMPWSS, 2012, p. 16

[4] The expected percentage of people without access to an improved drinking water source in 2015 is 8% (JMPWSS, 2012).

With the opted for sanitary advances staying out, the need for an apt approach to delivering sanitation further increased. In 2008, projections for Africa were that it would not reach the sanitation goal: *halving by 2015, those without access to adequate sanitation*, any sooner than 2084 (WaterAid, 2008). In this context CLTS did 'find a market which it could serve' and could possibly help get back on track within reach of the MDG sanitation target.

The AfricaSan summit in Durban, South Africa, 2008, attested of this line of reasoning. Government officials of 32 African nations met during this conference to discuss the need to speed up sanitation coverage on their continent. As an outcome of this conference 11 points of commitment were established, known as the eThekwini commitments. Two of these commitments clearly opened the way for further uptake of CLTS in African policies and sanitation programs (WSP-Africa, 2008), see text Box 1.

Box 1: eThekiwni commitments 3, 7, opening the way for CLTS uptake

- *Commitment 3: To* ***establish, review, update and adopt national sanitation and hygiene policies*** *within 12 months of AfricaSan 2008;* ***establish one national plan*** *for accelerating progress to meet national sanitation goals and the MDGs by 2015, and* ***take the necessary steps*** *to ensure national sanitation programs are on track to meet these goals*
- *Commitment 7: To* ***use effective and sustainable approaches****, such as household and community led initiatives, marketing for behaviour change, educational programs, and caring for the environment, which make a specific impact upon the poor, women, children, youth and the unserved*

Following from these commitments were country specific action plans, ensuring adherence to the newly made commitments. In line with commitment 3 nations' were obliged to develop a National Sanitation and Hygiene Policy/Strategy. Acting on commitment 7 was formulated by nations' piloting demand-led programs, including approaches such as Sanitation & Hygiene Marketing, CLTS and school health, and Community Health Clubs (CHCs) (WSP-Africa, 2008, p. 8). In the following years some African nations – Ethiopia, Kenya, Zambia, Ghana, Sierra Leone – swiftly started to incorporate CLTS in their national sanitation programs. Box 2 gives an overview of African and Sub-Asian nations, so far having started to incorporate CLTS in their national sanitation programs.

Box 2: Uptake of CLTS/SLTS in national sanitation programs in Africa and Sub-Asia

CLTS implementing governments in Africa:

- Ethiopia: The Ministry of Health and the Ministry of Water & Energy recognized CLTS as the main sanitation strategy in 2009 and CLTS policy was developed by a national taskforce (Plan Nederland, 2012).
- Kenya: Under the National Sanitation Strategy of 2010 CLTS has been recognized as one of the potential approaches for sanitation improvement (Plan Nederland, ibid). In 2011 the Ministry of Public Health & Sanitation adopted CLTS as official strategy and launched Kenya ODF 2013, aiming to achieve a defecation free Kenya by that year (Plan Nederland, ibid).
- Zambia: Under the August 2011 new Sanitation and Hygiene Strategy 2011-2015, the Rural Water Supply and Sanitation Unit, sub-office of the Ministry of Local Government and Housing, recognized CLTS and PHAST as effective approaches for improving Zambia's hygiene and sanitation situation. Funds have been allotted by the National Government to implement the strategy throughout Zambia (Plan Nederland, ibid).
- Ghana: In Ghana's National Water Policy of 2008, CLTS has been acknowledged as the preferred approach to scale-up rural sanitation and hygiene in Ghana (CLTS-site, 2011i).
- Sierra Leone: CLTS has been incorporated in the 2008 Water & Sanitation Policy (Plan Nederland, 2012).
- Niger: Niger's government has accepted CLTS but so far not allocated any budget for it or incorporated it in any of its national programs (Plan Nederland, 2012).
- Uganda: Though CLTS in 2010 was recognized in the National Development Plan as an effective low cost approach for sanitation promotion, however institutional uptake of CLTS as a key approach for sanitation improvement by one of Uganda's Ministries has not yet been the case (CLTS-site, 2011g).

CLTS/SLTS implementing governments in Sub-Asia

- Nepal: The 2009 developed Nepalese Sanitation Master Plan incorporates SLTS (Galbraith & Thomas, 2009 in Peal *et al.*, 2010).
- India: Used within India's national Total Sanitation Campaign (TSC) which started in 1999. The state of Himachal Pradesh is so far the only state where in 2005 state sanitation strategy adopted CLTS principles of no-subsidy and community ownership of sanitation agenda (CLTS-site, 2011c).
- Bangladesh: In 2005 a new National Sanitation Strategy was presented which not explicitly mentions CLTS but incorporates its principles of none hardware subsidy and community wide participation (GoB, 2005).
- Pakistan: Pakistan's 2006 National Sanitation Policy included as one of its objectives to promote and use CLTS in all government programs and projects serving communities with less than 1000 inhabitants (NSP, 2006).
- Indonesia: Under the new National Sanitation Policy of 2008 named Community-Based Total Sanitation[1], the Ministry of Health committed itself to stop open defecation by use of the CLTS approach (Setiawan & Parry, 2011).

Everybody's business

A third reason explaining CLTS's uptake comes from the history of a broad range of institutions which over the past four decades have been involved in pushing forward new development paradigms and

approaches towards delivering water and sanitation. CLTS cannot be seen as a standalone in this process, but must be seen as coming from a long history of sanitation delivery and institutional involvement regarding the disclosure of 'what works best'. Notions of participation and participatory rural appraisal tools, community decision making, local knowledge and innovations are not exclusive to CLTS, but have been stressed and shared by a wide field of donors, development agents and research institutions before. In the following paragraphs this point will be further explained by looking at changes in the sanitation sector over the past four decades, starting from the 1970s.

1.4 - Approaches to delivering sanitation

From a technical to a demand driven approach
Sanitation has been an international and national agenda over the past four decades and approaches and frames on how to best address sanitation have changed quite dramatically over time. Up to the 1980s, sanitation was considered as an engineering problem – and the focus and emphasis was in developing innovative, low-cost sanitation technologies that could be 'delivered' to remote, rural populations across the developing South (Black & Fawcett, 2008). In general development problems, and therefore solutions, were primarily perceived to be technical and economical in nature (Zwarteveen, 2007, p. 53). Also the onus of delivering 'development' was largely considered to be a State responsibility.

In the 1980s participatory ideas and approaches started to influence the water and sanitation domain. Opposed to prior costly, lengthy and 'one-way' learning methods, these new emerging participatory approaches introduced a 'reversed learning process', in which data collectors and inquirers learn from and are informed by rural people in face to face situation in their local and physical context and with their technical and social knowledge (Davis, 2001). Rather than being mere beneficiaries of government programs, people became incorporated in programs to take stock and control of their own living situation. State-led, government strategies gradually disappeared (Meinzen-Dick, 1997). During the 1990s state investments in basic services were cut back with the rise and entrance of a neo-liberal paradigm and neo-liberal approaches in the development scene, alongside upcoming participatory approaches such as PHAST[5]. Less government spending and interventions were at the core[6] and the new neo-liberal and participatory approaches were experimented and tested. As an amalgam of these approaches, CLTS and SLTS evolved, clearly hinging on principles of zero subsidies (neo-liberal approaches) and community participation, decision making and participatory activities (participatory approaches).

Separation of water and sanitation themes
Another trend at this same period of time is the gradual separation of water and sanitation. Whereas in the 1980s water and sanitation were linked strongly together – 1980s as the international drinking water and sanitation decade – during the 1990s the topics of water security and sanitary access became approached separately. The UN conference on Environment and Development, held in Rio de Janeiro 1992, specifically addressed globally rising concerns on water scarcity and in 1997 the first World Water Forum is held in Marrakech, Morocco. The 2000 Millennium Summit in New York City

[5] Participatory Hygiene and Sanitation Transformation (PHAST) approach, hinges on the concept that as communities gain greater awareness on their water, hygiene and sanitation situation via participatory activities, they are empowered to develop and carry out their own plans to improve this situation
[6] Liberalization to be understood as: the reduction of rules and restrictions (WHO, 2013b).

resulted in setting the goal: halving by 2015, the proportion of people without access to safe drinking water. At first, within this goal sanitation remains under-addressed, being solely mentioned in the context of slum dwellers. It takes till the 2002 World Summit on sustainable development in Johannesburg for sanitation to become recognized as a separate topic and sub-goal within the MDG7.

The resulting international attention for water and sanitation as separate issues opens the way for approaches that exclusively direct their attention at one of these two themes. Increasing use and interest of sanitation marketing approaches during the 1990s reflects a first trend in this exclusive attention, of which the Household Water Treatment & Safe Storage (HWTS) approach, is one of the first employing this new focus. Later on other sanitation marketing approaches enter the development scene, such as the concept SaniMarts and the in 2006 developed combined approach of Total Sanitation and Sanitation Marketing. Whilst within these approaches the attention remains at bringing sanitation to the household level, community wide approaches emerge (including CLTS), that focus on the community as a whole rather than the individual household (Peal *et al.*, 2010), and become known under the term 'Total Sanitation'. The Indian government was amongst the first to incorporate the concept of Total Sanitation in its 2001 re-launched Total Sanitation Campaign, aiming at community awareness and demand creation (Kumar & Shukla, 2008). Other community wide approaches that emerge are Community-Led Basic Sanitation (CLBSA) used by Nepal Water for Health and Community Approaches to Total Sanitation (CATS) endorsed by UNICEF (Peal *et al.*, 2010).

Increased child attention
A third trend that run through the global sanitation domain, starting late 1980s and early 1990s, is the increased attention to child rights and child participation in health interventions. One of the first approaches stressing the right of the child to participate in health education and promotion is the Child-to-Child (CtC) approach. With the rise of the concept that children have 'agency', the ability to act on their own and participate in community planning and decision making, new approaches emerge incorporating this notion, such as the WASH in schools approach. A schoolchild educated to the benefits of sanitation and good hygiene behaviour is a conduit for carrying health messages beyond the school walls. Within this view schools become an entry point for introducing health and hygiene messages in the wider community. From this same premise SLTS, School-Led Total Sanitation emerges. It hinges on a same set of participatory rural appraisal tools as the CLTS approach, and therefore can be considered as 'the nephew of CLTS'. However where CLTS was denoted as a community-wide approach in the prior section, SLTS should be classified as a 'school-wide' approach, with the school becoming the lead institution for generating change in a school catchments sanitation situation. SLTS and other child focussing approaches recognize children's potential to acts as 'agents of change', instilling new hygiene and sanitation behaviours and beliefs in family and community members. Children's openness and honesty for learning and sharing information is considered a valuable contribution to their participation. Some child focussing approaches therefore refer to the child as a 'ready recipient' (SLTS approach) or 'eager to learn' (Child Hygiene and Sanitation Training (CHAST) approach).

Conclusion
In retrospect, sanitation and its delivery have been prone to several trends during the 20th and 21th century so far, that resulted in varying new approaches aiming to address the poor living circumstances of those millions that are still underserved. In the next paragraph, in sum to this paragraph, an overview is given of internationally applied approaches over the past decades.

1.5 - Global spread of sanitation

Table 2: internationally applied software approaches in the field of hygiene and sanitation over the past decades. Source: partly based on Peal *et al.*, 2010

Year initiated	Name approach	Diffused by	Core concept
1950s – 1980s	Mainly shaped by top-down government programs	National and local governments	Technology is the motor of progress. Problems in development are technical and economical in nature and need to be addressed by the state.
1970s – 1980s	Rapid Rural Appraisal (RRA) methodology developed	Origin: International Institute for Environment and Development (IIED) and innovators in NGOs in India and East Africa. Further spread by major donors	RRA is a set of techniques used by development practitioners in rural areas to collect and analyse data. RRA and PRA emerged as an alternative to the two common qualitative methods, a) questionnaires which often proved lengthy, costly and prone to errors, and b) rushed site visits by researchers to collect haphazard data from local elites
1983	Promotion of the Role of Women in Water and Environmental Sanitation Services (PROWWESS)	UNDP, WSP World Bank	PROWESS is built on the premises that the more fully involvement of women in community planning results in more effective water supply and sanitation projects. Existing divisions in labour and authority among men and women, and gender inequalities can be better addressed with the more full engagement of women.
mid 1980s	SARAR approach	UNDP, WSP World Bank, Save the Children, World Education	SARAR is a participatory approach to community empowerment and training that builds on local knowledge and strengthens people's own ability to assess, prioritise, plan, create, organise, and evaluate.
1987	Child-to-Child approach (CtC)	University of London Institute of Education, UNICEF, WHO, UNESCO, Save the Children, Plan Int., USAID, Water for People, Concern Worldwide	Child-to-Child is a rights-based approach based on the premises that 'it is a child's right and responsibility to participate in health education and promotion as well as their right to play'. CtC used the direct involvement of children in health education for themselves, their families and communities. CtC is an active learning method in which children are encouraged to gather more information, analyze and act on an identified issue and make others as well aware of the issue (Khan *et al.*, 2008).
1988	Community Action Planning	Origins: Massachusetts Institute of Technology. Applied by Sri Lankan government, UNICEF	Envisions to facilitate community participation and management of their built environment. Underlying assumption to the approach is that communities can take better care of their environments if they are in the driving seat and work closely with varying experts. The CAP approach integrates professional

			technical inputs with efforts from the community.
1990s	Participatory Rural Appraisal (PRA) developed out of RRA	See Rapid Rural Appraisal	A reversal of learning, to learn with and from rural people, directly, on the site, face to face, gaining from local, physical, technical and social knowledge (Davis, 2001). The approach aims to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programs (Jeffrey & Irvin, 2011).
1990s	First Household Water Treatment and Safe Storage (HWTS) approaches developed	WHO, UNICEF	The approach comprises marketing of appropriate, low-cost water treatment and safe water storage hardware in order to induce improved hygiene behaviour
1993	Sanitary marts (SaniMarts)	UNICEF and the Ramakrishna Mission Lokshiksha Parishad, India	The approach envisions to stimulate demand and provide support to create supply chains of appropriate sanitary goods and services. Sanimarts, marts with sanitary goods and services, are ideally established in locations with a perceived gap for the provision of these goods and services. Demand is envisioned to be created via showcasing of sanitary solutions (e.g. latrines).
1993	Participatory Hygiene and Sanitation Transformation (PHAST) approach	Water and Sanitation Program UNDP, World Bank and WHO	PHAST works on the premise that as communities gain greater awareness on their water, hygiene and sanitation situation through participatory activities, they are empowered to developed and carry out their own plans to improve this situation.
1993	WASH in schools approach	IRC and WHO	An holistic approach dealing with both the hardware and software aspects of hygiene and sanitation in and around the school compound. The approach recognises that a schoolchild educated to the benefits of sanitation and good hygiene behaviour is a conduit for carrying health messages beyond the school walls, to that of the family and the wider community, playing a role in the promotion and diffusion of these messages.
1994	Community Health Clubs (CHCs)	NGO AHEAD, Zimbabwe, DFID and DANIDA	CHC is a community based approach, envisioning to change community norms and values in the field of water, sanitation and hygiene practices via the encouragement of dialogue amongst CHC members. Health extension workers facilitate exchange sessions and participation by community members in the clubs is on a voluntary basis.
1999	Community-Led Total Sanitation (CLTS)	Initially Village Education Resource Centre (VERC) and WaterAid. Currently	CLTS is a community wide approach differing from earlier sanitation approaches due to its focus on the community as a whole, rather than the household. As an approach it envisions to create demand among communities

			for ending open defecation practices by supporting community decision making and motivating in building their own sanitation infrastructure.
2000	Household-Centred Environmental Sanitation approach	WSSCC Environmental Working Group	The approach envisions to put individuals, households and communities at the core of the planning, decision-making and implementation process (Eawag, 2005 & WSSCC, 2013). Governments respond to at the household defined needs.
2000	Public-Private Partnership for Handwashing with soap (PPPHW)	USAID, Bill & Melinda Gates Foundation, Japanese Social Development fund, WSP, Bank-Netherland Water Partnership	The approach envisions the working together of private industries with the public sector for the development and promotion of hand washing programmes. Integration of the marketing expertise and consumer focus of the soap industry with the institutional strength and resources of governments ideally creates a strong partnership and optimally an effective approach for targeting those at risks.
2002	Child Hygiene and Sanitation Training (CHAST) developed from PHAST	Caritas Switzerland developed approach in Somalia	is an approach for promoting good hygiene among rural children. It is based on the premises that personal hygiene practices are usually acquired during childhood. CHAST views it is easier to change the habits of children than those of adults since children have less knowledge, experiences and responsibilities and are naturally more inquisitive and eager to learn. The approach uses a variety of exercises and educational games that challenge children to learn about the direct links between personal hygiene and good health.
2005	School-Led Total Sanitation (SLTS) approach	UNICEF, Nepal Red Cross, Nepalese Government, Ghanaian Government	The SLTS approach's fundamental difference with the CLTS approach is it generates awareness on hygiene and sanitation in the school children of a community, rather than the adults. SLTS sees children as ready recipients for new learning and ambassadors of hygiene and sanitation messages to peers, families and their community members. New practices and lessons shared within the community ideally results in a consecutive demand for better hygiene and sanitation among community members. Awareness creation is done by use of activity-oriented, participatory exercises.
2006	Total Sanitation and Sanitation Marketing ((TSSM) approach	WSP, Bill & Melinda Gates Foundation	The Total Sanitation & Marketing Approach draws upon approaches in the field of community wide approaches and sanitation marketing. The approach envisions to create demand via community mobilization (using CLTS techniques) and mobilize individual interventions (using sanitation marketing). Local creation, promotion and supply of sanitary goods and services, ideally with the help of the private sector, can help meeting this demand (WSP, 2009).

1.6 Research focus

In the preceding paragraphs a new approach to sanitation, Community-Led Total Sanitation (CLTS) was addressed. An indication was given of its current popularity and an explanation sought why it was able to position itself swiftly in the sanitation domain. Overall it must be remarked that CLTS is the outcome of various processes over the past decades, and hence must be understood in a larger context of rising neo-liberal and participatory approaches, a roll back of State investments and interventions, increased and distinct international attention for the themes of water and sanitation, and incorporation of child right and children's potential in community intervention programs.

This research is aimed at School-Led Total Sanitation (SLTS), an off-shoot of CLTS. As a school and child centred sanitation approach it was first implemented in Nepal in 2005. Similarly to CLTS, though not as widespread, from there it has spread towards other countries, Figure 6.

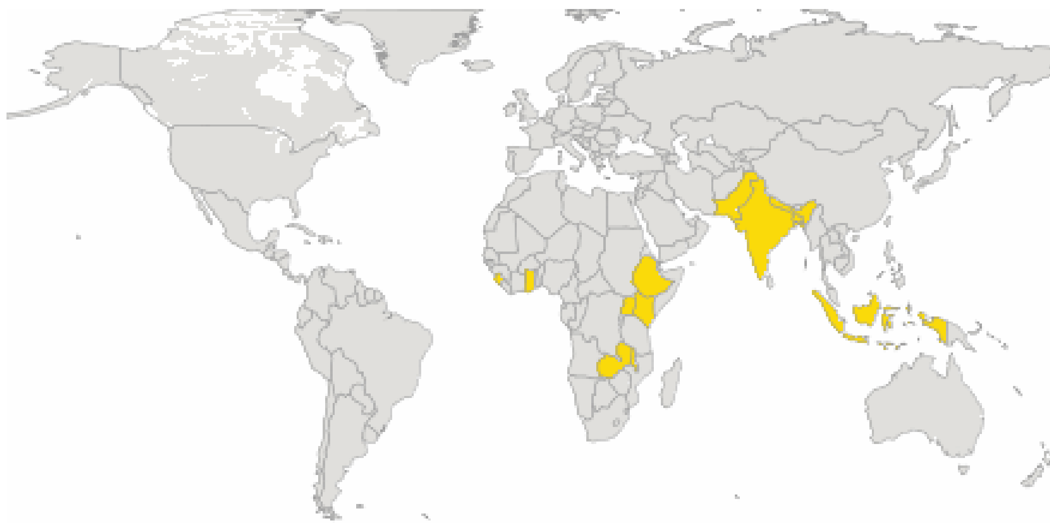


Figure 6: countries around the world in which SLTS has been applied so far. Source: generated using travel map generator 29travels.com

SLTS, just as CLTS, must be understood in a larger context of changes in development thinking of which notions on the role of the child have been most influential. SLTS aims to employ children's potential to become 'agents of change', 'ambassadors' of health and hygiene messages, and carry these messages beyond that of the school premises. Therefore it is referred to as a 'school-wide' approach in which the school is seen as an entry point via which the larger community can be reached. SLTS aims at eliminating open defecation (OD) from schools and community areas.

Experiences from triggering schools in India and Zambia showed that children are quick to learn and do become active agents of change. The ways in which children can become active are multiple: whistle blowing, showing and flagging OD sites, writing and singing ODF songs, writing poems, performing street dramas, creating posters, collecting baseline information, disseminate information to friends and parents, motivating parents, etc. (Sarpong, 2010, Kar, 2003, Trigger, 2010).Current indicators are that it could become a major and powerful driver within CLTS (Kar & Chambers, 2008).

The questions addressed in this research are: whether SLTS is able to generate sustained changes in school and community health behaviour? Are the core principles of SLTS conflicting with international and national norms, values, programs and policies? The questions are approached by looking at SLTS initiatives in Ghana. In total this research will answer three questions:

- What are the country specific characteristics of SLTS in Ghana?
- Are SLTS principles conflicting with other internationally and nationally employed policies, programs and local norms and culture?
- Does SLTS generate sustained changes in school and community health behaviour?

In the following chapters the theoretical framework [chapter 2] and methodology [chapter 3], guiding this research, are presented.

Chapter 2 – Theoretical framework

2.1 Introduction

In the last chapter, I discussed the three research questions that will guide this research. In this chapter I explain the theoretical basis for these questions, in other words, *why* these questions are relevant, and *how* these questions are theoretically approached.

Last chapter clarified both approaches of CLTS and SLTS aim at altering school and community open defecation practices, creating lasting behavioral change in its targeted audience. The second research question evaluates this alleged change, regarding whether behavioral changes occur and are likely to be sustained. The Precede-Proceed Model (PPM), see Figure 7, explains the concept of behavioural change intrinsic to CLTS/SLTS. PPM was constructed in the 1980s for developing, implementing and evaluating health interventions. It regards all aspects of a person's environment that affect the outcome of a health intervention. The PPM conceptualizes this "environment" as consisting of many sub-environments: the economic, policy, family, cultural and cognitive environment. All of these environments must be considered if they support risk behaviors and affect the health, and ultimately quality of life of its intended target group (Crosby & Noar, 2011). PPM is therefore built up of several steps that structurally addresses these sub-environments.

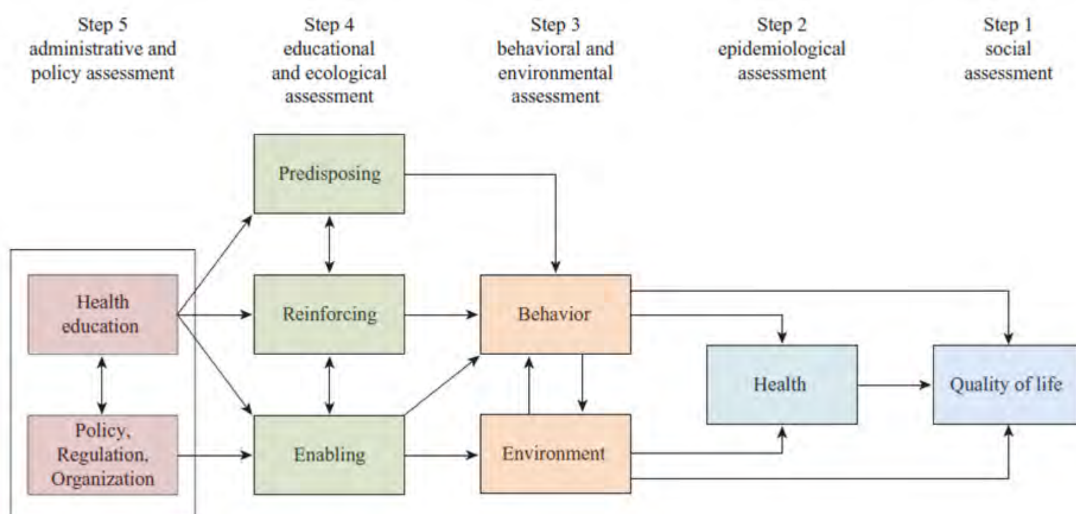


Figure 7: the Precede-Proceed Model. Adjusted from Crosby & Noar (2011, p. 8)

The starting point of the PPM is a health intervention's desired end goal, step 1 and 2, summing the main objective(s) the intervention intends to attain. From there the model works backwards to establish and define further program[7] objectives (step 3), influencing factors (step 4) and affecting policies, regulations and education programs (step 5). These actions should precede the main objective, indicated by the arrow direction in Figure 7. Jointly when met, these objectives and actions result in the attainment of the overall program objective (Crosby & Noar, 2011). These five steps of the model together provide an assessment base which in this research is applied to define and assess objectives and environments of the sanitation intervention approach SLTS.

PPM in its original form consists of nine steps. Steps six to nine, which focus on how to improve/proceed with an intervention, are omitted in this research. The focus is on evaluating SLTS

[7] Denoting a health intervention program

and its main objective, elimination of all open defecation. The PPM model above is therefore an adapted version - focusing on steps one to five – applied to examine and evaluate the following issues:

- Distill characteristics of SLTS in Ghana (chapter 4)
- Evaluate if international and national policies and programs related to sanitation as well as local norms and/or culture provide an enabling environment or are in conflict with SLTS goals and objectives (chapter 5)
- Evaluate whether or not SLTS generates behavior change that is likely to be sustained (chapter 6)

2.2 Steps in the PPM (What)

The assessment side of the PPM consists of five steps: the social, epidemiological, behavioral & environmental, education & ecological, and administrative & policy assessment. Each step regards or assesses, a specific part of an intervention program. In the result chapters each step's assessment is applied by use of the theoretical questions intrinsic to each step, starting from those pertaining to the first step: the social assessment. In the following section PPM is graphically translated and conceptualized as a pyramid, to indicate each step is dependent on the prior step. Below after explaining the theoretical themes raised under each step, I explain how the step is applied in the analysis of SLTS.

❶ *Step one: social assessment*

This first step of the PPM, social assessment, considers the process of community engagement for identification of issues community members relate to their quality of life. Since many issues might affect the community's life the role of an external facilitator can be to 'pre-identify' a health issue having a significant impact on the quality of life in the community (Crosby & Noar, 2011). Ideally the facilitator presents the issue to the community and solicits for existing needs and desires in the community around this issue. Do community members see the issue as a problem? What exactly do they believe to be a problem? And how does the problem occur? Community members during this step (phase) should be able to clarify their concept of the problem. Facilitators can employ participatory rural appraisal tools/participatory methods (social mapping, concept mapping, interviews, focus groups, observations, surveys) to expand community members' concept of the problem and vice versa expand the facilitators understanding of how the community members conceptualize/view the problem (Glanz *et al.*, 2008). Besides assessing what and how community members see as the problem, assessment in this step also incorporates what resources are already present in the community that relate to the issue. Eventually community participation in this step must result in a main goal that is acknowledged and has a base in the community, Figure 8. To concretize this community strategies can be set out that are needed to achieve the main objective.

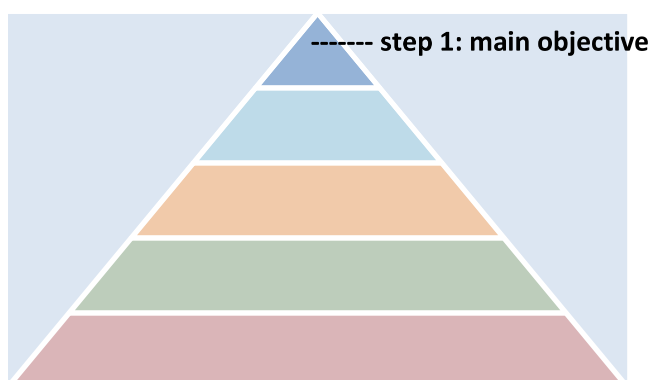


Figure 8: step one: identifying the main objective of the intervention program

Application of step 1: This social assessment step is applied to analyse: what the target group(s) of SLTS is, the way/s by which these group(s) are approached (what methods, type of rural participatory appraisal tools). Based on these identified 'modes of engagement' with the target group(s), further analysis can regard the ability or inability of the target group(s) to participate, share their thoughts, perceptions, solutions and human and physical available resources. This step comes back in chapter 4, section 4.2, and chapter 5.

❷ *Step two*

The second step, epidemiological assessment, should bring fourth measurable health-related objectives against which the success of the intervention can be measured (Crosby & Noar, 2011), Figure 9. The objectives act as a guide for setting out the sub-objectives in steps 3 and 4. Any established sub-objective must serve at least one of the objectives in step 2. An objective might be: 'by the year 2015, 90% of the community has access to water' or 'within 4 months all community open defecation is ended'. The objective has a time constraint and is measurable. The objective should link to the needs of the community/target group, identified in step 1. Does the objective envisions what the community/target group envisions? The number of objectives defined in this step can vary from one to several.

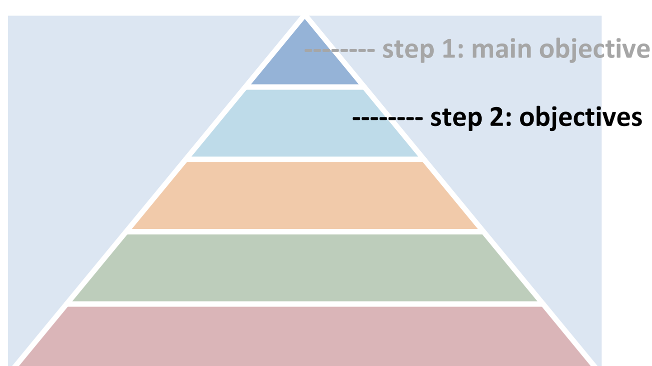


Figure 9: step two, identifying he objectives of the intervention program

Application of step 2: This step is applied to identify and assess what the health-related objectives are in SLTS in Ghana. This step returns in chapter 4, section 4.3. Part of the third research question is answered via this step – *Are SLTS principles conflicting with other internationally and nationally employed policies, programs and locals norms and culture?* – when analysing if these objectives conflict with local norms/culture in Ghana and what is at the base of this conflict (chapter 5, section 5.2)

❸ *Step three*

Step three, behavioral and environmental assessment, consists of two parts: the community's behavior and environment. Changes in both are required for achieving the objectives in step 2. Identified necessitated changes and achievements under this step therefore serve as precedents to the objectives and main objective, see Figure 10 below. Part of this step is identifying all environments that impede achievement of the objective(s) in step 2. Possible environments are: the economic, policy and administrative, family and cultural environment (considering what community norms exist). Environmental sub-objectives in this step can be seen as setting the stage for achievement of behavioral sub-objectives. Behavioral sub-objectives are to be understood as acts/behaviors volitionally engaged in by members of the community. The challenge for behavioral assessment is to identify sub-objectives and achievements that are easily verified and quantified. (Crosby & Noar, 2011; 12).

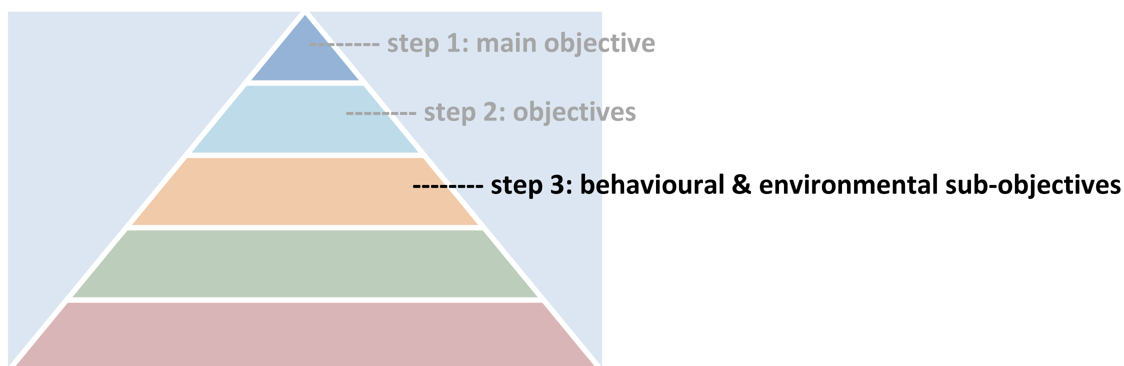


Figure 10: step three, identifying behavioural and environmental sub-objectives

Application of step 3: This third step is applied to establish the behavioural and environmental objectives carried under SLTS, which is presented for SLTS in Ghana in chapter 4, section 4.2. Issues of child rights and child involvement within these sub-objectives are discussed to further answer the third research question: *do SLTS principles* – here to be understood as its sub-objectives – *conflict with internationally and nationally employed policies and programs and local norms and culture?* This question is addressed in chapter 5, sections 5.1 and 5.2, when analysis of different environments that PPM supports are reviewed for their impact on children's participation and change agent role in SLTS: policy environment (section 5.1), socio-cultural environment (introduced in chapter 4, section 4.3. Its implications/conflicts are discussed in section 5.1 & 5.2), teacher-school environment (introduced in chapter 4, section 4.3. Its implications/conflicts are discussed in chapter 5, section 5.2) and family environment (as well introduced in chapter 4, section 4.3. Its implications are discussed in chapter 5, section 5.2). Chapter 6 questions one of the identified sub-objectives from chapter 4, section 4.2, and analyses if the sub-objective is met.

❹ *Step four*

Step four, educational and ecological assessment, regards the factors that pose an influence on the target group(s) behavior and environment, see Figure 11. Each sub-objective in step 3 is influenced by the combination of predisposing, reinforcing and enabling factors, see also Figure 7. Together these factors determine the success for achieving the step 3 sub-objectives. Below a description is given on each of the three factor groups in this fourth step of the PPM.

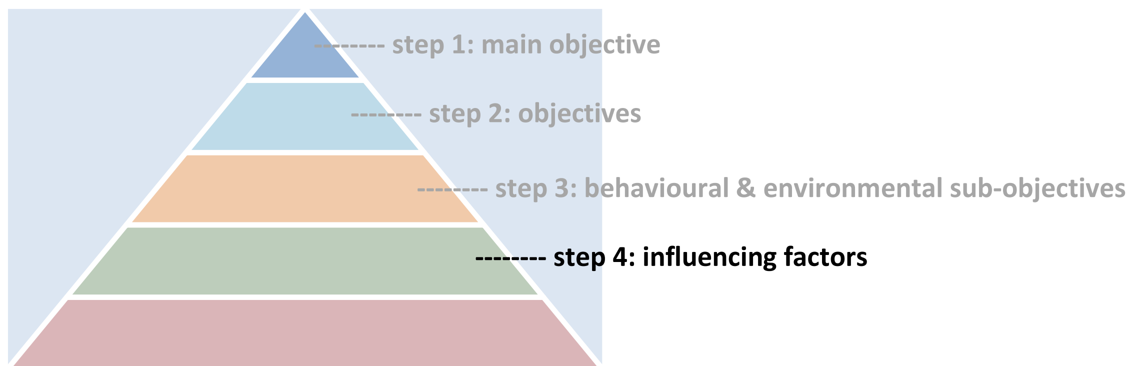


Figure 11: step four, identifying influencing factors

Factors considered in step four

Predisposing factors regard a person's attitudes, beliefs and self-efficacy, factors which exist at the cognitive level. Conveying new perceptions to a community via e.g. educational campaigns and media campaigns are approaches that affect and instill new beliefs and attitudes in persons. Within this group, knowledge on a certain health problem can also be seen as a predisposing factor, since knowledge is likely to alter the behaviors of an individual (step 3).

Reinforcing factors treats on how to encourage/promote an opted for behavior (step 3) in a community in such a way the continued practice of this behavior is ensured. Reinforcement may take place in the form of changing social norms towards a certain community practice e.g. smoking, drinking & driving, child breast feeding, child abuse/penalizing, dental hygiene, and applied to this research that of community open defecation. Reinforcing behaviors can also be stimulated by groups external to the group, e.g. health practitioners, program facilitators, praising/encouraging/endorsing positive behaviors (step 3).

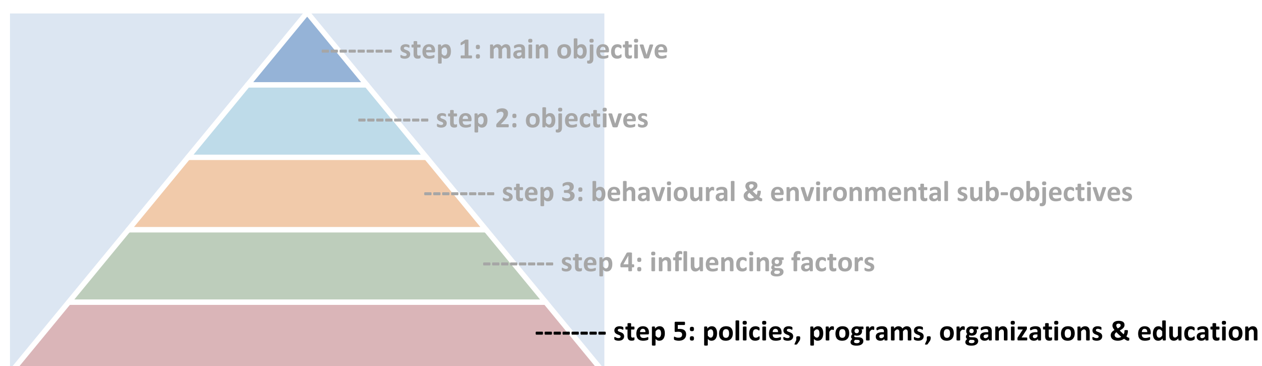
Enabling factors represent: *'the necessary conditions that must be present for the behavior to occur'* (Crosby & Noar, 2011). Implication of this is, though intentions and social norms may be given to support a certain behavior – described differently individual and community perceptions are positive/supportive for a certain behavior (predisposing and reinforcing factors) – specific skills or means may be lacking to act on one's intention and practice the behavior. In order for a community to acquire the required skills, skills training/teaching from external facilitators is key. Acquiring means required to execute the behavior entails using one's own funds, accessing credit schemes, loans, revolving funds or setting up partnerships with donors and funding institutions (see also step 5).

Application of step 4: Given the definition of predisposing, reinforcing and enabling factors in this chapter, SLTS is assessed whether it affects the target group's attitudes, beliefs and self-efficacy (predisposing factors). This would mean asking questions such as: do persons perceive themselves capable of engaging in new behaviours. A second part of applying this step is looking beyond the individual to the influence of social norms on an individual's behaviour. Does the SLTS approach change social norms (reinforcing factors). A third 'step' in this step is analysing which enabling factors are affected under SLTS programs. Are the necessary conditions provided during the intervention so the target group can engage in new behaviours (step 3 sub-objectives).

❺ *Step five*

The fifth step, administrative and policy assessment, requires assessing the capacity and resources available for the execution of programs, interventions and policy change which should lead to positively influencing the step four factors (Crosby & Noar, 2011). This step can be split up into the categories of 1) assessing health education (media campaigns in the form of pamphlets, billboards, radio and TV-advertising) and 2) assessing policies, regulation and organizational structures.

The connection of this step with step four is that health education efforts mainly aim at step four's predisposing and reinforcing factors. Though when health educational efforts are highly interactive with the target group - guided practice and verbal correction - e.g. via demonstrations, they can augment a person's skills and also positively affect one's enabling factors. Step four's influencing factors denoted as enabling factors but not having a skill base, rather a specific financial/material mean, are addressed via setting of policies, regulations and organizational structures that provide these enabling factors and eventually affect the environments defined under step three: economic, policy and administrative, family and cultural. Assessment of health education, policies, capacities and available resources is the last step in the total assessment of the PPM.



Application of step 5: This final step is used to complete answering of the third research question: whether and how the SLTS approach is complementary or conflicts with international and national policies and/or programs on sanitation as implemented in Ghana.

2.3 Conclusion

In the introduction section of this chapter I outlined how CLTS/SLTS interventions centre around behaviour change; namely that of open defecation eradication. Other behaviour changes can be co-opted for during this process, e.g. hand washing after defecating, waste collection. CLTS/SLTS interventions build behaviour change on the so-called triggering of community-wide feelings of shame or disgust. Internalization of such feelings then results in a social awakening (see chapter 1: why CLTS), during which those targeted realize the dangers and disgusting consequence of open defecation and feel prompted to take action. This offers a specific and predetermined view on behaviour change. Adopters of CLTS/SLTS implementing and assessing the success of CLTS/SLTS interventions from this view, are thereby inclined to have 'a specific way of looking at things', which influences the scope of their analysis and outcomes.

The Precede-Proceed Model provides – in my opinion a broader view and analysis base. It builds behaviour change up from several steps. These steps allow for a careful analysis – from the local to policy context – of contexts which determine any intervention program's outcomes. Other contexts having come forward in these steps are the family, cultural, institutional and enabling or physical

environment. The usefulness of PPM in this research is that it offers a holistic view on behaviour change, which enables to recognize and gain insight on: environments and each environments' characteristics that a program is build off (first research objective), recognize environments of conflict (second research objective), and consider a variety of steps/environments that impede or contribute to behaviour change (third research objective).

Of course any research model has its advantages and limitations and is subject to the difference between theory and practice. Though PPM is a holistic approach to analyze behavior change, intrinsic to the term model is already the process of framing (bordering) reality. Related to health behavior a multitude of theories exist - varying from individual health behavior theories to interpersonal and community group models theories – all explaining fractions of reality. PPM guides to analyze the set of environments that enable or hamper behavior change, however some other theories may provide a more in depth explanation per environment, for example the Health Belief Model with an emphasis on a person's cognitive/psychological environment. However I perceive PPM offers the opportunity to analyze a broader scope of any health intervention, rather than limiting itself to one aspect. Therefore it contributes in gaining new insights, when applied to analyze the topic of SLTS in chapters 4, 5 and 6.

Besides application of PPM, this research drew on questionnaire conduction and analysis of available case studies on SLTS in Ghana. In the following chapter Ghana and use of SLTS in the country is outlined. Further the methodology used for questionnaire conduction is presented.

Chapter 3 - Methodology

3.1 Introduction

In chapter one, I introduced the concept of CLTS, its popularization – as well as the development of SLTS as an offshoot of CLTS. Chapter 2 explained why the particular theoretical approach, i.e. the Precede-Proceed Model is relevant in assessing the practice of SLTS. In this chapter, I will sketch the research area, and explain how SLTS is promoted and is being implemented by different organizations in two lower regions of Ghana. I will also explain my personal interests and motivation in this research, as well as how the research areas influenced my own ideas of research. Finally this chapter is concluded by mentioning challenges and constraints that affected the research and lessons that I take from this process.

3.2 Research motivation

The topics of sanitation and health communication, which is a core component of the CLTS or SLTS approach, have been intriguing areas of interest for me. The first encounters with these themes were during my bachelor's programme, Land & Water Management at Wageningen University. One course in particular offered in my third year provided me with the opportunity to study the barriers for introducing ecological sanitation in India. Another course, dealing on health communication, introduced me to the PPM approach, which I have used in this research. During my Master I wanted to learn more on the topic of sanitation and therefore I decided to find a research topic and organisation specific to this field. My bachelor internship in Ecuador made me aware of the research restrictions when not fully grasping a language. I have overcome this by choosing to conduct my MSc thesis research in an Anglophone country, Ghana in Africa.

It was particularly useful to link my research to the International Water & Sanitation Centre (IRC), situated in The Hague. Contact with one of IRC's researchers on CLTS/SLTS in Africa resulted in a joint research theme based on the arrangement, that IRC would assist me in sharing literature on CLTS/SLTS and connecting me to their field-based partners implementing SLTS in Ghana. In return, I would make my study report accessible to IRC. In that context, it is good to note that my report was considered to be suitably interesting to be made available on the IRC website: http://www.irc.nl/page/76007.

However, a literature review on CLTS/SLTS and a case study research from a month's fieldwork in Ghana in March, 2012, also needed to be translated to a thesis report, for a Master's programme at Wageningen. And as I realised, these were quite different tasks.

Broadly this review was focused on three areas:

1. A global overview of trends in the sanitation domain and the position of CLTS/SLTS within this domain
2. The introduction and spread of CLTS/SLTS in Asia, starting from Bangladesh, towards Africa and South America.
3. The introduction and characteristics of SLTS in Ghana

Regarding this third literature category sources were still scarce and from a limited range of authors. Given that many of these authors were implementers themselves of CLTS/SLTS with their own viewpoints towards the approach, demanded for an independent theoretical framework regarding SLTS implementation in its totality, free of a possibly preconceived perspective.

3.3 Local research partner & country context

IRC contacted Plan Ghana and Plan Ethiopia for inquiring on their acceptance to receive a student visiting and investigating some of the SLTS projects both organisations lately had been implementing. Plan Ghana's country director approved my visit and the role of Plan Ghana as supervising my research. Initial exploration of Ghana's sanitation situation, Table 3, indicated the need for sanitary advances. With the MDG for water supply and sanitation in Ghana at 78% by 2015 – and a Government goal of 85% coverage for both water supply and sanitation (World Bank, 2006 & Water-Aid Ghana, 2005) - the current sanitation situation requires for an approach capable 'to do the job'.

Table 3: water supply and sanitation coverage in urban and rural Ghana. Source: Joint Monitoring Programme, 2010 (JMP, 2010b).

	Rural	Urban
Sanitation coverage	11%	27%
Water supply coverage	74%	90%

In Ghana, Plan Ghana is one of the NGOs implementing CLTS in the country, beside UNICEF and WaterAid, and the single implementing NGO of SLTS and specifically handling this term. Since the first country pilots of CLTS in 2007, Plan has been applying the approach in 5 of the country's regions, see Figure 12.

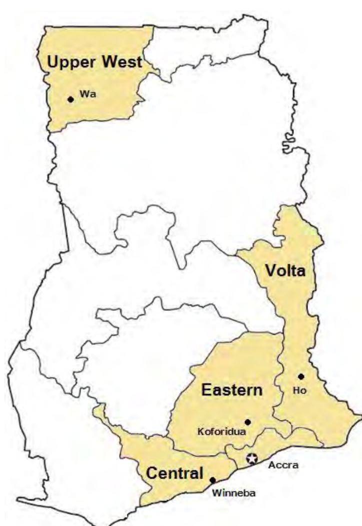


Figure 12: regions in Ghana were CLTS approach has been applied

First references in literature on the specific leading role of children within CLTS are from 2009 (see Magala & Roberts, 2009). A national level training workshop headed by CLTS founder Kamal Kar in February 2011 – attended by Plan Ghana, UNICEF and government personnel from various agencies (Plan Nederland, 2012) – highlighted the role of children for country wide scale up of CLTS and was noted as an action plan as follows: '*identification and development of children's role as pressure groups in making parents and children's communities conform to ending open defecation practices*' (CLTS-site Ghana, 2011h). Till March 2012, 22 schools were reported to have been sensitized via use of the SLTS approach by Plan Ghana (personal communication, D. Sarpong, 2012).

3.4 Field research

The supervision by Plan Ghana for my research was from March 5 till March 30, 2012. During this period I was given a work space at Plan Ghana's country office in Accra. A senior WASH advisor from Plan, Daniel Sarpong, was my direct contact person for questions relating to my research and he arranged the projects for me to visit during my stay. This resulted in an exploratory study among four primary schools, from four communities, see Figure 13. School selection was based on accessibility and travel schedules of Plan Ghana staff. In Figure 13 the first name indicates the name of the community, provided by Plan Ghana staff, the second name is the name of the largest nearby town. The community name of 'Mankessim' was unknown therefore this case study site is referred by its largest neighbouring city, Mankessim.

Figure 13: case study sites

At or near the schools sites, school children were interviewed using a semi-structured questionnaire focusing on the school's sanitation situation and children's roles in promoting healthy practices. In total 25 school children participated in the semi-structured questionnaire, see also Table 4. Interview participants were either selected for their relevance (member of the local school health club), in Mankessim by the head teacher and in In Odichirase three pupils playing nearby the school compound were interviewed. Interviews were done in English in Surpong Ric and Mankessim. In Koliete and Odichirase a member of Plan Ghana served as a translator and children's responses in Koliete were translated by one of the school teachers.

Table 4: semi-structured interviews characteristics of school children

Site	nomination of participants	Number of participants	Translator (yes/no)	Date
Odichirase	no	3	yes	03-07-2012
Mankessim	yes, by head teacher	2	no	03-12-2012
Koliete	yes, school health club	14	yes	03-27-2012
Surpong Ric	yes, school health club	6	no	03-27-2012

At three out of four school sites, local community members were interviewed. In total 12 community members participated in a semi-structured interview, plus three community member's latrine visits in Koliete. Three participants were female and nine were male. In Mankessim due to time constraints no community member was interviewed. Interview participation and visits were voluntarily based

Table 5: semi-structured interviews characteristics, community members

Site	nomination of participants	Number of participants	Translator (yes/no)	Date
Odichirase	no	1	yes	03-07-2012
Mankessim	-	-	-	03-12-2012
Koliete	yes, WAT SAN members	10	yes	03-27-2012
Surpong Ric	yes, WATSAN member	1	no	03-27-2012

Teachers' semi-structured interviews were confined to the schools of Mankessim and Surpong Ric, and were done on the same day as interviewing of school children and local community members. The school in Odichirase turned out to be closed during and one day after the public holiday of independence day. In Koliete after the initial interview with some of the school's pupils, the translating teacher was occupied again with teaching.

Table 6: semi-structured interviews characteristics, school teachers

Site	nomination of participants	Number of participants	Translator (yes/no)	Date
Mankessim	no	1	no	03-12-2012
Surpong	no	5	no	03-27-2012

Apart from these interviews, help from Plan Ghana enabled setting up an unstructured interview with the Central Region director of Plan Ghana, focusing on implementation challenges and successes of CLTS/SLTS in that region. An electronic interview (correspondence via e-mail) was conducted with a program officer from the Ghanaian Ministry of Education, to gain insight in national school hygiene and sanitation programs.

Table 7: miscellaneous interviews

Location	nomination of participants	Number of participants	Translator (yes/no)	Date
Winneba	no	1	no	03-12-2012
Accra	no	1	no	03-14-2012 03-16-2012

An observation checklist was prepared to evaluate the availability and state of hygiene practices, promotional activities and sanitary facilities on each school compound, see Annex 1. Lastly, personal communication with SLTS facilitators, WASH advisors and other staff from Plan Ghana, as well as spontaneous conversations with Ghanaian citizens on the countries' sanitation situation, contributed in broadening understanding of beliefs and perceptions revolving around hygiene change.

3.5 Research constraints, challenges, lessons learnt

The section above described the research methods used during the field research. Since the selection process of schools for interview purposes and local observations was done during my stay in Ghana some difficulties and constraints were found for effectively carrying out my research.

- Site selection dependency

Selection of schools was done in collaboration with my local research supervisor from Plan Ghana. Based on his contacts, travel schedules of colleagues and colleagues willingness to receive me I was

able to visit a specific site. Conducting of interviews at Koliete and Surpong Ric included Plan Ghana's Eastern Region staff, facilitating my stay and field visits. They arranged my transport, shelter for two nights, and took me to two of their project schools Plan Ghana Eastern Region was working. Some other planned visits were missed, a visit to the Northern Region of Ghana by plane, due to financial constraints in Plan Ghana's budget. Plan Ghana's assistance in arranging sites to visits however also imposes the inability to randomly select schools. Some bias might have been present in which schools I was presented to.

- Interview participants selection

Though this did not occur at all sites, in Mankessim the local school head teacher appointed two students to response to my questions. The underlying reasons for selecting these two pupils remained unknown to me. Interviewing of the school health clubs from Koliete and Surpong Ric may have resulted in interviewing those with greater zeal for responding to questions on the topics of hygiene and sanitation.

- Translation distortion

In Odichirase and Koliete interviews with students and local community members were guided by a translator (plan Ghana staff member of school teacher). Translation via this person may have resulted in distortion of the questions I meant to ask and of the answers the pupils gave.

- Visiting time constraints

Due to the planning of visits in congruence with the travelling schedules of other employees of Plan Ghana, limited time was available for interviews conduction at each site. Arranging of my visit to Plan Ghana's Eastern Region office was subject to delay since this needed to be approved by the regional program director.

3.6 Conclusion

From these constraints and challenges I learnt the lesson to: set-up research visits at much as possible prior to visiting the country to overcome issues of delay due to organisational problems (need for approval before research visit can be arranged). Plan Ghana's as a research supervisor helped me to investigate several SLTS school projects and visit local students and community members affected by these programs. However as mentioned before, their involvement may have resulted in a bias towards schools that were selected for visiting. The theoretical framework used in this research is used to overcome this bias via looking at several environments that influence the outcome of an health intervention program, where an organisation such as Plan Ghana possibly regards a more limited environment to define a program's success.

In the next chapter, various environments come to the front that influence SLTS interventions. These environments pass by when describing the different characteristics identified for SLTS, presented in the following order:

- Political characteristics
- Approach characteristics
- Social characteristics
- Physical characteristics

Chapter 4: SLTS characteristics in Ghana

4.1 Introduction

This chapter focuses at the planning and implementation of School-Led Total Sanitation (SLTS) interventions in Ghana. SLTS, the off-shoot of Community-Led Total Sanitation (CLTS), was first implemented in Nepal in 2005. Several factors influenced the need to engage children in CLTS, such as the notion that since children suffered most from diarrhoea, they needed to be most aware of safe hygiene practices. On the other hand, more radical approaches such as children's rights to participate in development, as well as the ideas behind the potential of children to act as agents of change.

Since then, the approach has been implemented in various other countries (see chapter 1 for details). It is interesting to note that firstly, CLTS/SLTS implementing organizations and national sanitation policy frameworks do not coherently and uniformly agree on the need for children to engage in, and/or influence development processes. In section 4.2 [political characteristics] I look at three sanitation and/or education related policies, to give an indication of current SLTS representation and political space in Ghana's sanitation framework.

After this initial political exploration, the approach of SLTS is considered in section 4.3 [approach characteristics]. Questions that are interesting to me in this section are: Who is implementing CLTS/SLTS in Ghana? What objectives do implementers of SLTS in Ghana have? I regard the processes that precede these objectives by asking: who comes in the process of SLTS, and what activities is this process made of? Here I go into the two phases, or processes I identify in SLTS: 1) the process of school children's triggering, and 2) the process of school children triggering others.

These process are not standalones, but occur in a larger social, political and physical context. Related to this, children's rights are impacted by local culture and social norms. This affects children's space to participate, as well as potential for children to trigger others. In section 4.4 [social characteristics] social factors in Ghana come forward that affect children's participation and roles.

Section 4.5 regards the physical environment around SLTS. The opted for impact by SLTS in schools – elimination of open defecation and promotion of hand washing – requires for a conducive environment that enables children to practice behaviours of safe defecation and hand washing. The availability and state of hand washing and latrine facilities in the four visited schools are presented to give an idea of the physical settings in which SLTS triggering occurs in Ghana.

The focus on characteristics of these four environments (political, approach, social and physical) relates to the Precede-Proceed Model (PPM), which identifies the need to analyse the holistic environment in which 'change' is being impacted. Exploration of these environments contributes in analysing how policies and sanitation strategies – that originate in a certain local context – are adapted in other settings.

4.2 Political characteristics

Adopting countries of CLTS/SLTS differ in the extent to which CLTS/SLTS initiatives are adopted and spurred under national sanitation policies. In chapter 1, Box 2, an overview was given of CLTS/SLTS adoption by governments in sanitation frameworks. Among these Nepal and Pakistan are the two single countries, separately addressing SLTS as a preferred strategy. Others do mention the preferred

take up of CLTS, as is shown below for Ghana, but politically seen still leave unattended children's front role in development processes.

Policies and references to CLTS/SLTS

In Ghana's policy framework some policies have adopted CLTS as a preferred strategy or approach for sanitation promotion – The Ghana Shared Growth and Development Agenda (GSGDA) 2010-2013[8], the National Water Policy 2008, the National Environmental Sanitation Policy. These policies do not make any specific reference to SLTS. In first instance they make reference to the CLTS approach, however some of the policies' strategies could provide an opening for a similar take up of SLTS.

Ghana's Growth & Poverty Reduction Strategy (GPRS) II is an example of this, of which policy objective 4 states: Ensure the development and implementation of health education as a component of all water and sanitation programmes. Two of the underlying strategies are:

- Strategy 4.1: incorporate hygiene education in all water and sanitation delivery programs
- Strategy 4.2: promote behavioral change for ensuring open defecation free (ODF) communities

The strategies do not specify the exact form by which is adhered to these intentions, but the focus on ensuring ODF communities clearly relates to the central objective in CLTS/SLTS programs. Under the key focus area of education in the GPRS II, one strategy clearly demarcates intentions to equip schools with water and sanitation facilities (IMF, 2012; 184):

- Strategy 1.8: Improve water and sanitation facilities in educational institutions at all levels

The hardware delivery component in this strategy, and strategy 4.1 above stating to incorporate hygiene education (software component) in all water and sanitation delivery programs, provides room and advocates for SLTS which combines these two elements, *'The SLTS program comprises software (orientation, exposure visit, advocacy, awareness) and hardware (construction of latrine, urinal, water supply facilities)'* (Adhikari, 2010; 2).

Other policies such as Ghana's Education Strategic Plan (ESP) (2010-2020) and National 2003-2015 Action Plan Education for All (NAPEFA) either highlight the hardware or software component of sanitation delivery. Two objectives in the ESP stress the hardware side:

The provision of toilet facilities (BE[9]6), separate for boys and girls, is to be extended to schools presently lacking such facilities and will apparently be automatically included when new classrooms are built' .(GPE, 2012, p. 45).

On page 64 of the same report states the objective is given to: *Provide adequate safety, sanitation and basic health care facilities at schools by 2015 (BE6, SC[10]7, IS[11]6).*

The NAPEFA is one of the official documents, from Ghana's Ministry of Education, shedding light on the targets and responsibilities of the School Health Education Program (SHEP) unit, part of the

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[8] Based on the Growth and Poverty Reduction Strategy (GPRS) II
[9] Basic education (primary school)
[10] Secondary cycle (secondary school/high school)
[11] Inclusive & Special education

Ghana Education Service, which falls under the Ministry of Education. NAPEFA highlights the software side of sanitation delivery, becoming clear from policy goal 4 within this document, which states: *'Promote good health and environmental sanitation in schools and institutions of higher learning'*. The NAPEFA provides a trajectory, from 2002 till 2015, to reach a 100% coverage of school hygiene systems and drinking water supply, in line with this policy goal, see Table 8. Current endeavors however seem to fall short of this target, as the 2009/2010 School Year EMIS report indicates 62% of schools having access to toilet facilities and 65% having on-site access to water (WinS, 2013), well below the targets for 2010.

Table 8: targeted percentages of schools with adequate toilet facilities and drinking water supply (2002-2015)

		2002	2003	2004	2005	2010	2015
% of schools with adequate toilet facilities	Primary	68%	70.5%	72.9%	75.4%	87.7%	100.0%
	JSS[12]	61%	64%	67.0%	70.0%	85.0%	100.0%
	SSS[13]	n.a.					100.0%
% of schools with drinkable water supply	Primary	38.0%	42.8%	47.5%	52.3%	76.2%	100.0%
	JSS	42.0%	46.5%	50.9%	55.4%	77.7%	100.0%
	SSS	n.a.					100.0%

In achievement of the hardware and software aspects of sanitation delivery, NAPEFA spurs for collaboration of governmental bodies with other parties, expressed in one of its targets to *'establish linkages with Non-Government bodies to work with government on School Health programmes'* (NAPEFA, 2003; 18). It is suggested that the SHEP unit collaborates among others with NGOs, CBO[14]s, FBO[15]s, the private sector. Later on in this chapter, in section 4.3 [approach characteristics] an example is given of this collaboration, in which officials of the SHEP program co-work with facilitators from Plan Ghana, an INGO[16] which in Ghana is known for implementing the CLTS/SLTS approach. Given the challenge and current shortfall to meet 100% sanitation coverage in all primary and secondary schools, joint endeavours of the SHEP program and other organizations implementing CLTS/SLTS, may in the future increase the base for governmental and political uptake of SLTS. Current reflections on Ghana's sanitation policies and framework however do not yet profess a clear political/governmental objective of nationwide adoption and implementation of SLTS.

Governmental institutions using CLTS/SLTS

The Community Water and Sanitation Agency, an autonomous government division with the mandate 'to facilitate the provision of safe drinking water and related sanitation services to rural communities and small towns in Ghana' (CWSAGH, 2013), uses the CLTS approach since 2007. Magala & Roberts (2009) explain their motivation to apply the approach: '*CWSA recognises that in relation to the cost of extending subsidies to households, the provision of public subsidies for household latrines has become unsustainable and therefore, the concept of CLTS is being promoted to create the demand and congenial environment for households to invest in sanitation. <u>However, due to the high positive impact on school children in particular, construction of institutional latrines will continue to be subsidized</u>.*'

[12] Junior Secondary School
[13] Senior Secondary School
[14] Community based organizations
[15] Faith based organizations
[16] International Non-Governmental Organisation

CWSA's engagement with schools in Ghana is based on equipping the primary and secondary schools (institutions) with latrine facilties. In section 4.5 [physical characteristics], I give examples of the CWSA providing hand washing facilities to schools. They mainly seem to work the hardware side of school sanitation delivery. No further reference is made to the importance of child rights and participation within their use of CLTS. In fact, Magala & Roberts (2009; 53) state: *'there is no evidence of child participation in CLTS in Ghana, except for Plan Ghana'.*

Section conclusions

The overall conclusion after analysing Ghana's current sanitation framework and policies show no current uptake of SLTS. References are made in policy strategies to eliminating open defecation and CLTS – SLTS, however, is not politically/governmentally acknowledged (yet) as a preferred approach. Among the key recommendations by Magala & Roberts (ibid), after their analysis of CLTS in Ghana, is their recommendation to develop a national CLTS strategy, including SLTS and child-to-child approaches. This makes clear that CLTS and SLTS still have a way to go, before being nationally adopted.

On the software side of school sanitation delivery policy analysis shows the governmental SHEP program is concerned with hygiene promotion. In their endeavours they are encouraged to seek the cooperation with other parties that may draw on CLTS/SLTS. The hardware side of school sanitation delivery in Ghanaian policies consists still of a subsidy aspect, opposed to the non-subsidy character in CLTS.

In the following section the focus is further on implementers of CLTS/SLTS, some of these already passed by in this section. I look at how these implementers make use of CLTS/SLTS, particularly when applied in schools, in order to obtain characteristics of the SLTS approach in Ghana.

4.3 Approach characteristics of SLTS in Ghana

The SLTS approach consists of a range of aspects. More specifically these are the aspects, or characteristics, on which I reflect. In other words, the questions that are interesting to me are: *who is implementing CLTS/SLTS in Ghana. Then I ask myself the question what objectives implementers of this approach in Ghana have*[17] *and how these are achieved. Who comes in the process and what activities is this process made of in Ghana?* This final question consist of two parts. The process of school children's triggering, and the process of school children triggering others.

Implementers of CLTS & SLTS in Ghana

The initial introduction of CLTS in sub-Saharan Africa goes back to 2005-6 for Ghana, Nigeria and Ethiopia (Hickling & Bevan, 2010), being adopted by some of the countries' working NGOs. In Ghana, CLTS was first piloted in 2006 and 2007 in four regions by a joint effort of the Community Water and Sanitation Agency (CWSA), NGOs (i.e. Plan, UNICEF) and development consultants. A learning trip to Bangladesh and Ethiopia in 2007, organized by UNICEF aimed to further facilitate understanding of the approach among future CLTS implementers in Ghana (CLTS-site, 2011h). The International NGOs UNICEF, WaterAid and Plan Ghana were among the main players for spreading CLTS in Ghana. A national level training workshop headed by CLTS founder Kamal Kar in February 2011 equipped Plan Ghana, UNICEF and government personnel from various agencies with the right capacities for CLTS implementation (Plan Nederland, 2012). On the CLTS-site (2011h) it is quoted that: *'CLTS has been*

[17] Coinciding with step 2 and 3 of the Precede-Proceed Model

identified as the approach that has demonstrated the potential to propel Ghana back on track to reach its MDG target on sanitation.'

Initially, and even now, in several locations, CLTS is not implemented in combination with SLTS. Demedeme and Nutsugah (2009) point out, most CLTS projects tend to side-line children, since 'programme triggering' activities in the community are usually during weekdays when children are in schools (). The authors (ibid) have written about this pointing out that CLTS processes implemented without children's participation might be unsustainable (ibid). The national training workshop, conducted in February 2011, to boost country wide scale up of CLTS mentions *'developing a strategy to harness the power of children to promote ODF declaration in their communities in the Ghanaian context'* (CLTS-site, 2011h). Strictly this does not recognize SLTS yet as a unique approach, which it was identified to be in Nepal. The term SLTS then remains unused so far by many CLTS implementers in Ghana. Those cases reporting children's involvement are typified as 'children in CLTS' (Sarpong, 2011).

According to another report (Magala and Roberts, 2009) child participation in CLTS is restricted to projects implemented by specific NGOs, such as NGO Plan Ghana. The authors report on a case of the Aboano community in Ghana, where the local school health club assisted in community sensitization via drama and songs. Beside these activities, children were trained and encouraged to act as 'watchdogs' during the CLTS process. This included activities, such as scanning the community for adults defecating in the open, hooting at offenders (defecating in the open) and confronting these persons with the no-open-defecation rule as outlined in the CLTS strategy for the community (ibid). Incorporation of children in CLTS initiatives by Plan Ghana should be to no surprise, given the organisation's identity of being an international, humanitarian, child-centred, development organisation devoted to improving children's lives.

What are the objectives of Plan Ghana under SLTS?

From SLTS's country of origin, Nepal, in 2006 a guidelines manual on School-Led Total Sanitation was presented by the Nepalese Steering Committee for National Sanitation Action, Department of Water Supply and Sewerage and UNICEF Nepal. The SCNSA's 2006 guidelines manual on SLTS states the following concerning the prime objective of SLTS:

'SLTS aims at making the school and its catchments free from open defecation with the collaborative efforts of the stakeholders. IPRA tools are used to sensitize the students, teachers, parents and communities about health hazards caused by open defecation.' (SCNSA, 2006; 10). Kamal Adhikari (Adhikari, 2010; 1), sociologists for the Nepalese Department of Water Supply and Sewerage states the same: *'SLTS aims to achieve universal toilet coverage within the given program areas (school catchments) followed by good hand washing and hygiene behavior.'* Adhikari (ibid) stated that under the SLTS initiative, schools were the entry points for wider societal changes, and students the agents of change.

Both statements above indicate that the basic idea behind implementing SLTS was to make schools and areas around the school open defecation free[18]. Peal et al. (2010; 93) as well highlight that the catchment area of the school defines the target area.

[18] School catchment area, the school area and adjacent community areas where the school student live

Sarpong a WASH advisor at Plan Ghana, when describing the CLTS triggering process of the Oboyambo community in Ghana, refers to children as the hygiene ambassadors in the community, since they carry hygiene messages across their community and promote hand washing with soap in their schools and homes (Sarpong, 2010).

In his report on the triggering of the Kanchau school in northern Ghana, Sarpong (2011) expresses a similar resolute perspective with a focus here, on girls: *'girls can influence their peers, ..persuade their parents to construct latrines, ..and girls have courage and selfless working spirit to support community/school achieving ODF'.* A national level training workshop on CLTS, organized February 2011 in Ghana, highlighted the the *identification and development of children's role as pressure groups in making parents and children's communities conform to ending open defecation practices'* (CLTS-site, 2011h).

Implementers and endorsers of CLTS in Ghana than in some cases can be noted to push forward children's involvement in CLTS for ensuring the realization of ODF communities and schools. Stemming from the claims above by Adhikari (2010) this can be recognized as the main objectives of SLTS in Nepal. A second objective, coming from the trend to ensure children's right to participate, would be children's engagement in community triggering activities. Both main objectives are presented in Figure 14. The actuality of these main objective for Ghana should be questioned, since SLTS is not identified as a separate approach in Ghana, as it is in Nepal. In line with the Precede Proceed Model (PPM) as discussed in chapter 2, the main-objectives are preceded and realized by a set of sub-objectives. These are as well presented in Figure 14. Again the question is to what extent current 'children in CLTS' processes in Ghana apply to this SLTS model. In the following section I will look at own case study findings, and reports of others on SLTS/Children in CLTS in Ghana to identify if SLTS/Children in CLTS processes in Ghana can be seen to consist of similar objectives and sub-objectives. The various arrows directing from the sub-objectives' boxes towards that of the main objectives in Figure 14 display what sub-objective ensures the realization of what main objective. Becoming clear from the figure is all sub-objectives contributing in realizing prime objective one. Since all sub-objectives entail a part of the school and school catchment area, they all influence head objective one: the school and its catchments areas becoming altogether open defecation free. Prime objective two is singularly influenced by the sub-objective of children practicing and promoting new health behaviors. Though the difference between main objective and sub-objective seems marginal, they should be understood distinctly different, since main objective two describes the disclosure and realization of children having been engaged in the community triggering activities, which is the result/outflow of individual, separate child promoting actions (sub-objective two).

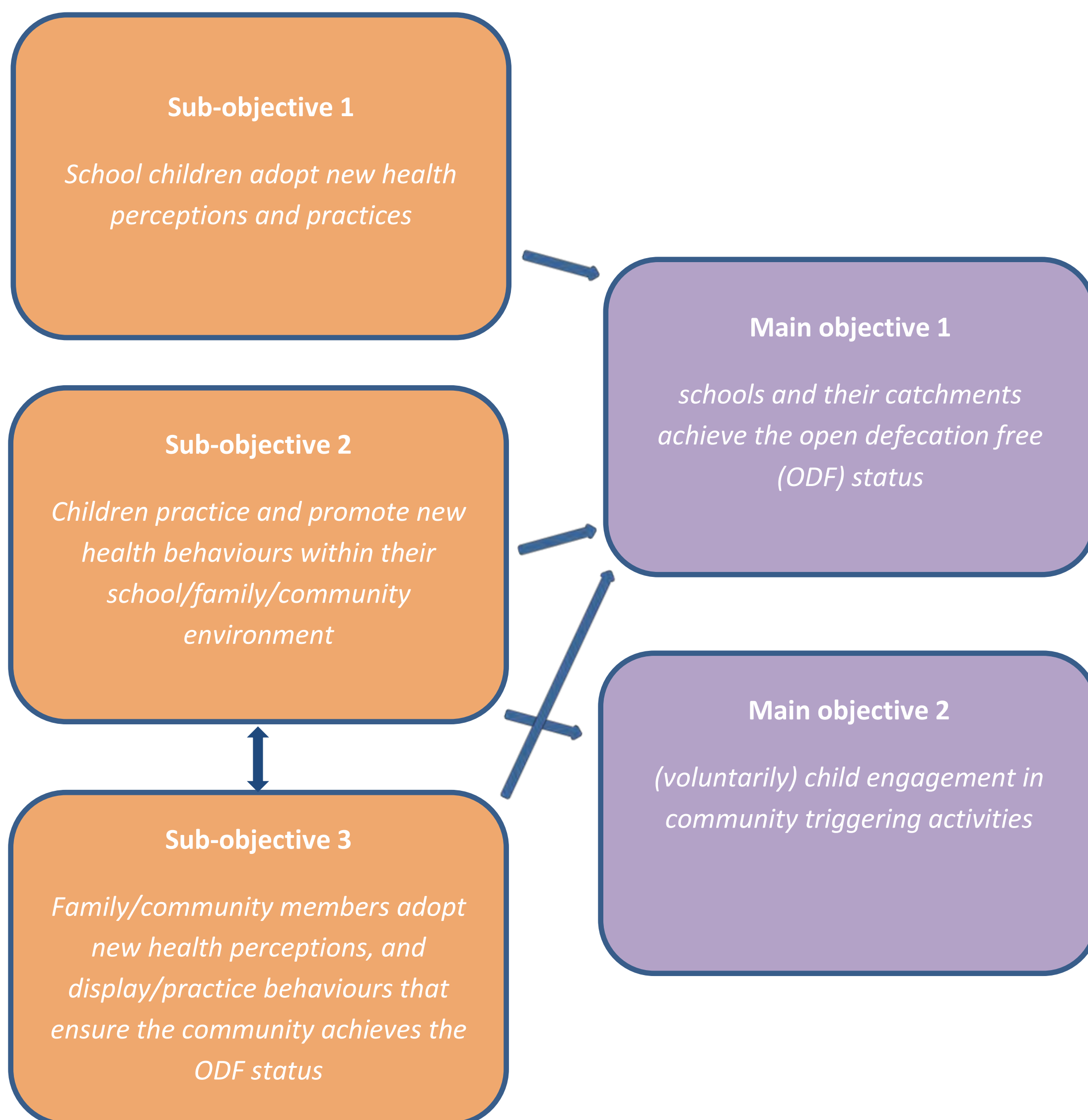


Figure 14: main objectives and sub-objectives of the SLTS approach, intervention program and their interrelations

SLTS/'Children in CLTS' processes in Ghana

In this section I will look at the processes SLTS/Children in CLTS in Ghana consists of. Some of these processes may coincide with the identified sub-objectives for SLTS in Figure 14. Two central processes conveyed by these sub-objectives, and that are discussed below is the process of triggering school children and the process of school children triggering others, see Figure 15.

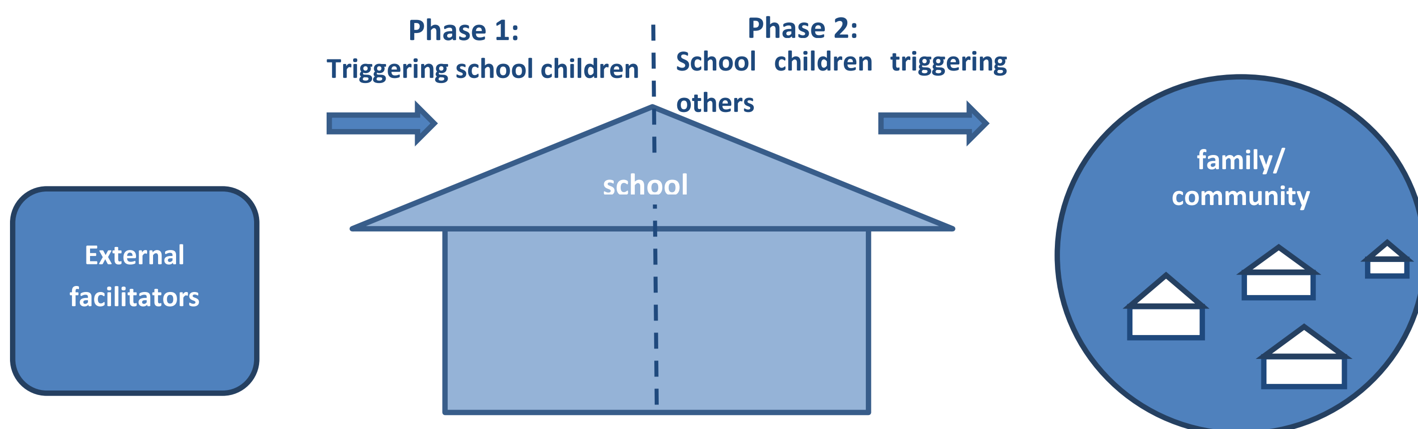


Figure 15: triggering processes in SLTS/Children in CLTS

The process of triggering school children starts with a triggering of sanitation behaviors amongst school children. In the following section I look at and regard: *Who does the triggering of school children in Ghana? What activities are used for triggering school children?* After answering these two questions I highlight two processes for triggering of school children in Ghana: one which involves school health clubs, another which involves health nurses/facilitators from a governmentally supported school intervention program. After that I go into the process (phase 2) of school children triggering others. *Who do school children trigger and how?* Findings in this section will give an indication if and how SLTS/Children in CLTS processes in Ghana align with the sub-objectives in Figure 14. This helps in further answering research objective one: *distilling characteristics of SLTS in Ghana.*

Phase 1: the process of triggering school children

Plan Ghana is among the key implementers of the CLTS approach in Ghana, and is currently the only international NGO implementing SLTS in Ghana. As shown in Figure 16, Plan Ghana works with local NGOs, school teachers, and through school health clubs in the process of triggering school children. Besides Plan Ghana other Ghanaian institutions also aim to sensitize/trigger sanitation/hygiene behaviour change in schools and amongst school children, but their programs are not promoted as SLTS.

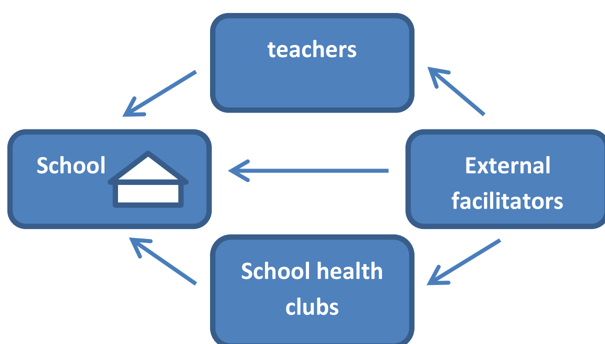


Figure 16: actors involved in triggering of school children

The mediating role of teachers and school health clubs was evident from my visits to the four schools – Odichirase, Mankessim, Koliete and Surpong Ric – described in the methodology chapter. Two triggering cases were also described by Sarpong (2010; 2011) for the schools of Kanchau and Oboyambo, see Table 9.

Table 9: reported triggering agent(s) per school

School	*informing agent*
Odichirase	▪ Teacher
Mankessim	▪ Teacher ▪ SHEP nurses
Koliete	▪ RUWSS[19] facilitator
Surpong Ric	▪ Teachers ▪ Health club members
Kanchau	▪ Plan Ghana facilitator
Oboyambo	▪ Partner organization of Plan Ghana ▪ health club

[19] Acronym for Rural Water and Sanitation Services, a local based NGO operating in Ghana

In three of these cases, teachers take up informing/triggering roles on hygiene and sanitation practices. In Odichirase pupils were informed by their teacher as the sole instructor on these matters, in Mankessim and Surpong Ric teachers worked with so-called health nurses of the SHEP[20] program (see footnote) or the local school health club respectively. Children of Koliete school informed that Mr. Jabba, a local NGO facilitator, taught them about the importance of hand washing and latrine use. The cases described by Sarpong (2010 & 2011) involve either a facilitator from Plan Ghana or a partner organization in the school triggering process. Further ahead in this paragraph section I expand on the involvement of school health clubs and SHEP nurses in the school triggering processes in Ghana. For the health clubs members and teachers' involvement in the school triggering process however it can already be noted that this step was preceded by these groups attending a regional triggering workshop organized by Plan Ghana. Further focus in the interviews with students and teachers was learning about the activities that were used during the triggering process, see Table 10.

Table 10: reported triggering activities used in schools

School	*Triggering activities*
Odichirase	▪ Teacher teaching in class on importance of hand washing and dangers of open defecation
Mankessim	▪ In class teachings on importance of hand washing and dangers of open defecation ▪ Hand washing demonstrations in school by SHEP nurses ▪ Central school assemblies educational sessions
Koliete	▪ RUWSS facilitator teaching children about germs, hand washing and hygiene
Surpong Ric	▪ Teaching children on hygiene matters ▪ Demonstrations of hand washing in schools and vocal endorsement by health club
Kanchau	▪ 'Glass of water' method
Oboyambo	▪ Promoting of the hand washing with soap campaign ▪ Drama, role play and quiz competitions

Prevalent among the activities used here is the in class or more centrally hygienic and sanitary teachings by either teachers or external facilitators. Children of the schools of Mankessim and Surpong Ric explicitly mentioned the use of hand washing demonstrations in the triggering process which in Mankessim were performed by the SHEP nurses and in Surpong Ric by members of the local school health club. Sarpong (2011) describes the triggering process of children of the Kanchau school via the *'glass of water'* method, see Box 3.

Box 3: case of the 'glass of water' method applied in Kanchau, Upper West, Ghana. Source: paraphrased from Sarpong (2011)

School triggering in Kanchau basic school, Upper West Region Ghana

''There was a drinking water competition which involved boys and girls during the triggering activities. In all, three students volunteered including two young girl of age 12 and 13. They were given an equal amount of clean water to drink.

At the end of the first round, it was not clear who won the competition because they all finished drinking the water virtually at the same time. A second round trip drinking competition was proposed and the facilitator requested a little amount of shit to be added to the water. It was expected that the school children would drink since it was a competition but surprisingly, none of the competitors was ready to take the glass of water to the mouth, let alone, to drink the water being served.''

[20] Trained nurses and facilitators within the School Hygiene and Education Program, a unit of the Ghana Education Service (Ministry of Education) whose mission is to provide comprehensive health education and services, and ensure the availability and use of water and sanitation facilities in schools (GES, 2012).

The glass of water method is referred to as one of the triggering activities applied in the Kanchau case. This method builds on the self-realization aspect of individuals; realizing for themselves the water is contaminated and unsafe to drink. Kar & Chambers (2008) as well describe the glass of water method in their manual on CLTS (Kar & Chambers, 2008, p. 35). Variations on the exact execution occur. Some facilitators take a human hair, stroke this through faeces and put it in a glass and then ask their audience to drink the glass. Reactions however are largely the same and coming from the people themselves. Kar & Chambers (ibid) stress for the importance of asking the audience why they refuse to drink the glass after the hair made contact with the glass of water. People's response that there is now shit/faeces in the glass amounts to the self-identified risk of faeces ingestion. The external facilitator can built further on this realization by pointing out flies have six legs, meaning more contact with faeces than even just one hair, and that the risk of faeces uptake via drinking water, food is higher than one priory thought (Kar & Chambers, ibid).

As for the case in the Kanchau school, after the students participating in the drinking water competition realized they would be drinking their own shit/faeces, one of the students remarked the same risk of drinking polluted faecal water was existing in their community for the wells and ponds were people defecate nearby. Sarpong (2011) describes one student readily promising to change current relieve practices by stopping to defecate behind the classrooms and near wells.

The triggering activities of the Oboyambo health club are described by Sarpong (2010), see Box 4. Beside this health club engaging in school triggering, Sarpong also reports the club's involvement in wider community triggering. In the next section I will expand on the role of health clubs in the school triggering process.

Box 4: the school health club of the oboyambo community

Formation of a children's club in the school
Through the CLTS process, a club was formed by the children to carry hygiene messages across the community. The children used drama, role play and quiz competitions in the awareness creation process. [...] The club periodically cleans the communal latrine and sweep streets. They also promote hand washing with soap campaign in school and at home. In short, the children are the hygiene ambassadors in the community.

School triggering process via the health club

Above in Table 10 and Box 4 the involvement of health clubs in the process of school triggering was already described. School health clubs can be understood as follows: '*Students who are interested in health and hygiene issues at their schools and in their communities come together to form School Health clubs, through which they identify health risks and devise their own activities to address them.'* (CRS, 2009, p. 9). Though the cases above in Box 4 described the formation of school health clubs via Plan Ghana's CLTS process setting up of school health clubs in Ghana does not confine itself solely to this NGO. The earlier mentioned SHEP nurses, are part of the so called SHEP programs, acronym for School Health & Education Program. This program which falls under the direction of the Ghanaian Education Service – operational unit of the Ministry of Education – as well uses the formation of local school health clubs. Concerning the SHEP program the following is reported: *'Centerpiece of the program (SHEP) is the School Health Club, which endeavors to empower children as agents promoting good health, hygiene and sanitation to their peers and parents'* (CRS, ibid; 12). A field guide for the strengthening and formation of School Health Clubs, prepared by IRC, NETWAS Uganda and Caritas,

phrases it as follows: '*To stimulate and increase children's awareness of improved hygiene; to promote the adoption of better practices..'* (IRC *et al.*, 2012). The case of the school health club of Surpong Ric being trained in a centrally organized workshop organized, in this case by Plan Ghana, is also reported to be used in the SHEP program, see Box 5.

Box 5: example of a School Health Education Program (SHEP) club training in Assin North, Central Region

Training School Health Clubs in Breku, Akunfidi Communities, Central Region

November 30th, 2012

Also this week, the Ghana WASH Project's BCC (Behavior Change Communication) Agent in the Central Region, Lambert Konlan, lead School Health Education Program (SHEP) Club Trainings in Breku and Akunfidi, Cluster of Schools, in Assin North. The SHEP trainings included participants from a total of six schools: primary and junior high schools in Breku, Akunfidi and the district assembly primary school.

Engaging schools is a key focus of the Ghana WASH Project, particularly through the School Health Education Programs.
Pictured: A Ghana WASH Project officer leads SHEP activities at Assin Kumasi school, Central Region.

Topics covered included hand washing with soap (or ash) under running water, the five critical times for hand washing, general environmental sanitation, personal and food hygiene and understanding the fecal-oral transmission route. Konlan also engaged participants in the three and two-pile sorting cuts, an activity in which participants categorize hygiene behaviors as either positive, negative or in-between, creating discussion on recognized behaviors in their communities, and how to improve upon negative and in-between behaviors. Participants included six SHEP teachers (one from each school), as well as 120 pupils from the different SHEP clubs. The SHEP clubs work to ensure equal representation between boys and girls.

Source: Ghana WASH Project, 2013

This example makes clear the use of health clubs in school triggering is a much seen method throughout Ghana. At a first instance solely members of the school health club are triggered, the entire school is required to be triggered later by this first group of health and hygiene 'pioneers'. Reports by teachers and students from Surpong Ric school affirmed this 'passing on' of learned lessons was done in the school via hand washing demonstrations. The uniqueness of this approach is that the external facilitating organizations train and instill new perceptions in a small group of a larger target group. This small group, see Figure 18, which can be referred to as 'pioneer promoters', bears the task of persuading and instilling new perceptions (and practices) in the rest of the target group. Since under this method via the school health club new health perceptions and practices are expected to *ripple through* the rest of the school, the method can graphically be depicted as a drop falling into a bucket and causing a ripple effect (triggering) in the rest of the water (school population), see Figure 17. One 'drop of the bucket' is sensitized/trained on the matters of hygiene and sanitation in the hope that soon the rest of the bucket will follow, based on the belief that: *'children are great carriers/vessels for news and ideas to peers, family and the community'* (CRS, 2009).

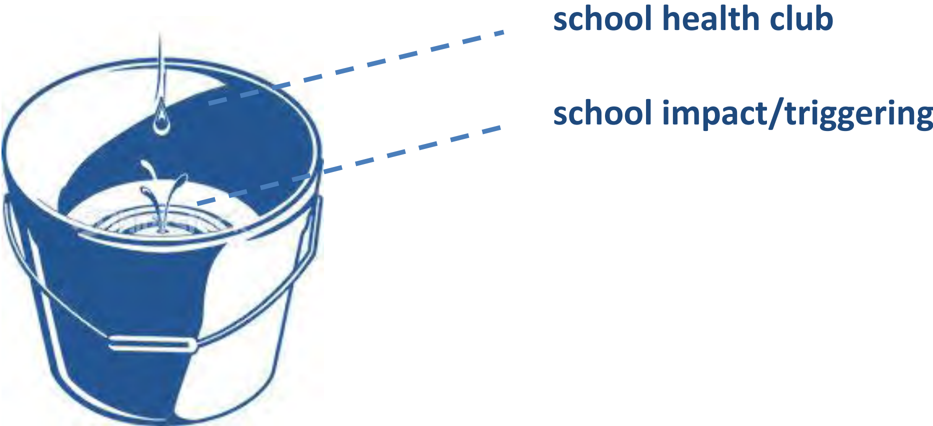


Figure 17: graphical representation of the health club school triggering method. Source: thinkstopphotos.com

Figure 18: health club members of Koliete school in front of their school latrine facility

School triggering process via the SHEP program

Whereas above the influence of external parties on the school is more indirect, via the school health club, in the second method presented here, external parties involvement and direct influence (impact) on the school is higher.

Students of the Mankessim school, as well as the school's headteacher, informed on the sensitization process that had taken place in their school. Pupils interviewed at this school informed teachers and nurses from the (governmental) SHEP program taught them the importance of hand washing. Activities used were health lessons, providing and using health and hygiene teaching materials, hand washing demonstrations and central school assemblies to address hygiene related topics.

In this method there is a synergy of teachers and external facilitators co-working in the process of conveying new practices and perceptions to children. Teachers' involvement is not ad hoc[21], but is preceded by teacher training workshops. The interviewed head teacher of Mankessim school informed, he and other teachers took part in these workshops, organized by Plan Ghana. The workshops covered a.o. the matter of hand washing and importance of latrine use.

CRS (2009) also informs on this process and describe a process of school health teacher designation, by the GES (Ghana Education Service) regional and district school health coordinator. CRS (ibid) on page 18 of their Child-led School Health education manual, explain: *Each SHEP school has a point person, known as the school health teacher, who is responsible for the day-to-day mobilization, coordination, and implementation of school health activities at the school and community level. The school health teacher is the pivot around which the CRS/Ghana SHEP program revolves. S/he coordinates the day-to-day activities of the program with fellow teachers and students, in consultation with community leadership structures such as the community school health management committee.'*

In this case teachers receive external training, rather than the health clubs. However combination of health clubs and teacher training workshops are as well reported. In the case of Surpong Ric school, one teacher attended a workshop by Plan Ghana, and later on furthered learned lessons during the workshop to other teachers. So one should take into account that a combination of health club trainings and teacher trainings at schools as well occur. Even Box 5 mentions six 'SHEP' teachers taking part in the health club trainings. In the case of Mankessim school solely the training of teachers in externally organized workshops was reported. Figure 19 shows the set-up of such a training, with on the left a public health nurse of the SHEP program.

Figure 19: Teachers and community members during a SHEP learning session. Source: CRS, 2009; 18.

[21] Prompted by the occasion rather than being planned in advance (thefreedictionary.com)

After these training sessions the process of sensitizing the entire school can start. Teachers and health nurses jointly direct their attention at the entire school student population, convey new practices and teach on hygiene and health related topics. In some cases, if in place, a school health club co-works with teachers and external facilitators in the process of school triggering. Since all of the students are sensitized at once, figuratively this method can be seen as a wave, in which new health perceptions and practices bestow upon[22] the entire school at once, Figure 20. This is opposite to the so called 'ripple-effect' method described above, in which health club members influence their fellow peers (over time). Health nurses in the SHEP program who regularly re-visit the school for follow-up (CRS, 2009) can be grasped as a second, recurrent wave.

Figure 20: wave method used for conveying health perceptions and practices to the entire school population at once.

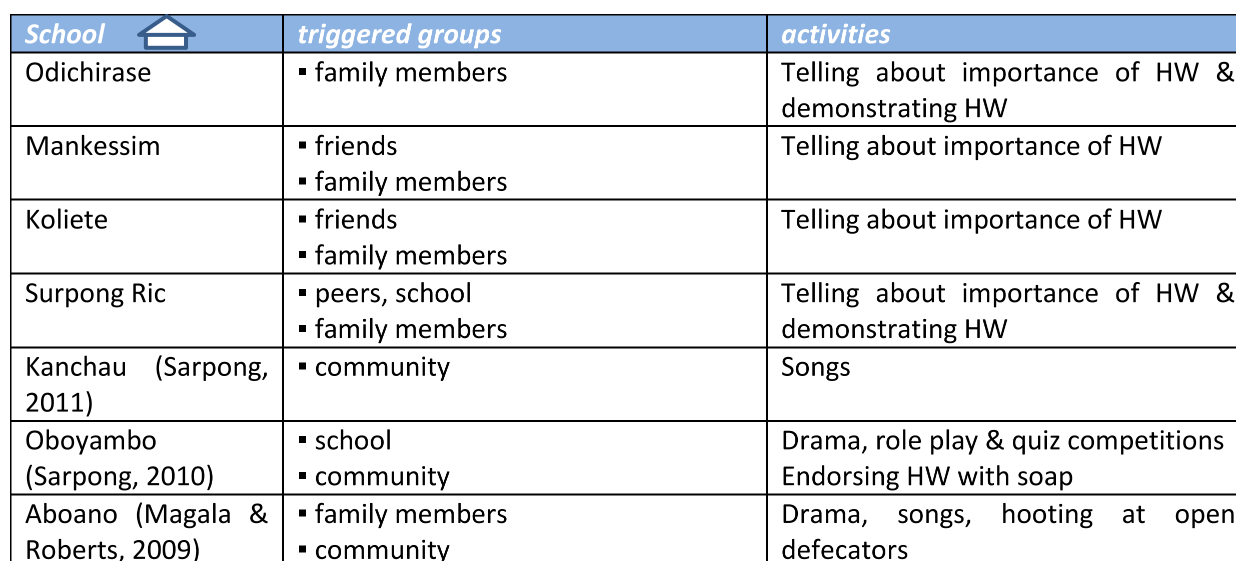
Phase 2: School children triggering others

Priory in this paragraph the objectives under SLTS in Ghana were analyzed, resulting in two main objectives and three sub-objectives, see Figure 14. Whereas the main objectives rather present a *status quo,* sub-objectives one, two and three encompass a process. In the section above this process was described for sub-objective one in Ghana: 'school children adopting new health perceptions and practices'. Health clubs in Ghanaian schools were identified as forming a centerpiece in this process. However they are not alone in this process, and are first trained/triggered themselves by external organizations or they co-work with their teachers in this process. As well, the combination external facilitators co-working with teachers was observed (SHEP program) or external facilitators completely bearing this process themselves, as what was reported in Koliete school.

In this section the focus is on the second sub-objective: 'school children practicing and promoting new health behaviors within their school, family and community environment'. Children performing a so called 'nexus role' by extending learned practices and lessons in their schools towards their family and community members. In Table 11 an overview is given on the reports of interviewed children, teachers and community members on this process. Further, both case studies earlier used and described by Sarpong (2010; 2011) are involved. Another Ghanaian case study is incorporated in this table, described by Magala & Roberts (2009; 53, 54). This case describes the school health club of the Aboano community sensitizing their community members via drama and songs. Plan Ghana facilitated this process.

[22] One could also use the term 'wash over' to described the process of diffusing hygiene and health lessons on the school, but since this implicitly bears a negative connotation, here I prefer to refrain from its use.

Table 11: school children triggering others, groups and activities



School	triggered groups	activities
Odichirase	▪ family members	Telling about importance of HW & demonstrating HW
Mankessim	▪ friends ▪ family members	Telling about importance of HW
Koliete	▪ friends ▪ family members	Telling about importance of HW
Surpong Ric	▪ peers, school ▪ family members	Telling about importance of HW & demonstrating HW
Kanchau (Sarpong, 2011)	▪ community	Songs
Oboyambo (Sarpong, 2010)	▪ school ▪ community	Drama, role play & quiz competitions Endorsing HW with soap
Aboano (Magala & Roberts, 2009)	▪ family members ▪ community	Drama, songs, hooting at open defecators

Other activities reported for Aboano's school health club are 'acting as watchdogs', scanning the community for open defecators and hooting at confronting those caught in the act of doing so. From the seven cases above in Table 11, this case comes forth as the most aggressive and outwards focusing triggering process. The cases described by Sarpong (2010 & 2011) as well are reported with an outward triggering focus on the wider community, opposed to reports from the four personally visited schools. Resemblance between the Aboano and Oboyambo case is that in both cases the local school health club is reported as engaging in the process of triggering others. This role also came forth from reports by health club members of the Surpong Ric school. For the Kanchau case Sarpong (2011) reports students composing songs and chanting these in the streets of the community.

Reports from interviewed pupils of Odichirase, Mankessim, Koliete and Surpong Ric indicate their 'nexus role' reached towards their friends and family members. Overall less outwards focusing than the lower three cases in Table 11 with triggering elements aiming at the community. Besides this, the activities employed were more of a modest kind, less aggressive, compared to the Aboano case. For this latter case *'some of the children indicated that this had exposed them to some level of danger as some of the adults grew furious when confronted'* (Magala & Roberts, 2009; 54).

In the following paragraph, deriving from Ghana's social hierarchy, I make an argument why such type of aggression may occur and that the process of school children triggering others, beyond their schools, faces cultural inhibitions in Ghana.

Section conclusions

In this section (4.3) the triggering processes of SLTS/Children in CLTS in Ghana were described. As I outlined at the start of this section these processes consist of two phases: that of triggering school children and school children in turn triggering others. Regarding the first triggering phase two questions were central: *Who does the triggering of school children in Ghana? What activities are used for triggering school children?* Analysis of the school triggering phase in Ghana shows an array of triggering agents can be defined. From the school itself teachers and students partaking in the school health club extend messages and new practices to school students. Often these 'school based' triggering agents are engaged first by facilitators coming from outside the school. These, who can be

called ‘external facilitators’, first acquaint teachers and health club members with new hygiene lessons and practices. Central are lessons on the existence of germs, the need to wash hands, and the dangers of open defecation. The workshops organized by external facilitators for health club members and teachers disseminated such lessons (see Box 5). Within the SHEP program so called teacher workshops were organized, specifically for teachers (Mankessim case).

After such first acquainting with new lessons and practices teachers, health club members, and external facilitators jointly trigger the rest of the school, or this is exclusively done by teacher(s) or teachers and health club members. Two out of six reviewed cases did not built on such a model. Triggering of school children in Kanchau and Koliete was done exclusively by an external facilitator.

As for the activities used in this process, for all three triggering agents (teachers, health club members & external facilitators) it was found that they pass learned lessons on verbally. This can either be in class, or during central school assemblies. Such assemblies may also be used for demonstrating hand washing. Two cases reported by Sarpong (2010; 2011) describe use of quiz competitions, drama, role play (Oboyambo case) and the ‘glass of water’ method (Kanchau case).

For the process of school children triggering others, phase 2, two similar questions as asked for analyzing phase 1 were raised: *who is triggered & how/via what activities?* In Figure 14 I defined that the second sub-objective of SLTS in Nepal is *‘school children practice and promote new behaviors to peers, family and community members’.* Answering these questions for SLTS/’Children in CLTS’ in Ghana provides a base for comparing the outward focusing triggering element from both countries. Regarding the first question, my own case study findings point toward a sharing of learned lessons to peers and family members, mainly by telling. The three cases from literature do mention triggering of the wider community. In Kanchau this occurs via school children singing songs in the streets of their community. For the Aboano case as well singing of songs is mentioned, plus drama and hooting at open defecators. Oboyambo similarly uses drama, plus role plays and quiz competitions.

From these findings it is impossible to empirically answer if the process of triggering others by school children in Ghana always occurs. Findings from the schools I visited indicate schools are not always actively reaching out to their communities. Sarpong (2010) does mention use of more active methods, see Table 11, but does not specify whether these activities were employed in the school, community or both. From these findings the second sub-objective, *‘school children practice and promote new behaviors’*, can therefore not be seen as always applying to SLTS/’Children in CLTS’ in Ghana.

In the following section I regard the two triggering phases from a social perspective. For phase 1, triggering of school children, I highlight the influence of the teacher on this process. For phase 2, school children triggering others, I make note of the culture of ‘respect for elders’ in Ghana and the central role village chiefs fulfill in disseminating new community practices.

4.4 Social characteristics influencing SLTS processes in Ghana

Any program intervention aiming to alter behaviors of its intended audience has to deal with ‘the social element’ in its program. PPM defines this social as existing community norms, beliefs and practices. These can be conducive for new learning and adoption of practices, or vice versa; counterwork the take up of new perceptions and practices.

Interventions of SLTS/'Children in CLTS' in Ghana should be recognized as being influenced by a same set of community norms, beliefs and practices. In this section I highlight three social characteristics which are likely to affect SLTS triggering processes in Ghana.

- Teachers' influence in the process of triggering school children
- Ghana's social hierarchy affecting school children triggering others
- Village chiefs' influence in the process of school children triggering others

In this section, and chapter, I solely introduce and make reference to these social characteristics. In chapter 5 [implications], section 5.3, I expand on the influence of teachers and Ghana's social hierarchy and answer the question: *what do these social characteristics imply for SLTS/Children in CLTS in Ghana.*

Teachers' influence in the process of triggering school children

As came forward under the section 'school children's triggering', teachers' participation in triggering of pupils is not uncommon. However their role goes beyond familiarizing pupils with hygiene and sanitation lessons. Their in-school presence also allows for in-school monitoring. They can take up an endorsing role and assure the continued application of safe defecation and hand washing practices in schools. This endorsing role can range from teachers urging pupils to wash their hands to teachers penalizing those students still defecating in the open.

In Mankessim interviewed students informed their teacher urged them to share what they learned with their parents at home. Students from Odichirase, Koliete and Surpong Ric reported any peers still defecating in the open risked punishment by their teacher. In Ghana's education culture this is traditionally done with the cane[23]. This penalizing practice was observed while conducting interviews in the Surpong Ric school and I was personally informed on by a German teacher/pedagogue student, doing his internship in a primary school in Accra. The head teacher of Mankessim school indicated punishing students caught still defecating in the open.

Teachers here can set the rules and social norms. Though their influence here can be seen as beneficial for the desired end of none open defecation, the means of physical penalizing used to achieve this can instil a sense of fear and timidity in children. In chapter 5 'implications around SLTS' I expand on this point and draw on statements and examples from Ghanaian researchers that re-examine the possible role and influence of teachers in SLTS processes in Ghanaian schools.

Ghana's social hierarchy affecting school children triggering others

In the preceding paragraph it was observed that not all SLTS cases contain a strong element of community triggering, see Table 11. Even if there is a form of community triggering, this is not always openly welcomed, as the Aboano case illustrated (Magala & Roberts, 2009; 54). Hooting practices at open defecators by children in the this community made clear children faced a risk of offensive adult reactions. A response from a health club member of the Koliete school in Ghana gave notice of a similar reaction. When confronting his parents with the dangers of open defecation and urging them to construct a latrine they started scolding at him

CLTS/SLTS implementers have reported such cases before, beyond the realm of Ghana (Kar & Chambers, 2008; 41; Gautam *et al.*, 2010;. 5). The outcome of an international workshop and

[23] A twig or a small stick of around 70 centimetres and a about finger thick.

learning experience on SLTS in 2010, involving ten countries implementing the approach, concluded that for six countries it was culturally unacceptable for children to confront and reprimand elders on their open defecation practices or to participate in community decision making institutions and speak out in public (Kangamba & Tunsisa, 2010; Plan Uganda, n.d. on IRC-site).

Ghana appears to be no difference in this and bears a strong culture known as *'respect for elders'*. In conversations with Plan Ghana staff, research participants and regular Ghanaian citizens the importance that age takes up in Ghanaian society again and again came to the foreground. One colleague during my stay remarked, if you meet someone that is just one year older than you are than you treat him with proper respect and regard that person as your elder brother or sister and those of an elder generation as your mother or father. Kwintessential (2008) & ROV-Ghana (2010) report that these traditional views go beyond the domain of formalities and extend to the field of friendships and communal relationships in which it is quite common for two friends to refer to one another as 'my brother' or 'my sister' and to refer to persons of an older age as 'senior brother/sister, uncle, auntie, father, mother'. Denoting peers, friends, colleagues, community members in this way in Ghanaian culture, encompasses that these persons are to be treated with a likewise courtesy and respect as to one's own brother/sister, mother/father.

The following conclusions and case by Björnsdóttir (2011) in his report: 'Children are agents of change – participation of children in Ghana', further reflects the inhibitory side of Ghana's culture to child participation, see Box 6.

Box 6: Ghana's sociel hierarchy and the challenge of child participation. Source: Björnsdóttir, 2011, p. 78, 79.

The tradition of respecting your elders, which reflects the social hierarchy in Ghana quite well, was also identified as a cultural obstacle to children's participation. Although many Ghanaians believe respect for elders to be a very important cultural tradition, which should not be sabotaged, many interviewees believed it can be a barrier when it comes to children's participation. [...]

During the fieldwork it was common to hear adults argue that children 'can get spoiled' by increasing their rights (to participate). Further, an adult interviewee said that even in the churches people are told that those who argue for the importance of child rights are trying to spoil the children. Both adults and children in the study believed this negative aspect of participation engenders because adults feel the tradition of respecting elders is intimidated. Further, they fear that by allowing children to have more to say in the society, their own voices will be valued or respected less. [...]

An adult interviewee described the household 'bureaucracy' for me. She claimed that it is important to respect the person who dominated the house; the father. When the father comes home from work the mother has to welcome him and allow him to be the first one to speak. When he has finished all what he wants to say the mother is allowed to talk. Next is the oldest child and that's how it goes until it is the turn of the last born child. In a household structure like this it can be quite challenging for a child to stand up and start talking before everyone else. According to the interviewee, it can be a barrier and a problem to participation, especially in rural areas where the traditions are prevailing. According to a boy, this structure or hierarchy can create a situation where the child is afraid or shy to express its views or even just to talk to adults about certain issues.

In chapter 5 when going into the implications of this culture, I argue and explain why perceptually more rigorous blaming and shaming techniques (whistling, hooting, flagging), mentioned by CLTS/SLTS implementers being used in various other countries (Kar & Chambers, 2008; Kar, 2003; Farooq Khan *et al.*, 2008; Adhikari & Shrestha, 2008; Adhikari, 2010), may be not that applicable in Ghana regarding its strong social structure.

Curtis (2011) points out that employing messages of disgust by whatever group has to be done responsibly, since these can lead to moralization and stigmatization. On the one hand tactics of shaming others can result in eradicating infectious diseases from a community, on the other hand such methods can stigmatize certain groups and disturb social cohesion (Curtis, ibid).

Given Ghana's social norms, children's role in triggering others knows some limitations and overall has to be based on the proper grounds. Justice George Boadi, one of Ghana's High Court Judges in Takoradi, in a recent program organized by the National Commission for Civic Education (NCCE) stresses the form in which children approach elders has to be given the proper attention. Young people should be able to correct adults, if these do things that have a negative impact on society, *'correcting of negative attitudes must be done politely, in such a way that does not denigrate or insult the adult* (Ghana News Agency, 2012).

Village chiefs' influence in the process of school children triggering others

Interviewed pupils from the Koliete school informed to hoot at and talk to anyone still defecating in the open and to report this to the village elders who will punish or fine the trespasser. Interview responses of community members from Koliete attested of the same. A person caught in the act of open defecation would be reprimanded, advised and would be reported to the village chief. The chief then has the authority to impose a fine of 10 Ghanaian cedis (GHC). The interviewed community and WATSAN member of the adjacent village Surpong Ric as well informed on this system and on any trespasser risking a fine of 50 GHC. In terms of Ghanaian minimum wage – 4.48 GHC per day[24] (MESW, 2012) - can be considered a significant amount.

Sarpong (2011) also reports on the role of the village chief for ending open defecation. In his case study report of SLTS triggering the Kanchau school, north of Ghana, Sarpong rolls out the reaction of one the female students in the Kanchau school:

'Others joined her to declare they will report anybody who would be caught defecating openly to the elders of the community'.

Overall from these reactions it becomes clear village chiefs take up an important role in ensuring and enforcing new practices in Ghanaian communities. Village chiefs' position not only influences behaviors engaged in by students, but behaviors engaged in by the entire community and thus have an influence on the process of school children triggering others. Odotei & Awedoba (2006) explain how the chieftaincy structure in Ghana survived the British colonial rule, and the present day position village chiefs fulfill, see Box 7.

[24] 4.48 GHC (Ghanaian cedis) is equivalent to $2.3, exchange rate as per September 24, 2012

Box 7: Chieftaincy in past and present day Ghana. Source: Odotei & Awedoba, 2006

' In West Africa, where the British policy of Indirect Rule (using traditional institutions to sustain domination) held sway, the institutions of chieftaincy have survived.'

'Chieftaincy is one of the most enduring traditional institutions of Ghana and has displayed remarkable resilience from pre-colonial through colonial and post-colonial times. Chiefs combined executive, legislative, judicial, military, economic and religious roles. In the past, an important role of a chief was to lead his people to war to defend, protect and extend their territories. The nature of warfare for the chief in contemporary times has changed. The enemy is now poverty, hunger, disease, squalor, illiteracy, crime, injustice, environmental degradation, depletion of resources, greed, covetousness, ignorance and conflicts. These are the challenges of the new millennium.'

Again from this box it appears that the current day role of village chiefs in Ghana's (rural) society cannot be ignored regarding the 'battling' of common day enemies of 'poverty, hunger, disease, [...], conflicts' and ditto open defecation.

Section conclusions

In this section three cultural influences were identified that must be considered and are likely to influence SLTS/Children in CLTS interventions in Ghana, namely:

- The culture of respect for elders
- Teachers authority to penalize
- Village chiefs as a central authority figure to report and that can steer community practices

In chapter 5, section 5.3 [social implications], I discuss implications for SLTS/Children in CLTS for the culture of respect for elders and teachers' authority to penalize. In this section I intended to make clear the existence of these socio-cultural characteristics or systems.

In the following section I look at physical characteristics around SLTS/'Children in CLTS' processes in Ghana. As explained in the fourth step of the Precede-Proceed Model: though intentions and social norms may be there to practice a certain behaviour, specific skills or means may be lacking to act on one's intention and practice the behaviour. The focus in the following section than is on the availability of latrine and hand washing facilities in schools in order for enabling children after they are triggered to wash their hands and defecate in a safe way.

4.5 Physical characteristics of SLTS in Ghana

One requirement for children to carry out new behaviours is having access to the adequate means to act on their intentions. PPM conceptualizes this as enabling factors: *'the necessary conditions that must be present for the behaviour to occur'* (Crosby & Noar, 2011).

CLTS leaves the coming about of these necessary conditions to community members themselves. Triggering among them should create a momentum for self-help, local initiatives of digging holes, constructing latrines and hand washing facilities. In section 4.2 [political characteristics] I explained the political will in Ghana to continue subsidization of institutional latrine facilities. Making it likely that triggering of schools and school children is often accompanied with initiatives of providing latrines and hand washing facilities. Adhikari (2010, p. 3) reports for SLTS triggering in Nepal: *'schools*

are provided with financial support to construct child-friendly [..] latrine, urinal and water supply facilities.' In this section I look whether SLTS/Children in CLTS processes in Ghana, and particularly the process of school children's triggering, is accompanied with an element of granting or endowing the physical means to carry out new healthy behaviours, with a focus on the behaviours of hand washing and latrine facilities for safe (non-open) defecation.

Provision of hand washing facilities

Three of the four visited schools - Odichirase, Mankessim and Koliete - owed their hand washing facilities (HWFs) to Ghana's Community Water and Sanitation Agency (CWSA[25]), which provided plastic drum kits to these three schools, see Figure 21, as part of the global hand washing day campaign in 2011. The school of Mankessim received its HWFs from the CIDA[26].

Figure 21: hand washing drum kit granted by the CWSA, shown by teachers and health club members of Koliete school

Interviewed students from all four cases indicated to wash their hands after defecating and hand washing kits for doing so were available in all four schools. Surpong Ric's pupils informed they did not always have access to soap. The other three schools reported this was no problem. Though interviewed students from all four schools responded positive to the question whether or not they wash their hands after defecating, upon arrival at Koliete school none of the two schools' hand washing kits was filled with water or placed on the school compound for children to use. When informing about the whereabouts of the hand washing kits, it turned out these were stacked in one of the school's sheds. Closer inspection of the drum kits showed both kits' water taps had broken off. Any attempts so far to replace these had not been taken by either the teacher or school health club members. It was unclear whose responsibility this was. The Koliete case showed its on-site situation differed from that reported verbally.

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[25] The Community Water and Sanitation Agency, and autonomous government division with the mandate 'to facilitate the provision of safe drinking water and related sanitation services to rural communities and small towns in Ghana (CWSAGH, 2013).

[26] Canadian International Development Agency

Surpong Ric school, located in the same region and approximately 5 kilometers from Koliete school, showed its on the ground reality corresponded better with students' answers. On our arrival the school hand washing kits were installed on the school campus and filled with water. While teachers summoned the members of the school health clubs for the interview we could see children using the hand washing facilities. In Mankessim school the same was observed. The fourth school, Odichirase, was attended outside of school opening hours, however student interviews and signs of hand washing kits use - iron caging for drum kits was located on the school premises - indicated pupils here as well washing their hands.

The visits to each schools comprised a short time lapse, no quantitative data was gathered on numbers of students observed washing their hands, therefore making it hard to know the actual impact of SLTS/Children in CLTS interventions in these schools and the provision of these HWFs on school children's practices. However a study performed in 2007 by Owusu *et al.* (2007) sheds more light on pupils' hand washing practices after a school health program. In their study, the Global School-Based Student Health Survey 2007, Owusu *et al.* conducted a series of questions on hygiene and sanitation behaviours in 34 schools, across four regions in Ghana. Part of these schools had been involved in the School Sanitation and Hygiene Education Program. Overall Owusu *et al.* (ibid) found that in schools with a place to wash hands, 14.7% of the students rarely or never washed their hands after using the latrine. As for soap use, 24.8% of students never or rarely used soap when washing their hands. Another study, conducted by Awunyo-Akaba (circa 2005) assessed children's use of sanitation & hygiene facilities provided at basic (primary) schools. In his study, 10 schools with a school latrine facility provided by the CWSA were selected and 246 students participated in the study. Awunyo-Akaba reports, 88.4% of the respondents indicated washing their hands. In total 76.3% indicated washing their hands with soap (Awunyo-Akaba, ibid). On a first glimpse these figures show to be in a same order of magnitude as those found in the study of Owusu *et al.* (2007). A general rule of thumb derived from both studies indicates: 3 out of 4 students with the facilities to wash their hands in their school and access to soap, do use these means. Practicing hand washing only – no access to soap – corresponds to about 6 out of 7 students, see also Table 12

Table 12: hand washing practices after a school health program

source:	Solely with water	With water and soap
Owusu et al. (2007)	85.3	75.2
Awunyo-Akaba (ca. 2005)	88.4	76.3
'rule of thumb'	6 out of 7 students	3 out of 4 students

Latrine facilities: provided, communally constructed or lacking

Three out of four visited schools – Mankessim, Koliete and Surpong Ric – had access to a or multiple latrine facilities. The schools of Surpong Ric and Mankessim both had been granted latrine facilities from external donors of which those in Mankessim had been recently constructed with financial donor support from the CIDA[27], see Figure 22.

[27] Canadian International Development Agency

Figure 22: donors of school hand washing and latrine facilities, in Mankessim, Ghana

Surpong Ric's facilities were reported to be in use already for 15 years. None of the present day teaching staff could tell who granted the facility, however the facilities concrete structures – in an environment where community clay build houses prevail – highly suggests external support.

The latrine facility of Koliete school, consisted of two pits. Community members here took the initiative to construct the facility. Odichirase school was still lacking any type of school latrine facility of its own. Bushes located near the educational areas – positioned no further than about 25 meters – therefore still served the main purpose of student relieve area.

Inquiry than on-going open defecation practices on and around the school compound was responded positive to by interviewed students from Odichirase. For the complete overview of students and teachers' responses to the question: *Are some of your peers still defecating in the open?* see Table 13.

Table 13: reports on on-going open defecation practices in schools by interviewed students and teachers

School	*School children's interview responses*	*Teachers' interview response*	*Addressed reasons*
Odichirase	Yes	-	Large distance to latrine facilities
Mankessim	No	No	-
Koliete	Yes	No	Easier/quicker, large distance to latrine facilities[28]
Surpong Ric	No	No	-

In both schools where students' responses indicate the practice of open defecation is still occurring, distance to the nearest by latrine facility is addressed as the main reason for continuing with this practice. The nearest by latrine facility pupils from Odichirase school could use for relieve is a community latrine, located about 400 meters from the school's educational areas. Distance of the latrine facility of Koliete school is about 250 meter from the school education areas, positioned across the school (soccer) playground. During the interview with Koliete's school health club members it came to the front that none of them had been approached to take part in selecting an adequate site for the facility. The availability of latrine facilities near to Mankessim and Surpong Ric's

[28] Interviewed students' indicated they were not involved in selecting a suitable site for the latrine facility.

educational areas, plus on-site propaganda denouncing the practice of open defecation on Surpong Ric's compound, see Figure 23, will have contributed than to the non-occurrence of on-going open defecation in these schools.

Figure 23: open defecation denouncing propaganda on the school compound of Surpong Ric

For those schools with access to one or more latrine facilities, the facilities showed signs of use and were maintained by pupils in the form of rotational cleaning schedules. In Surpong Ric school one week it was the boys responsibility to clean the latrines, the other week the girls. Cleaning structures in Mankessim were reported to take shape in the form of boys being responsible for cleaning the facilities allotted to them and girls vice versa. In Koliete latrine facility cleaning was done by students on a daily basis, involving both boys and girls.

These four case studies do not portray a unified picture of SLTS triggering and having access to necessary conditions of HWFs, and in particular latrine facilities. Three schools have these, though for Koliete's latrine facility issues of privacy can be remarked, since no physical barrier/separation between the two pits was made. This can form a threshold that inhibits children - in particular girls - from using the facility due to a lack of privacy (SchoolWATSAN, 2006; WASHadvocates, 2012).

A case in literature of school facilities support is provided by Sarpong (2010). Sarpong informs the Oboyambo community received a grant from Plan Japan to construct a 4-class room block with modern pre-school facilities (Sarpong, ibid; 3). SLTS interventions along with the endowment of necessary physical structures occurs, though on an irregular basis. As seen for the HWFs above these may not last long after having been granted and become susceptible to decay and lack of maintenance.

Section conclusions

In this section two aspects were given attention, the availability of hand washing and latrine facilities in schools. All four of the four visited schools owed their HWFs to an external source. Triggering of school children therefore can be seen as being accompanied with an element of providing the necessary hand washing facilities to schools. However the question is with how much deliberation these facilities were given since three schools received their hand washing facilities as part of the global hand washing day campaign in 2011. Preceding triggering of school children may not have

been accompanied with such granting of hand washing facilities. The school of Koliete showed that even if a school is given such facilities, issues of damage and maintenance may arise that impair use of the facility on the long-term. Two considered studies indicated that those schools in which the hand washing facilities work, 6 out of 7 students wash their hands with water. 3 out of 4 students wash their hands with water and soap. Enabling/endowing of these facilities therefore is likely to make an impact on practices and health of the school population.

Similar to HWFs, two visited schools were granted their latrine facilities. For one school, Koliete, the latrine facility was communally constructed. The school of Odichirase lacked access to a latrine facility. In these latter two mentioned schools, certain open defecation by pupils still occurred. The indicated reason for this was the large distance to the school latrine facility or nearest by community latrine facility.

The overall conclusion than is that triggering of school children along with the endowment of necessary physical means occurs in some cases, but not all, and it is unclear for the HWFs if their granting is intentionally and a planned component beside the triggering of these schools. Furthermore such granting does not guarantee the sustainable use of the HWFs.

Chapter 5: Implications around SLTS

5.1 Introduction

Application of SLTS in Ghana has given way for the approach to be influenced by its adopting country's context. Based on this premise characteristics were identified in the prior chapter that emerged as a result of implementers of SLTS in Ghana, plus its social and political context. In line with the research objectives, see chapter 2: theoretical framework, this completes the first research objective: distilling characteristics of SLTS in Ghana.

This chapter further builds on the characteristics established in chapter 4, and on characteristics applying to SLTS in general. As indicated by this chapter's title, these characteristics are closer observed to establish any implications around them. In general this chapter's structure is the same as the previous chapter. First I present implications concerning the approach characteristics of SLTS for which in the prior chapter the objectives and sub-objectives were identified. Focus is on prime objective two - children engaging in community triggering activities – with the implications it bears.

After that I present implications around SLTS that stem from its social characteristics, meaning going into the cultural approval and disapproval of SLTS child triggering activities, and expanding on teachers' possible (negative) influence on school children's triggering. The political characteristics, part of last chapter's characteristics, is not considered in this chapter for the reason of policies already implicating a specific (political) directing. This was indicated allowing political space for CLTS, and possibly in the future as well for SLTS.

Overall this chapter corresponds with the second research objective: evaluating if SLTS conflicts with internationally and nationally employed policies, programs and norms/culture. The implications addressed in this chapter therefore not just concern SLTS characteristics in Ghana, but also hinges on larger developmental paradigms of children's position, rights and participation in development programs.

5.2 Approach characteristics implications

In the prior chapter various aspects of the SLTS approach in Ghana passed the revue. In the following section/paragraph two aspects are given extra attention: 1) children's involvement in SLTS triggering, and 2) the role of facilitators as triggering agents. Both themes bear implications that are discussed, starting with children's participation.

SLTS: empowering or politicizing children? Child-centred or program-centred?

Children's engagement in SLTS was identified in the previous chapter 4 as one of SLTS's two prime objectives. The other one is for schools and their environments to become open defecation free (ODF), see Figure 24 and in chapter 4 Figure 14.

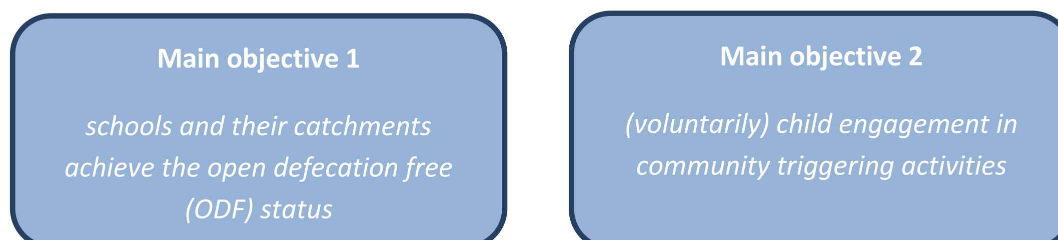

Figure 24: main objectives SLTS

Given their position both objectives are considered as a goal on their own. As made clear in the prior chapter is, SLTS implementers see children's engagement contributing to triggering their family and community members. Regarding Figure 24 this means the realization of the second objective contributes to the objective of ODF schools and school catchments.

One thing however that literature describing SLTS leaves in the middle is specifying which and how many children should participate in SLTS, and in what way. If there are 'standards', what basis do they have. If the amount of and sort of child participation is guided by the extent to which objective one has been realized, than this would position main objective two - children's participation - as a mean for achieving main objective one. Main objective one is than the end goal. If children's participation is free of a (hidden) development agenda, an intervention program is built on the free and voluntarily engagement of children regardless of their influence on others development goals, than their engagement is an end goal rather than a means for program intervention success.

The focus in the following section is whether children's participation in SLTS can be seen as an end goal in itself, or does their involvement rather appear to be a means for achieving an open defecation free school and community environment? Making main objective two subordinate and secondary to the main goal of achieving an open defecation free environment. In the case of main objective one being a hard-set scenario and end goal by external facilitators, certainly the risk exists of children's free will (volition), to participate in community triggering activities or not, being overridden.

Telling from SLTS experiences so far therefore below I consider, what grounds for child inclusion are conveyed in CLTS/SLTS reporting sources. Does the envisioned ODF goal implicate children's engagement is rather used for this goal than their engagement fulfilling goals of child participation, decision-making and empowerment.

Grounds for child inclusion

One of the benefits stressed by various SLTS implementers for incorporating children in health interventions regards their open and welcoming nature. 'M*any on-going behavioural change interventions are targeting schools. This is valid for the simple reason that children are ready recipients for new learning and behavioural change'*, remarked by Khan & Syed (2008), implementers of SLTS in Pakistan (Khan & Syed, 2008, p. 182). Kar & Chambers (2008, p. 41) share this view, being evident from their comment: *'school children are quick to learn and often become active agents of change.'* Fernandez (2008) more extensively reflects on the engagement of children in community triggering processes. She investigated CLTS practitioners' perspective on the role of children in CLTS. In her research[29] she (anonymously) interviewed twelve staff members from Plan International based in Kenya, Tanzania and Ethiopia. On page 16 of her report Fernandez (ibid) reports: *'repeatedly the point was made that children participate in CLTS because they have fewer barriers and are more able to be open and honest about the realities of OD in their communities.* One respondent remarked adults tending to hide and provide half-truths while children are frank and willing to share honestly (Fernandez, ibid; 16). In conclusion Fernandez (ibid) remarks this certainly being a normative reason for child inclusion in projects (Fernandez, ibid; 17).

[29] Katie Fernandez, (2008). *Children as agents of change: practitioners' perspectives on children's participation in Community-Led Total Sanitation.*

The August 2010 workshop on 'SLTS and Children's involvement in CLTS' in Nairobi, expresses the overall position of CLTS/SLTS practitioners coming from ten different countries. As an output of this workshop, Kangamba & Tunsisa (2010) – coordinators and practitioners of CLTS for Plan Zambia and Plan Ethiopia – make clear that these practitioners approach child participation as an end in itself within CLTS/SLTS. On page two of their report Kangamba & Tunsisa (2010) portray minimum standards that should be in place in order for children to meaningfully participate in CLTS/SLTS. They refer to the UN Convention of the Rights of the Child to define a solid base for what minimum standards should be in place, see Box 8.

Box 8: Recognized children's right for justifying their participation in CLTS processes. Source: Kangamba & Tunsisa, 2010, p. 2

Participation is a right. These minimum standards are based on children's rights as outlined in the UN Convention on the Rights of the Child, in particular in Articles 2, 3, 12, 13, 17, 19, 34 and 36:

- Children have rights to be listened to, to freely express their views on all matters that affect them, and the freedom of expression, thought, association and access to information.
- Participation should promote the best interest of the child and enhance the personal development of each child.
- All children have equal rights to participation without discrimination.
- All children have the right to be protected from manipulation, violence, abuse and exploitation.

Here child participation, main objective two, clearly receives distinct attention and is not minor to main objective one. For the question, which children should participate, the third point in Box 8 makes clear all children have a right to participation. Point 1 which clarifies what this right looks like; being listened to, the ability for children to freely express themselves, think for themselves and make their own judgments. In light of these defined rights on participation, children's engagement then in SLTS comes forward as being an end goal in itself and not a means.

Fernandez (2008) in her dissertation on child participation in CLTS similarly judges child participation within SLTS/CLTS is an end goal. She draws this conclusion by evaluating interview responses of in total twelve anonymous research participants from Plan International. Participants that apply the CLTS approach and which commented the following on child participation (Fernandez, ibid; 19):

'This exercise (mapping and analysis) is done with children for a dual purpose: 1) to ensure their involvement in decision-making; and 2) to use the findings from children to triangulate the findings from the adult group.' [respondent 2 in Fernandez (2008)]

'Children have the right to participation. We acknowledge that they are equally important in making decisions and participating in development activities.' [respondent 9 in Fernandez (2008)]

Both responses stress child inclusion in order to ensure their participation and right to participation in the decision making process. Fernandez (ibid) here concludes participation is an end in itself but still points towards the dual form in which participation may take place by referring to Parfitt (2004) who states:

'aid agencies must necessarily try to strike a balance between concerns of empowerment (participation as an end) and efficient achievement of development objectives (participation as a

means ... this ... indicates the inescapable nature of the means-end ambiguity' (Partfitt, 2004, p. 541 in Fernandez, 2008, p. 19).

Fernandez (ibid) herself does not necessarily believe in the inescapability of what is referred to as the 'means-end ambiguity' and neither does she decline participation for the purpose of achieving an objective, she states: '*participation as a means, to achieving something else (whether that is a cleaner environment or indeed strengthened solidarity) should not be dismissed as necessarily negative'*. She refrains from remarking why she believes so but however argues that CLTS is unlikely of such participatory form since it is based on a principle of non-subsidy, which she extrapolates to being free of a pre-set agenda with specific development objectives (Fernandez, ibid; 20). CLTS when in full accordance to its claimed principles leaves the setting of actions and objectives to the target group (community). Kar (2005) stresses this fact in his 2005 practical guide to CLTS, on page 3 Kar postulates what can be described as CLTS in a nutshell:

'The aim of CLTS is to trigger self-realisation among community members: that they need to change their own behaviours, so the facilitator must never lecture or advise on sanitation habits, and should not provide external solutions in the first instance with respect to models of latrine. The goal of the facilitator is purely to help community members see for themselves that open defecation has disgusting consequences and creates an unpleasant environment. <u>It is then up to community members to decide how to deal with the problem and to take action</u>.'

Fernandez (2008) also puts attention to the hands-off character in CLTS by referring to one of the respondents in her research which remarked (Fernandez, ibid; 20):

> *"[Following triggering] we don't force them. We bid them bye and somehow, they ask if you didn't come with a solution then why did you come? We simply tell them, we only came to understand your livelihoods and how your sanitation profile is and we are happy you were free to tell us, and thanks, we are off."* [research respondent 6 in Fernandez (2008)]

CLTS's end goal strictly viewed from the point of the facilitator[30] should than be instilling feelings of disgust, shame, pride or dignity in community members and not the achievement of OD, see Figure 25 . Adhikari (2010) highlights this same point for SLTS: *'The school led total sanitation program [..] aims to ensure communities' self-realization of hygiene and sanitation through sensitization ignition participatory rural appraisal tools are its backbone. These tools empower communities to see improved hygiene and sanitation as a matter of dignity, health and development; and open defecation as the matter of disgust and shame.'* (Adhikari, ibid).

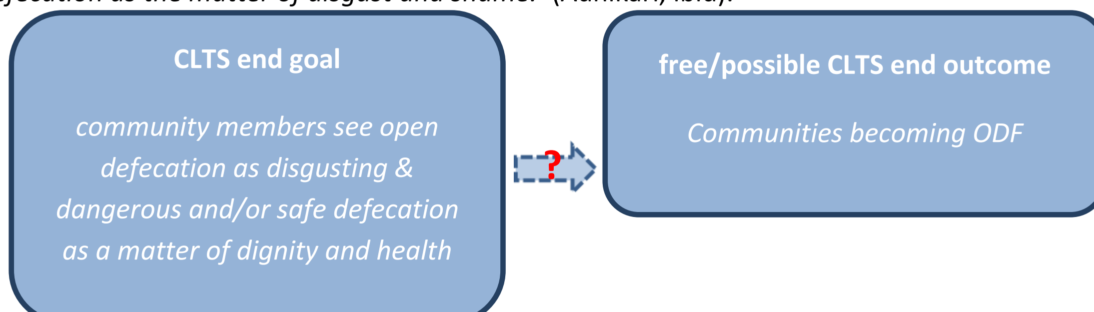

Figure 25: CLTS end goal and possible outcome

[30] Interested governments' viewpoint adopting CLTS is the actual impact it has in a community, and on an international and national scale the contribution to sanitation targets. See Chapter 1.3: Why CLTS is used

Children as co-triggering agents: embraced or imposed role

Given this definition children's position within CLTS/SLTS focuses not so much on the realization of open defecation, but more on triggering of what Kar & Chambers (2008, p. 21) name: *'a collective sense of disgust and shame among community members'*. In that context children engage in a same activity as external facilitators, namely triggering of community members,

In Figure 26 and Figure 27 on the next page the processes of CLTS and SLTS community triggering are schematically depicted, based on CLTS/SLTS case study reports. Both figures indicate from left to right: the triggering agent, triggering tools used, feelings triggered, and the intended impact this has on the community. In the SLTS community triggering process, children take up the roles of triggering agents, referred to by others as 'agents of change' (Kar & Chambers, 2008; 41; Adhikari, 2010). Various CLTS sources also bespeak of 'children in CLTS', indicating children acting beside, or in congruence with external facilitators in the community triggering process, making them co-triggering agents.

Comparing of the triggering tools used by children and community members shows some overlap; demonstrations, processions. The majority though differs. Activities used for triggering by external facilitators, such as walk of shame, community mapping, contain a high element of community participation, self-analysis and problem identification. The activities used by children encompass a more one-way/linear triggering process; whistling, hooting, flagging/tagging, singing, via which community members are further stressed on their current OD practices. The remaining question is whether children engage freely in these activities, or are tactically directed by external facilitators for the realization of community wide triggering. This would make children's participation a means for impacting the community.

Kar (2003) provides one of the first descriptions on the in this case co-triggering role of children during, and after, a CLTS intervention in Bangladesh, see Box 9.

Box 9: Children's engagement in CLTS, Bangladesh. Source: Kar (2003).

> Children, in particular, play a crucial role by chanting slogans to stop open defecation. They even developed their own slogans after they had internalised the dangers of open defecation. The parents always felt embarrassed when their children pointed out the facts. While members of the community (particularly women and adolescent girls) listen to the slogans and see the spirit of the procession, they begin to think about the issue. (page 5).
>
> Children are the most active in this process of change. It was found that even after the transect walk, procession and PRA exercises, children started digging holes for latrines and demolishing open defecation sites. This encourages the adults in the community to be proactive and responsive to the approach. The children organise routine village processions, collect baseline information, show and flag defecations sites and disseminate information, especially to their friends. They influence their parents to build toilets. (page 8).

The activities of digging holes and demolishing open defecation sites, described above in Box 9, seems to stem from children's own enthusiasm after CLTS triggering. The creation of slogans may have been prompted by external facilitators (unclear from the text).

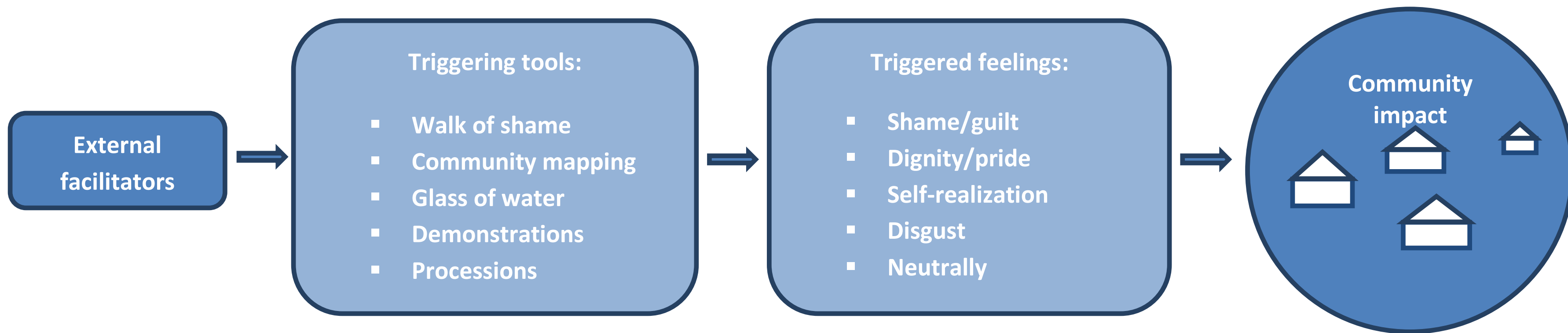

Figure 26: triggering tools and subsequently induced feelings under the CLTS process

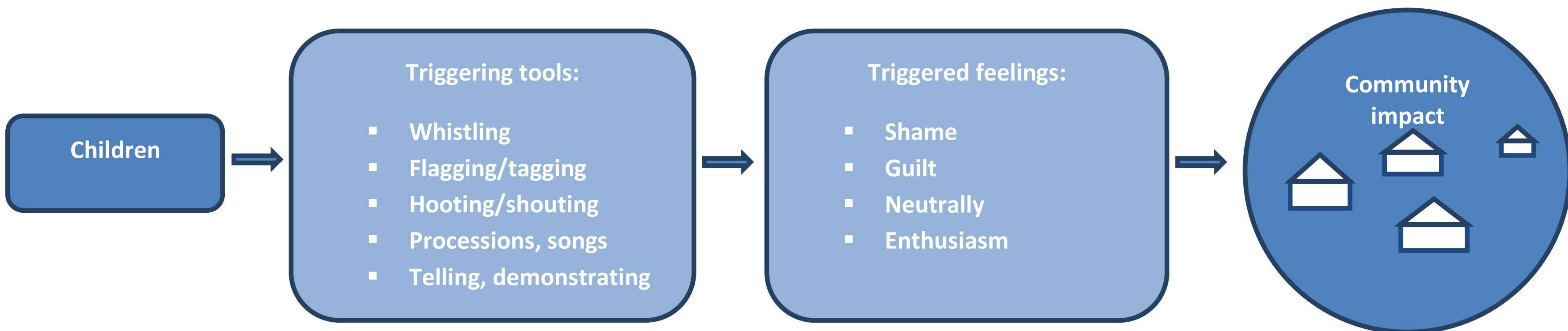

Figure 27: triggering tools and subsequently induced feelings under the SLTS process

Kar (2003) and (2005) however do report encouraging these type of activities, such as shouting slogans against open defecation, since contributing in making *'parents always felt embarrassed when their children pointed out the facts.'* In Ghana the free choice elements comes back in children's voluntarily decision to participate in their local school health club (IRC, 2006), and reported in the interviews by health club members of the Koliete and Surpong Ric school. Activities engaged in by these children hence may be expected to stem from a similar voluntarily basis, making their participation unbiased, free from higher program goals.

On the other hand one of the established country plans during the 2011 national level training workshop on CLTS in Ghana proposes: *'identify and develop children's role as pressure groups in making parents and children's communities conform to ending open defecation practices'*, indicating a more purposefully/intended inclusion of children. Even labelling children within SLTS as 'ambassadors of health and hygiene' or 'agents of change' presupposes an impact and role. In that sense their participation can become a means for changing their community and diffusing health and hygiene lessons. Statements and labels such as 'developing children's role as pressure groups', 'agents of change' and 'ambassadors of health and hygiene' may than pre-charge children (implicitly or not) in a specific role for contributing to ending open defecation. A role, which they may not always have requested for themselves.

Fernandez (2008) draws the distinction between identifying children have *'agency'*, the capacity to act in their own and community sphere, and children have a need to constitute their own identities, which she defines as having the possibility to *'become-other[31]'*. She warns for the risk of imposing fixed roles/identities, and thereby closing down space for identities to be constructed and negotiated (Thomson, 2007 in Fernandez, 2008). On page 4 she clearly argues this point and states: *'Although recognising children have agency and are able to participate in decisions that affect them, at the same times this has the perverse effect of closing off the potential for other understandings of childhood and for the possibility for children to constitute their own identities.'* Where SLTS reports designate children as 'agents of change' (Adhikari, 2010; Adhikari & Shresta, 2008; Sarpong, 2010, CRS, 2009, Kar & Chambers, 2008), Fernandez (2008, p. 6) opts that *'participatory projects should be analysed in terms of the spaces and opportunities which they present for children to define themselves, to 'become other'*, and do not 'shoehorn' them in pre-defined, fixed roles.

Coming back on the main objectives under SLTS, presented at the start of this paragraph, Figure 24, the question is what facilitating actions can still be seen as simply 'developing' or 'encouraging' children's roles without crossing the line of 'politicizing' children and employing them for CLTS/SLTS's objective of ending all open defecation.

In chapter 6 I argue SLTS endorsers should avoid the over-identification of one actor group, including children, for the realization of this goal. Focussing on SLTS's country of origin, from literature reports on the progress of SLTS in Nepal, I try to explain why such an over-identification for children might occur. For now the line of reasoning continues on the risk of prefixing/imposing children's role. The following case below can be described as more in 'the grey zone' of encouraging or imposing child roles, given the premeditated steering of children in a specific direction within this triggering program.

[31] Become 'other' than as the roles/identities defined by an external program

Box 10: school children in India stimulated in the role of health endorsers. Source: Kar & Chambers, 2008; 41

Triggering in Schools and Student Activists
In Panipat District in Haryana, India, CLTS triggering in schools began in September 2007, forming Chhatra Jagruk Dal –"students' awakened group". In the first seven weeks, teams of full-time facilitators covered about 125 schools, more than half those in the District. Students did mapping and other triggering activities. When they went on transects, adults were curious and followed them. Sometimes shit calculations were made standing in the OD area, looking at the faeces to estimate weight. Disgusted students at once became activists. Those most keen were formed into groups of natural leaders and given caps, whistles and written materials. They are to be rewarded with marks for Social and Environmental Productive Work. Teachers are engaged in support.

The selection of those most keen as natural leaders, and giving them caps, whistles and written materials is a step with a more clear purpose behind it; equipping children with the means to strongly advocate against open defecation among their communities. Box 11 gives an example for children in Bangladesh likewise being provided with the tools to scan, patrol and alert in their communities for open defecators.

Box 11: children's role as health endorsers in Bangladesh. Source: Kar & Chambers, 2008; 51

Children as health endorsers in Bangladesh
In districts in NW Bangladesh, children were known as bichhu bahini - the army of scorpions. They were given whistles, and went out looking for people doing OD. One youth said that during the campaign for ODF he had blown his whistle at least 60 times. In a few cases they carried out goo jhanda, flagging piles of shit with the name of the person responsible.

Kar (2003) reports this practice, stating: *'..children participated in the project by following offenders and then sticking little name flags on the 'offence' so that passers-by could identify the guilty party'*. In both cases children take up important roles of blamers and shamers in their communities and are prompted and materialized in this role by external facilitators. Though CLTS portrays itself as a 'hands-off' approach[32], cases above show facilitators handing over materials to children which given the rigid set of emotions these methods evoke contrast with comments of *'we don't force them, we bid them bye'* (research respondent 6 in Fernandez, 2008).

The facilitator, central player in this process, bears a responsibility for balancing the intended program goal of community triggering, with that of making children participate in SLTS the process, without making their participation subject to the triggering program goal. Facilitators need a correct attitude, to remain child-centred, and not program/impact centred. In the next section I look at what this central role implicates for facilitators.

Facilitators: The implication of a need for the 'correct/right aptitude'

Above the means-end ambiguity was presented and the potential trap it forms in many participatory processes. In this section I further look at the role of facilitators, their central role implicates a need for facilitators that refrain from mixing participation objectives with program objectives. It is facilitators who pull the strings to what extent this ambiguity occurs. Program facilitators, working using a so-called 'hands-off' approach, must be aware and self-observant they remain free of

[32] Referring to the CLTS/SLTS facilitators

pressurizing any group during the triggering (participatory) phase or feel pressurized themselves to, at any cost, book expected achievements in the field of school and community open defecation eradication.

Specific to CLTS counts that; at all times the decision to take action, or not, should be up to the community. SLTS's adagio should be: children at all times having the decision whether or not to participate in community triggering activities. As for the health objectives in schools, these may be subject to national policies, in that case children should still experience the freedom to co-decide on how to achieve these objectives, which is then drawn up in their school action plan. Facilitators are central in ensuring community members and school children are feeling free to decide for themselves what steps/actions to take. CLTS/SLTS's non-subsidy successfulness stands or falls with their role, or as Kar (2005, p. 3) explicitly outlines in his report: '*The key to success is the attitude and approach of the facilitator'.* In Kar & Chambers' (2008) handbook on CLTS both authors also stress the importance of facilitators' attitudes and behaviors in the CLTS process. Kar & Chambers (ibid; 9) comment:

'Not everyone can be a good facilitator. Facilitating CLTS is an aptitude. It can be learnt, but it will come more naturally to some than to others. It is different from facilitating conventional participatory processes like PRA. Behaviour and attitudes are crucial. What works best for triggering CLTS is a combination of boldness, empathy, humour and fun. It demands a hands-off approach, not teaching or lecturing, but facilitating to enable people to confront their unpalatable realities.'

Also Fernandez (2008) puts attention to the skills and abilities of facilitators, and remarks a response from one of the participants in her research:

Facilitation skills and facilitators' personalities are very important for CLTS, especially since we are trying to address individual and personal dignity." [respondent 1 in Fernandez (2008)]

From the comment that attitudes and behaviours are crucial in the CLTS process, Kar & Chambers (2008) continue their line of reasoning by drawing out a suggested ideal facilitator profile, summing up correct attitudes and behaviours seen to be pivotal in the facilitation process. This '*profil parfait*'[33] lists individual characteristics that relate to CLTS's approach features, see chapter 1.1: what is CLTS. The characteristics stress a hands-off, neutral and encouraging facilitating role, which Kar & Chambers (ibid; 10) express in words as: *'take a neutral stand...'*, *'stand back, leave it to local leaders'*, *'appreciate those who take a lead and engage themselves'*, and *'let people realise for themselves through their own analysis.'*

Incorporation of adequate facilitators with the right hands-off attitude and mind-set will certainly assure avoidance of schools and communities' participation becoming framed in larger development agendas. Kar & Chambers' notion does however leave one wondering: *If the more naturally endowed and gifted facilitator is trained and selected for CLTS/SLTS triggering?* And *on what basis the more favourable and adequate facilitator is identified?* Since the role of the facilitator takes such a crucial role within CLTS/SLTS processes, answering of in particular this second question can duly help CLTS/SLTS diffusors around the globe to select and train apt facilitating personnel, that help furthering and featuring CLTS's principles.

[33] French for: idealistic/perfect profile

The approach's rapid global uptake by NGOs and governments, see chapter 1.2: the popularity of CLTS, is used in the CLTS promotion/campaign apparatus as a strong argument for the approach's success. However rapid growth and support in the form of large donor budgets as well pose a threat to the approach, as Chambers (2009) highlights in Box 12.

Box 12: The danger of CLTS's rapid growth and large donor allocations. Source: Chambers, 2009; 34

Once CLTS is accepted, an even greater danger is that it is seen as a magic bullet, a mass solution to be introduced instantly. Along with this may be rewards and incentives which distort behaviour and reporting. All demands that CLTS go instantly to scale threaten quality. Training, reorientation and support for facilitators, and training of trainers, are vital, need time, cannot be rushed, and become bottlenecks. Paradoxically, too much support can undermine the spread of CLTS itself. A large new budget can pose problems. A donor mission sought to support CLTS. The resulting grant was so large that it forced the receiving international NGO (INGO) and its partners to devote great efforts to recruiting new staff, in one case reportedly expanding ten-fold, adding many staff who were unlikely to be familiar with the approaches, behaviours and attitudes of CLTS facilitation. This brought with it the risk of losing quality, especially with an approach like CLTS which challenges so many norms.

Chambers clearly links to the selection of apt personnel, which should not be rushed. Just as much as those targeted under CLTS/SLTS interventions undergo a process of internalizing new views and perceptions, so do nominated and trained facilitators need to internalize principles, attitudes and behaviours that come with the CLTS/SLTS approach. Further research would be of value to investigate in what forms this training is being given and the amount of time that is available for this process.

5.3 Social implications

So far in this chapter I discussed the implications around the approach of SLTS, raising the question if child participation implicates their participation is made subject and a means for the much stated CLTS/SLTS objective of open defecation elimination. In this paragraph section I further look at what implications exist given Ghana's social system. Two elements come to the front, identified as social characteristics around SLTS in chapter 4. The first I refer to as the social (dis)approval spectrum, which is based on Ghana's social hierarchy and culture of respect for elders. The second element regards implications of teachers' involvement in SLTS where I look at the authority of the teacher in the Ghanaian education system.

Social (dis)approval of triggering activities

In Figure 26 and Figure 27 the triggering tools used in the community triggering processes under CLTS and SLTS were shown. Each of these tools trigger a certain set of feelings, indicated by the third box in both figures. These feelings can be categorized according to their principle of either rejecting or accepting a behaviour. Tools such as the 'walk of shame' have a clear emphasis on evoking community wide feelings of embarrassment and discomfort with one's open defecation practices. In contrast with this is the 'walk of praise': *'to increase the esteem of those households in the process of building their latrines'* Azafady (2011). Community members and facilitators visit and appraise those community members in the process of constructing a latrine. The 'glass of water method', reported by Sarpong (2011) and Kar & Chambers (2008) evokes strong feelings of disgust.

Some activities hence employed trigger greater feelings of rejections towards a certain health practice, others will cause community members feeling motivated to change their current practices. The centrally aimed at behaviour by each of the triggering activities in CLTS/SLTS is eradication of open defecation, but the triggering process can also result in safe hand washing practices, waste collection, protection and maintenance of drinking water sources (Kar & Chambers, 2008, p. 4).

Given the feelings triggered and intensity of whether these feelings result in a rejection or acceptance of a certain practice, they can be placed on a continuum, which I refer to as the triggering spectrum, see Figure 28.

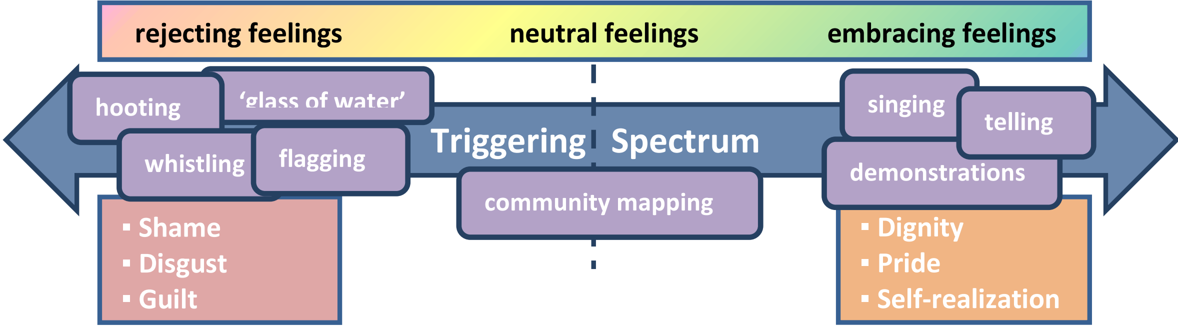

Figure 28: triggering spectrum: feelings evoked under community members to either reject or embrace (healht) practices

Some of the SLTS triggering tools used by children, see also Figure 27, will stir neutral or embracing feelings towards a behaviour. Tools, or triggering activities that can be expected in this group are singing, telling and demonstrations. SLTS triggering tools of hooting and shouting, flagging and tagging and whistling incline towards the left side of this triggering spectrum, mainly propagating feelings of shame, guilt and disgust. This induces a rejecting reaction towards current health practices in those triggered/evoked.

CLTS and SLTS interventions around the globe can decide what feelings to target at, or put differently, what feelings are intended to be triggered. In line with this facilitators can decide what triggering activities to make use of. In SLTS interventions facilitators guiding children in triggering their community members can stimulate children in activities that stress feelings of rejection or acceptance. A country's social norms will influence the intensity of rejecting feelings felt when community members are shamed and pointed on their open defecation practices. Some triggering processes however result in feelings that miss the opted for effect, and rather cause those targeted to feel frustrated or even angry for being pointed out on their on-going open defecation practices. In that case community members will react disapproving towards the triggering activity and/or triggering agents. In SLTS processes in which children engage in community triggering activities, this frustration can become directed at them.

offensive reactions towards child triggering

Children participating in SLTS are stimulated to pass their learned lessons on to others. In chapter 4 various forms in which this 'furthering of hygiene and sanitation messages' in Ghana is done was presented. In schools the school health club is a much used method with health club members telling peers about the benefits of certain health practices and/or demonstrating these, such as hand washing with soap. In communities similar methods can be employed, but also activities were

reported of children singing in the streets of their community (Kanchau case), endorsing hand washing (Oboyambo case), children singing, performing drama and hooting at open defecators (Aboano case), or just telling family members to wash their hands and construct a latrine (Koliete, Surpong Ric, Mankessim, Odichirase cases). For the Aboano case, Magala & Roberts (2009) state:

'Plan Ghana has made an effort to use members of the school health club to sensitise the community through drama and songs. The community members seemed to have enjoyed the act by the school children..' (p. 53).

This last sentence shows the welcoming and approving reaction of community members. However on the part of hooting at open defecators, as well employed in this community, Magala & Roberts (ibid; 54) remark:

'The school health club members also acted as watchdogs as they hooted at adults who were seen defecating in the open and openly confronted defaulters of the no-open-defecation rule in their community. Some of the children indicated that this had exposed them to some level of danger as some of the adults grew furious when confronted.'

In this case community members felt offended by the actions of the children and given their fury indicate strong disapproval of this type of triggering. Community members may even disapprove of a triggering activity not for the activity itself, but the fact that younger children are reprimanding them. A Plan Uganda country report on SLTS states: *'Children in Uganda culturally do not have voices to speak out publicly and there is a lot to be done to have meaningful participation of children. '* (Plan Uganda, n.d. on IRC-site). Similarly to this is the culture of 'respect for elders' which limits children's participation, as Björnsdóttir (2011, p. 78) made clear: 'm*any Ghanaians believe respect for elders to be a very important cultural tradition, which should not be sabotaged, many interviewees believed it can be a barrier when it comes to children's participation'.* This culture is present throughout Ghana's community and family structures, which in the family 'can *create a situation where the child is afraid or shy to express its views or even just to talk to adults about certain issues'* Björnsdóttir (ibid; 79). The presence of this culture was confirmed by a response from one of the health club members of Koliete school, indicating his parents started scolding at him when telling them to construct a latrine.

A staff member of Plan Uganda remarks child rights advocates response to children triggering community members in Uganda via use of 'bad' words[34]: *the language used is not appropriate for children especially in the Ugandan context and may create disrespect among parents when children start using "bad" words openly.'* (Plan Uganda, n.d. on IRC-site).

Gautam *et al.* (2010, p. 7) as the outcome of an international workshop and learning experience on SLTS, involving ten countries implementing the approach, concluded that for six of them it is unacceptable for children to confront and reprimand elders on their open defecation practices or to participate in community decision making institutions (Kangamba & Tunsisa, 2010).

In a society such as in Ghana, where respect for elders is deeply embedded, school children's endeavours in triggering others cannot be expected to happen in the form of 'lecturing' and 'knocking sense' into respected adult community members. Even among family members the

[34] Within CLTS the local crude word for 'shit' is used to cause shock, disgust and shame people (Kar & Chambers, 2008; 7). This may cause disapproval.

hygiene related messages are not always openly welcomed. Children's participation and efforts to trigger others are culturally bound, making children hold back in their endeavours to trigger others due to possible opposing reactions coming from the adults in their community.

These opposing reactions can go as far as children experiencing the risk of abuse and being beaten for triggering community members. A school boy in Haryana, India, whistling at open defecators was reported to be assaulted three times in a row (Kar & Chambers, 2008; 41). Gautam *et al.* (2010; 5), as well attendees of the international learning workshop on SLTS, state occurring abusive behaviours come from communities not always being aware of child rights, and of inherent cultural views of children being insignificant compared to adults.

The cases above and views expressed indicated community members not always welcoming and approving of all efforts by children to eliminate open defecation in their communities, coming from the type of triggering activity or the culturally inferior societal status of children. Put differently, children's roles can be understood as restricted by a set of 'cultural boundaries'.

Since these boundaries are culturally and not directly visible to the eye, the pending question here is, where exactly this boundary is. Translated to SLTS this means: what role as 'health ambassadors'/'agents of change' can children fulfil within their communities, without 'crossing the line' of cultural conventions. From place to place, person to person and community to community, these cultural rules will vary. Hence this line should not be understood as a solid one but rather consists of a gradual area, which can be denoted as a 'grey zone'. In Figure 29 below this grey zone is represented with alongside those child promoting roles on the left that receive social approval, and on the right those child promoting roles that are publicly denounced. Based on findings and cases of CLTS/SLTS triggering in Ghana, this figure displays approving and disapproving of triggering activities in this country. Per country and society approving and disapproving practices will differ. A note that needs to be made is that unmistakably defining of such a cultural spectrum is far more complicated than presented here, however this figure serves to give an idea on the existence of a cultural (dis)approval spectrum, and scope of child triggering activities and corresponding child advocacy roles, that in this case given Ghana's culture, either receive approval or disapproval.

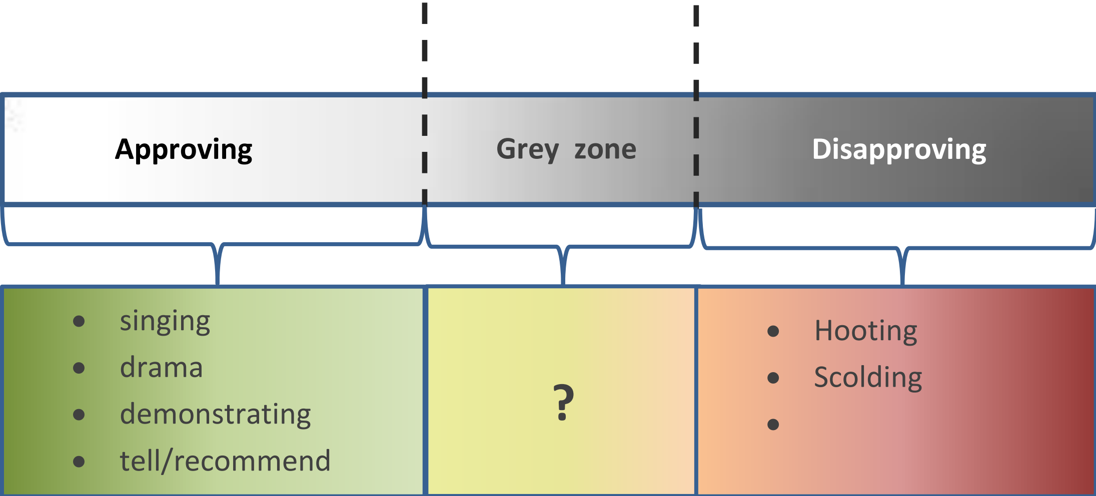

Figure 29: child roles of health ambassadors are directed by a guide of cultural conventions, which can be seen as a spectrum, with in the middle a 'grey zone'

Implications for facilitators incorporating children in community intervention programs are than knowing what activities to stimulate, and what to abstain from. Current CLTS/SLTS implementers should be aware of the cultural (dis)approval system in the communities they are working in order to guarantee children's safety. On the other hand program facilitators harnessing children with the means/tools to trigger community members, should incorporate mechanisms to verify if child triggering activities keep in check and not going beyond the level of well-reasoned directed actions. Setiawan & Rahman (2010) report on children in Malawi following after open defecators, confronting them on their practices via songs and throwing stones. This latter act should be regarded as an overexertion in triggering. Child triggering activities should neither put the safety of children nor community members at risk. The desired ends of an improved OD community environment is a noble one, but may not justify any means used by children or whatever actor to achieve this.

Considerations regarding children triggering others

As condition one of child triggering should be children 'practicing what they preach', the timing of child engagement in the process of CLTS/SLTS may also be of key importance. Triggering of community members and children at the same time, or separately with community members being triggered previous to the children may impart a greater sense of understanding and tolerance towards child employed more rigorous and one-way triggering activities. An example of this is the *police faeces* child triggering concept in Indonesia. Children scan and patrol their communities for open defecators and blow their whistles when catching someone in the act of still doing so. Setiawan & Rahman (ibid) inform establishment of the *police faeces* child group was done after villagers had been triggered by facilitators and had set up a commitment plan.

Child triggering activities exclusively engaging community members on the matter of open defecation may leave community members rather dumbfound and oblivious to the reason why children are hooting, scolding, singing songs and tagging their faeces with their names. Certain countries and communities may therefore do better by sticking to an 'if-then' model: if communities have initially become aware on the dangers of open defecation, then children can play an active role in further triggering community members.

Teachers' in the school triggering process: the implication of Ghana's penalizing culture

In chapter 4 teachers' involvement and influence in the process of triggering school children was identified. Ghanaian literature sources affirm this, stating: *'..in Ghana, authority figures [teachers] still have a formidable capacity to influence subordinates, and leadership styles are still quite autocratic.'* (Kuyini & Desei, 2007) and Osei (2006) argues: *'teachers can operate as agents of change, providing informed intellectual input not only to pupils, but to their families and communities.'*

Their statements do not directly regard health interventions such as the SLTS approach, but given the identified role of teachers as 'authority figures' and 'agents of change' raises the question what their influence may entail for school directing health programs. One of those influences has to do with monitoring the practices of their pupils and ensure children adhere to safe hygiene and sanitation practices. Children still practicing open defecation risk to be punished by their teacher, which was reported in all four visited schools.

Wider looking into the punitive roles of teachers in Ghana highlights this system is still largely in place throughout the Ghanaian education system. Within SLTS on the one hand can be seen as beneficial for the desired end of no open defecation. On the other hand such an enforcement system

can instil a sense of fear and timidity in children. Any child and school focussing program in Ghana, including SLTS, should not overlook or discard this system and be aware of the roots this system still has in Ghanaian society based on Ghana's history. Agbenyega & Deku[35] (2011) explain the history and origins of Ghana's penalizing system and from their field observations attest on the flip side of excessive/severe teacher penalization, see Box 13.

Box 13: penalizing origins teachers. Source: Agbenyega & Deku, 2011, from p. 14, 15 and 16.

Penalizing origins: colonialism and traditional kinship system

It appears the form of oppressive pedagogy in Ghana has its roots in her colonial history and traditional cultures. Colonialism under the former imperial power (Great Britain) was based on a social and economic construction of "Otherness", a conscious oppression, exclusion and marginalisation of native Ghanaians from the White minority. By this construction Ghanaians were considered unequal to their former colonial masters, and consequently, were subjected to master-servant relationships accompanied with severe sanctions and punishment. Formal schooling, which started as a colonial endeavour in the castles, the symbols of White supremacy, adopted oppressive pedagogical practices.

The traditional kinship system in Ghana resonates around subject-master ideology.
It precludes mutually constituted relationships and legitimises authoritative relationships. A king must exercise his authority over his subjects to demonstrate how powerful he is. Invariably, it can be explained that the dualist experience (culture and colonialism) were precursors to the formation of excessive control identities and the ways in which teaching and learning are currently legitimated and practiced in Ghana.

Research points to the direction that the Ghanaian learning spaces (from preschool to the university level) depict a hegemonic colonial rationalist way of organizing educational practice (Agbenyega, 2006; Deppeler, Moss, & Agbenyega, 2008). Researchers of inclusive education practices in Ghana consistently found teachers' practices and approaches to pedagogy remain punitive (Agbenyega, 2006; Deppeler, Moss, & Agbenyega, 2008; Kuyini & Desai, 2007, 2009). For example our observation of pedagogy during field works in some primary schools show:

> *some of the children with tears in their eyes so we asked the teacher, what is wrong with the children? The teacher replied, I caned all of them…I taught them well then I gave them work to do but they all failed… It is shocking…they don't know anything so I caned them. I am going to cane them again for this disgrace. We saw most of the kids very timid, some unable to express themselves for fear of making mistakes that could attract punishment from the teacher (Field observation, 5/11/2009).*

This is a demonstration that the colonial-culturally blended pedagogical practice is still ripe in the Ghanaian classrooms.

Agbenyega en Deku (2011) further refer to Mprah (2008) to illustrate as what they perceive as the pedagogical situation in Ghana, Box 14.

[35] Both have work experience as University lecturers on inclusive education and Deku, Prosper was a former head of the Department of Early Childhood Education at Cape Coast University, Ghana.

Box 14: description of teacher position in Ghanaian school system: Source Mprah (2008) in Agbenyega & Deku (2011; 16)

'..the teacher teaches and the students are taught, the teacher thinks and the students are thought about, the teacher knows everything and the student knows nothing, the teacher talks and the students listen and meekly, of course. The teacher is the subject of the learning process, while the students are mere objects. The teacher confuses the authority of knowledge with his or her own professional authority, which is set in opposition to the freedom of the students' (p. 1).

The role and image portrayed here of teachers in Ghanaian schools and in educational endeavours differs with the more positive teacher role postulated in the SCNSA (2006) *Guidelines on School Led Total Sanitation* handbook, Box 15.

Box 15: The role of teachers as postulated in the 2006 SCNSA *Guidelines on School Led total Sanitation* handbook, p. 35.

Teachers are regarded as the co-worker, supporter and facilitators to promote sanitation in school and community because of their enduring partnership/relationship with school and communities. Teacher play the vital role in building student's positive attitude and enriching their knowledge and skills towards sanitation through teaching.

Teacher's role is inevitable in mobilizing the students for sustainable promotion of hygiene and sanitation. It is because the students sincerely follow teachers and take and instant initiative to translate the acquired knowledge/skills in to practice as part of their life. As envisage by SLTS program, teachers can spearhead the overall program activities and motivate students to speed up hygiene sanitation and stop open defecation in school and its catchments.

The three boxes above show a discrepancy in what original SLTS endorsers from Nepal (SCNSA, 2006 handbook), birth ground of SLTS, opt for, and what format the approach takes when diffused to other countries, cultures and social systems. In the case of SLTS triggering in Ghana, health club members and teachers reported they attended a workshop, organized by Plan Ghana, that trains them on matters of hygiene and sanitation and urges them to further their knowledge and skills in their schools. An important question that comes with this step is: *In what way are knowledge and skills passed on?* Are the merits and goals (ends) of a clean and open defecation free school environment achieved, but at what costs (means)? Connotations by Agbenyeka & Deku (2011), Mprah (2008) and own in field observation give reason to question whether SLTS triggering in Ghanaian schools, given these implications, truly leads to children participating and becoming more empowered. Or are SLTS's core principles in Ghana undermined and encroached by a system of linear learning and knowledge transfer, maintained by teacher's supremacy roles and instilment of fear? Involving teachers in the process of SLTS undoubtedly as well means involving teacher's local culture and teaching methods. Taken to application of the SLTS approach at large, this implies the approach's global diffusion is subject to these local norms, cultures and practices. Rather than conceptualizing SLTS's diffusion as an homogeneous oil spill spreading across the globe, a more realistic image would incorporate it's adjustment to local contexts, implying a more diverse heterogenic spreading in which teachers' involvement and influence on the triggering/sensitizing of school children cannot be ignored.

Chapter 6: SLTS and behaviour change

6.1 Introduction

In this final chapter I look at the impact of children's engagement in School-Led Total Sanitation (SLTS) has on the behaviours of their family and/or community members. In chapter 4 I described the promotional activities used by children in Ghana and the groups they reach out to, chapter 5 questioned the reasons for child inclusion. This chapter considers whether adult family and community members adopt new health practices (sub-objective three) as a result of children promoting these (sub-objective two), see Figure 30.

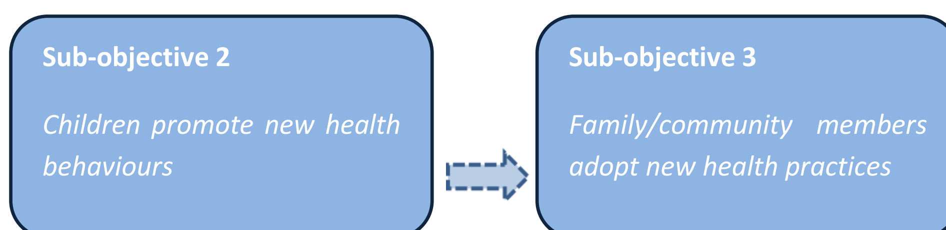

Figure 30: SLTS's second and third sub-objective

Before describing to what extent this relation can be verified, I first look at where and how the idea of enabling children to promote behaviour change originated, in this case in Nepal, where the SLTS approach developed (section 6.2). By looking at reports on SLTS's achievements in Nepal, and by drawing from my own field research, I argue that successes in open defecation elimination are prompted by multiple actors and cannot be solely accredited to children's engagement (section 6.3). Lack of current SLTS effectiveness figures form a base for section 6.4 to look at four conducted studies on school-based intervention programs[36], similar to that of SLTS, and regard their impact and the way these programs were executed. The idea behind this is that CLTS/SLTS implementers can take on board from these programs and their evaluations.

As in chapter 5, the findings in this chapter hinge on two development paradigms: the first relating to achieving the MDG sanitation goals and the second, approaches that relate to child rights and participation in development.

6.2 Origins of SLTS and community induced behaviour change

Since SLTS's offset in Nepal, a number of other countries have adopted the approach or recognized the potential of children in CLTS, also see Figure 6 chapter 1. This latter point is reflected by references to children as 'agents of change' (Sierra Leone), 'ambassadors of hygiene' (Ghana), 'agents for societal change' (Pakistan) (UNICEF Sierra Leone, 2012; Sarpong 2010; Khan *et al.*, 2008).

The 2010 workshop on SLTS and children's involvement in CLTS expresses similar notions: *'Children have influenced hygiene behaviours of their teachers, peers, juniors, parents, out-of-school children, community, [..], and have acted as child ambassadors. They have emerged as role models'* (Gautam *et al.*, 2010; 4). *'Children can motivate the adult'* (Setiawan & Rahman, 2010). The 'labels' and statements here show the wide take up of the view of the child enabling community change. In Ghana, adoption of this view is expressed by Sarpong (2011) and Magala & Roberts (2009). Sarpong (2011), concluding on the involved role of children within the CLTS process in the Oboyambo community furthers: *'In conclusion, the involvement and active participation of children in CLTS or*

[36] In which the school-child fulfils a central role of diffusing health lessons to community and family members

SLTS is paramount. Children are capable of transforming a community and therefore they should be involved in community developmental projects.' Magala & Roberts (2009) postulate: *'Plan Ghana has made an effort to use members of the school health club to sensitise the community through drama and songs. The community members seemed to have enjoyed the act by the school children and it may have contributed to the sustenance of ODF status in this community'.*

The School Hygiene and Education Program (SHEP), presented in chapter 4, and used in combination with SLTS initiatives for school children's triggering according to CRS (2009) similarly draws on the proclaimed relation between child involvement and community change: *'..Ghana's School Health Education Program also sees working with children and schools as a key health strategy, an entry point through which beneficial changes in behaviour can be introduced into the larger community'* (CRS, ibid; 10). Claims and statements above make clear this relation is broadly carried, and alleged to exist, but raises the question where such a solid belief in the approach originates from? An answer seems to come from SLTS's country of origin, Nepal, in its processor, the School Sanitation Hygiene & Education (SSHE) program, see Box 16

Box 16: child engagement in the Nepal's SSHE program attested as changing community behaviors. Source: SCNSA, 2006, p. 9

As a result of increased awareness brought about by the UN Decade of Water and Sanitation, a small-scale School Sanitation and Hygiene Education (SSHE) program, designed to gain experience, was initiated in Nepal in the late 1980s. A pilot project by UNICEF in 1997 followed it to implement an SSHE program in partnership with the Nepal Red Cross Society (NRCS) and Nepal Water for Health (NEWAH), using a child-to-child approach. From 2000 onwards, SSHE has been implemented as a regular program in the country under the coordination of Steering Committee National Sanitation Action (SCNSA) [..].

Fundamentally, SSHE program was designed to promote water supply facilities and latrines in schools, transform students' behavior through awareness and promote community sanitation through child clubs mobilization. This program has established children as bearer of change and schools as entry points for promotion of sanitation, thereby contributing significantly to the nationwide campaign for sanitation at large. SSHE program has by large contributed to National Sanitation Action Week Campaign (NSAWC).

With the joint initiatives of teachers, students and members of School Management Committee (SMC), Parents Teachers Association (PTA), activation and support of Community Based Organizations (CBOs) and the members of Village Development Committee (VDC), the SSHE program gave positive impacts on community sanitation, particularly in transforming people's behavior and promoting latrine. Different studies have shown that communities have begun to build the latrines on their own as a result of the promotional action implemented through SSHE and NSAWC. [...]

School Sanitation and Hygiene Education Participatory Assessment (SSHEPA), under taken by DWSS and UNICEF in 2005 in the country, has clearly shown that the SSHE program is effective and efficient in terms of cost, time and modality, indicating the feasibility of expanding the program across the country.

SLTS in Nepal was brought forward as an amalgam, that combined successful basic elements of the SSHE program with Ignition Participatory Rural Appraisal (IPRA) tools of the Community-Led Total Sanitation approach (SCNSA, 2006; 10). Adhikra & Shrestha (2008) similarly state on the emergence of SLTS: *'... a more rapid approach to scaling up sanitation impact on communities was required (in Nepal). So, in 2005, a pilot project entitled SLTS was initiated in coordination with government and other concerned partners. It recognised the potential crucial role that children can play as agents of change in sanitation and hygiene. The model builds on the achievements of a programme called SSHE. It integrates the reward and revolving fund aspects of Basic Sanitation Package[37] (BSP) and the participatory tools and techniques elements of Community Led Total Sanitation (CLTS).*

Three years after the initial introduction of SLTS in Nepal, same author Adhikari *et al.* (2008), working for UNICEF Nepal, brings out the report: *Nepal – School-Led Total Sanitation seems unstoppable.* Adhikari *et al.* (ibid; 2) clarify the scope SLTS has taken since its off-set: *'Since 2005, the SLTS programme has been set in motion in 15 districts of Nepal where UNICEF is active. Altogether, SLTS is reaching out to 60,000 households with 300,000 people, with leadership coming from 200 schools.'* Results achieved so far are reported to be: 75 school catchments achieving the Open Defecation Free (ODF) status, 25 settlements and 4 Village Development Committees (VDCs[38]). Another 125 school catchments areas are reported 'to be close' to the ODF status (Adhikari et al., ibid; 2, 3). How these figures relate to the target audience of 60,000 households at that time is however not made clear, making it hard to formulate a clear sense of, how 'unstoppable' SLTS actually is.

In 2010, two years after this report, Adhikari (2010) indicates a total number of 50 VDCs and hundreds of schools and communities having been declared ODF. Adhikari states: *'Contribution of SLTS in this regard is significant'* and *'A whim for achieving ODF situation is propagating as a social movement throughout the country. The SLTS program could therefore be accredited as both an evolution and revolution in sanitation. The momentum gathered in sanitation promotion stimulated by SLTS is promising'* (Adhikari, ibid; 4, 5).

Acclamations and testimonies above of SLTS's successes in Nepal provide a base for this global interest and statements that indicate others bear a same promising trust in the approach and wish to emulate it. The influence of UNICEF in its diffusion can also not be ignored, similarly as it did for CLTS in Africa, made clear by Bevan (2011) in the report 'A review of the UNICEF roll-out of the CLTS approach in West and Central Africa':

'The Community Led Total Sanitation approach has been introduced by UNICEF in 18 out of the 24 countries of both Francophone and Anglophone West and Central Africa since 2008. [..] Earlier introductions (2007-2009) ensured that CLTS had already become well established in Sierra Leone, Nigeria and Ghana.'

UNICEF's diffusion of SLTS is less prominently reported, but becomes indirectly apparent from UNICEF's strategy for spreading Community Approaches to Total Sanitation (CATS) programs, in which SLTS is one of the possible programs. Box 17 below show the central position CATS take up in

[37] In this approach communities achieving the open defecation free status receive a (financial) reward. The revolving fund provides credit on low interests for poorer households to afford the costs of a toilet. The money is paid back later, indicating the revolving (rotating) aspect of the fund.

[38] VDCs are similar to municipalities. They organize village people structurally at a local level. The VDC interacts with the public-government sector.

UNICEF's diffusion programs, given the framework the CATS principles (Essential Elements) form for UNICEF's sanitation programs worldwide.

Box 17: SLTS diffusion under CATS supported programs by UNICEF. Adapted from UNICEF (2009; 4, 22 & 28)

UNICEF's roll-out of CATS programs

Community Approaches to Total Sanitation (CATS) is an umbrella term used by UNICEF sanitation practitioners to encompass a wide range of community-based sanitation programming. A range of methods under the CATS umbrella: Community-Led Total Sanitation (CLTS) in Sierra Leone and Zambia; School-Led Total Sanitation (SLTS) in Nepal; and the Total Sanitation Campaign (TSC) in India. These are only a few of the many community approaches to total sanitation being under-taken around the world that exemplify the CATS Essential Elements.

CATS share the goal of eliminating open defecation. They are rooted in community demand and leadership, focused on behaviour and social change, and committed to local innovation. The CATS Essential Elements are the common foundation for UNICEF sanitation programming globally. These principles provide a framework for action and a set of shared values that can be easily adapted for programming in diverse contexts.

UNICEF works closely with governments and other partners in more than 50 countries around the world to mainstream CATS and bring sanitation programming to scale. [...] Worldwide application of CATS has the potential to bring the Millennium Development Goal sanitation target – to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation – within reach by transforming the global rate of progress in sanitation.

UNICEF supports Community Approaches to Total Sanitation (CATS) with the goal of eliminating open defecation in communities around the world. SLTS, developed and implemented by UNICEF and the Government of Nepal since 2005, draws on success elements from a wide range of Community Approaches to Total Sanitation (CATS) to create a complete package of sanitation and hygiene programming that begins at the school and extends through the community. UNICEF encourages inter-agency collaboration and partnerships for the implementation of CATS, including SLTS. Stronger linkages with international organizations, NGOs and other sanitation stakeholders on the ground are one means of scaling up SLTS and promoting other Community Approaches to .

This box demarcates UNICEF's strategy for diffusing CATS programs that bear the potential to realise the MDG sanitation target. SLTS is one of these programs. The success illustrated for the approach in Box 16 and by the claim that *'SLTS is accelerating latrine coverage in Nepal'* (UNICEF, 2009; 22) has given way for the approach and the proclaimed relation between children's involvement and community change in Nepal, to become adopted in various other adopting countries of programs of SLTS and/or Children in CLTS. Pakistan's 'Approach to Total Sanitation' is a clear example of this, drawing on CLTS, SLTS, marketing of hand washing, and Information, Education and Communication (IEC) campaign to attain the desired MDG goals and advance community led processes (MoEGoP, n.d.).

6.3 Notions on child promotion and community behaviour change

Impact of SLTS in Nepal are reported by Adhikari (2008; 2010) and UNICEF (2009). Impacts in these reports state how many people have been reached under SLTS endeavours in Nepal (300.000 – 500.00 people), how many schools and child clubs have been involved (300 and 730 respectively), the number of ODF settlements (1000). It is however unclear what these numbers mean in terms of effectiveness. Even for the impacts mentioned it is difficult to tell from whom this impact is coming. As Box 16 subsection three in this chapter makes clear, in Nepal various actors groups were reported to contribute to community progress. Bell (2010), in his internship research report studied four executed SLTS programs in the Chitwan district of Nepal. Drawing from field visits and interviews, Bell remarks: *'Each SLTS program had a different combination of committees participation'* and *'There are the committees and schools that guide communities to adopt toilet use. There are the NGOs and GOs that facilitate. There are the VDCs that can assist training or can contribute funds. Each institutional actor is involved in SLTS in a different way.'* (Bell, ibid; 37). As an indicator for institutional involvement, via conducted surveys, Bell verified which organization suggested toilet building to households. Figure 31 shows the composition of 'main motivating institution/actor' per case. Mainly outstanding is the role of family in motivating latrine construction. Schools are seen to have made an apparent contribution in the cases of Sharadanagar and Chandibhanjyang. However Figure 31 as well does indicate the responsible triggering institution for toilet construction varies from case to case and is multi-actor composed.

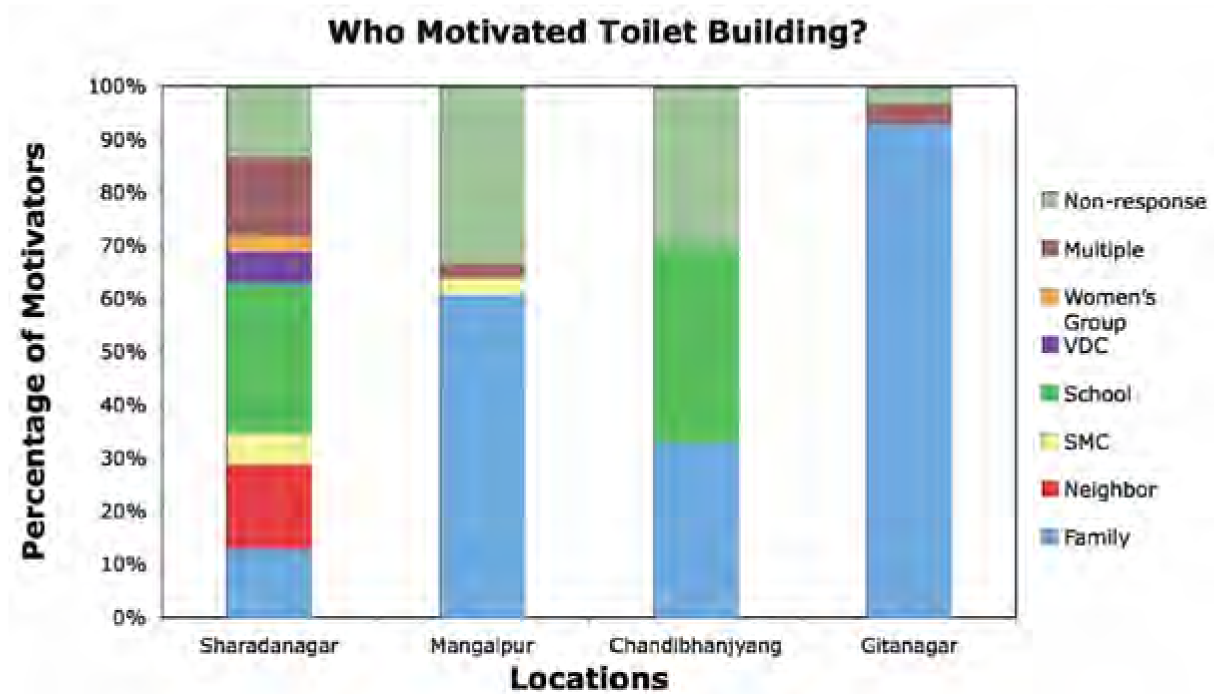

Figure 31: reported responsible institution for household construction. Source: Bell (2010; 38)

Overall the conclusion of SLTS in Nepal should be that successes in community triggering are the result of a joint effort and network of school, community, government and non-government based institutions. This is further underlined by Adhikari & Shresta (2010), in their report: '*School Led Total Sanitation: a successful model to promote school and community sanitation and hygiene in Nepal'.*

Regarding the institutional (actor) set-up in the Nepalese SLTS model[39], Adhikari & Shresta (ibid) explain as follows, see Box 18:

Box 18: actors involved in the Nepalese SLTS model

> The model (SLTS approach) is a decentralised one which has led to the establishment of the Regional Sanitation Steering Committee (RSSC), District Sanitation Steering Committee (DSSC), and sanitation sub-committees and child clubs. The DSSC implements, monitors the SLTS programme in the field and reports to NSCSA (National Sanitation Committee) on its achievements and key learning. DSSC manages, mobilizes and supervises the school-based child clubs and sanitation sub-committees.
>
> There are 162 child clubs in 162 schools and sanitation sub-committees carrying out preparatory work, ignition/implementation and self-monitoring/follow-up of the SLTS programme in the school and community. There are also a number of local level networks and bodies involved. These include: school management committees, parent teacher associations, Village Development Committees (VDCs), women cooperative groups, community based organisations/clubs and volunteers. They're all playing an effective role in local level community mobilisation, awareness generation, as well as the programme's implementation and monitoring.

The multifaceted side of the Nepalese SLTS model means its adopting countries cannot simply duplicate the approach in their countries by pivoting on children's involvement. It means arranging or setting up of an institutional base that can support implementation, monitoring and control of the approach over its full width. Overly hinging on the (successful) role of a single actor group misrepresent the on-the-ground reality. Further such an over-identification poses a risk of imposing unrealistic expectations on an actor group which it in reality might not be able to meet. Before more conclusive findings verify the relation of child promotion and community behaviour change, SLTS endorsers should be aware they see children's contributions and roles for what they are, and do not portray them as a standalone in community sensitization.

Conducted field visits in the communities of Koliete and Surpong Ric as well point towards this multi-faceted side in community development. The communities' adjacent schools were triggered via SLTS and children from the local school health clubs who had told their parents on the need for washing their hands and building a latrine. Some of Koliete's community members had taken up the initiative to construct their own latrines and install hand washing facilities, see Figure 32, but what effect the children had on this, is hard to tell. The locally present WATSAN[40] group participated in activities of PRA tools, such as community mapping and a community walk to jointly identify WASH[41] related points. In the community of Surpong Ric the local WATSAN group engaged with the community members in the form of house-to-house visits and a community meeting/debate.

However, both communities also were situated in an area where 'sanitation marketing' is used. A concept which emerged in the Afraim plains in Ghana in 2003, to 2003 to overcome the tedious and ineffective practice of elaborately describing and sketching of various latrine types on papers, boards and the ground (WaterAid, 2004). Under this concept marketing of latrines is done in a centre

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[39] Here Adhikari & Shresta (2010) refer to SLTS as a model, in general SLTS is addressed as a sanitation approach.

[40] WATSAN is the short form for Water & Sanitation

[41] Acronym for Water, Sanitation & Hygiene

(market place) where various latrine options are showcased, constructed from locally and regionally available materials. Interested community members receive information on possible latrine options and hand washing facilities, plus the materials to use for construction and availability of artisans to support construction works in communities (Magala & Roberts, 2009, p. XI). Plan Ghana has installed a sanitation market (sanimart) in the Eastern Region, just outside the city of Asesewa. Figure 33 displays the set-up of such a sanitation market. One of Plan Ghana's facilitators in the eastern region to be used in demonstrating optional latrine models to community members and in this way stimulating grassroots initiatives. Community latrines in Koliete showed resemblances to showcased latrines in Asesewa's sanimart.

Figure 32: latrines constructed by members of the Koliete community, Ghana.

Figure 33: example of the set-up of a sanitation market in the north of Ghana, source: Elvis Abodo, WATSAN advisor Plan Ghana

All these initiatives and influences present around the community make it harder to assess and pinpoint who's contribution, or what other influence is responsible for persuading community members. Njuguna *et al.*, (2008) remark the difficulty of establishing after a school intervention program the factor or actor responsible for a positive impact, a remark which can as well be translated to the community context: *'..it is very difficult to isolate the effects from one set of interventions for WASH in schools, compared to other interventions. Many agencies in addition to*

UNICEF have supported school programmes. Therefore, it was not possible to separate the inputs for water, sanitation and hygiene supported by one agency from those supported by another (or from government). Therefore, statements that address children's promotional role as key and paramount must be closely monitored against the background in which any successes were achieved.

Given CLTS and SLTS novelty, its monitoring in some countries is still in its infancy, providing limited information on the achieved results, which by CLTS/SLTS implementers are usually measured in terms of the ratio ODF communities to triggered (CLTS or SLTS) communities (Bevan, 2011). Bevan & Thomas (2009) mention the successful duplication of SLTS in Sierra Leone, but refrain from specific results: '*Specific CLTS concepts have transferred well from countries in Asia to West Africa – for example School-led Total Sanitation (SLTS) from Nepal has been found to work well in Sierra Leone.'* A UNICEF Sierra Leone (2012) report sheds more light on this and mentions for the results of SLTS in Sierra Leone: *'888 communities have been triggered by SLTS or SLTS/CLTS (367 by SLTS and 521 by SLTS/CLTS), of which 188 communities declared ODF by SLTS exclusively and 305 communities sustained ODF through SLTS/CLTS as of November 2012 (UNICEF Sierra Leone, 2012; 5).*

Effectiveness figures for SLTS in Sierra Leone are than 51% for exclusive SLTS triggering and 59% for SLTS/CLTS triggering. Effectiveness figures of other SLTS adopting countries are not there yet, however for West Africa these figures are available for CLTS, see Figure 34. Bevan & Thomas (2009; 8) argue for a proposed optimum triggering ratio of 50%, SLTS and SLTS/CLTS triggering in Sierra Leone complies to this standard, however telling from Figure 34 CLTS triggering in many West-African countries is well below this standard.

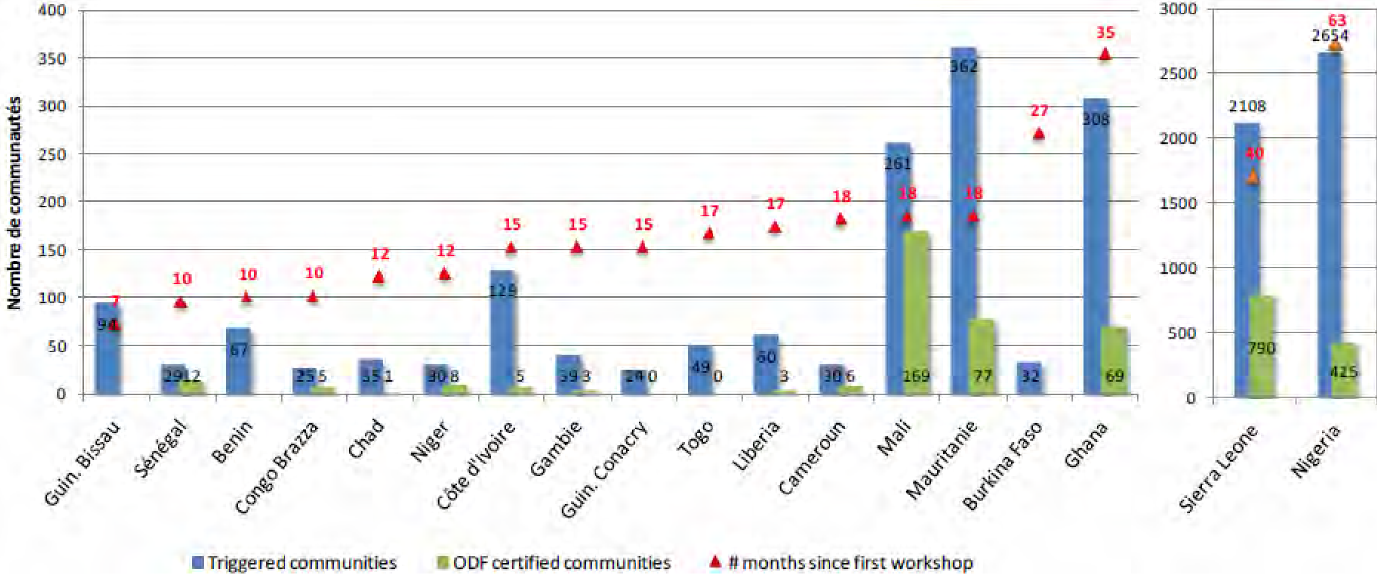

Figure 34: ODF declared communities and triggered communities in the West Africa region. Source: Bevan, 2011, p. 3

This figures indicates the success ratio for Ghana was 22% for triggered (308) to ODF declared (69) communities up to 2011. Other countries with more than 100 triggered communities are Mauritania, with a ratio of 21%, Ivory Coast with 4%, Mali with 65%, Sierra Leone with 37% and Nigeria with 16%. In Ghana's direct neighbouring countries of Togo and Burkina Faso, zero communities had yet been declared ODF. CLTS's novelty in the region argues for the program needing time to become effective. In Sierra Leone where CLTS was implemented for 3 years since the time of measurement, the success ratio was 37%. In Nigeria however, where CLTS implementation has the longest history in the region,

over 5 years since the time of measurement, the success ratio is 16%. Triggered to ODF declared communities shows issues of effectiveness. Notions by CLTS evaluators Bevan & Thomas (2009), reviewing CLTS achievements so far in the West Africa region, makes this clear:

Box 19: triggered communities versus those declared ODF in the West Africa region. Source Bevan & Thomas, 2009; 8

Experience shows that a high percentage of triggered communities are in fact is not achieving ODF status. Further study is required to understand the reasons behind the stalling. It is recommended that the high rate of incompletion be studied before CLTS is introduced to new communities. In the countries more advanced with CLTS in the West and Central African region, i.e. Sierra Leone, Nigeria and Ghana, there are a very high proportion of triggered communities versus those which have declared ODF status, i.e. the process is begun, and commitments made, but for some reason the latrines are not being built. This suggests there are issues with the follow-up in the triggered communities, and that it would be preferable to return to these and pursue ODF before triggering any further communities. The lessons which would be drawn from this exercise would, in turn, make subsequent triggering that much more effective. An optimum ratio of triggered to ODF needs to be established (possibly around 50%) and worked towards.

In light of these effectiveness issues the contrasting claims in literature around CLTS are remarkable. For example Hickling & Bevan (2010) state: *'speed of implementation and results has been seen as a very positive selling point for CLTS'.* And Bevan (2011) in the same report with Figure 34 above states: *'if gains under CLTS continue to progress at the same rate, it has the potential to bring many of the region's countries on target for the sanitation goals of 2015 (MDG7)'.* Magala & Roberts (2009; 39) on the one hand state: *'...it is not automatic that once communities are triggered, they will become ODF. Only 69 out of 308 (25%) had attained the ODF status'*. On the other hand Magala & Roberts (ibid) portray a bilateral success picture of CLTS by stating in the key findings section of their CLTS evaluation: *'CLTS has proven to be an effective approach to reducing the high rate of OD in Ghana'* Magala & Roberts (ibid; xii). These present issues around CLTS inquire for further monitoring of SLTS/'Children in CLTS' triggering. Do triggering ratios as well fall short for SLTS? Do promotional efforts by children under SLTS impact their communities' perceptions and practices? In the following section the focus is on this question.

6.4 Validations of child promotion and change of community knowledge and practices

Studies validating this relation have so far not been conducted for SLTS related programs. Even on a wider scale indicative figures on child promotion and community behaviour change are rare, though a small number of these studies have been conducted, see Table 14. The studies shown in this table evaluated impact of school-based health interventions in four different country setting: Laos, Kenya, Indonesia and Ghana. For each study the object of the study, method, central interventions elements are described, plus the intervention's reported impact. The studies in Indonesia and Kenya focused on knowledge and practices around diarrhoea and its treatment. Beside this the Kenyan study looked at the problem of malaria, which was the central theme in the studies conducted in Laos and Ghana. Though the shown study objects in this table differ from that under SLTS – focussing on elements and danger of open defecation and hand washing – the studies provide a case that argues for the case of involving children in CLTS/SLTS triggering. Current SLTS implementers can learn from these studies and school-based interventions. Below, after Table 14, I specify what.

Table 14: studies that investigated the relation between school-based promotional activities and community impacts. Contents adjusted from studies to fit table

Laos	**Report title**	*'Malaria education from school to community in Oudomxay province, Lao PDR'*
	Author(s)	Nonaka *et al.*, 2008
	Year of study	Between October 2004 and February 2005
	Object of study & method	Evaluate the influence of school-based malaria education on the knowledge, attitudes, and practices of people in the community toward malaria. Conduction of a school-based intervention and comparison of scores obtained before and after the intervention.
	Elements of intervention	▪ Two days of training for all teachers of the 2 intervention schools. During the training information was provided on malaria and the educational approach using a flipchart. The teachers were actively involved in the training. ▪ The intervention included presentation of a flipchart at home by children. The flipchart shows a story of a school child as a hero who learns about malaria through malaria-related events happening around him for example, his friend's death, his father's malaria infection and health centre's activities. ▪ Flipcharts were distributed to participating children through their teachers. The children completed them by colouring. ▪ Children were instructed to present the flipchart to their family and village members. ▪ And a 1-day campaign conducted by the school children and aimed at the community consisting of demonstrations, transect walks and a quiz based on provided information in the flipchart.
	Reported impact	*'Results of our study showed that the malaria education provided to school children led themselves, their guardians, and the community women without children in the target grades to improve their malaria-related knowledge, attitudes, and practices in rural Lao PDR.'*
Kenya	**Report title**	*'The potential of schoolchildren as health change agents in rural western Kenya'*
	Author(s)	Onyango-Ouma, Aagaard-Hansen, Jensen, 2005
	Year of study	Between January 1998 and June 1999
	Object of study & method	Determine the potential of school children as health change agents in a rural community. The intervention focused on two prevalent problems – malaria and diarrhoea - and related hygiene issues. School children's knowledge and practices as well as the influence on recipient groups, consisting of peers at school and parents/guardians at home, were studied via questionnaire surveys.
	Elements of intervention	▪ A 2-daytraining workshop was held during which teachers were introduced to action-oriented

		methodologies, by a group of local resource persons. ▪ A 1-month follow-up training to clarify methods and modalities of implementation as well as field visits to schools implementing Child-to-Child[42] activities were organized for study teachers. ▪ The schoolchildren were given health education using action-oriented and participatory approaches (use of drawings, role-plays, drama, songs and poems) ▪ After this a follow-up phase started in which students worked as health communicators in the school, in the local community and in their families.
	Reported impact	*'Significant improvement in knowledge was detected in all recipient groups. Behavioural changes were more evident among the children than among the adults. The impact of the project was reflected in concrete changes in the school environment as well as the home environments.'*
Indonesia	**Report title**	*'Elementary-school pupils as health educators: role of school health programmes in primary health-care'*
	Author(s)	Rohde, Sadjimin, 1980
	Year of study	June, 1980
	Object of study & method	Test the impact of health lessons on diarrhoea for primary-school children on community knowledge, attitude and practices around diarrhoea and its treatment. A ten question knowledge, attitude, practice (KAP) survey was conducted on 78 community samples[43] beforehand and 47 after the school-based intervention.
	Elements of intervention	▪ A manual was designed for primary school teachers with instructional objectives, teaching aids readily available in or around the school, lesson guides, stories for reading in class, posters and visual aids to illustrate lessons, and evaluation tools (multiple choice tests) for measuring effectiveness. ▪ Five half hour lessons on diarrhoea were given in class by teachers ▪ Children were encouraged through homework tasks to share this knowledge with their families
	Reported impact	*'The findings show a substantial improvement in the second test (after the intervention). They show that knowledge about prevention, appropriate treat, and need for referral in cases of diarrhoea can be effectively passed on from authors to health-centre staff, to teachers, to pupils, and then to parents and neighbours.'* (p. 1351) *'Not only did the schoolchildren grasp important points about diarrhoea but also, and of more importance, transmitted information effectively to their families, thus changing knowledge, attitudes and providing new skills in the community.'* (p. 1352)

[42] Child-to-Child (CtC) refers to the child to child approach, see introduction chapter 1, **Table 2**, year 1987

[43] Paper does not define whether these are surveyed community families or community members.

Ghana	Report title	*'School-based participatory health education for malaria control in Ghana: engaging children as health messengers'*
	Author(s)	Ayi *et al.*, 2010
	Year of study	between 2007 and 2008
	Object of study & method	The objective of this study was to determine the impact of school-based malaria education intervention on school children and community adults. Questionnaire-based interviews and parasitological surveys were conducted before and after the intervention.
	Elements of intervention	▪ At the beginning of the intervention a two-day training was conducted for all teachers at the intervention school, providing malaria-related information and introduction of PLA[44] teaching methods. Strategies for effective implementation of malaria education activities in the schools and villages were discussed ▪ The research team provided picture charts and posters on malaria transmission and prevention, used for teaching children in the participating grades. ▪ Teachers guided the children through dramatizing the transmission of malaria and prevention methods ▪ The teachers then led the children to observe their school compound and cleared possible mosquito breeding sites such as open cans and dumped containers ▪ Children were also encouraged to draw pictures on malaria according to their understanding of the malaria education they received and voluntarily use the pictures to educate their peers and adults in the village ▪ The teachers composed a song in the local language on malaria to educate the children and community on malaria transmission and prevention ▪ The teachers and 3rd to 5th grade children of the intervention school also conducted a one-day anti-malaria campaign in which they educated the village residents on malaria through a number of recreational activities.
	Reported impact	*'After the intervention, the misperception that malaria has multiple causes was significantly improved, both among children and community adults. Moreover, the community adults who treated a bed net with insecticide in the past six months, increased from 21.5% to 50.0%. Parasite prevalence in school children decreased from 30.9% to 10.3%.'* *'This study suggests that the participatory health education intervention contributed to the decreased malaria prevalence among children. It had a positive impact not only on school children, but also on community adults, through the improvement of knowledge and practices.'*

[44] Participatory learning and action

SLTS and reflections on other school-based interventions

The studies above indicate health based interventions focussing on the contributing role/potential of the child have been executed before SLTS. This reaffirms what I argued for in Chapter 1, that CLTS and SLTS are approaches situated in larger development trends of child inclusion, child participation and locally based (bottom-up, hands-off) interventions. In Table 14 the first intervention incorporating children was executed in 1980, in this decade the first programs with a specific aim at children emerged as an outflow of the Child-to-Child approach. Programs ever since, including SLTS, have further build on this trend.

The studies above show the central role teachers fulfil in these interventions. All four interventions were executed with the help of teachers. In three of them - Laos, Kenya and Ghana - teachers participated in a two-day training workshop before 'triggering' their pupils. SLTS implementers should reflect on these priory executed school-based interventions. They stress the need that a school-based intervention can make an impact when involving and training teachers beforehand, enabling them to approach children in the right ways.

Elements that come to the front in school children triggering their parents/guardians and community members is the use of visual or learning aids. In Laos children were given flipcharts to guided children's triggering efforts. In Ghana children were encouraged to make their own drawings on the topic of malaria after being educated on this and to share these drawings with their parents. In Indonesia homework assignments provided children with a concrete way of approaching parents. SLTS with a similar component of school children triggering others, can learn from these triggering methods and see where children can be better supported to effectively trigger parents and community members.

In terms of monitoring and validating SLTS implementers should aim to conduct similar studies for SLTS interventions, which from an impact point of view provides further ground for involving children in intervention programs. Differences in established impact figures can further indicate useful elements in school-based programs.

Chapter 7: Discussion

7.1 Introduction

By closing off the sixth chapter on 'SLTS and behaviour change' the third research objective of this research comes to a conclusion: *evaluate whether or not SLTS generates behaviour change that is likely to be sustained?*

Chapter four and five were the outcome of the first and second research objective respectively: *distil characteristics of SLTS in Ghana*, and *evaluate if international and national policies and programs related to sanitation as well as local norms and/or culture provide an enabling environment or are in conflict with SLTS goals and objectives.*

In the introduction chapter these objectives were posed as the main research question guiding this research:

- What are the country characteristics of SLTS in Ghana? [chapter 4]
- Are SLTS principles conflicting with other internationally and nationally employed policies, programs and local norms and culture? [chapter 5]
- Does SLTS generate sustained changes in school and community health behaviour? [chapter 6]

In conclusions to the research question in this final discussion chapter I will answer these questions from the outcomes in chapters four, five and six. In line with the order of presentation above, these questions are consecutively addressed below.

7.2 Country characteristics of SLTS in Ghana

This first research question, and the title of chapter four: 'SLTS characteristics in Ghana', may give reason to presume School-Led Total Sanitation (SLTS) has been widely adopted in Ghana as it is in Nepal. However, when regarding Ghana's current political sanitation and education framework, this indicates no uptake of SLTS. References are made in policy strategies to eliminate open defecation and the preferred use of Community-Led Total Sanitation (CLTS), SLTS however in Ghana turns out to not have been politically/governmentally adopted (yet) as a preferred strategy. This is one of the first contrasts with SLTS's country of origin, Nepal.

From the field of its implementing organizations in Ghana a same outcome results. Implementers of CLTS/SLTS in Ghana sporadically refer to the approach as SLTS, in general reference is made to children's involvement in CLTS, or in short: Children in CLTS.

Likewise as in Nepal, reviewed interventions of SLTS/Children in CLTS in Ghana, show components of triggering of school children (triggering phase 1) and school children in turn triggering others (triggering phase 2). Section 4.3 described in detail the actors and activities involved in both triggering phases. The outcome for the first triggering phase is that an array of triggering agents can be defined. Use of 'school based' triggering agents (teachers and health club members), which are exposed to health lessons in workshops before triggering their schools, was found as a common practice in Ghana. Not all cases built on such a model – two cases indicate the triggering of schools to be exclusive to external facilitators. Activities used in this process are verbally informing others on the dangers of open defecation and importance of hand washing and demonstrating how to properly

wash one's hands. Two literature cases described more interactive activities such as: quiz competitions, drama, role play and the 'glass of water' method.

Though the level and intensity of external involvement in each of the triggering activities is not available from literature or the conducted interviews, the more interactive set of triggering activities does suggest a larger involvement of external facilitators, since these activities require more guidance than simply telling others. The 'glass of water' method, applied in Kanchau school, was fully coordinated by external facilitators.

I argue that the cases in which the involvement level of external facilitators is low, or in which the external facilitators are solely involved in acquainting teachers and health club members of the schools during a workshop (without attending the in-school triggering process), are more likely to display a narrower, less innovative set of triggering activities used.

A similar conclusion can be drawn for the process of school children triggering others. Two cases do report school children singing songs in the streets of their communities. However both activities were likely to be accompanied by an external facilitator guiding these activities. Cases leaving the triggering of others to school children and teachers themselves – less external involvement – display a narrower, less innovative set of triggering activities. In such cases, triggering activities mainly draw on telling others and are found to focus more on telling peers and family members, rather than the entire community.

An important aspect which came up in section 4.4 [social characteristics] and was addressed in chapter 5 is Ghana's social hierarchy and culture of respect for elders which may explain the more limited triggering process of triggering others.

External facilitators with their presence can acknowledge children to engage in community wide triggering activities. Cultural barriers, which impede children to lecture respected adult community members are than temporarily overcome by the presence of the knowledgeable, external adult facilitator. Even the presence of teachers during such activities, can provide children a *passe-partout*, based on the position of teachers in Ghana's society as made clear by Kuyini & Desei (2007): *'..in Ghana, authority figures [teachers], still have a formidable capacity to influence subordinates..'* and Osei (2006*): 'teachers can operate as agents of change, providing informed intellectual input not only to pupils, but to their families and communities.'*

Those interventions which leave children on their own in the process of triggering others (phase 2), will give children less 'backing' in their efforts to triggering adult community members and leave them more prone to a culture in which children's position is subordinate to that of adults. In section 7.3 I further discuss on both social characteristics. For now it bears enough to say that social characteristics of 'teachers' authority' and 'the culture of respect for elders' do shape triggering processes in Ghana and influence larger development goals of child rights and children's participation.

Triggering of school children in Ghana was seen to be accompanied by providing schools with hand washing facilities, and in two cases with latrine facilities. Not all SLTS/Children in CLTS interventions than are accompanied with a component of hardware/latrine delivery, such as was the case for Odichirase school. This makes it hard, or even bluntly impossible for children to act on intentions of defecating in a safe way. The delivery of hand washing facilities was done by a different organization

(CWSA) than that involved in the triggering (social delivery) of hygiene and sanitation (Plan Ghana). Granting of hand washing facilities during the 2011 global hand washing day campaign gives reason to question the synergy of hardware and software delivery in schools when granting of such facilities for a global festivity is not the case. Maintenance issues further stress this incongruity.

Provisioning of latrine facilities, enabling children to safely dispose of faeces, shows a mixed picture in Ghana. One school (Mankessim) received its school latrine facilities from an external source (CIDA) in congruence with the triggering process. The school of Koliete owed their latrine facility to the efforts of the local community in building one. Odichirase school lacked such an initiative and in Surpong Ric a concrete structured latrine facility had been in place already, prior to triggering of the school. Political will in Ghana was reported for continuing subsidization of latrine facilities in schools. Observation of the four cases above shows however an irregular image, with none of the four schools owing its latrine facilities to governmental endeavours. In the case of Mankessim this is owing to the external donor agent CIDA. For Odichirase and Koliete no external support is given. Current SLTS/Children in CLTS intervention in Ghana than do not display a regularity and a clear line in school triggering and endowment of latrine facilities.

Questions than can be put if the necessary physical/enabling environment meets children for fully adopting the lessons that come to them via triggering. The school of Odichirase showed this is clearly not the case, given the on-going open defecation practices.

7.3 SLTS and its areas of friction

The second research question postulated in this research examines the areas of conflict, or put more mildly 'areas of friction' around SLTS. Similarly as above we first need to know what is understood by SLTS in this section.

Drawing from the last section comes the conclusion that this means the participation of children in CLTS/SLTS designated interventions. So the second research question could be phrased as follows:

Does the participation of children in CLTS/SLTS designated interventions create friction with internationally and nationally carried policies, norms and culture?

Chapter 4 and 5 provide the background for answering this question, and the observant reader might readily recall the culture of 'respect for elders' arising on the national level as an area of conflict for SLTS (children's participation). Björnsdóttir (2011; 78) clarifies this: '*The tradition of respecting your elders, which reflects the social hierarchy in Ghana quite well, was also identified as a cultural obstacle to children's participation'.* Another aspect would be the sometimes harsh, one-way, autocratic, and possibly even intimidating and 'fear injecting' role of teachers. Below I expand on these national 'conflict areas'. Later in this discussion, I will address international arising issues regarding children's participation.

Respect for elders

The initial recommendation for SLTS/Children in CLTS implementers in Ghana is to acknowledge the culture of respect for elders and teachers' possibly harsh roles and not be oblivious to the influence of these 'social systems' on the participative nature of children.

Ideally children's participation is unrestrained, openly welcomed and encouraged. In practice however restricting, rejecting and discouraging reactions will meet children's participate,

promotional actions. Section 5.3, on the offensive reactions to children's endeavours in triggering others, underscored this.

The question is how this situation can be improved, and how more open and welcome reactions can meet children's participative actions. The answer to this is twofold.

One the one hand as stressed by Gautam *et al.* (2010; 5), adults are not always aware of the rights of the child and adults bear cultural views which regard children being insignificant compared to adults. Improving this situation would mean raising awareness of children's right to participate, speak and co-decide. It would mean aiming at changing adults' perception of children from insignificant to significant. Changing concepts of 'children that publicly speak and participate become spoiled and undermine adults' views' to 'public child participation has the best interest for the child and society as a whole'.

Clearly such an 'awareness creation campaign' and tilting of 'societal views' is matter for the social anthropologist. Therefore I will refrain from going any further into how to realize such change in societal views. I simply point to what can contribute for improving children's participation.

The second way to improve and secure children's participation within this culture of respect for elders is on the side of the children. This has to do with adapting those promotional activities of children which are culturally approved in Ghana. In chapter 5 I highlighted this point by referring to the cultural (dis)approval spectrum, figure 29, on which various triggering activities can be placed.

CLTS/SLTS implementers drawing on children's involvement for triggering of the wider community should be aware of the child-led triggering activities that are publicly welcomed and the ones which are publicly denounced. Child-led triggering activities can then be further tailored to the local cultural context.

One thing which this cultural (dis)approval does not show, but which might bear an (unseen) influence on reactions coming towards children is the presence or backing of child-led triggering activities by a culturally seen 'significant adult'; a teacher, village chief or even external facilitator, which was briefly addressed in the prior section. External facilitators or teachers present during triggering activities can help to overcome cultural barriers, making adult community members feel the activities are important since these are approved of by respected actors. Community members in a community where the 'no open defecation rule' is supported by the local village chief, provide children with a cultural frame that allows them to report adult open defecators.

Another comment to make with regard to child-led triggering activities is the moment at which these occur. Triggering of community members and children at the same time, or separately with community members being triggered previous to the children may impart a greater sense of understanding and tolerance towards child employed more rigorous and one-way triggering activities.

Teachers' effect on child participation

The focus in the section above was mainly on the culture of respect for elders and social approval or disapproval of child-led triggering activities. In this section I expand on a second identified social characteristic that creates an area of conflict, namely the authoritative role of the teacher in the Ghanaian education system and its effect on children's – in school – participation.

Again for identifying the area of conflict I first look at what children's participation in their schools and class rooms ideally looks like. In chapter 5 I referred to the UN convention of Rights of the Child, highlighted by Kangamba & Tunsisa (2010; 2) for pointing out minimum standards that should be in place to secure children's meaningful participation in CLTS/SLTS, see also Box 8. They make clear to see children's participation as a right. This participation right means:

'Children have rights to be listened to, to freely express their views on all matters that affect them, and the freedom of expression, thought, association and access to information.'

This contrasts with what Mprah (2008) in Agbenyega & Deku (2011; 16) states:

'..the teacher teaches and the students are taught, the teacher thinks and the students are thought about, the teacher knows everything and the student knows nothing, the teacher talks and the students listen and meekly, of course. The teacher is the subject of the learning process, while the students are mere objects.'

Children's participation would mean 'they are listened to'. The quote by Mprah (ibid) makes clear 'the teacher talks and students listen'. Child participation means 'freedom of expression, thought, association', Mprah (ibid) states: 'the teacher teaches..., the teacher thinks..., the teacher knows...'.

Reports by others on Ghana's education system, outlined in chapter 5, Box 13, also stress the linear, one way and punitive learning system in schools. CLTS/SLTS implementers should note than that this system contrasts with the under SLTS opted for meaningful participation of children. The current reported Ghanaian education system is at odds with participative rights of 'expression, being listened to, self-realization and thinking'.

Just as with the culture of respect for elders the question is how to deal with this in class, traditional hegemonic system. One similar answer is, making teachers aware of child rights. Facilitators in SLTS/Children in CLTS interventions and engaging schools could fulfil this role. The remaining question however is how easily this traditional colonial and kinship system in the Ghanaian class room is overcome.

From a national level the answer to the question if SLTS (children's participation) conflicts with local norms and cultures is yes. However steps can be taken to minimize these conflicts, although changing social norms may present a challenge as big as spreading hygiene and sanitation.

International areas of conflict

The local or national areas of conflict addressed in the section above indicate children's participation in Ghanaian society should not be taken for granted.

Though on an international level is debated and argued for children's right and meaningful participation – even by practitioners of CLTS/SLTS who refer to the UN convention of the Rights of the Child – on the ground issues remain.

Current conceptualizations of children as 'agents of change' and 'ambassadors of health and hygiene' should concern international actors with an aim of securing children's right. In chapter 5 I highlighted the potential tension that child participating programs might create when coming in 'the grey zone'

of encouraging or imposing child roles, given the premeditated steering of children in a specific direction. The question asked was:

What facilitating actions can still be seen as simply 'developing' or 'encouraging' children's roles without crossing the line of 'politicizing' children and employing them for CLTS/SLTS's objective of ending all open defecation? Cases of 'materializing' children, giving them the means to (rigidly) trigger community members, contrasts with the unbridled, spontaneous participation of children.

Comments by CLTS/SLTS implementers made clear their preference for including children in their interventions given the honest and open nature of children. Traits by which children are conceptualized as 'empty vessels' and 'ready recipients for learning'. CLTS/SLTS facilitators should make sure not to use children's open and welcoming nature for their strategic employment in development interventions.

Facilitators involved in SLTS/Children in CLTS interventions, bear a responsibility of balancing the intended program goal of community members being triggered, to that of free, unbridled child participation.

7.4 SLTS, effectiveness issues and uncertain behavioural impacts

One of the issues and uncertainties remaining with SLTS/Children in CLTS is the impact of these interventions on adult community members.

Even in Nepal where 'the success' of SLTS began, descriptions on the success of the program here mention a multitude of actors involved – VDCs, PTAs, sanitation committees, teachers, school children – in programs of hygiene and sanitation promotion. Therefore, impinging the success of SLTS/Children in CLTS solely on account of the child rather seems to be an over-identification on their role.

Secondly, one should hold back on such an over-identification of the role of children, simply for the fact that still much is unknown about the actual impact children's involvement has on the perceptions and practices of adult community members.

Effectiveness figures for SLTS/Children in CLTS are still completely lacking, or only available for a single SLTS implementing country (Sierra Leone), and where these are available for CLTS these show strong issues of effectiveness already in the West-Africa region, as Bevan & Thomas (2009) make clear: '*Experience shows that a high percentage of triggered communities are in fact is not achieving ODF status'*.

Such an 'outstay of success' gives reason to question the 'pillars or principles of success' on which both CLTS and SLTS are build. Bevan & Thomas (2009) would favour to first untangle issues such as follow-up, before triggering any further communities.

I argue from a same base, that CLTS/SLTS implementers first need to optimise their approach if possible. Alluding and promising numbers of millions of people and thousands of communities being triggered do not guarantee anything about the long-term success of the approach. Such a continuation of triggering may even do more harm to 'bringing sanitation and hygiene' to the rurally underserved on the long run. Particularly communities which have been involved already in various

intervention/development programs can become mistrusting and insensitive to yet another program reaching out to them.

CLTS/SLTS implementers recognise this effect themselves by favouring communities which have not participated in any intervention programs yet for CLTS/SLTS triggering (Musyoki, 2011). With the effects of triggering staying out, CLTS/SLTS implementers might create a situation for future development workers/interventionists, which they initially wish to avoid themselves.

SLTS/Children in CLTS can learn from other programs in terms of success factors, monitoring and validating the impacts of what I call school-based intervention programs. Programs in which the school is the leading institution – just as in SLTS: ''School-Led'' – for spreading health lessons. Studies from four countries, from varying periods of times – 1980, 1998/1999, 2004/2005, 2007/2008 – show such programs are not 'patented' by CLTS/SLTS.

Again the recommendation for CLTS/SLTS implementers would be to put the focus inward, on issues of effective triggering, monitoring and follow-up, before focussing further outwards on a continuing global rapid spread of the approach. Chambers (2009) highlights that an emphasis on the outward spread is likely to undermine the quality of CLTS: *All demands that CLTS go instantly to scale threaten quality. Training, reorientation and support for facilitators, and training of trainers, are vital, need time, cannot be rushed, and become bottlenecks. Paradoxically, too much support can undermine the spread of CLTS itself* (Chambers, ibid).

In essence, the remark for CLTS and SLTS is that the quality and current effectiveness of the approach needs to go up, rather than pinning its success on quantitative hollow triggering numbers. The answer to the question – *Does SLTS generate sustained changes in school and community health behaviour?* – would at this point be: we don't know yet, since many programs are not well monitored on their impact. Current issues with SLTS forerunner of CLTS – communities not becoming ODF – incline to believe similar behaviour change issues occur under programs involving or completely centring around schools.

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Annexes

Annex 1: observation check list for SLTS

Date: …… March 2012 District: ……………………………

Region: ………………………… Community: ………………………

Hardware	
Number of latrines	In school: ………….. In community: ……….
Type of latrine(s) available	[ ] Dry open pit latrine (without slab) [ ] Dry pit latrine with slab [ ] Pit latrines with pour flush and ventilation [ ] Bucket/pan toilet [ ] Urinals [ ] Others: ……….
Latrines specifics	Door locking possible: No [ ] , Yes [ ] Latrines for both sexes: No [ ] , Yes [ ]
Latrine condition	[ ] Good state [ ] Some signs of cracks, damage [ ] Severely cracked, damaged
Latrine use (faecal, urinal, cleansing traces)	[ ] Signs of use [ ] Some signs of use [ ] No signs of use
Availability of HWF* * Hand Washing Facility	No [ ] , Yes [ ] Number …. in school Number …. in community
Type of HWF	[ ] Source of stagnant water, bucket [ ] Pumped from well [ ] Contained in a drum [ ] Other: …………..
Condition of HWF	[ ] Good state [ ] Some decay [ ] Severely damaged
Signs of WASH propaganda within - school - community	 No [ ] , Yes [ ] No [ ] , Yes [ ]

Software	
Latrine use - Research objects visit latrines - Signs of OD around school - Signs of OD within community	 No [ ] , Yes [ ] , Some [ ] No [ ] , Yes [ ] , Some [ ] No [ ] , Yes [ ] , Some [ ]
HWF use by research objects	No [ ] , Yes [ ]
WASH related promotional activities run by research objects Type of activities	No [ ] , Yes [ ] [ ] training session [ ] demonstration [ ] sanimart [ ] singing, dancing, drama, plays [ ] group discussion [ ] other: ………………………………