

37th WEDC International Conference, Hanoi, Vietnam, 2014

**SUSTAINABLE WATER AND SANITATION SERVICES
FOR ALL IN A FAST CHANGING WORLD**

Achieving sustainability: linking CLTS with other approaches — an example of a thorough WASH intervention in South Eastern Chad

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BRIEFING PAPER 1963

Building resilience in a context regularly affected by crises requires innovative approaches both in terms of activities and programme management. In Sila region in Chad, a full WASH intervention has been implemented based on an iterative process of analysing the successes and failures of the programme while activities are still on-going. Barrier analysis has proven to be a strong complement to CLTS and PHAST interventions. Mixing the three approaches has resulted in significant gains in sanitation coverage and has prompted a mid-project adjustment of activities in order to target specific areas of continuing concern: access to safe water at the point of use and hand washing with soap. By performing regular analyses, the team was able to achieve better results in terms of identifying what is working well and adapting what is not, which has led to communities adopting new hygiene practices and increasing the use of WASH facilities.

Background

Located in Eastern Chad, the Sila region is recovering from four years of conflict and massive displacement. The region is also vulnerable to environmental crises (such as droughts). Basic services such as access to water, health facilities and schooling in rural areas are largely absent outside of the IDP sites and pockets of INGO support and local government capacity is weak.

Given the fragile context in the target area, the continued shocks and the significant needs, Concern Chad has designed and is implementing an integrated programme aimed at improving the resilience of the target population. The overall goal of the programme is to improve health, nutrition and livelihood security as well as resilience to crises for the rural population of Sila.

This integrated approach aims to reduce malnutrition rates and reinforce community resilience in 35 target villages by implementing a range of projects across multiple sectors such as WASH, livelihoods, food security, gender, health and nutrition. The programme is also designed with flexibility to carry out timely emergency interventions alongside longer term development activities, with an early warning system in place to identify approaching crises requiring action.

WASH intervention

The WASH component of the integrated package specifically aims to improve access to safe and sustainable water services and sanitation facilities as well as to reach effective behaviour change in key hygiene practices.

Access to safe water is ensured through the drilling of boreholes which is considered the best approach regarding the hydrogeological context of the Sila region. Concern is following the national community-based model of setting up and supporting voluntary-based WASH committees to manage the new water points.

To improve access to sanitation and increase latrine coverage, the programme is using participatory approaches. Through its continued engagement with communities over several years, Concern Chad has developed a mixed community mobilisation approach integrating different elements from the CLTS (Community Led Total Sanitation) and PHAST (Participatory Hygiene and Sanitation Transformation) methodology. This evolution reflects Concern's global perception that models like CLTS and PHAST are complementary rather than two mutually exclusive approaches. Indeed, according to Kar and Chambers (2008), unlike PHAST, CLTS is not based on health awareness but concentrates on inducing a sense of disgust through the analysis by the beneficiaries of their current practices and therefore they are based on antagonist principles. However, the mixed approach designed by Concern is defined so that the limitations of each specific approach are compensated by the strengths of the other.

Instead of starting with the traditional PHAST analysis of the health problems existing within the community, the mixed approach first applies tools from the CLTS approach. This is justified by the need to ensure there is a strong, urgent willingness and desire to change with regards to hygiene and sanitation behaviour. CLTS, through its capacity to trigger disgust towards open defecation, has been found to be a more powerful approach than PHAST to create such demand for effective change of practices.

Nevertheless, CLTS is mainly focused on open defecation. Once the communities have reached the trigger point, the approach then shifts directly to the PHAST tools. This enables the communities to address the global issues related to the WASH domain and successively initiate a prioritisation and planning phase which leads to the establishment of a medium to long term action plan.

Increasing access to water infrastructure and improving latrine coverage is not enough to efficiently fight diarrhoeal diseases. According to Cairncross et al. (2010), access to improved sanitation can reduce diarrhoea by 36% while improving water supply reduces it by 21% and the adoption of single new hygiene behaviour such as hand washing with soap can reduce diarrhoeal incidence by up to 48 % (Cairncross et al, 2010). Following a series of qualitative studies, two key behaviours were identified as determinants according to the specific context of the intervention: safe water chain and hand washing with soap. After this selection, quantitative Barrier Analysis studies were used to identify the barriers against these key behaviours and the DBC approach enables Concern to design the interventions.

A twofold strategy is envisaged to trigger a positive change in these two practices. First, through training and support to hygienists who are members of the water committees, the programme aims to increase beneficiaries' general awareness and knowledge related to WASH-related diseases and how to prevent them. A second set of activities specifically targets the two selected behaviours through a set of innovative hygiene campaigns.

Methodology

The programme is collecting data through both quantitative and qualitative methods to monitor and evaluate the full WASH intervention.

Firstly, initial data was collected through a K.A.P. (Knowledge, Attitudes and Practices) survey conducted in March 2013. The analysis of the results attained by an emergency WASH programme that was implemented in 2012 enabled Concern Chad to redesign the activities from that point forward.

After this initial assessment, two barrier analyses were conducted with 45 doers and 45 non-doers each. Results were deemed to be significant when there was a difference of over 15% between each group. The first barrier analysis conducted in June 2013 identified the main barriers and motivators for keeping the transport and storage containers clean and closed i.e. safe water chain. The barriers were further analysed through focus group discussions. The second barrier analysis in January 2014 identified the factors that influenced the adoption of hand washing with soap at two key moments including after being in contact with excreta and before being in contact with food.

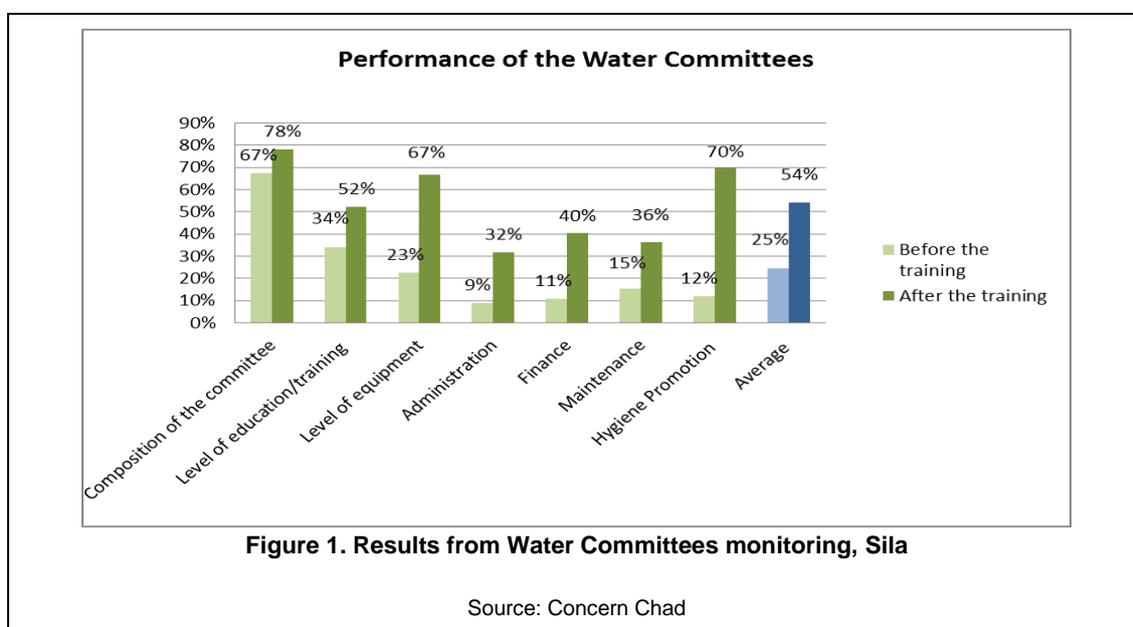
The programme also assessed the level of contamination through the water chain, through water quality analysis conducted with a WAGTECH kit. Samples from points of collection (borehole), points of transport (transport container) and points of use (storage container) were taken from 19 villages and analysed in November 2013. They represent the first set of analyses that are conducted on a quarterly basis throughout the duration of the programme and are based on WHO standards.

After the CLTS/PHAST triggering, the programme conducted a door to door census to record the number of latrines, using this information the proportion of latrines according to the size of the village – which is the standard used at country level - was analysed to assess whether the village reached ODF (Open Defecation Free) status.

Finally, the programme is conducting an on-going data collection and analysis of the performance of the water committees in the area set up from 2011. A specific tool was designed with a multi-criteria grid and a score attributed to each committee according to both qualitative and quantitative methods such as the number of community members present at meetings and the ability of the technician to repair the pump. It gives a global score to allow a direct comparison and to provide a snapshot of the performance of the committee. The tool was used prior to refresher training of the water committees and between one and three months following the training.

Results

- 1,684 simple pit latrines were constructed after CLTS/PHAST triggering in 18 villages. Latrine coverage rose from less than 10% to 81% in 10 months.
- In 2012, time to fetch water reduced by 43% due to the development of boreholes (the average time taken to fetch water from wadis was 86 minutes compared to 49 minutes from boreholes).
- After a 2 day refresher training, short term monitoring shows that the average performance of water committees rose from 25% to 54%. However, even if the training could improve the level the administrative, financial, maintenance indicators they are still low (below 50%).



- Limited adoption of hand washing practice – only 26.9% of the interviewed households have a hand washing station with soap and water and correctly practice hand washing. This figure is considered as a baseline level prior to the implementation of the Hygiene Promotion strategy which will be implemented from 2014.

The key barriers identified to hand washing with soap were the limited access to soap and cues for action (it is considered difficult to remember practicing hand washing at the key times). The main drivers identified were social norms and perceived action efficacy. Doers were 26.7 times more likely to report knowing someone who approves of the targeted behaviour. Also, they tend to report more often that one of the main advantages of hand washing with soap is the protection against diarrhoeal diseases (perceived action efficacy).

- High level of water contamination through the contamination of the water chain - 95% of the boreholes were providing safe water (i.e. less than 10 coliforms/100ml) while 79% of the storage jars were containing contaminated water.

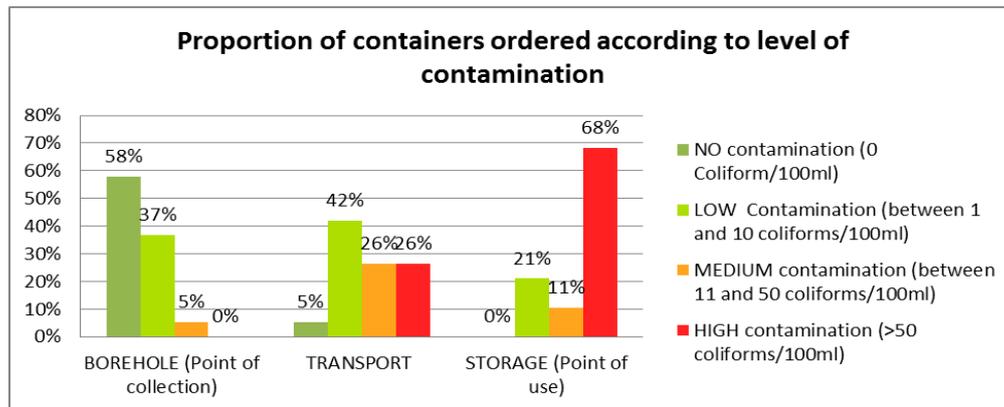


Figure 2. Results of the first set of water quality analyses

Source: Concern Chad

The key barriers identified to maintaining a clean water chain were the lack of access to soap due to limited financial resources, the negative perception of ashes which are already used for disinfecting the latrines, the difficulties of accessing lids for closing the containers and social norms (washing the traditional jar is not an habit).

Discussion and lessons learnt

The challenges of implementing a full WASH programme in contexts similar to Sila where there is poor infrastructure, poor access, difficulties in recruiting and retaining well qualified staff, and a community where long term volunteering is not the norm will be familiar to many. Similarly the difficulties in making such a programme sustainable are well documented (See for instance Concern WASH meta-evaluation 2008-2010). Concern has combined a number of approaches in an attempt to improve the sustainability of this project including CLTS, PHAST, BA, DBC and a water committee performance tool. While it is too early to look at long term sustainability initial indications are positive.

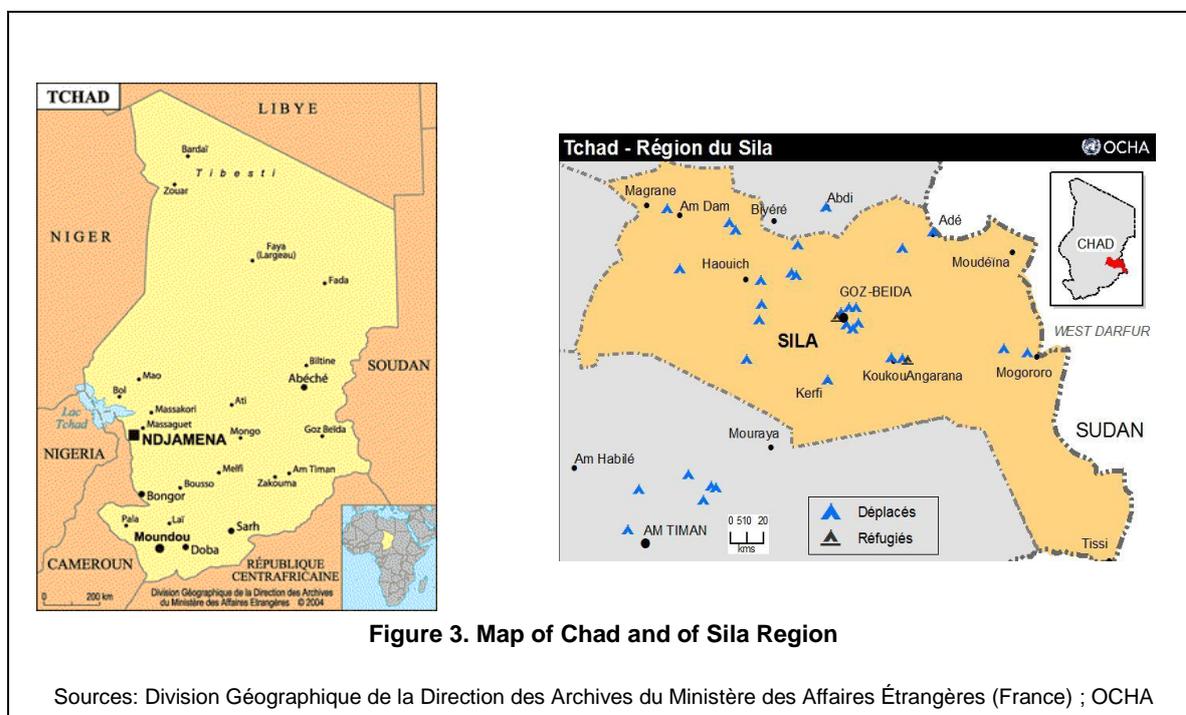
There are a few limitations to our review. First, the improvement in performance of the water committees represents a short term effect of the training conducted. Further investigations are needed (6 months, 1 year after the training) to assess the long term impact of the training. Moreover, some of the qualitative elements measured are based on self-reporting which may not reflect the reality of the situation.

We learned a number of lessons from our experience in Chad to date. 1) Gaining a in depth understanding of the current situation through K.A.P. surveys and Barrier Analysis allows the team to design a comprehensive programme that addresses different issues at the same time (water, sanitation and hygiene promotion activities are conducted simultaneously) and allows setting priorities and prevents setting of unrealistic goals and objectives, 2) The mixed CLTS/PHAST approach has proven to be very effective in raising awareness of the importance of accessing improved sanitation and increasing the willingness to build a latrine without any incentive. 3) While there was very good uptake of latrine building through the CLTS triggering the quality was poor and the latrines failed to entirely eliminate the pathways of faecal-oral diseases due to the basic design of the latrines allowing flies to access them in some cases. Therefore, the programme will now focus on improving the quality of the latrine construction. 4) The water management community-based model has been documented to have several weaknesses which Concern has experienced (Evans, 1992) in this context. However, we have found that using the water committee performance tool has helped us to evaluate the short term impact of the training and to identify the particular weaknesses of the groups so that we can focus our efforts on addressing those areas.

Managing such programmes requires strong on-going monitoring of the results achieved by the activities implemented. This approach recognises the need for generating evidence of the success or the failure of the activities, in order to up-date knowledge of changing practices in the area, to adjust programmes accordingly and to design future activities which are suitable for the current situation and meet the needs of the population. This approach also recognises the need for constantly reflecting on how the activities will fit into the changing situation instead of defining them in advance. This could impact on funding as it is inconsistent

with the traditional project life cycle management framework expected by donors that have not embraced Results Based Management.

It is too early to assess its overall impact or level of sustainability as of yet. However, the preliminary analysis of the results achieved by the WASH component is positive and this holistic approach which is trying to adopt a sustainability approach from the beginning appears to be promising in this context.



Acknowledgements

The authors would like to extend their thanks to the Concern Worldwide team, the donors of the programme including Irish Aid and the European Union (ECHO and EuropAid) and Concern's partners in Chad.

References

- CAIRNCROSS, S., HUNT, C., BOISSON, S., BOSTOEN, K., CURTIS, V., FUNG, I., & SCHMIDT, W-F. (2010). *Water, sanitation and hygiene for the prevention of diarrhoea*. International Journal of Epidemiology, 39, 193-205.
- CORE GROUP 2012 *Designing for Behaviour Change, Water Sanitation and Hygiene*,
- EVANS, P., 1992. *Paying the piper: an overview of community financing of water and sanitation*. Delft: IRC International Water and Sanitation Centre.
- KAR, K. and CHAMBERS, R., 2008, "*Handbook on community-led total sanitation*", *Handbook on community-led total sanitation*.
- STROUD, R., 2012, *Meta Evaluation of Concern Worldwide Water, Sanitation and Hygiene programs 2008– 2010*, Health Support Unit, Strategy Advocacy and Learning Directorate, Concern Worldwide, Dublin.
- WHO, 2003, *Guidelines for drinking water quality*
http://www.who.int/water_sanitation_health/dwq/guidelines/en/index.html

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