From *amazzi* to *amazi*: it's *not* a water problem

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Buvuma Island Group and the beginning of our journey

Located on Lake Victoria near Jinja, Uganda, the Buvuma Island archipelago includes some 52 islands and more than 100 fishing communities (or 'camps') with an estimated population of at least 50,000 people. Administration of the islands is divided among several political districts, each housed on the mainland, making government inaccessible and less responsive. Furthermore, mainlanders generally look down upon the islanders, often discounting and dismissing their needs. Because of their low social status, islanders often claim they are only 'temporary', despite 10-15 years of residence. As a result, some are unwilling to invest in their communities, either socially or financially. Infrastructure on the islands is almost nonexistent and transport between islands and with the mainland is by private boat or commercial ferry (Smith 2007; FOA/UNDP, 1991).

Our relationship with the islands started in 2006 when we met Karina Thomas, now director of Shepherd's Heart International Ministries (SHIM). At the time, SHIM was a small mission organisation focused on clean water, healthcare, secondary schooling and developing indigenous leadership. Since then, it has grown to include agriculture, micro lending and family ministry. Currently, its professional staff includes the American founder and her American husband and eight Ugandans. All of the staff have post-secondary education; most have university degrees.

As a water quality scientist, Kloot was initially invited in 2006 to accompany a church group from the United States planning to place chlorination units in several camps as community property. Based on his initial experience, Kloot invited Wolfer, a social work professor, to accompany the group the following year because the significant challenges with deploying the chlorination units seemed related to community dynamics. Subsequently, Kloot and Wolfer returned without the church group as volunteer consultants, colleagues and

friends. Their annual summer trips have been variously supported by a combination of university, foundation and personal funds.

At the outset, Thomas told us that one of the great problems on the islands was the lack of safe drinking water. She reported instances in which people (usually thirsty children) who resorted to drinking untreated lake water experienced diarrhoea, vomiting and abdominal pain within half an hour of drinking. A 2007 SHIM survey of eight island communities found that sanitation was totally inadequate. Where the government or NGOs had built latrines, the latrines were unusable because they were filthy, full or had collapsed. Island residents were left with little alternative but to defecate in the bush or on the lakeshore (Kloot, 2007). As Kloot's water quality testing has shown, lake water is most severely contaminated directly in front of camps as a result of runoff, precisely where residents routinely collect water.

Photo: Terry A. Wolfer

Co-author Robin 'Buz' Kloot working with a group during the triggering phase, offering community members drinking water contaminated with shit to drink.

Intervention strategy and a changing mindset

We were naturally horrified by this state of affairs and our immediate reaction was to look for ways to clean the water. After all, what we were hearing were stories of **waterborne** diseases and we had access to appropriate, sustainable technology for community-level water purification... **we** had a solution for **their** problem.

Our solution was to purchase additional portable water chlorination units. These units generate chlorine through electrolysis of table salt and run off a 12 volt battery which can be recharged by solar power. In 2006 and 2007 we deployed units in seven pre-selected communities and provided training on the operation of the units. We left the communities (through elected water committees) with the equipment and new infrastructure. During our 2007 visit, we found that when the unit worked, there was evidence of positive health effects in the community. We also discovered, however, that these communities experienced significant system downtime because of technical, mechanical and theft problems related to the solar panels, batteries and hand pumps associated with the unit. Water committees reported that as batteries became depleted, the task of purifying 1,000 litres of water (by frustrated volunteer members) went from 20 minutes to over two hours. **Our** simple solution turned out to be more complicated than we realised.

In 2008, we decided not to take any more chlorinators but rather to spend more time with the existing water committees to facilitate proper operation of existing systems (half of the systems by this time had ceased to operate reliably). We planned to listen more and ask questions that would point the water committees toward positive outcomes by using the methods of participatory action research (PAR)

Photo: Terry A. Wolfer

A group of people from Mubale, Uganda who volunteered to work toward making their camp ODF.

(Stringer, 1996) and appreciative inquiry (Hammond, 1998; Whitney and Trosten-Bloom, 2003). But we still focused on solving problems related to the technology (chlorinator units) and how the local organisations (i.e. water committees) would manage the technology and water treatment process. We also began to ask questions about the comparative costs of treating drinking water:

- boiled or packaged (two very expensive options);
- taken from the chlorinator system (about 1/20th the cost of boiled water); or
- consumed untreated (free, but with inevitable health risks).

In addition, SHIM asked us to test for *E. coli* in packaged drinking water.[1] We discovered that two-thirds of the water samples sold in stores were contaminated with *E. coli* and unfit for human consumption (Kloot and Wolfer, 2008).

During the 2008 visit, however, we also discovered that commercially available products (e.g. Waterguard®, Aquasafe®, Pur®) produced water as safe as the chlorinator system but were more reliable and cost effective (about 1/40th the cost of boiled water). This discovery surprised us because our entire strategy was based on providing safe water through the supply of **our** American-made and donated water purification systems. Because of our commitment to assisting these communities, however, we followed the data and began to re-examine our preconceived notions. An initial result was that we immediately began reporting the risks of packaged water and comparative cost data for alternative water sources, and encouraged residents to reach their own conclusions about how best to acquire safe water.

[1] *Escherichia coli* (commonly abbreviated *E. coli*) is a bacterium that can cause serious food poisoning in humans. Source: Wikipedia.

Photo: Terry A. Wolfer

A villager participates in the mapping phase of CLTS triggering.

Realisation: it's not a water problem, it's a shit problem

As we prepared for our 2009 trip, we realised that by fostering dependence on Western technology and donations, we were probably hindering rather than improving access to safe drinking water. Our role as outsiders had to shift from a technology-based approach (i.e. bringing chlorinators with us) to a knowledge-based approach (i.e. using questions to inform people of the various water treatment options available). We also had to face the fact that sanitation was the underlying problem. But apart from raising money for pit latrines (which would be more difficult than raising money for water systems) we had no idea of what to do about that issue. Our thoughts on the subject began to change as we read Rose George's (2008) book *The Big Necessity: the unmentionable world of human waste and why it matters*. We realised that bacterial concentrations in the lake of 10,000 *E. coli*/ 100ml or more (Kloot, 2006; Kloot and Wolfer, 2008) meant the problem was not a **water** problem but a **shit** problem (George, 2008). More significantly, George's book introduced us to Kamal Kar's work on Community-Led Total Sanitation (CLTS). Shortly before our 2009 trip, we immersed ourselves in the literature on CLTS (e.g. Kar, 2005; Kar and Pasteur, 2005; Kar with Chambers, 2008). As a social work professor and qualitative researcher, Wolfer was familiar with strengths-based approaches to community development (e.g. Kretzmann and McKnight, 1993; Russell and Smeaton, 2009) and participatory approaches to community research (e.g. Reason and Bradbury, 2007; Stoecker, 2005). As a water quality scientist, Kloot also had some familiarity with participatory action research in communities.

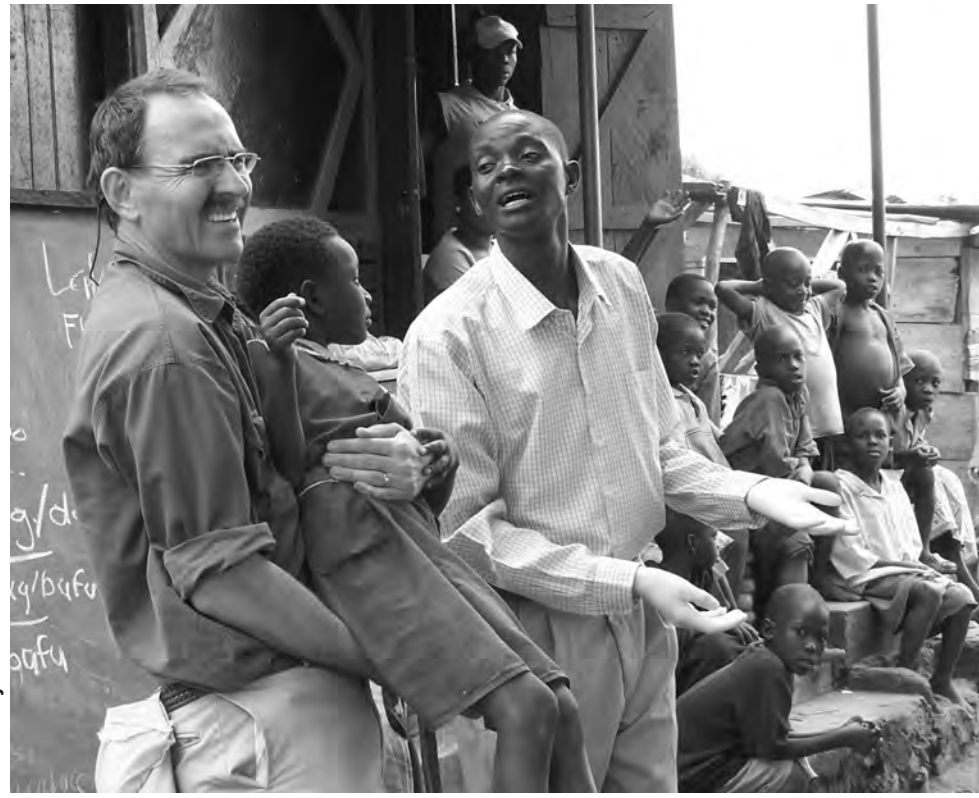

Photo: Terry A. Wolfer

Author Robin 'Buz' Kloot and Uganda colleague Twali Julius following shit calculations and shit-to-mouth pathways (pathways of faecal-oral contamination) during a triggering.

The start of our CLTS journey

Inspired by this new perspective, we introduced our colleagues at SHIM to the CLTS philosophy and methods with a one-day workshop.[2] To prepare for leading the workshop and then for coaching facilitators, we had only access to the online CLTS materials. Although we did not have formal training in CLTS ourselves, we were highly motivated by the need for a new approach to sanitation and persuaded by George's account of CLTS. We brought extensive experience as classroom instructors oriented to active learning methods, the humility to implement a new intervention as proposed by its developers, and a concern for fidelity to the intervention (no adaptation of the intervention unless based on experience with it).

As a first step, we spoke with SHIM administrators about CLTS and sought their buy-in for providing a staff workshop. In the workshop, we introduced and explained the CLTS approach and provided several key published resources (Kar, 2005; Kar and Pasteur, 2005; Kar with Chambers, 2008). We invited staff to discuss their questions and reservations, and decided to do a private transect walk of the local camp. The purpose of this initial walk was to confirm the presence and extent of open defecation: it opened our eyes to the problem in our midst.

Despite some initial misgivings about the topic and crude language, our SHIM colleagues quickly agreed that this approach addressed a critical issue and did so in a potentially effective way. By the end

[2] For more information on CLTS training and methods see also Tips for trainers, this issue: Musyoki; Kar with Chambers.

of the workshop, they agreed to conduct CLTS interventions at several camps. Although several Ugandan staff members had formal training in community health education, agriculture, and mass communication, none had experience with highly participatory approaches. Indeed, the CLTS approach was counterintuitive for them, especially asking questions rather than providing information. However, we had conducted a workshop on appreciative inquiry with them in 2008 that introduced the extensive and non-threatening use of questions and provided a foundation for learning this new approach.

After the one-day training, we conducted CLTS interventions at four camps where SHIM was already working, and coached our Ugandan colleagues to assume increasing responsibility for leading these interventions. To demonstrate the CLTS approach, we led the intervention at the first camp. Subsequently, we encouraged our SHIM colleagues to first partner with us and then assume full responsibility for leading particular phases of the intervention. By the fourth camp, SHIM colleagues led the entire intervention with only invited participation from us. Extensive debriefing following each intervention allowed us to affirm activities consistent with the CLTS approach and help correct activities not consistent, brainstorm additional specific questions and note strengths and weaknesses among the facilitators that helped them decide which phases of the intervention each would lead. We encouraged their efforts to be dramatic and playful during the intervention and to collaboratively troubleshoot aspects that seemed confusing or ineffective, and so on.

Challenges

We had several challenges. These included persuading our Ugandan colleagues to use CLTS's provocative approach and to use the local word for shit in public. In Luganda, shit is ***amazi*** (pronounced ah-mah-**zee**). It is very similar to the word for water (***amazzi***, pronounced ah-**mah**-zee). This difficulty was most pronounced at the first intervention but quickly subsided. Initially, our SHIM colleagues lacked confidence with CLTS's highly interactive, question-based approach. We encouraged them to wait for answers, coached for dramatic presentation style, and brainstormed and documented a set of potential questions for each phase of the intervention. We assumed the surprising and dramatic success of CLTS would reinforce and sustain their use of its unconventional methods.

Another challenge stemmed from the fact that community leaders assumed the only way to address sanitation was with public latrines funded by external sources, namely government or NGOs. Because of past experience with subsidy, the idea of personal or family responsibility for latrines is largely foreign to most islanders. Despite initial disclaimers that we would not provide financial support, the presence of white Americans at the interventions raised hopes of subsidy that had to be dealt with again at the end of each intervention. Indeed, in several camps, residents expressed their suspicion that SHIM staff members were pocketing the subsidy for themselves. Residents wanted us to confirm explicitly that we were not providing subsidy. And in one camp, the leader directly appealed to us for personal funds to buy boards for repairing the community latrine.

In each of the four camps, residents varied in their willingness to participate and to speak frankly about conditions in their camps. In most camps, formal leaders and men were initially most likely to participate but some women and children also spoke up. In all camps, as the intervention progressed, natural leaders emerged from across demographic categories (i.e. gender, age, education, economic status). In all camps, the CLTS intervention intrigued children and they actively participated in

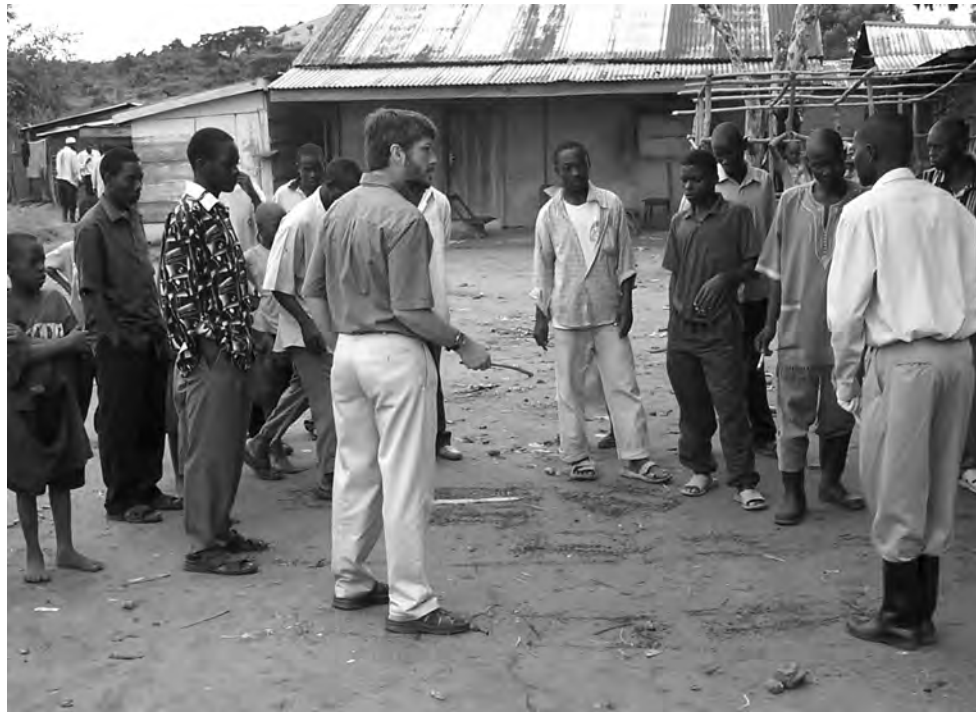

Photo: Robin W. Kloot

Author Terry Wolfer during a community mapping exercise.

the transect walks and mapping exercises. In one camp, children clearly led the way, calling out answers and running ahead of adults. In some camps, leaders and others at first tried to prevent or limit certain people from participating or, failing that, to discount their contributions. But people persisted and these efforts subsided as the intervention went on. In each camp, it appeared that by the intervention's end people and their leaders had found common ground for working together. In one camp, for example, people expressed their frustrations with a leader quite openly and strongly and he became defensive. But a number of community members volunteered to work with him in telling absent members about CLTS and promoting participation, and he responded by reaffirming his responsibility to lead and accepting their offers of help. In other camps, the relationship between leaders and residents was less combative but CLTS inspired renewed collaborative efforts between people, formal leaders, and other natural leaders.

Ways forward

We believe that the CLTS approach will influence SHIM's relationships with the camps and its efforts to address other community problems. Previously, the desire for external subsidy prompted community leaders to dramatise the plight of their communities with 'sob stories' that would emphasise their lack of resources and need for material assistance. We saw that the desire for subsidy made leaders focus on material resources to the near exclusion of knowledge, skills or social cooperation. The desire for subsidy reinforced community dependency and powerlessness relative to NGOs and other outsiders. In contrast, we believe that the CLTS intervention promotes a sense of pride and personal responsibility as people recognise what they already know, learn new information about their own concrete

situations, recognise that they have the ability to effect change, and must cooperate with their neighbours for success.

Interestingly, for our SHIM colleagues, the CLTS approach also demonstrated the use and value of questions for engaging people in learning and problem solving. In that way, it countered the conventional approach to education with the teacher as 'expert' and learners as 'empty vessels'. It also overcame their concern for people's traditional fear of questions left over from colonial schools. SHIM staff initially feared that asking so many questions would highlight residents' lack of knowledge and lead to humiliation. On the contrary, asking questions about the concrete realities of peoples' lives emphasised their expertise, invited challenge and correction by peers rather than authorities, and encouraged collaborative learning and problem solving. Perhaps most importantly, it reinforced peoples' efforts to understand and respond to their situations without waiting on outside experts or even formal community leaders. Observing these positive effects prompted SHIM staff to consider how they could revise their other, more conventional approaches to community education and community development.

By sticking to the CLTS principles (no matter how uncomfortable we felt at first), we observed first-hand how CLTS sparked strong emotions (e.g. disgust, embarrassment, humour), intense interest, internal community debate, emergence of natural leaders, and community resolve to eliminate open defecation (OD). We attribute the initial success of the interventions and subsequent follow-up results to the notion that CLTS emphasises people's primary responsibility for their own lives and communities, and profoundly respects their ability to understand, decide and act to solve their own problems. Indeed, by coaching and handing over responsibility for the CLTS intervention to SHIM staff provided a parallel empowerment process.

Overall, SHIM staff have been encouraged and excited by the CLTS intervention. Since our 2009 visit, they observed no apparent progress in one of the original four camps but a flurry of private latrine construction in several others. The camp in which there was no progress was small, more impoverished and less organised, with a public latrine built by another NGO. During a follow-up visit this year, we noted differences among camps in the levels of poverty, trust for leaders, and positive relations among residents that seemed to affect the response to CLTS.

Conclusion

SHIM staff say that CLTS has been the most effective intervention for sanitation on the islands. Based on these positive results, they have continued using the intervention in additional camps. It remains to be seen whether individual camps will achieve open defecation free (ODF) status. In a recent development, the Ugandan government has established a new district for administration of the Buvuma Islands, which came into effect 1st July 2010. Local leaders are hopeful this will result in increased services. On the one hand, this may facilitate SHIM's efforts (we requested visits with district leaders for next year). On the other, at least one community resisted any spending for latrine construction because of hopes that the new district administration will provide it. We plan to return to Uganda in 2010, to follow up these initial efforts and explore how these processes may be applied to other problems identified by community members.

Our initial efforts to help, however well intended, now appear naïve and unrealistic, lacking in respect and inattentive to island dynamics. Fortunately for us and the islanders, we maintained relationships and followed up to learn about problems engendered by **our** initial solution. As a result, we avoided foisting that solution on other communities.

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