INTRODUCTION

Of the estimated 85% of Papua New Guinea’s 6.8 million people who live in rural areas, most defecate in the open or use very basic toilets. Papua New Guinea has high rates of infant mortality (57 per 1000) and child mortality (68 per 1000) as well as maternal mortality. Preventable diseases such as pneumonia, diarrhoea, malaria, under-nutrition, tuberculosis and HIV are significant causes of child morbidity and death. Intestinal worms are common, and cholera has recently remerged as a serious disease. International experience shows that safe disposal of excreta and safe hygienic behaviour can reduce diarrhoea and other diseases such as cholera, intestinal worms, dysentery, hepatitis, giardia, tapeworms, typhoid, polio, respiratory infections, and trachoma.

Despite the contribution that sanitation and hygiene promotion could make to reducing Papua New Guinea’s child and infant mortality rates and accelerating progress towards health and economic Millennium Development Goals, government and donor investments in rural sanitation have been low.

One new approach to sanitation that appears to be motivating rural Papua New Guinean households to build and use toilets is Community Led Total Sanitation (CLTS). Although still in its infancy, the experience with CLTS so far provides important lessons of what works, and what does not in rural Papua New Guinea.

By investing in community behaviour change not sanitation hardware, the approach has the potential to improve general community health, reduce the demand on health services, contribute to better school attendance, and improve quality of life.

KEY FINDINGS

- Papua New Guinea has a large and growing rural sanitation gap yet there is very little investment in the sector.
- Spending on sanitation is most effective when directed at human resources to help communities change behaviour. Subsidies for toilet hardware slow down sanitation coverage.
- Remote rural communities without any history of handouts and subsidies are quicker to change their sanitation practices.
- Good quality trainers and consistent follow up are essential for CLTS success. CLTS could be scaled up if Government resources were brought in.

Box 1: What is Community Led Total Sanitation?

CLTS is an approach to mobilise communities to completely eliminate open defecation. Communities are facilitated to do their own assessment and analysis of open defecation and take their own action to become open defecation free (ODF).

The CLTS approach was pioneered in Bangladesh in 2000 by Kamal Kar, a development consultant from India. With support from Plan International, UNICEF, the Water and Sanitation Programme of the World Bank and Water Aid, the approach has now been adopted in more than 40 countries.

CLTS recognises that just providing toilets does not guarantee their use, nor lead to improved sanitation and hygiene. Instead, CLTS focuses on the change of behaviour needed to ensure real and sustainable improvements. Investing in community mobilisation and monitoring not hardware, and shifting the emphasis from toilet construction for individual households to the creation of “open defecation-free” villages underpins this change.

CLTS also raises awareness that as long as a few people in the community continue to defecate in the open, everyone is at risk of disease. This triggers the community’s desire for change, and leads to action using mutual support, innovation and appropriate local solutions.

This Learning Note describes the application and results of CLTS, mostly by the European Union’s Rural Water Supply and Sanitation Program (RWSSP). The lessons learned are drawn from selected field locations and therefore are not a comprehensive analysis of CLTS in Papua New Guinea. This Learning Note is most useful for Government officials who want to improve rural health and sanitation in Papua New Guinea. It will also be useful for NGOs and other non-State Actors to add to practice knowledge.
Few of Papua New Guinea’s rural population have access to an improved latrine, with many rural households defecating in the bush or beside rivers or beaches. Currently Papua New Guinea is seriously off track to meet its Millennium Development Goals for sanitation coverage. To reach the Government’s own 2030 sanitation target of 70% access, and taking into account the high population growth rate, an estimated 450,000 people or about 60,000 rural households will need to gain access to sanitation each year. The largest water and sanitation program in the country – the European Union’s Rural Water Supply and Sanitation Program (RWSSP) – will reach just 4% of the rural population during its six-year lifetime. Government investment in sanitation is low, and although there are some donor and private funds for community driven projects, experience shows that a community, with provision of water supply being a higher priority, rarely demands sanitation. Papua New Guinea also has many technical, social and economic challenges to increasing access to sanitation, including:

- geographical diversity, from remote islands and swampy deltas, to rugged inaccessible highlands areas,
- traditional and usually patriarchal communities, many of which are isolated from basic services such as health centres, electricity and transport,
- complex communications with over 800 local languages and low media coverage, and
- low incomes from semi-subsistence agriculture.

CLTS was trialled in Papua New Guinea in 2008 by Oxfam International. Inspired by the success of CLTS in parts of Asia, in 2010 the RWSSP adopted CLTS as the main way to promote sanitation in its 400 project communities across 15 of Papua New Guinea’s 18 rural provinces. RWSSP’s mode of implementation is to award grants to 29 non state actors such as NGOs, church groups and other community groups to carry out rural water supply and sanitation in these project communities. In early 2010 RWSSP trained all its grant beneficiaries on how to facilitate CLTS as part of their water and sanitation efforts. The first 100% Open Defecation Free (ODF) community – meaning every household built and used their own toilet – occurred in mid 2010 in Kuruka Village, Lufa District, Eastern Highlands Province. Between March 2010 and June 2012, when RWSSP ends, an estimated 20,000 latrines will have been built by communities through CLTS, and mostly without subsidies.

CLTS is also spreading beyond RWSSP’s direct project influence. RWSSP included other organisations in its CLTS training, such as NGOs, nursing schools, resource companies and local governments who already have their own water and sanitation activities. These implementers are in turn training NGOs and local government in how to facilitate CLTS. NGOs are receiving requests from others in their area, such as the local high school and health centre, to train them in how to implement CLTS. Facilitators sometimes trigger sanitation in their own home villages, and copycatting is also evident.

There are signs of some provincial governments taking notice of the impact of CLTS and its potential to improve health and social conditions in their communities. An example of scaling up is in Eastern Highlands Province where CLTS is being integrated with the Healthy Islands concept for hygiene promotion in 120 villages (See Box 2). New Ireland Province also plans to adopt CLTS as its main sanitation promotion activity, with training of facilitators scheduled in the near future. In Milne Bay Province CLTS and hygiene promotion will be scaled up from a RWSSP supported few villages to a whole district through funding provided by the Local Level Government.

Although CLTS shows signs of being a promising, suitable and scalable approach for changing sanitation practices from open defecation to using simple latrines, the impact is still limited, and the approach needs to be refined.

The challenge is how to change defecation behaviour and increase access to sanitation in a poorly funded and difficult implementation environment?
Box 2: Starting Scaling Up in Eastern Highlands Province

RWSSP is working in 16 villages in Eastern Highlands Province (population 450,000). As well as training Non State Actors in CLTS it also provided training to four government staff, and 20 community and youth leaders in one Local Level Government area.

A local independent NGO – Touch the Untouchables – who joined the training, immediately implemented CLTS in 29 villages in eight wards within Dunantina Local Level Government area (Henganofi District) where it had been carrying out hygiene promotion for several years. Additionally, within five weeks, three wards in Andacombie area were declared 100% ODF by the same NGO.

Impressed by the results, the Eastern Highlands Provincial Government has engaged the facilitator from Touch the Untouchables to train all eight district Environmental Health Officers and others including local government councillors in CLTS. The Province plans to add CLTS to 120 villages already implementing the Healthy Islands or the Mipela Yet CHE health promotion approach. District Environmental Health Officers will facilitate CLTS using a provincial budget for health promotion.

Scaling up is helped by the support and active involvement of the Province’s Environmental Health Director and encouragement from the Provincial Governor. According to the Director of Environmental Health, CLTS is suitable and its prospects are endless. “I don’t see any problem in scaling up CLTS. Most of our communities have this mentality of copycatting – there are communities that see others doing this thing they take the idea…..Maybe Eastern Highlands Province is more receptive than some provinces to new ideas, it is one of the strengths we have”. The Eastern Highlands Province plans that in addition to having the first ODF community in Papua New Guinea, it could also claim the country’s first 100% ODF district, and maybe even be the first province.

KEY LESSONS

When implemented well, CLTS can quickly transform sanitation practices

Once a community is triggered into action, changing from open defecation to using latrines can be rapid – as quick as two weeks (Dimbiu Village, Kerowagi District, Simbu Province), five weeks (Andacombie area, Henganofi District, Eastern Highlands Province), or eight weeks (Kuruka Village, Lufa District, Eastern Highlands Province). Typically though, it takes about three months from triggering and training to a community becoming 100% ODF. Much however depends on:

- quality facilitation of triggering by trained and experienced facilitators;
- having dedicated CLTS and hygiene promotion facilitators so that sanitation is always a priority;
- regular follow up and monitoring visits by the NGO to the community to check on progress and give encouragement; and
- appropriate technical advice to suit village conditions.

Internal community factors contributing to good progress are: enthusiasm of natural leaders to motivate others; and the support of formal community leaders in the process.

CLTS needs highly skilled and dedicated facilitators like Esther Silas in Henganofi District. A trained nurse with a hygiene promotion background and excellent facilitation skills, Esther has helped more than 20 villages (more than 20,000 people) gain access to sanitation.

Subsidies undermine CLTS self help and spontaneity

Despite a view that rural people are poor and need financial assistance, when sanitation hardware subsidies are introduced the rate of progress is much slower compared to villages where there is no subsidy. In subsidy-free villages, when triggering has happened, communities can start changing their defeation practices immediately and start to build toilets using locally available resources. Those community members that are first to build and use a toilet then inspire and motivate others in their community to change their behaviour. Subsidies appear to have the opposite effect - with slow or no action the consequence.
The negative effect of subsidies is starkly demonstrated in Kerowagi District in Simbu Province. The RWSSP NGO supporting this community of 22,000 people is subsidising toilets by supplying 500 demonstration concrete slabs (to cover the pit) and a PVC vent pipe. This subsidy has slowed or even stopped progress in behaviour change, as:

- after triggering, households wait for the arrival of a subsidised slab, which stifles initiative as there is no initial action to build momentum on.
- when there are delays in the release of funds for subsidies, this puts a further brake on action. The NGO even told the community not to dig their pits as money for subsidies had not been transferred from the funder.
- subsidies can only help out 500 households in a rural community of 22,000 people. This creates rivalry and is a disincentive to do anything as only a few households will benefit.

The demonstration effect of the slabs has not been successful, with only one household making their own concrete slab. Subsidising every household is not a solution either due to the high cost, and the effect on neighbouring communities who then also expect a subsidy.

In locations, such as Central Province where there has been a history of free handouts, motivating households to finance and build their own toilets is proving a challenge. Because it is close to the National Capital Port Moresby, over the years Central Province has received donations and subsidised support for many types of development. According to RWSSP, this is one of the most difficult provinces to work in for this reason as people expect financial support based on the past practice.

Prior to CLTS and RWSSP, there are examples in Papua New Guinea of NGOs supporting sanitation through 100% subsidies for toilets costing up to K400 per unit. The toilets were attractive and good quality, but the approach was not sustainable and stifled household innovation. Everyone in a community wanted one but funds were limited and the demand for new latrines could not be met. Subsidies for high quality toilets also created dependency — after the program finished, households who do save for their own toilet find there is no longer technical support available to help.

In contrast, CLTS is not limited by funding — as demand increases, it can be scaled up because there is little reliance on funds for hardware and households build their own toilets with basic technical advice and according to their financial means. The most supportive type of “subsidies” are those from within the community - if a household is unable to build a toilet for itself then the community helps out to achieve ODF status.

For example, in Kuruka village, a widow who was unable to build her own toilet was built one by the local boys in the village. It is still unclear how subsidy-free CLTS will work in areas where there are few suitable local materials, a high water table, and poor soils — all of which could require a different and more expensive technical solution.

**CLTS is suited to Papua New Guinea’s remote locations**

Remote communities are quicker to become open defecation free because they take up the idea more readily than villages closer to main roads and towns. In remote areas, community members have more time to attend meetings and participate in CLTS triggering. Because remote communities have less access to government support services their expectations that the government will come and help them are lower than other areas. Generally they are more self-reliant, and used to solving problems for themselves. The CLTS approach, which builds on community self reliance and use of local resources, is ideally suited to remote rural conditions of Papua New Guinea.

In contrast, Highlands and Bougainville communities located close to main roads and towns are the most difficult to influence with CLTS. Experience suggests that their priorities and interests are focussed on earning money. Long hours spent selling produce at markets or running transport businesses means they have no time or interest in participating in CLTS.

NGOs have developed strategies to deal with these challenges including: taking CLTS facilitation to markets and other public areas; consulting local leaders about the best times to visit eg. after church on Sunday when people are available; house by house visits to see who has completed building latrines and using trainers to offer extra support; and in some cases facilitators take a shovel to the household and offer to dig a pit to embarrass those that are slow at building a toilet.

**Use Low Cost Appropriate Local Technology**

While “pure” CLTS triggers households to end open defecation free by any means, the approach has been modified in Papua New Guinea by RWSSP to encourage sanitation solutions that meet two minimum technical guidelines – a sealed pit and a vent pipe. A Ventilated Improved Pit (VIP) Latrine, which has a covered hole and a vent pipe with screening or mosquito net, is encouraged as a minimum standard. If built correctly, a VIP toilet should have no odour and no flies, making it attractive to the user, and therefore more likely to be used over a long period.

Resourcefulness, innovation, and the use of local materials is promoted e.g. using bamboo for the vent pipe, recycling materials for a seat or pit cover or door. The superstructure is up to the individual’s choice and financial means, and this usually means the toilet housing is consistent with the appearance of other buildings in the village, is imaginative, and low cost. The end result is that while no two toilets look the same, they will still function in the same way.

VIP Latrines: Individual choice and variety in superstructure and seats.
CLTS is more effective at mobilising sanitation than any other hygiene promotion

Different methodologies are used in Papua New Guinea for hygiene including Participatory Hygiene And Sanitation Transformation (PHAST), Healthy Islands concept, and Mipela Yet Community Health Evangelism (MYCHE). These methodologies are valuable for communities to understand why handwashing and building a latrine is important, but none has been as effective at mobilising whole communities to build, and use, a toilet as widely and quickly as CLTS.

Experience in PNG is that CLTS works best when it is integrated with other hygiene promotion approaches, or when handwashing and other hygiene promotion is integrated as part of CLTS.

In Dunatina, MYCHE was used for more than two years but it was CLTS, introduced later, that was effective at changing sanitation practices with some wards achieving 100% ODF. In Kundiawa PHAST was not effective for sanitation and was considered to take too long, around four days, whereas just one or two days after introducing CLTS people felt the need to change their sanitation practices.

Now the NGO Diocese of Kundiawa uses CLTS and incorporates handwashing in training sessions as this is a quicker method. Whichever approach is used, hygiene together with sanitation promotion leads to a more holistic and sustainable outcome.

“Under other programs e.g. Mipela Yet, people build latrines but don’t always use them…. CLTS gets good results in the village, everyone participates and also the latrines are used. CLTS triggers communities to build toilets seriously. It makes them realise they are eating their own shit.”

- Director Environmental Health, Eastern Highlands Province

Find the Natural Leaders

While the entry points for CLTS are respected people in the community such as formal leaders, natural leaders may not always be obvious at the beginning but will emerge during the process of CLTS facilitation. These informal community leaders – many are women – often show a passion and drive for ending open defecation in their village.

Natural leaders need to be supported and encouraged as they can be effective at mobilising individual households to change behaviour, including persistently visiting every household to monitor progress, often doing so with humour. CLTS is more successful when these natural leaders are allowed to develop.

Health and Other Benefits

CLTS, especially when implemented with handwashing promotion has led to some significant benefits.

- Because CLTS promotes stopping all forms of open defecation, this has led to penning of animals – including goats and pigs so that their faeces are not spread around villages.

- Parents train their children how to use the toilet and supervise its use, whereas before children would defecate anywhere. In Ward 7 in Dunatina Local Government area, some toilets are locked – not because families do not want them used – but so that parents can take their children to the toilet and supervise them in how to use it properly, rather than children having free access.

- A significant change in village living is the virtual eradication in flies. Before toilets were built there were lots of flies attracted to faeces in the open and this was a particular problem when cooking food, especially during feasts.

- For women, the convenience and privacy afforded by a household toilet, is appreciated. Defecating in the bush or riverside was not always close and convenient to their house.

Residents in Kuruka Village in Eastern Highlands Province, describe their change in lifestyle as - changing from “living like animals” to being “modern”.

Work with Local NGOs and facilitators

NGOs that are physically based in the target area (usually indicated by a provincial office) have a better rate of success in implementing CLTS. This is due to their regular presence in the community for follow up after triggering; facilitators from the local area are able to speak the local language and understand local village customs and social connections and how these might impact CLTS implementation and; their interest in broader economic, health or spiritual development of the community.
Before defecation practices improved, most people, including children, used to go to the health centre often for illnesses such as pek pek wara (diarrhoea) or typhoid. Since the community has been 100% ODF, the number of patients at the health centre has decreased, with villagers saying they had not been to the health centre because of diarrhoea in more than one year. This is also a savings in time and cost (K3 for public transport to get to health centre, and K2 for medicines). According to mothers in the village, children’s health is improving and they do not miss school due to diarrhoea.

Before MYCHE hygiene promotion and then CLTS in Dunatina Local Level Government in Eastern Highlands Province, people often suffered from malaria, diarrhoea, worms, coughs etc. The nearest health centre served 12 villages, seeing more than 20 out-patients a day lined up outside, sleeping on the grass waiting to be attended to. Typically 20 in-patients with typhoid, malaria and diarrhoea occupied beds in the health centre.

After the hygiene promotion and CLTS, the health centre treats fewer than five people per day (sometimes none), and has no in-patients. Nurses from the health centre now say they have more time to go out to villages to do health checks. According to the Deputy Director of the Department of Health, the number of referrals has reduced, the medicines required in health centre have reduced, and malaria is still endemic but the cases have reduced. Ward leaders describe other social benefits of their healthy villages such as increased church attendance, improved cooperation and village harmony, and increased respect for local leaders both inside and outside their community.

Believing that Sickness is not from Sorcery

Although most Papua New Guineans are declared as devout Christians, belief in the powers of sanguma, or sorcery, are deep-rooted and pervasive. Illnesses such as diarrhoea and malaria are believed to be caused by sorcery, and therefore inevitable and out of a person’s control. CLTS triggering and facilitation, including those supported by pastors and church leaders, show that diarrhoea comes from faeces, food, dirty hands, open defecation and flies.

This demonstrates that the path of contamination and the real cause of diarrhoea is human behaviour not sanguma. With this realisation comes the awareness that while human actions cause diarrhoea, human actions can also prevent diarrhoea. Finding out that “we are eating our own shit” is a revelation as people discover they can change their behaviour to avoid getting sick.

Different Strategies for Large Villages

Because the size of communities and villages varies between regions in Papua New Guinea, different responses are needed for CLTS implementation. For example in the Highlands 1,000 people is the smallest village, but in Morobe Province villages are typically only 300-500 people. Larger villages need multiple triggerings so that as many people as possible are able to participate in CLTS from the beginning. In large communities four or five separate CLTS facilitation exercises may be needed to ensure a broad reach.

Copycatting helps scaling up

In Eastern Highlands and Simbu Provinces, and possibly other areas in Papua New Guinea, there is evidence of copycat building of VIP latrines and handwashing stations from CLTS villages to non-CLTS villages. For example residents in Ward 7 in Dunantina Local Level Government in Eastern Highlands Province, are visited by friends and relatives from nearby non-CLTS villages. The friends and relatives see the toilets and handwashing and the improved hygiene condition of the village and then take the ideas back to their own village where they then build VIP toilets and handwashing stations. The Chairman from Ward 7 goes to their village to check the toilets are being built properly.

Other visitors come to Ward 7 from further away, as far as Ramu Sugar (80km away), spending up to K15 on public transport to be given a guided tour of Ward 7 village and receive advice on how to properly build a toilet to reduce flies. Ward 7 is an example of a model village which spreads information laterally to other villages, without any outside facilitation or support but just through personal connections. Ward 7’s status as a model village, also has a positive effect on reinforcing and maintaining its own use of toilets.

Formal leaders like Jack Efae (left) from Ward 7 in Dunatina Local Level Government Area can help communities stay focussed on sanitation and encourage participation. They can also influence neighbouring villages.
Hygiene and Sanitation, then Water

The experience of NGOs implementing integrated rural WASH projects for RWSSP is that the most effective order is hygiene first, then sanitation promotion through CLTS (or hygiene and sanitation combined), and lastly water supply. The reasons for this are that sanitation is a low priority for communities so it is best to address this first. If communities can experience the benefits of sanitation and handwashing before water is supplied they are more likely to sustain these behaviours when water arrives. And lastly, the combined community effort and cooperation required to address sanitation is good for community management skills needed for future maintenance of water supply systems. If communities can work together on sanitation, they can cooperate to ensure sustainable water systems. NGOs have come to be ‘demand driven’ about which communities they are willing to work with – if the community is not interested in addressing sanitation and not willing to work together then the NGO moves on to another more willing community.

Involve Local Government from the Start

Many NGOs state that it is difficult to get much interest in sanitation and CLTS from provincial and local government staff. However when provincial Department of Health personnel and other government staff are active in their support for CLTS, this leads to smoother implementation and reinforcement of the community’s behaviour change. The best outcomes have been when NGOs work closely with the provincial Department of Health, informing them about the project, inviting them to participate in CLTS facilitation, asking them to assist with community visits and give inspirational talks. District officers and health officers can also be invited to join inspections and checking of ODF status, as well as attend ODF ceremonies. Unusually, one NGO in the Highlands has two Department of Health officers permanently attached to their organisation, with the Health officers joining in with certain CLTS milestones. The key to this ongoing relationship is to involve local government in the process from the beginning, including the initial CLTS training, and live site experiences, as well as some commitment from the Provincial Government to support CLTS efforts. However local governments vary widely, and until there is direction from National Government on using CLTS, the level of cooperation and interest from provincial and local government will be inconsistent.

CRITICAL ISSUES

Some important issues need to be addressed to support the momentum that CLTS has gained in the short time it has been used in Papua New Guinea:

- The role of the National Department of Health and its support for CLTS is unclear. A water, sanitation and hygiene policy that includes a statement on CLTS, especially on the need for every household to have a toilet would help provide some direction. Endorsement by senior government officials is also needed.

- The EU is likely to continue with RWSSP but on a smaller and more geographically orientated area. Whilst it can still maintain a close support to CLTS, this will be piecemeal without government support.

- More funding is needed for software and supporting implementation for willing communities. This could include re-directing existing district level funds to implement CLTS without hardware subsidies.

- There are sufficient government human resources throughout Papua New Guinea to absorb scale-up of CLTS, however these are not being fully utilised. Partnerships between competent NGOs and local government will provide mutual support for effective implementation.

- To scale up CLTS, more quality trainers are needed. RWSSP has been leading CLTS training but this role needs to be institutionalised within government or a training facility so it is available to everyone, and is consistent and producing good quality facilitators.

- Improved monitoring and evaluation of CLTS is needed, including good baseline information such health status, access to latrines and handwashing practices.

- Donors and funders need to focus on sanitation outcomes and what has changed in a village, not disbursements, hardware expenditure and numbers of toilets built.
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