

Sustainable Total Sanitation deep dive in Enugu, Ekiti and Jigawa States, Nigeria



Sustainable Total Sanitation (STS) Project

Introduction

According to the 2015 Joint Monitoring Programme (JMP) report, only 29% of Nigerians have access to improved sanitation, an indication of the limited success of the Community Led Total Sanitation (CLTS) approach in Nigeria. The sanitation crisis calls for the introduction of alternative and complementary approaches to CLTS to drive access to improved sanitation in Nigeria. In response, WaterAid Nigeria conducted a deep dive research in the Sustainable Total Sanitation (STS) program states - Ekiti, Enugu, and Jigawa - to understand consumer preferences and commercial supply chains for rural sanitation.

Findings from the research indicate that observed latrine types vary significantly in building materials, shelters, slab, and disposal pit types. Many households considered the sight and smell of faeces disgusting, raising questions about the persistent, wide practice of open defecation. External pressure and enforcement constitute the biggest motivators for the construction of latrines. What type of latrine to construct and a complex purchasing power were found to be major inhibitors of latrine construction, with the cost further compounded by how people build. In Ekiti and Enugu, the construction of toilets with the most basic specifications or structures requires hiring the services of an artisan.

Deep Dive Market Research

The research was conducted with the goal of inspiring business model designs, product, communication and marketing plans. The research provided insight into the following questions and associated responses:

- What is a ‘good latrine’ for our target market? What features should it have (and not have) and how much should it cost?
- What will our target market gain personally from investing in a ‘good’ latrine?
- How can we make the process of learning about purchasing and installing a good latrine a lot easier, quicker and more reliable?
- How can businesses deliver sanitation products and services that offer value for money and are profitable for them to produce and sell on their own?

Objectives of the research

The research was designed and conducted to accomplish the following objectives:

- To understand the goods and services that sanitation businesses offer, as well as their business practices and supply chains.
- To understand existing and potential sanitation consumers and their demand behaviour.

Research methodology:

Methodologies employed for data collection included:

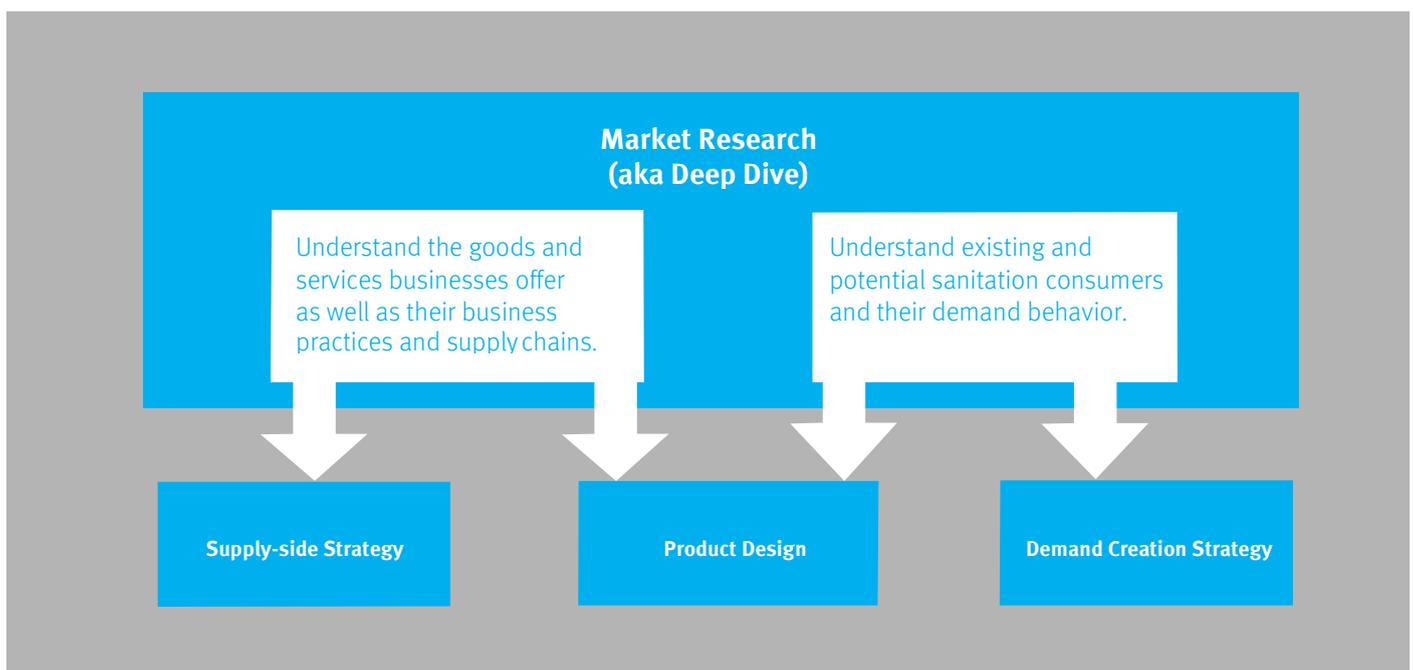
- In-depth individual interviews, focus group discussions and observation of households, village leaders, and supply chain actors.
- Key informant interviews of local government officials, civil society organisations, environmental health officers, UNICEF, and WaterAid Nigeria staff.

Deep Dive Findings

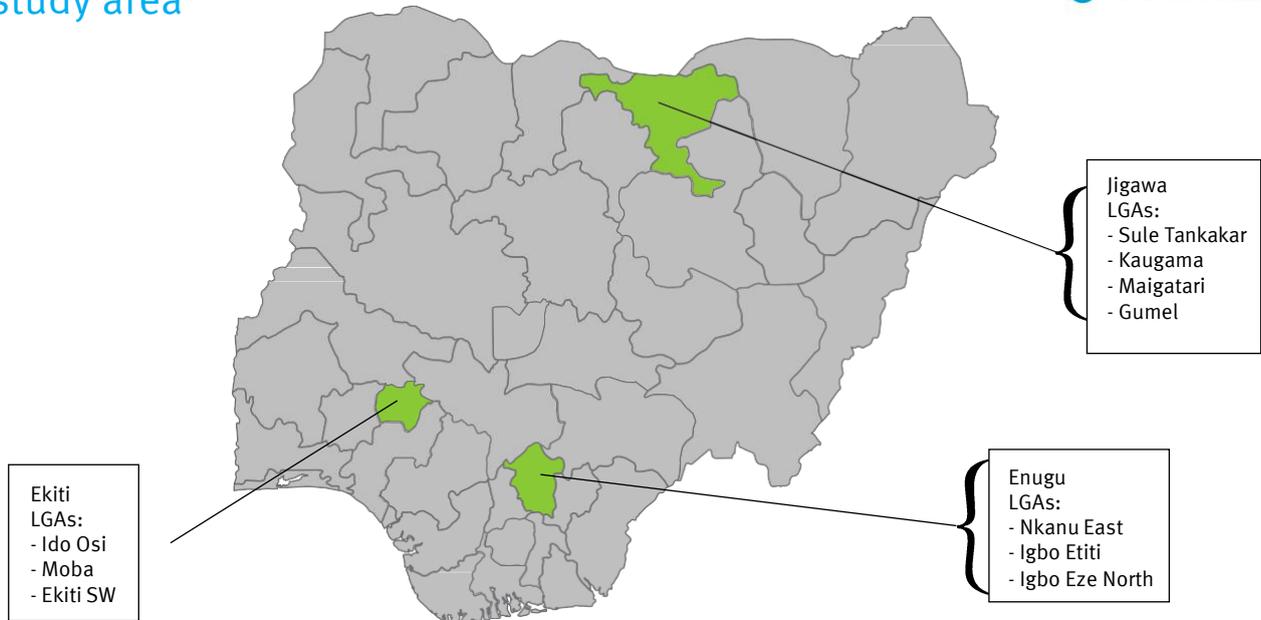
An existing report¹ on sanitation coverage indicate that in Ekiti State, 42.1% of the population have access to improved sanitation compared to 40% and 64.1% in Enugu and Jigawa respectively. Open defecation is practiced by 52.5% in Ekiti, compared to 50% and 14.5% in Enugu and Jigawa respectively.

Types of latrines observed during deep dive

Latrine types observed in the study areas vary significantly in terms of building materials, shelter, slab, and disposal pit types. Some latrine superstructures are quite durable; constructed from masonry and metal sheets. Others are temporary; fabricated from plastic sheets, thatch, and other local materials.



¹Harmonised Nigeria Living Standard Survey 2009-2010 Core Welfare Indicators



Open defecation - what do people believe?

Many households see open defecation as a negative experience and consider the sight and smell of faeces disgusting. The practice is also considered unsafe as it exposes people to danger on the long walk to defecate. This long walk is also considered inconvenient and a struggle for the sick and elderly, particularly in Ekiti State. Of utmost importance in some parts of the country is the fact that open defecation is considered inconsistent with religious beliefs which encourage people to keep the human body and environment clean.

Despite these, the practice of open defecation is generally accepted. Some households see little shame in it and consider it a better option than using a poorly constructed and maintained latrine. In addition, quite a number of households reverted to open defecation when their toilets collapsed, or filled up, thus providing evidence that experience with a toilet does not always create long term shift in behaviour and practice regarding open defecation.

'Pit heat'³ is believed to cause all manner of infections including sexually transmitted diseases (STDs) and human immunodeficiency virus (HIV). This belief is widely accepted and varied, with

women considered to be at a greater risk than men. Driven by the negative experiences highlighted above, households are aware of the benefits of having a toilet⁴. There is a strong preference for water-based toilets, because they are believed to prevent pit heat, and users from seeing faeces. Water-based toilets are also believed to be easier to clean. People also prefer these types of toilets for emotional reasons - they are considered modern and beautiful; signify a 'well to do' status; and for religious acceptability.

However, few households know what would be required to have a cistern-based storage toilet or water cistern toilets; the components to buy, how many (bags of cement, for instance), or where to buy them, other than 'in town.' Some believe that pipe-borne water would be necessary, and that they could not have a water-based toilet without piping water through their homes⁵.

Furthermore, few households are aware of other options, with many believing that they have to have a cistern, leading them to create affordable workarounds which enable water use and flush faeces, but do not get rid of the smell or prevent flies. For instance, an artisan would hand-craft a squatting, pour-flush basin with a PVC pipe leading to an offset pit.

²See full report for study area sanitation coverage; study area household conditions and market research metrics. <http://www.wateraid.org/uk/what-we-do/policy-practice-and-advocacy/research-and-publications/view-publication?id=7de9ed47-d11c-49a4-96cd-a370e28da5c2>, <http://www.susana.org/en/resources/library/details/2207>

³Pit heat refers to the warm air that rises from pit latrines and is believed by locals (especially in Enugu) to cause infections ranging from urinary tract infections to STDs and even HIV.

⁴Many households indicated that it would be less shameful to have visitors defecate in the open than offer them a poor quality latrine. Therefore, there is little interest in investing in a low quality latrine.

⁵In most of the study areas, access to water is scarce due to seasonal fluctuation and interruption in service. This affects choice of toilets based on the erroneous belief that water based systems need large quantities of water to operate.

We can frame the process of building an improved latrine as a journey over time. Life events, beliefs and emotions can either push a household across a threshold towards building a latrine or away from that threshold causing them not to build, to abandon an existing latrine or to not rebuild when a latrine collapses or fills up.



What triggers latrine construction?

External pressure and enforcement from village leaders seem to be the most effective tools for motivating toilet construction. Fines, asset seizure and/or social exclusion were cited as commonly-used tools for pressuring villagers. In many Community-Led Total Sanitation villages, this type of top-down pressure was credited with motivating latrine construction. It was less clear whether top-down tactics result in sustainable adoption of good sanitation practices (or, indeed, the impact of social exclusion on equity and human rights).

However, other motivating factors include activities associated with the end of the year such as home improvements prompted by visiting or returning relatives, increase in family income as a result of pay-outs by savings groups and ease of digging at the end of the wet season. Owning a good toilet is considered a sign of modernity and upward mobility. Also, owning a good toilet is something to be proud of and it makes life easier.

What inhibits latrine construction?

Cost is considered a major inhibitor of latrine construction by many households. The research found that most concrete components are overbuilt and when combined with the high cost of cement, artisan labour and transportation, latrine construction becomes expensive. This is compounded by complex purchasing processes that make it difficult for artisans to estimate costs, or for households to be aware of the right prices.

Competing demands ensure that money is spent on considered priorities in most households; in most study areas, evidence exists of permanent multi-room houses that would have been expensive to build. Findings from the research indicate that households spend money on other items (phones, television, cable network, well-built wooden furniture, etc).

How do people build?

There was no evidence from the research to show that people in Ekiti and Enugu construct toilets by themselves⁶. Even the simplest toilets require hiring a digger and a carpenter. Evidence shows that individual artisans offer a narrow set of skills when it comes to construction, therefore, multiple artisans⁷ are required to construct a latrine. This creates a toilet purchase hurdle even if not acknowledged. Materials for construction are sometimes collected in small amounts until they are complete; and enough money has been saved for labour before construction commences. While there is evidence of repair activities, there is no evidence that households upgrade their toilets from basic to improved toilets.

Ownership and use

In homes that have a toilet, children are still allowed to defecate in the open, close to the house or the toilet. Children are usually not allowed to use the toilet until they are about five years old because they may use it improperly or soil it. In areas where adults practice open defecation in the bush, children are allowed to defecate closer to home.

In some areas in Ekiti, households maintain two homes (one in town and one at the farm). Open defecation is considered a good and traditional way of defecating when at the farm, even if the household has a water-based toilet in their town home.

Research findings show that although there is a strong perception that concrete slabs associated with pit-latrines are easier to clean, the concrete slabs observed during the research were not necessarily cleaner. Many concrete slabs have rough surfaces and sharp edges where faeces can collect. In some cases households feel the need to actively manage pit contents. Additives are used to control volume, smell, insect and infection with little or no concern for how they contaminate water beneath the earth surface⁸. Using pit-latrines contents as manure for agriculture is not an option in all the areas visited, particularly within Muslim populations.



Aloysious practices OD and has for a long while. CLTS triggering and community pressure have motivated him to build a latrine, but he does not want to build a traditional latrine, he wants to build something 'good'. He's been buying materials for a squat-style pour-flush latrine over time and was now rushing to have his latrine built in-time for his Christmas guests.

Photo credit: WaterAid Nigeria/Abdulazeez Musa

⁶There was some self construction in Jigawa particularly in pit digging.

⁷Households will usually require the following artisans to construct a latrine: pit digger, bricklayer, carpenter and iron bender.

⁸Additives used to manage pit contents include: kerosene, fermented cassava, insecticide, sulfuric acid, locust bean, ash, salt, burning.

The supply chain

The following are the existing supply chains for cement and concrete products and for hardware products such as ceramic pans, PVC and iron rebar. The research focused on supply chain actors who interact directly with households.

Local artisans

Local artisans are usually a business operated by an individual owner and does not have employees but may employ day labourers as needed. Local artisans charge daily fees to provide services for which they are contracted, and work within their village. All households in Ekiti and Enugu employ artisans, though there is some evidence of self-built toilets in Jigawa. Toilet construction is not a major part of the work of artisans as most of them report constructing only about 5 - 10 toilets per year. Pit diggers are not considered artisans.

Plumbing and building supply hardware retailer

These are owner-operated businesses with an average of five employees. They are usually located near similar businesses and will sell wares on credit to known customers. The bulk of their business is in high turnover, low margin items⁹.

Competition is based on price as most retailers sell the same products as their competitors with few unique products. Retailers do not invest in active marketing and depend on brand recognition for sales.

Concrete block producers

These are owner-operated businesses with 3 - 50 employees. Usually they have their own delivery vehicles and are somewhat isolated from similar businesses. Concrete block producers tend to sell a very limited range of products. In many cases, they sell only concrete blocks, at prices that are fairly consistent across the three states. In some cases, block producers will also produce ring-shaped concretes, usually for culverts or water wells. The majority of sales are for government projects (schools, health clinics, etc) and to wealthy villagers building larger homes (villagers who often live in cities or abroad). Typical villagers tend to hire artisans to fabricate blocks on site, at their homes, as this is less expensive than buying from a block producer.

Block producers tend to be located along arterial roads leaving market towns and seem to sell only to customers that are accessed through these routes. This factor limits their geographic reach. The larger concrete block producers invest in moulds to build new products that they think might be desirable to certain clientele. They typically get ideas from mould producers or other block producers. Mould costs range from NGN100¹⁰ for a plastic mould used to construct a curb stone, to NGN3,000 for a lid mould for a water wells, to NGN40,000 for a 3ft x 3ft ring mould.

The only form of marketing these new products that concrete block producers do, is to display them in their construction yards. For the products to be sold, they depend on customers who come to them make other purchases (likely blocks), seeing and being attracted to the new products. Some block producers report occasionally selling rings for the construction of toilets; rings are perceived to be stronger for pits, yet the use of rings for this purpose appears to be very limited.



Concrete block producers display the WET product to attract customers towards improved latrine uptake.

Photo credit: WaterAid Nigeria

⁹For building supply shops cement, corrugate and reinforcing iron account for majority of retail revenue while PVC and fittings account for majority of revenue for plumbing stores.

¹⁰Official exchange rate USD 1 = NGN305; Central Bank of Nigeria official exchange rates December 2016.

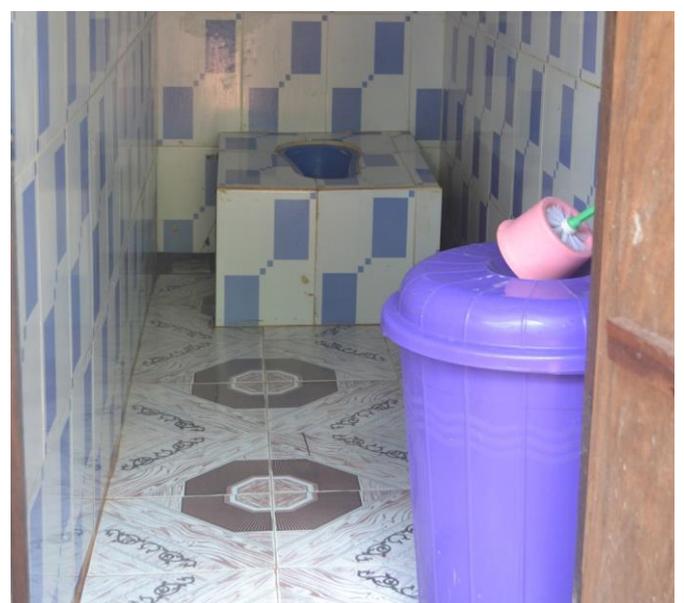
Recommendations

- To encourage latrine uptake and purchase, sanitation products must address issues of smell, cleanliness, flies, as well as concerns related to pit heat.
- Investments should be made in businesses that become ‘one-stop-shops’ for sanitation products, to reduce the complexity of purchasing materials for latrines.
- Awareness campaigns should be designed to promote the positive aspects of latrine ownership and the desirable qualities of the sanitation products that the Sanitation Marketing (SanMark) programme is developing. Campaigns should be aimed at dispelling myths such as the supposed negative health effects of pit heat.
- Awareness campaigns should be designed to encourage use of pit contents in agriculture and other areas. This will help improve management of sludge in communities.
- Households with existing (but unhygienic) latrines should be encouraged to upgrade their units using relevant SanMark products (rather than constructing an entirely new model). Savings that can accrue from doing this can be a key element of the promotional effort to reduce cost.
- Suppliers should be encouraged to establish flexible payment plans for buyers. Alternative financing options, including traditional loan systems should be explored at the community level.

The different looks of a functional Water Easy Toilet



Water Easy Toilets installed as a direct pit and an offset, very suitable for households, schools and institutions.



A traditional Ventilated Pit Latrine (VIP) converted to a Water Easy Toilet by installing only the offset.

Photo credit: WaterAid Nigeria/Blessing Sani, Nneka Akwunwa and Ifeanyi Ibe

Conclusion

The sanitation crisis in Nigeria throws up the urgent need for all stakeholders to heed the call to action as outlined in the Sustainable Development Goals and the recently launched Federal Government of Nigeria framework of the Partnership for Expanded Water Sanitation and Hygiene (PEWASH). The framework seeks to achieve universal access to WASH for all Nigerians. The need for new and innovative approaches to complement the Community-Led Total Sanitation model cannot be overemphasised. While there are obvious knowledge gaps in sanitation marketing, for Nigeria to take full advantage of the opportunities/possibilities that sanitation marketing approach portends, government must take the lead in coordinating stakeholders implementing sanitation marketing to maximise impact and knowledge-sharing within the sector.

The market for affordable improved sanitation products in Nigeria is yet to be fully tapped. Exploring what benefits this market holds is particularly critical with the current challenging economic situation. The government should prioritise investment in developing different options that can be easily accessed by consumers, while also building the capacity of local businesses to take advantage of the enormous economic opportunities that abound in the sanitation sub-sector.

This brief has been adapted from original deep dive report.

Written by Saheed Mustafa with support from Tolani Busari, Peter Feldman, Nneka Akunwa, Kyla Smith, Ado Oko-Williams, Oluseyi Abdulmalik and Blessing Sani



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 <https://twitter.com/WaterAidNigeria>  [wanigeria@wateraid.org](mailto:waniaeria@wateraid.org)

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