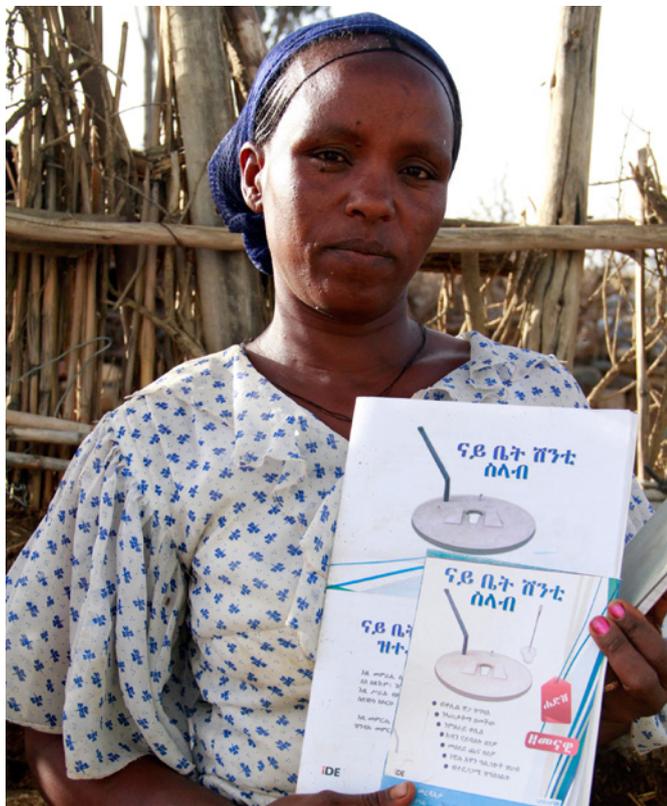


First Steps Towards Sanitation Marketing in Ethiopia Using a Human Centred Design Approach

INTRODUCTION

Ethiopia has made huge progress in reducing open defecation (OD), with a reduction from 92% in 1990 to 37% in 2012. It is the 38,000 health extension workers that are promoting sanitation and hygiene using the Community Led Total Sanitation and Hygiene (CLTSH) approach. They are working jointly with the 'health development army', a network of volunteers at community level. ▶



Health Extension Workers promote the new sanitation product

KEY POINTS

- *Sanitation marketing is a challenge in a country where for a long time a limited number of latrine options were heavily promoted by government, and where there is a strong history of subsidies in latrine production and distribution.*
- *Initial supply chain and market assessments identified a number of important factors, including household willingness to pay for an improved latrine but limited demand for sanitation products and a perception that sanitation was not a viable business in Ethiopia.*
- *Prototypes were developed based on consumers' preference for a heavy and strong slab; however, the sales test highlighted that affordability and transport are critical barriers to the marketing of the selected product.*
- *In agricultural-based rural economies affordability and willingness to pay are dependent on seasonality and the flexibility of payment options available. Promotion activities should target the seasons when income is highest and people have cash at hand to buy the products.*
- *When Local Sales Agents (LSAs) promotional activities are linked with Health Extension Worker (HEW) visits it has a positive effect on sales.*

► Although CLTSH has had tremendous success since its initial start, only 24% of the population currently has an improved toilet and Ethiopia will not reach its Millennium Development Goal (MDG) target for sanitation (58%). Traditional unimproved pit latrines made from locally available and affordable materials are low cost and easy to construct, but are not considered hygienic or sustainable as people stop using dirty and smelly toilets or go back to open defecation after their latrines collapse. There is a need and increasing aspiration for an improved latrine based on the recognized benefits: improved toilets are safer (i.e. they hygienically separate faeces from human contact), more comfortable (no smells, flies and easy to clean), and more sustainable (no collapsing, no reverting back to OD).

A recent market assessment conducted in the four big regions of Ethiopia (Amhara, Tigray, Oromia and SNNP) shows that a concrete slab is a critical expenditure to move up the sanitation ladder and that amongst the interviewed households there was willingness to pay. However, the supply chain for affordable, desirable and easily accessible improved latrine products and services is poorly developed and distorted by subsidized production and distribution of slabs. Even if a household would like to upgrade their toilet, access to appropriate services is limited.

This field note gives a brief summary of the sanitation marketing intervention jointly implemented by UNICEF and International Development Enterprise (iDE) since 2012.

DESCRIPTION OF INTERVENTION

Sanitation marketing in Ethiopia has focused on five steps:

- 1 Market assessment;
- 2 Product design and prototype testing;
- 3 Business model development;
- 4 Sales tests; and
- 5 Implementation plan for roll out of the business model.



Testing the slab for child comfort

1 Market Assessment

Throughout the sanitation marketing process, the 'Human Centred Design' (HCD) approach was followed, with the aim to design and introduce a feasible and viable latrine technology option that is desired by the consumer.

The first step of the HCD process was to undertake a 'deep dive' market assessment. A study team went to visit the four big regions in Ethiopia; Tigray, Amhara, Oromia and SNNP. The team spent four weeks in the field talking with villagers, concrete and brick producers, retailers, builders, and government officials to understand behaviours, needs, and desires regarding latrine purchase, building, and use.

All interviews and observations were performed in context – at the villager's home, at the retailer's store, and at the producer's work site. The market assessment identified a number of barriers to marketing, e.g. seasonal cash flow, high cost of transportation, limited sales promotion in rural areas, and these are being incorporated into the business model.

The market opportunity identified was to upgrade unhygienic latrines, in both Open Defecation Free (ODF) and non-ODF communities.

Key Results of the Deep Dive Market Assessment:

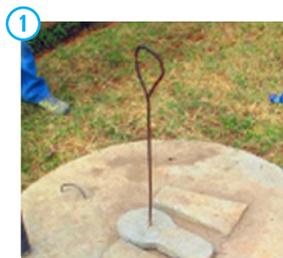
- Women feel shame, stress and feel exposed when defecating in the open.
- Most pit latrines are constructed from local materials, without a slab or pit lining.
- People believe that having an improved latrine is convenient and achievable, but are discouraged by the cost. There is a small but growing demand for improved toilets.
- People prefer a strong and easily cleanable slab, with foot rests and keyhole shaped drop hole.
- Cash flow is seasonal, with highest income after harvest. Immediate purchase priorities are fertilizer, clothes and school fees, while upgrading latrines is not considered a priority or a reason to access credit.
- Building supplies are locally available, but demand is seasonal, margins are low and people have a do-it-yourself attitude to construction.
- Transportation (mainly using donkey carts) is mostly the responsibility of the customer. Sales and promotion are normally not done in a pro-active way.
- The Micro and Small Enterprise Development Agency provides training on skill building, basic business financial management, and business planning. Masonry and carpentry skills training is done in partnership with Technical and Vocational Education Training Centres (TVETCs).

2 Product Design and Prototype Testing

Based on the consumers' preferences for a strong and easily cleanable slab, as identified in the deep dive assessment, an improved latrine product was designed that is affordable but at the same time aspirational and durable, and allows consumers to upgrade their latrine and maintain cleanliness. Prototypes were built and tested in the community. Adults (both men and women) and children tried the slab (squatting, lifting and transporting the slab, etc.) and feedback was then used to improve the product further. This process was repeated several times. The final product is a strong reinforced

concrete slab weighing around 85kg with a keyhole shaped drop hole with cover, and parallel and inclined foot-pads. A vent pipe is added to evacuate smell and block flies for those desiring a VIP latrine (see Figure 1).

Figure 1 - Important Design Features Identified During Market Research



1 The hole cover is concrete with a long handle



2 The vent pipe evacuates smell but blocks flies



3 Footpads are parallel and inclined



4 The drop-hole is a keyhole shape with slope inwards



5 Slab can be rolled or carried, and is considered strong by users



3 Business Model Development

The business model was designed so that a business could meet consumers' needs and be profitable. Some of the main features of the model are:

- Producers are responsible to procure all raw materials (as they will be more economic in bulk).
- One labourer with one mold can cast up to five slabs a day, which is the advisable stock on hand, as curing takes 21 days.

- Local Sales Agents (LSAs) will promote the slab and work closely with health extension workers (HEWs) and the kebele administrators. Sales techniques are a combination of group sales (preferably at the health post), door-to-door visits, and displays on market days, for which different promotional materials are developed. Customers can also directly buy from the manufacturer.
- After a sales event, customers can place their order and should pay an advance of 100 Ethiopian Birr (ETB). The 2nd payment should

be paid upon collection or delivery. If the LSA is involved in this process, he or she collects 10 ETB commission.

- Delivery is flexible and either customer, LSA or manufacturer can take responsibility for delivery. Transportation price is additional to the price of the slab.
- Installation is done by the customer, and they are provided with installation instructions by the LSA or manufacturer.

Figure 2 - Business Model for Selected Product



Manufacturing the slab

After the design of the business model, slab manufacturers and local sales agents were selected in consultation with the woreda (district) health office, micro and small enterprise office, and TVETs, and trained in slab manufacturing, business development and different promotional techniques.

4 Sales Testing and Revising the Product

Once producers were certified and started producing, sales testing was done for 10 weeks in CLTSH triggered villages, which were both ODF and non-ODF. Interestingly, **no significant differences in sales were found between ODF and non-ODF villages**; differences in demand seemed to be related to the efforts of sales agents, income level of the household, and distance to the manufacturer. The profile of the LSAs is shown in Figure 3.

Figure 3 - Profile of LSAs Engaged During the Sales Test

	M	F	Farmer	Trader	Volunteer	Kebele Leader	Guard
Amhara							
Bure	2	3	5				
Awobel	3	3	5			1	
Oromia							
Jarso	6	0	6				
Babo G.	4	2	2	2	2		
SNNPR							
Chuko	4	2	4	1	1		
Shone	5	1	6				
Tigray							
Hawzien	4	2	3		2	1	
Wukro	5	1	4			1	1

The recommended price of the slab and vent pipe is between 288 and 313 ETB (\$15-\$16USD), with a profit margin of 40 ETB (\$2) for the manufacturer and 10 ETB (\$0.5) commission for the local sales agent. A total of 121 slabs were ordered, and 49 delivered during the sales test period. The delay in delivery is due to the concrete curing period of 21 days. After the sales test of 10 weeks, sales continued and 58 more slabs were sold, the majority (74 %) in two woredas (districts) in two different regions, while others stopped selling or only sold 2-5 slabs. Success after the sales test ended was due to the fact that there was clear demand and willingness to pay, that manufacturers and sales agents were working well together, and that sales agents remained very active with promotional activities.

Halfway through the sales test, a feedback workshop was organized in which the product and business model was shared with a selection of sector stakeholders engaged in sanitation marketing. As sanitation marketing is relatively new in Ethiopia, the overall feedback from participants

was positive but there were also questions, doubts and recommendations. For example, the product design was limited to a concrete slab, and no attention was given to sub- or superstructure. Also, no hand washing devices were part of the proposed latrine product. Another concern of the group was the weight of the slab, which was estimated at 87 kg, which brings many challenges in terms of transportation, especially to remote areas. In the future, more options for different market / price segments should be developed and aligned with minimum standards set by Federal Ministry of Health.

5 Development of the Implementation Plan

Lastly, an implementation plan was developed which outlined the main components of the product and business model, and gave suggestions how to bring the model to scale by setting out milestones, timelines, and roles and responsibilities, emphasizing the need for a gradual handover to the respective government agencies responsible for sanitation, business development and capacity building.

OUTCOME

Prototyping revealed that customers prefer a heavy and strong concrete slab because they believe it is more durable. Although questions about transportation were raised, the community did not see this as a problem. Since the slab is round, they said they can roll it or transport it on a donkey cart. However, the cost for transportation with donkey cart was much higher during the sales test than that

identified during the market assessment and difficult to arrange. For the business model to be successful an alternative, lighter and smaller slab is required for marketing in areas far from the manufacturer. Alternatively, a batch of orders could be collected from the community in order that slabs might be constructed in the village, and avoid the need for transportation. In this scenario, the quality of the ▶



Figure 4 - Sale Test Results

Region	Woreda	Total Orders during sales test	Total Orders after sales test
Amhara	Bure	7	4
	Awobel	18	5
	Total	25	9
SNNP	Chuko	21	0
	E. Bedawacho	36	19
	Total	57	19
Oromia	Jarso	7	0
	Babo Gambel	11	2
	Total	18	2
Tigray	KilteAwlalo	18	24
	Hawzien	3	4
	Total	21	28
Total		121	58

▶ product would need close supervision. Their endorsement of the latrines improves the likelihood of sustaining ODF status in their villages.

If the sales test had been done in the harvesting season, sales would likely have been higher according to manufacturers and sales agents. Promotion activities should target the seasons when income is highest and people have cash at hand to buy the products. In certain areas where people grow cash crops (e.g. coffee) people showed more willingness and ability to buy the product than in other areas, which indicates that piloting of new products could start in these areas, and then be scaled up if successful. At the moment, the business model doesn't include an option for customers to pay in instalments as the manufacturer doesn't have the means to pre-finance the slab and is not interested to take that risk.

It is challenging for the manufacturer to set up a viable business in areas where people are used to subsidies, i.e. people have received free slabs, subsidized sani-centers produce cheap but low quality slabs, or NGOs are giving out slabs for households that graduate as a 'model household'.

People seem to be very comfortable installing the slab themselves, and most dig a new pit. The most challenging part of the installation was to level the slab on top of the pit. The customers are diverse, some already had a traditional pit latrine, others had no latrine at all; some were living in Open Defecation Free (ODF) villages, while others were not. **The uptake and sales of the product seemed to be more influenced by the efforts of the LSAs than the manufacturers promoting the product.** The HEWs and the health development army and

related networks of volunteers are appointed by the government of Ethiopia to implement CLTSH and encourage people to build their own latrines. When LSAs' promotional activities are linked with HEW visits it seems to have a positive effect on sales. In terms of promotional techniques, the group sales and on-site sellers are very effective to reach a larger number of people, but it is more chaotic to close sales during those events. Follow up visits and house-to-house sales are recommended to close the deal after the group sales event has created interest in purchasing a new latrine. Also, additional promotional methods, such as drama and the use of mobile microphones could help to close sales more effectively.

In the business model LSAs do the promotion and are the contact between the manufacturer and the client. Their responsibilities in the sales process include: promote the product; close the deal; collect the advance payment; bring the advance payment to the manufacturer; follow up with the manufacturer to check whether the product is ready; and contact the client once they can collect the slab. In most cases they are also the ones arranging transportation and collecting the slab from the manufacturer and bringing it to the client, as well as collecting the final payment and bringing it to the manufacturer. This long list of responsibilities is not reflected in the profit the LSA makes - around 0.50 USD per slab and only 3 per cent of the price of the slab.

In general, manufacturers take low risk and don't keep any stock, but are adopting a made-to-order model. Delivery time is sometimes delayed by unavailability of raw materials, while seasonal prices of materials can also have a negative

effect on the product price. Engaging existing, relevant businesses, such as masons or those already working with concrete/bricks, was highly effective. These businesses: (i) have existing customers, suppliers, and working capital; (ii) bring the experience and skills necessary to produce high quality, desirable latrine; and (iii) are more sustainable as they have multiple revenue streams.

The most successful LSAs are young male farmers, whereas most successful slab manufacturers were concrete block makers and builders in terms of sales numbers and quality of products. Both LSA and manufacturers would like to have more and continuous training. This is especially needed for manufacturers without much experience or formal training in concrete works and construction.

LESSONS LEARNED

The selection and development of only one product for testing did not allow the project to address all the complexities of the market. **A wider group of products and more flexible business models are required.**

The transportation of a thick and heavy slab turned out to be a greater barrier than initially expected.

The slab is appropriate for areas with good road access or when the manufacturer or customer has its own means of transportation. For more remote and inaccessible areas, a more transportable product is needed.

The prototype developed through HCD met the requirements of the people but was not the

best product for a viable business model. This demonstrates some limitations of the approach.

People are interested in buying the product but **need more flexible purchasing options to fit better with seasonal cash flow.**

Sales of the product resulted more from the efforts of the LSAs than the manufacturers promoting the product. HEWs and community health volunteers also played a role in promotion of sanitation and hygiene in general.

The **incentives for the LSAs to work with manufacturers need to be high enough** to make the business model viable.

NEXT STEPS

Based on the lessons learned and on the need to scale up improved sanitation in Ethiopia, UNICEF and IDE are continuing their partnership to design existing and new product prototypes, and to refine the business model (including more attention to promotion and LSAs). A customer and manufacturer survey will be conducted to inform the development of a 'menu of products' and finance options that overcome transportation and affordability barriers. Other components of the business model that may need further strengthening will also be identified and addressed during this survey (e.g. profit for both the manufacturer and the LSA).

In SNNP, one of the regions where UNICEF and IDE piloted sanitation marketing, the regional government saw the potential of the product and requested to scale up the training to other woredas. The woredas are now preparing an implementation and scale up plan, so that they can continue supporting the associations that have been trained (see box). Other regions are also showing a similar interest.

UNICEF Ethiopia is developing a Rural Sanitation Strategy, based on the many learnings from

CLTSH and sanitation marketing. The strategy will emphasise post triggering and post ODF follow up, including encouraging people to build an improved latrine or upgrade their toilet.

Working as an Association

The Federal Micro and Small Enterprise Development Agency supports the establishment of associations, a group of up to 10 entrepreneurs who work in the same business area. They receive business development services from the government, including access to micro credit, and the development of a business plan. FEMSEDA is currently piloting this approach for sanitation, including in one of the pilot areas of the UNICEF-IDE project. One of the trained manufacturers was grouped into an association with other (unemployed) people and he was asked to train his group members. In the future, one part of the group could take responsibility for manufacturing, while another part could take the lead in the promotion and sales of the product.



AUTHORS

Marije Broekhuijsen, Nancy Balfour.

ACKNOWLEDGEMENTS

Reviews were received from Sue Cavill, Ann Thomas and Peter Harvey.

PHOTO CREDITS

All - © UNICEF Ethiopia.

ABOUT THE UNICEF EASTERN AND SOUTHERN AFRICA SANITATION LEARNING SERIES

This Field Note is part of the UNICEF Eastern and Southern Africa Sanitation and Hygiene Learning Series, designed to improve knowledge of best practice and lessons learnt in sanitation and hygiene programming across the Region. The series has been funded by the Bill & Melinda Gates Foundation in support of improved knowledge management in the sanitation sector.

The documents in this series cover the following topics:

- CLTS in fragile contexts
- CLTS at-scale
- Small towns sanitation
- Mobile-enabled sanitation and hygiene programming
- Regional supply chains for sanitation
- **Sanitation marketing**
- Handwashing with soap

For more information on the series please email Ann Thomas: anthomas@unicef.org

United Nations Children's Fund
Eastern and Southern Africa Regional Office
© United Nations Children's Fund
October 2015