

Laying the Groundwork to Scale Up Sanitation Marketing in Ethiopia

Overview

Between February 2, 2015 and October 31st, 2015, with support from USAID's WASHplus project and the Vitol Foundation, iDE implemented a project to scale up rural sanitation marketing in rural areas of four regions of Ethiopia (SNNPR (Southern Nations, Nationalities and Peoples), Amhara, Oromia, Tigray). Building on the success of a pilot project that established the potential to scale sanitation marketing in rural Ethiopia, this project aimed to:

1. Continue developing and refining the design of the latrine products (slab and pit lining) as well as the business model for sales and delivery of the latrine;
2. Develop sales training and marketing materials for sales agents and manufacturers.

We have found that in the phase following a sanitation marketing pilot project, investing the right groundwork to prepare for scale pays huge dividends down the road. This involves:

- Ensuring the product developed in the pilot meets the needs of customers in the broader scale-up area, and refining as necessary
- Similarly refining the business model to ensure the right balance of affordability for households and profitability for latrine producers and sales agents
- Developing the written, verbal, and visual tools that will help sales agents and producers to market and sell the latrine products, particularly by focusing on households' needs rather than the product itself (human-centered sales)
- Training and coaching producers and sales agents on sales skills and the use of sales tools, as well as establishing the right staffing structure within iDE's field team to ensure producers and sales agents are supported throughout scale-up

iDE successfully achieved these outcomes through this project. We used human-centered design (HCD) to prototype three latrine slab options and to address pit collapse. Further, we improved the business model, using human-centered sales to develop sales and marketing



Photo Credit: iDE (International Development Enterprises). The photo depicts iDE-trained businesses manufacturing and curing latrine slabs.

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tools to engage latrine producers and sales agents. In doing so, we have laid the groundwork for widespread scale-up of sanitation markets in rural Ethiopia.

Project Activities

iDE implemented the project in four stages: (1) Refining latrine product prototypes, (2) Developing pit lining prototypes, (3) Refining the business model, and (4) Recruiting and training.

Refining Latrine Product Prototypes

In our pilot project, we used the HCD process to develop a latrine slab that met the criteria of affordability, feasibility, and viability (more information here.) We engaged in three rounds of prototype testing to iterate and improve on the existing product design, especially in terms of affordability and transportation. The prototyping process involves iterative cycles of brainstorming, product prototyping and user testing to develop a product or service. The prototyping process was informed by the preferences of villagers around latrine designs; knowledge and use of basic latrine parts; and methods used to transport, move and install their slabs.



Figure 1: Slab with Tire



Figure 2: Slab with Ceramic Pan



Figure 3: Small Oval Slab



Figure 4: Split Slab

Product Features: Four new latrine slab product designs were presented to households for prototype testing in the first round: a split slab, a small oval slab, a slab with a ceramic pan, and a slab with a tire.

Through three rounds of learning and iteration on the prototypes, we gained valuable user insights that helped us refine the products and to eliminate one (the slab with tire) because it didn't meet criteria. Latrine producers were trained to build the final designs, described below:

- Circular slab with 120 cm diameter, 4.5 cm outer thickness and 4 cm inner thickness, in two configurations (one piece or split for ease of transportation)
- 1m x 1m slab with ceramic pan
- Small oval slab with 5 cm thickness

These product options are all available for purchase by households. However, it is important to indicate that when prototype tests were done, preferences varied by region as each differs in terms of culture, geography, raw material availability, etc. Based on these preferences, manufacturers in all regions were trained on the original slab, the split slab (requires minimal additional metal dividers), and the regionally preferred prototype.

Regionally preferred prototypes were as follows:

- The Tigray Region: Slab with ceramic pan, good for areas near woreda or district capital and with water access
- The Oromia Region: Small oval slab
- SNNPR: Split slab, good for reaching remote areas
- Slab with tire slab: Not desired; eliminated as an option
- Original slab: Preferred overall

Overall, the original slab was still vastly preferred product since it is easy to install and reuse. Second was the split slab, which is a variation on the original slab that allows for easier transport.

Tested Selling Price: In a market-based approach, material and non-material costs must be transferred to consumers for a business to be profitable and thus sustainable. Therefore, in addition to the materials costs, labor costs, profit for the producers and commission to the sales agents must be included. The project did not fix prices, but rather tested a retail price based on the following price calculations:

Developing Pit Lining Prototypes

Collapse of latrine pits is an issue that is widespread in some certain areas of the project regions. Continuing from the HCD deep dive assessment on pit collapse issue that took place at the beginning of the project, the team worked on further investigations to address this problem. Factors contributing to pit collapse include the landscape, soil texture and climate, e.g. heavy rains (high water tables), which can all affect the durability of latrine pits and discourage households to build a new toilet.

There were three primary results from the investigation:

- The pit collapse problem is mainly due to a weak formation of soil (black loamy soil). In most of the

No.	Item name	Split slab		Small oval slab		Ceramic Slab	
		Birr	USD	Birr	USD	Birr	USD
1	Manufacturing cost	239	11.95	48	2.40	315	15.75
2	Profit	80	4.00	20	1.00	80	4.00
3	Commission	30	1.50	30	1.50	30	1.5
Selling price (Average)		349	17.45	98	4.90	425	21.25

tested locations in the two *kebeles* (wards or neighborhoods) the weak soil formation is found starting from an average depth of 1m - 1.2 m below the ground.

- The pit collapse starts from the bottom and ascends upwards in both kebeles, unlike other locations where collapse starts from the top and descends to the bottom.
- A high water table can cause pit collapse in specific places.

To prevent pits from collapsing due to poor soil conditions, iDE tested different solutions that ranged from varying the shape, size (width and diameter), and depth of pit to prototyping different pit lining materials.

Shape Considerations: Regarding the shape, iDE compared circular vs. rectangular pits, inclined vs. straight pits, varying pit diameters, and varying pit depths. We found that a circular shape with a smaller diameter and a depth between two and three meters are all important characteristics of a stable pit. While inclined pits were found to be more stable, many diggers reported that they are too complicated to dig compared to straight pits.

Lining Material Considerations: Our field test indicated that the pit lining should be round and that the material used should be easily available and affordable. Accordingly, iDE tested a variety of materials including wood, used oil drums, used tires, and a cement-soil mixture. Ultimately the cement-soil mixture was favored over the other three methods because it is easy to build (can be built by local artisans living in the kebele), it is not expensive, easy to access, the structure is stronger, and it is not exposed to corrosion or rotting. A 1:10 cement-soil ratio was found to be strong enough and economical enough given that we only need to line a soil profile subjected to pit collapse.

Refining the Business Model

The business model that was developed hypothesized what customers want, how they want it, as well as how a business can organize to best meet those needs, get paid

for doing so, and make a profit. The business model is meant to represent core aspects of the sanitation business including sales strategies, promotion strategies, price, and delivery mechanisms. The refinement process worked thoroughly on redesigning sales agent engagement strategies (identification, selection, recruitment, training, and commission structure), determining best price to optimize affordability and cash flow for businesses and sales agents, and ensuring marketing materials resonate with customers and are usable for sales agents.

For this process, iDE teamed up with Whitten & Roy Partnership (WRP), a globally renowned sales training firm whose contribution has been critical to the success of iDE's flagship sanitation marketing program in Cambodia. Their input has been valuable to the refinement of the business model in Ethiopia, as well.

Price: WRP's findings during their first round in-field investigation indicated lack of motivation among sales agents and manufacturers because of low commission rates and minimal profit margins. Under the previous model, sales agents received US \$0.40/slab and manufacturers made a profit of US \$1.50-2.40/slab. This sometimes resulted in sales agents dropping out and order delays.

In response to this, various pricing models were tested to find the sweet spot of affordability and profitability to ensure that demand remains high while businesses and sales agents are still motivated to sell. After such investigation, the recommended commission rate for sales agents was US \$1.50/slab and profit margin of US \$4.00/slab.

Sales Agent Engagement Strategy: Further findings of WRP indicated that sales agents lack sales skills. Sales conversations focus on the product first, where iDE has learned that approaching the conversation from the point of customers' needs is more effective. Further, agents had little training and struggle with territory management. In addressing the findings, the team developed and delivered successful sales agent engagement strategies.

As a result, iDE has redesigned the sales conversation to be more human centered. The goal is to individualize and personalize the problems of not having a hygienic latrine and demonstrate to households that the slab is a solution to their problems. As such, the

sales conversation becomes problem centered and not product centered.

Marketing Materials: When designing the marketing materials, it was important to make sure that tools are easy to use and simultaneously comprehensible for customers. Previous sales tools mainly focused on promoting the product and lacked the sense of local context. The new sales tools (sight sellers) focus on the users' problem of not having a hygienic toilet and the costs of the problem making sales conversation more human centered.

The marketing materials include: sight sellers, manuals with sales conversations for sales agents, record books, posters, and banners. Other promotional items designed are bags, t-shirts and umbrellas for sales agents and sometimes to be used by kebele health extension workers.

Recruiting and Training

Additional sales agents and businesses were recruited and trained after the refining the business model. Refresher training for the existing sales agents and businesses was also provided. The process followed a set of steps including posting an advertisement with clear criteria, a written exam (more like an application explaining why they want the job), followed by an interview with iDE staff and WRP staff. In total, 80 sales agents are recruited and trained.

Sales training was conducted with WRP's in-field consultant, iDE's marketing expert, and iDE WASH staff. The training included a two-day classroom session followed by in-field training and coaching. The training content focused on developing sanitation advisors' sales skills, including approaching and connecting with families, using a problem-led sales approach, how to use sales tools, and closing sales.

Sales incentives and sales tracking: Designing sales targets for each sales agent was also part of the training, in which sales targets for three months were with made input from the sales agents themselves to determine realistic numbers. For each sales target achieved, sales agents were rewarded with certificates and phone credit. This was supported by a well-designed sales tracking tool developed by the team.

Training Businesses: Sixteen businesses were trained on new product designs and business models. Businesses were trained on technical aspect of production, mold production, setting prices, working with sales agents and

managing territories.

Accomplishments

Within the project period, we accomplished all of the project objectives, which were to:

- Refine the existing latrine product and develop three product designs to suit the needs of households in terms of transportation, affordability, and aspiration (desirability)
- Conduct a deep dive assessment on pit collapse and develop a product solution through prototyping using the HCD approach
- Refine the business model, especially determining the best prices for the products that are affordable for households and attractive for sales agents and manufacturers to maintain their businesses
- Design sales agent engagement strategy and develop marketing materials
- Recruit and train additional businesses and sales agents in each woreda in the four regions
- Sell 400 slabs to households through the designed model and more than 1,400 slabs indirectly (for institutions).

Challenges and Opportunities

Some of the challenges encountered during the project period were:

- Prototyping activities were affected because the rainy season made movement in the villages difficult for testing and talking to households.
- Sales started in June, coinciding with the start of the rainy season, which put a lot of burden on spending for households. This was somewhat reflected on the sales numbers. Since September, we are observing that sales are picking up, which will continue until harvest time.
- The local government provides little support, as the sanitation marketing approach is new, and they are still in the learning process.
- The regions are geographically dispersed, which made the management of the four regions somewhat difficult.

Despite the challenges faced, the project helped iDE to set the stage for much broader regional scale-up of sanitation marketing. As we prepare for scale-up some of the opportunities presented include:

- Primarily, the continued strong sales through this project reinforced our previous finding that there is high demand for improved latrines and willingness among households to purchase them. This bodes well for project scale-up.

- The strong position we're in to build markets for sanitation presents us with an opportunity to work within the broader context of health and nutrition development in rural Ethiopia. We are interested to learn how sanitation marketing can be leveraged alongside other interventions, such as community-led total sanitation and integrated approaches to nutrition, to promote the health of rural Ethiopians and achieve our mission of eliminating death and illness from diarrheal disease.

Next Steps for Scale Up

Having completed most of the refinement activities, the next step in the process is to expand sales. Instead of focusing scale-up on all regions of the project described here, we are planning to begin with SNNPR (Southern Nations, Nationalities and Peoples District in Southern Ethiopia) because it has the highest number of sales to date. Concentrating efforts in one region at the beginning of scale-up will allow us to devote the resources necessary to ensure a thriving, self-sustaining market is established. From there, we can work through the rest of the regions gradually. It is recommended that the first year should focus on ramping up activities and gradually expanding sales activities in preparation for a full scale-up by Year 2. Scaling will involve the priority areas of product design, business development, technical and business training, and stakeholder learning and engagement.

Based on the sales figures to date in Ethiopia and iDE's experience scaling sanitation markets in other countries, we have developed latrine sales targets for a five-year scale-up project with a \$5.5 million project budget. This level of funding is anticipated to support a salesforce of 64 agents across eight woredas in two regions.

Based on the total market size of the selected woredas of 253,735 (percentage of total households lacking an improved latrine), such a project could achieve 76,121 latrine sales in five years benefiting more than 380,000 people (based on a household size of five). Additional funding would allow the project to expand linearly the geographical reach and market and, subsequently, total latrine sales. This level of up-front investment is consistent with iDE's global experience, which has shown that adequate upfront investments in research and development, value chain development, and training of businesses and sales agents are necessary for a solid foundation upon which exponential sales growth can happen. Costs per toilet may appear to be very high in the beginning of market development, but iDE has seen costs per toilet decrease from a high of US\$327 to US\$35 over the course of the program. This trend is consistent across iDE's other sanitation marketing programs and is anticipated to be the same for Ethiopia.

About WASHplus

The WASHplus project supports healthy households and communities by creating and delivering interventions that lead to improvements in water, sanitation, and hygiene (WASH) and household air pollution (HAP). This multi-year project (2010-2016) was made possible with support from the American people delivered through the U.S. Agency for International Development's (USAID) Bureau for Global Health and led by FHI 360 in partnership with CARE and Winrock International. The project uses at-scale programming approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under age 5 globally.

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