

USAID Transform WASH

Assessment of Field Performance and Acceptance of the SATO Pan in Ethiopia



Learning Note, September 2018



Table of Contents

Copyright and Publisher	3
Abbreviations	3
1. Introduction	4
2. Objective of the Study	5
3. Methodology	5
4. Findings and Results	6
4.1. Respondent characteristics	6
4.2. SATO pan installation	6
4.3. Consumer opinion of SATO pan	7
4.4. Sales strategy and key actors in the supply chain	8
5. Discussion	8
6. Gaps, Challenges, Opportunities and Recommendations	10
7. Conclusion	11

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USAID Transform WASH aims to improve water, sanitation and hygiene (WASH) outcomes in Ethiopia by increasing access to and sustained use of a wide range of affordable WASH products and services, with a substantial focus on sanitation.

The WASH market will be transformed by: stimulating demand at the community level, strengthening supply chains, improving local business practices, and building the enabling environment for a vibrant private sector.

USAID Transform WASH is a USAID-funded activity implemented by PSI in partnership with SNV, Plan International, and IRC. The consortium is working closely with government agencies, including the Ministry of Health, the National WASH Coordination Office and regional governments.

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This document uses research carried out in SNNPR to respond to questions about user acceptance and performance of the SATO pan toilet product in Ethiopia.

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Cite this publication as follows: Kebede, A, 2018. Learning Note: Assessment of Field Performance and Acceptance of the SATO Pan in Ethiopia. Addis Ababa: USAID Transform WASH.

Abbreviations

FMOH Federal Ministry of Health

HEW Health Extension Workers

CPPM Curabitur Pellentesque
Pellentesque Maximus

FANL Fusce Aliquam Neque Laoreet



1. Introduction

Most of the latrine construction options available to peri-urban and rural households in Ethiopia are near the bottom of the sanitation ladder or are expensive to install, which results in high numbers of unimproved facilities. To provide more affordable improved options and encourage movement up the ladder, the Federal Ministry of Health (FMoH) has put in place a national sanitation marketing guideline. The guideline provides direction on the establishment of an appropriate enabling environment for developing, testing and commercialization of appropriate, affordable products to meet consumer demand. A related 'On-Site Household Latrine Technology Option Planning, Design and Construction Manual' was prepared by FMoH to facilitate selection, design and construction of improved latrine technology options.

The USAID Transform WASH project seeks to increase the range of products available in the local market. Among various innovations, the consortium has been supporting Lixil, a Japan- and US-based household sanitation company, to introduce its SATO latrine products to the Ethiopian market (UNICEF has piloted the SATO latrine pan product in small towns). The SATO pan is an attractive plastic product designed to create an effective seal that prevents flies from moving in and out of the pit and reduces smells. By March 2018, the product had been distributed in three woredas of the Southern Nations, Nationalities and Peoples Region (SNNPR), and around 300 households had purchased the product.

Although plastic products are included in the On-Site Household Latrine Technology Option Planning, Design and Construction Manual, questions were raised by the government at federal and regional levels

about the suitability and desirability of the product. Concerns were also raised about the environmental impact of plastics, the need for water for the SATO pan to function, and whether initial installations could be considered 'improved' or 'basic,' according to various definitions.



Figure 1: Survey enumerator



Figure 2: Respondent's SATO pan toilet installed on a concrete slab

2. Objective of the Study

The study was designed to assess the field performance and acceptability of the SATO pan. This learning note identifies key lessons and strategies to improve sanitation product and service delivery in the region by the project and key stakeholders.

The following learning questions were used to guide survey design and analysis:

- *Is the SATO pan being properly and safely installed and well maintained?*
- *What are the consumer perceptions and opinions on use of the SATO pan?*
- *What type of sales approach was adopted and what was the role of key stakeholders in the process?*
- *What are the resulting opportunities, gaps and challenges for the project?*
- *What are the key learnings for improvement of sanitation marketing initiatives in the region?*

3. Methodology

A household survey was designed to assess the performance of the SATO pan among first adopters in Shashago woreda of SNNPR.

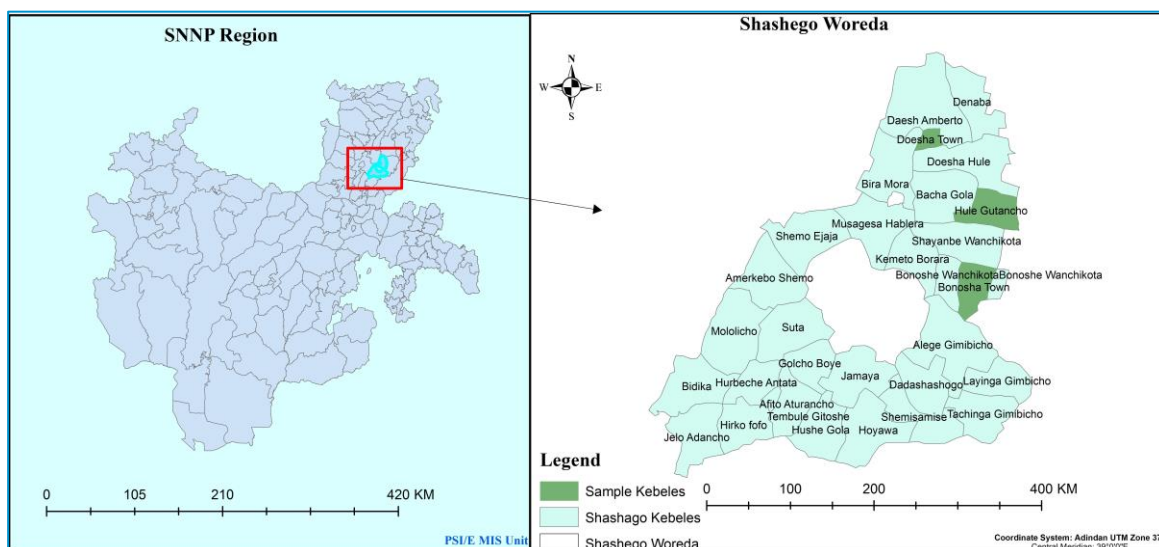
The study sample included individual households who had bought and installed SATO pans in their toilets.

The sales data compiled by the project indicated that more than 300 units were sold in Shashago woreda. Since there was uneven distribution of sales across different villages and kebeles, three villages with the highest number of sales (Bonesha, Hulle Gutancha and Doesha) were selected for data collection.

Quantitative data was gathered from a sample of 90 households in September 2018 using a mobile survey tool (mWater). A total of 120 households were visited, but

30 were eliminated because they had not yet installed the SATO pan. Four enumerators were engaged in the data collection process. Information was compiled in two ways: (1) through direct observation, and (2) face-to-face interviews with respondents.

Additional information was gathered through key informant interviews with slab producing enterprises operating in Bonesha town, health extension workers and the woreda hygiene and sanitation focal person.



4. Findings and Results

4.1. Respondent characteristics

73% of households surveyed were headed by a man and 27% by a woman, and 82% of respondents reported themselves to be the head of their households. Of all respondents, 57% identified as Muslim and 42% Protestant.

There was a high level of literacy among respondents with 77% able to read and write.

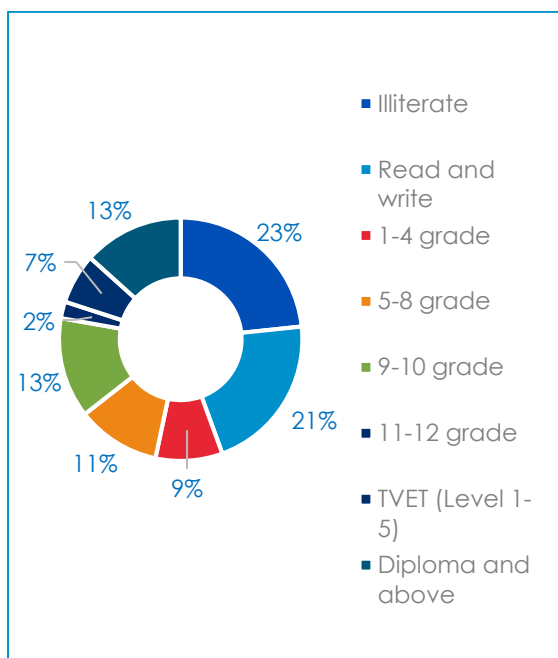


Figure 3: Literacy levels

4.2. SATO pan installation

Out of the 120 households visited, 90 households had installed the SATO pan. Some of the reasons given for those not installing the SATO pan were: (1) they were planning to construct a new toilet first, and (2) due to a compatibility issue with the existing toilet (to be retrofit with proper installation instructions or training).

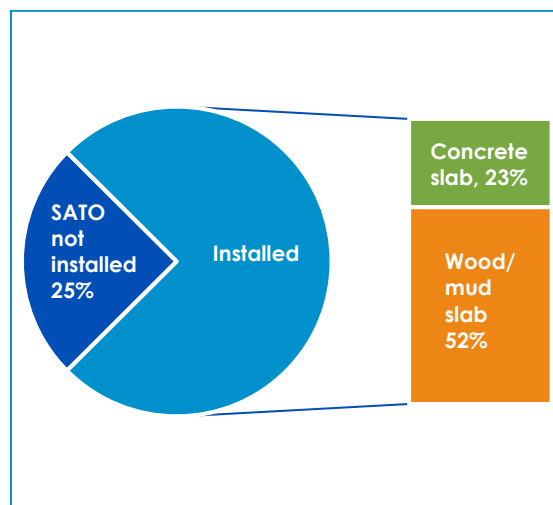


Figure 4: SATO pan installation

The majority of the sampled toilets did not have concrete slabs. Instead, they are made from either wood or mud and wood combined.

Of the sampled toilets, nearly 70% had no door, and 30% had walls but with holes. 26% had no roof.

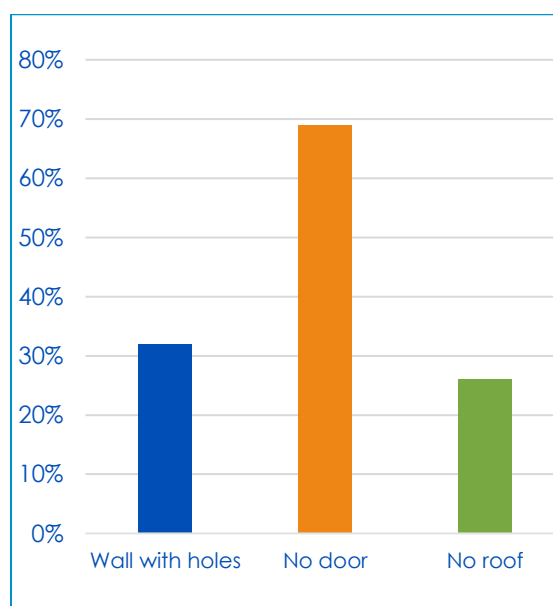


Figure 5: Condition of the superstructure

About 79% of the households indicated they installed the SATO pan by themselves. On how they learned to install them, the majority cited 'trial and error' and looking at how others did it. Only a few respondents used information provided by the sales agents, a retailer, or an installation guide.

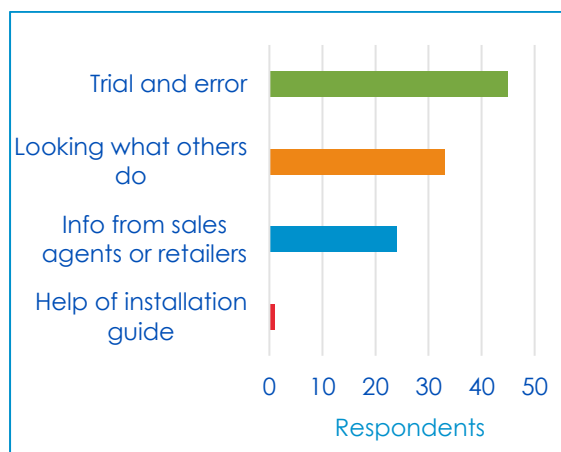


Figure 6: Learning how to install the SATO pan (multiple choice responses)

Many of the SATO pans were incorrectly installed. Observation by the enumerators found 45 cases where the SATO pan was not fitted or sealed properly and 38 cases involving other installation problems.

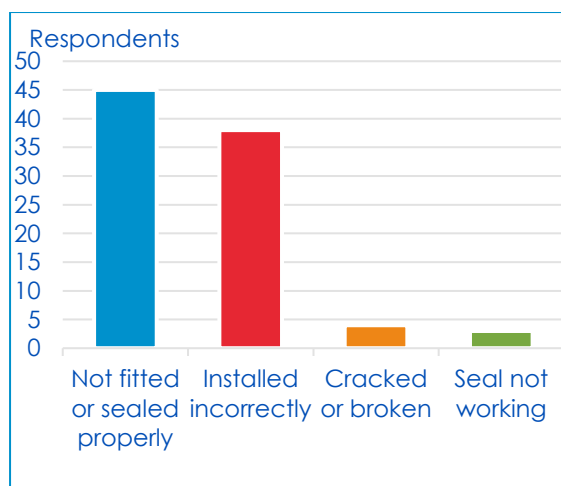


Figure 7: Installation of the SATO pan

4.3. Consumer opinion of SATO pan

All of the respondents said they were satisfied or very satisfied with the SATO pan. Most of the respondents (61%) said they had installed the SATO pan five months before.

Asked what they like about it, the majority said reduced smell and reduced number of flies. A minority appreciated it for being looking modern.

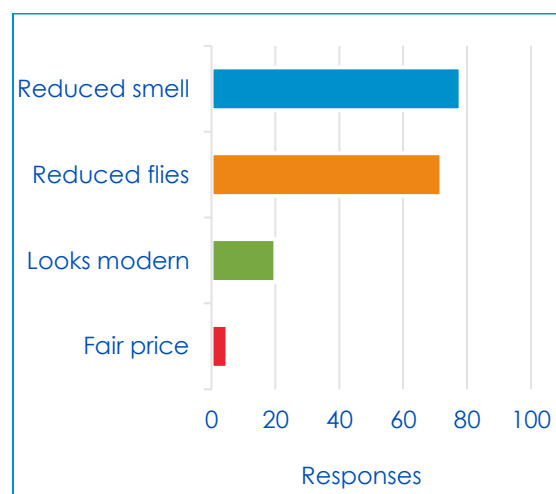


Figure 8: Consumer opinion on SATO pan

The price of the SATO pan for the end user was 150 Birr. 61% of the respondents said that it was inexpensive, and 27% said it is affordable. Only 14% reported that it was expensive.

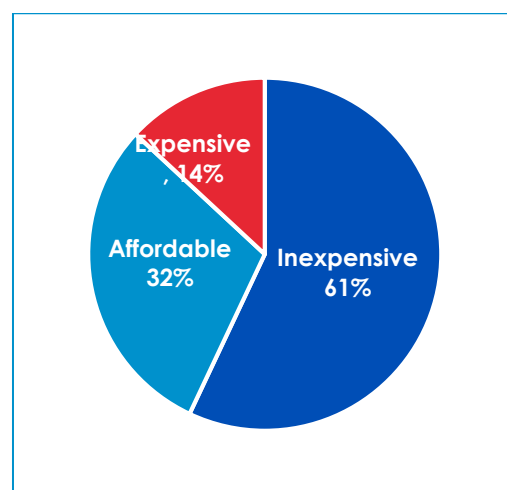


Figure 9: Affordability of SATO pan

42% of the respondents also indicated that children were using the toilet more often because parents thought it had reduced the risk of their children falling into the toilet thus had boosted their confidence to send children to use the toilets.

98% of respondents were planning to make further improvements to their toilets. Asked what they were planning on improving, the majority aspired to building a better superstructure.

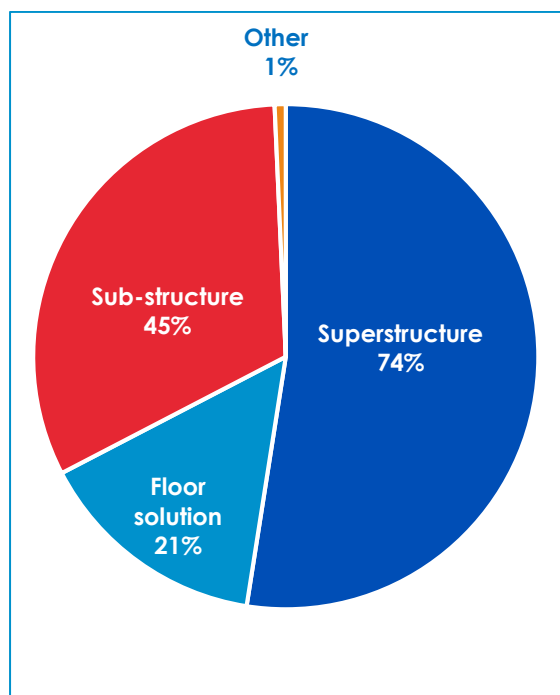


Figure 10: Future improvements of toilet

4.4. Sales strategy and key actors in the supply chain

USAID Transform WASH works with health extension workers (HEWs) and sales agents to create demand for sanitation products and services. Over half of the respondents (51%) said they first heard about the SATO pan from HEWs followed by information provided by sales agents (39%).

The three major factors that persuaded these households to buy and install the SATO pan were education given by HEWs (51), information disseminated by sales

agents (33), and demonstration toilets seen at a nearby health center (19).

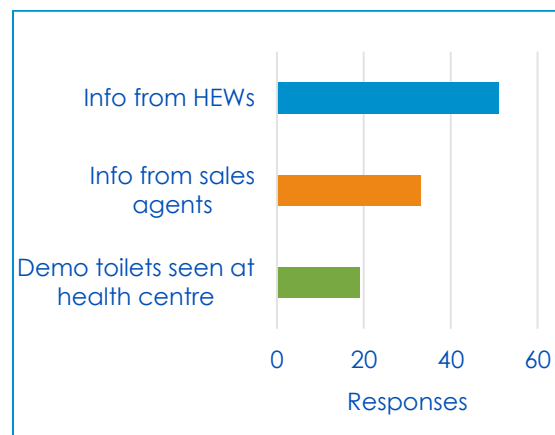


Figure 11: What persuaded them to buy the SATO pan? (Multiple responses possible)

The other relevant actors in the supply chain were local masons and artisans, who were trained by the project on the correct installation of the SATO pan. Only 14% of the respondents used the service of a mason/artisan, instead opting to install it themselves through trial and error.

5. Discussion

The SATO pan is considered affordable to most households. The SATO pan is supplied to the market with a retail price of 150 Birr. 88% of the respondents reported that the price was inexpensive or affordable. More than 300 units were sold in SNNPR within a few months' time, which indicated that households were willing to invest in sanitation products given an affordable price.

The SATO pan is considered to be durable. Consumers also indicated that the products could be used again and again by installing them when they prepare new pits. A key informant in Doesha kebele revealed that she had carefully uninstalled her SATO pan when her old pit was full after the rainy season. She said installing the SATO pan had reduced the smell, and she was confident that her child wouldn't

fall in the pit when using the toilet. She said she was planning to reinstall her SATO pan once she had prepared the new pit.

The SATO pan is socially acceptable.

79% of respondents said installation of the SATO pan had not affected women and men differently. Around 42% of the respondents stated installation of the SATO pan had improved children's use of the toilets. All of the surveyed households were satisfied with the SATO pan and were willing to recommend the product to others.

The promotion strategy is working. The majority of respondents heard about the SATO pan through HEWs and sales agents. The survey results showed that sales agents played an important role in distributing the product the last mile to households.

SATO pans are not always being installed correctly. 54% of SATO pans were not properly installed. 67% of the SATO pans were installed on toilets that had mud or wooden platforms, which reduced the effectiveness of the technology. During our observation, more than half (53%) of the sampled toilets were not clean, 45% had with flies, and 33% of the toilets still had a bad smell.

Households are installing SATO pans by themselves through trial and error. Lack of clear guidance on installation of SATO pans resulted in purchasers trying different methods themselves, thus leaving openings without proper sealing.

A high number of SATO pans had not yet been installed. 30% of the initial sample size had purchased the SATO pan but had not yet installed it, citing incompatibility issues with their existing toilet floor/ slab and an absence of trained masons to support them. Some households said they were planning to install the SATO pan after

constructing new toilets since their current pits were getting full. The above two findings suggested that an after-sales follow up strategy was needed to ensure households were getting the maximum benefits from the product they had purchased.

Toilets are not being kept clean. In the user's manual, it states that less than 500 ml of water is required to flush the SATO pan. Our findings showed that households were using about one liter per flush. They estimated their daily water requirements for flushing to be 20-25 liters.

Nonetheless, observational data showed two-thirds of the toilets did not have a water container near or inside the cubicle that could be used for cleaning. About 47% of toilets had some feces or paper in the SATO pan, and 14% had many. Cleaning substances like a brush or a broom were absent in 87% of toilets, and none had cleaning detergents visible. This may be contributing to the 67% of toilets that had a bad smell at the time of visit, and in 45% flies were observed in the toilet.

Toilets are not providing adequate privacy. Another key finding for the project and other key stakeholders was the poor condition of the toilet superstructure. A quarter of respondents did not have roof, and 68% of toilets did not have doors at all. More worryingly, only about one-third of toilets had a wall that provided complete privacy for the user.

Nearly all respondents want to improve their superstructure. Interestingly, nearly all of the respondents reported that they wanted to improve their toilet, and when asked how, nearly three-quarters said that they planned to improve their superstructure (door, walls, or roof). This presents a good opportunity for local businesses.

6. Gaps, Challenges, Opportunities and Recommendations

Gaps and Challenges	Opportunities and Recommendations
<p>SATO pan installation: Some households had not yet installed the SATO pan. Those that did install preferred to do it themselves but were not doing it correctly.</p>	<p>HEWs and sales agents are successfully creating demand for the SATO pan. But sales agents should not stop with sales and delivery. HEWs and sales agents should follow up with households to ensure that the SATO pan is being installed and that households have the information and training they need to install it correctly or to hire a local business to help them.</p> <p>SATO pan marketing materials need to stress the benefits of having a “fly free” and “smell free” latrine, which can only be achieved if the toilet is kept free from feces and toilet paper, and it is installed properly, preferably embedded in a concrete slab (or an inexpensive concrete skirt recently developed by the project).</p> <p>Messaging about SATO pan installation could be shared via the radio, kebele meetings, kebele leaders, development armies and farmer associations, where men, who are mostly responsible for construction, can be reached.</p> <p>Local businesses (masons/slab manufacturers/artisans) need to be trained to do a much better job promoting their installation and consultation services. They have a critical role in assuring proper latrine product installation and maintenance.</p>
<p>Smell and flies: Many toilets had bad smells with flies present, so customers were not getting the full benefit of the SATO pan.</p>	<p>A concrete slab will provide the full benefits of a SATO pan. HEWs and sales agents could stress the importance of a strong and durable slab because users know that their current floors will degrade over time, and the wood could collapse at some point.</p> <p>A good mud slab will last 2-4 years and could seal the pit reasonably well to reduce smells and flies. HEWs and sales agents could be trained to provide advice on good mud slab construction and the use of an inexpensive concrete skirt to provide a cleanable surface around the SATO pan.</p>
<p>SATO pan and water usage: In most of the toilets there were no containers with water to flush the SATO pan or tools like brushes for cleaning SATO pans. This could be</p>	<p>HEWs can include messaging around toilet cleanliness and proper usage in their outreach.</p> <p>Since the SATO pan was being used a lot by children at</p>

<p>contributing to the bad smells and presence of flies observed.</p>	<p>their parents' encouragement, schools could teach children about how to care for their toilets and keep them clean, so they carry the message home.</p>
<p>Lack of privacy: A staggering amount of toilet superstructures were inadequate for women's comfort and security. Research has shown privacy is an important feature for women.</p>	<p>Improved toilet superstructures were in demand by the majority of households. In general, households like to paint pretty designs on their homes to improve their appearance. These findings present an opportunity to add more products into the supply chain and potentially create a 'kit' comprising slab, SATO pan and superstructure for self-assembly or through full or partial construction by a local business. At a minimum, the project could create demonstration toilets that include a better superstructure, constructed using low-cost natural materials.</p>

7. Conclusion

The reception of the SATO product has been overwhelmingly positive. Most of the respondents thought the product was inexpensive or affordable, and all of them were willing to recommend the product to others. It has had positive results for children too, with many parents happy to send their children to the toilet without fear of them falling in.

But there have been gaps in installation and use of the SATO pan. Many were not installed at all, and of those that were, they were not installed sufficiently to allow the full benefits of the product to be realized by the end user. HEWs, sales agents, and businesses can play an important role here as there is a big opportunity to educate households on proper installation practices and services, proper care and maintenance, and cleanliness and hygiene.

HEWs have been key in raising awareness of the product, and sales agents have

played an important role in the supply chain, in getting the product to the consumers. Demonstration toilets in health centers have played a lesser, but still important, role.

Women's comfort and privacy is lacking due to the poor condition of a significant number of toilet superstructures. The project has a real opportunity to introduce new products and services into the supply chain to respond to the significant demand for better superstructures.

The learning here is that implementers need to improve the combination of the introduction of new products with consumer education and training support, to households and businesses, to ensure that desired installation practices are followed. Once these behaviors and practices get adopted by early consumers, they become the new norms of the community and can be sustained with less education and training over the long run.