

# USAID Transform WASH

Facilitating the Introduction of  
New Sanitation Products into  
the Ethiopian Market



Learning note, September 2018



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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 learning note documents the process of introducing sanitation products into the Ethiopian market, the key challenges and lessons learned.

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## Abbreviations

**FMoH** Federal Ministry of Health

**PSI** Population Services International

**SNNPR** Southern Nations, Nationalities and Peoples' Region

**UNHCR** United Nations High Commissioner for Refugees

**USAID** United States Agency for International Development



# 1. Background

Sanitation and hygiene-related communicable diseases remain a top public health challenge in Ethiopia. Access to an improved (basic) sanitation facility is as low as 7% nationwide, according to the Joint Monitoring Program (JMP), 2016.<sup>1</sup> To address this challenge in any significant way, major improvements in sanitation facilities and sustained increases in demand and hygiene practices will be required.

Meeting the basic needs of millions of Ethiopians to make these improvements calls for market solutions; a combination of innovative, affordable product and service options and effective business models that can deliver to consumers with growing demand. Accordingly, the Federal Ministry of Health (FMoH) is promoting sanitation marketing to strengthen the sanitation market. This approach requires the availability of technology options that meet minimum hygiene standards and address social, economic, environmental and technical factors (FMoH, 2017)<sup>2</sup>.

Ethiopia's national sanitation marketing guideline provides direction on the establishment of an appropriate enabling environment for developing, testing and commercialization of products and services that meet consumer demand and address their sanitation preferences, proper hand washing, and safe water supply through WASH market development (FMoH, 2013)<sup>3</sup>.

USAID Transform WASH is a five-year project that supports this approach. In

2018, Transform WASH facilitated the introduction of two new products: the SATO pan, manufactured by Lixil Corporation, and the plastic toilet slab. Both products are new market offerings for households and an opportunity for local businesses to increase their role in local WASH product and service supply and distribution.

## 2. Reflection on facilitating market introduction of new products

This learning note describes the process followed by USAID Transform WASH to facilitate introduction of SATO pans and plastic slabs to the Ethiopian market, including challenges and lessons learned. The lessons may be helpful for others involved in introduction of sanitation products and services to low-income populations through market development approaches.

The following learning questions were used to guide reflection:

1. What were the key steps to introduce these new products to the local market?
  - a. How were these products identified?
  - b. How was consumer testing undertaken?
  - c. How was initial importation of the products arranged?

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<sup>1</sup> Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. *Ethiopia Demographic and Health Survey 2016: Key Indicators Report*. Addis Ababa, Ethiopia, and Rockville, Maryland, USA. CSA and ICF.

<sup>2</sup> FMoH, 2017- *Federal Ministry of Health Onsite household latrine technology option planning and construction manual 2017*

<sup>3</sup> Ministry of Health National Sanitation Marketing Guideline, 2013

- d. How was local manufacturing of the products initiated and progress made?
  - e. How were distribution channels developed?
2. What were the key challenges encountered and how were they addressed? (e.g technical, timing, policy and taxation)
  3. What lessons were learned that could apply to introduction of other products to the market?

This assessment was completed through key informant interviews with USAID Transform WASH project staff and representatives of Lixil and Silafrica (manufacturers of the two products) and a document review, including project documents on prototyping and supply chain identification.

## 3. Product Introduction Process

### 3.1. Product Identification

The technical team from PSI carried out a review of sanitation facilities in rural areas. This review indicated that most of the toilets were:

- *in a poor condition,*
- *open (no cover used for pit hole),*
- *bad smells,*
- *unattractive to users.*

Though some household toilets were made of cement with a concrete slab and were cleanable, they could not be classified as “improved” or “basic” because of the lack of covers, which allowed flies to move easily in and out of the toilets.

The Transform WASH team identified an affordable product solution that could rapidly improve these toilets. PSI and UNICEF had worked with Lixil, which

produces the SATO plastic toilet pan, in several countries, including field trials in Ethiopia's SNNPR region. UNICEF also introduced the product to the Ethiopian Government.

Another possible product solution was a plastic latrine slab, which could be used in place of a cement slab. PSI had worked with the World Bank and others in Kenya to develop and market such a slab. One of the manufacturers selected to produce the slab was Silafrica.

Transform WASH engaged with both of these companies at an early stage to understand whether these products could help address the vast sanitation challenges in Ethiopia.

## 3.2. Product Description

### 3.2.1. SATO pan

SATO is a brand developed by Lixil that promises to bring innovative, simple, desirable yet affordable sanitation solutions to consumers with lower incomes in areas with limited or no access to water and sewage infrastructure. A SATO pan is normally fixed in a concrete slab and has the following key benefits:

- *Reduces odors from pits*
- *Prevents flies from entering or exiting the pits*
- *Is easy to clean*

**SATO**  
Smart, fresh toilets



In discussions with Transform WASH, Lixil expressed an interest in establishing manufacturing of SATO products in Ethiopia. They planned to introduce three types of products to the Ethiopian market:

- *Original SATO toilet pan*
- *SATO pan with footrests*
- *SATO stool*

### 3.2.2. AIM Toilet Slab

The other product selected to meet these market challenges was the AIM branded plastic toilet slab, in collaboration with Silafrica.

This slab also has attractive features:

- *easily cleaned*
- *attached hole cover that swivels for easy placement.*
- *lightweight for ease of transport*
- *affordable price.*

Success of the product relies on careful installation. While uncomplicated, it requires a flat surface and adequate support. Installation guidelines were offered with each product.

The difference between the cost of purchasing the products from local manufacturers and the expected price to the end user (i.e. margins) was determined to be sufficient to engage with distribution companies to ensure transport of the products to the woreda level.



### 3.3. Testing and Prototyping

The FMOH's sanitation marketing guideline encourages stakeholders to engage in design of appropriate and affordable improved sanitation products and services, based on consumers' needs, preferences, interests, and tastes. Any market development approach requires testing of new product and service offerings for their appropriateness and safety before commercialization.

After identifying SATO pan and AIM toilet slabs as potentially viable products, Transform WASH prototyped the products in the Southern Nations, Nationalities and Peoples' Region (SNNPR) with a sample of households and enterprises interested in offering the products in two districts, Aletachuko and Humbo.

This process identified what consumers liked and disliked about the products and their willingness to pay for such products.

#### 3.3.3. Local opinions about the SATO Pan product

This is a summary of the findings that emerged from prototyping the **original SATO toilet pan** installed on concrete slabs in SNNPR.

Customers liked:

- *Light weight*
- *Neat - does not easily pick up dirt*
- *Little space required*
- *Lid automatically closes*
- *Fixed lid minimizes risk of damage*
- *Human contact with the pan avoided*
- *No odor*
- *No flies*
- *Affordable*
- *Durable*
- *Cleanable with small amount of water*

Customers did not like:

- *Requires water to be available on a regular basis*
- *Feces may stay on the lid when people forget to flush with water*
- *Fixing the pan on a filthy toilet is not a pleasant experience*
- *Risk of poor craftsmanship when retrofitting on existing toilet*
- *Risk of collapse when fixing on existing toilet*
- *Difficult to repair if lid fails*

#### 3.3.4. Findings about the AIM Slab Product

For the AIM slabs by Silafrica, small and medium plastic slabs (610mm x 610mm and 610mm x 810mm respectively) were prototyped. Almost all of the households preferred the medium size.

This is a summary of the findings from **AIM plastic slab** prototyping.

Customers liked:

- *Possible to fix on wooden or mud slab*
- *Easy to wash*
- *Has flexible lid*
- *Washable*
- *Portable, easily moved to new toilet sites*
- *Drains to the center*

Customers did not like:

- *The lid is too short and looks breakable*
- *Risk of contamination*
- *Needs scaffolding - "not stand-alone slab"*
- *The lid is loosely attached*
- *Might not be durable, fear of cracking*
- *Could be easily stolen*
- *In areas where 'insects' are common, plastic slab judged too risky covering the deteriorating wood and exacerbating risk of wood collapse*

### 3.4. Product Sourcing

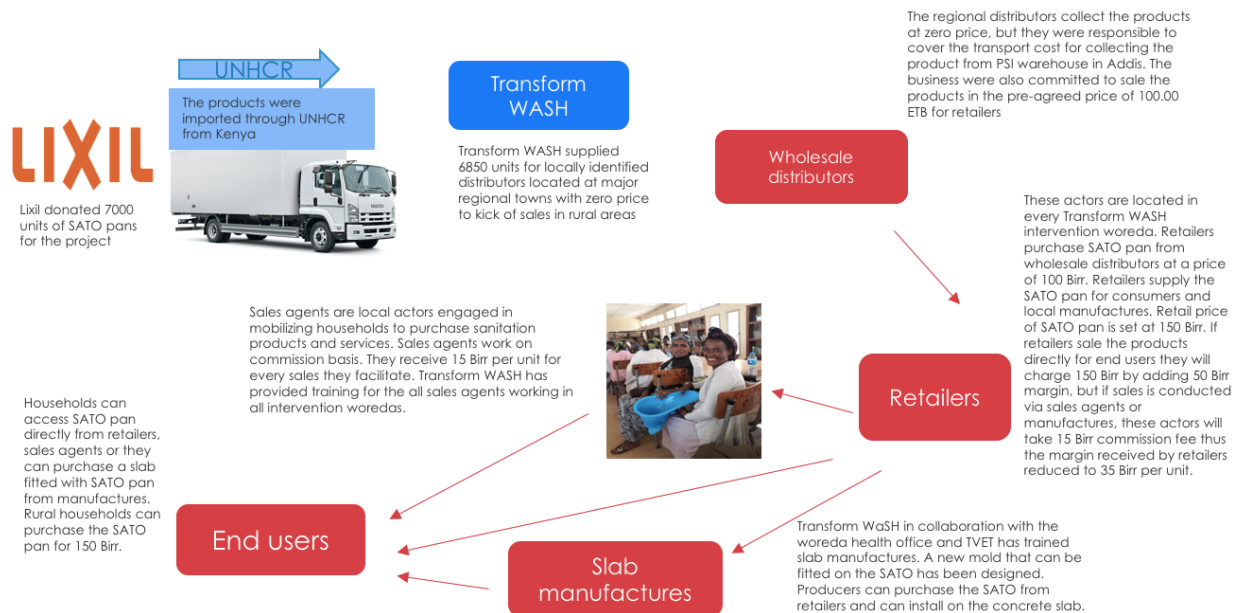
SATO pans are produced and supplied by Lixil through joint ventures with local manufacturers in Kenya and Bangladesh, among other countries. Lixil has indicated its interest in investing in their own manufacturing facility in Ethiopia, but this will take time.

To begin building the market for this product, Transform WASH decided to import SATO pans into Ethiopia before Lixil's manufacturing, whether its own or by contract, came online. A key challenge was how to get the first batch of products into the market. Lixil itself was not yet registered to import products into the country, and a limited-time import would not interest an Ethiopian distributor. Thus, PSI decided to facilitate the importation.

To introduce AIM plastic latrine slabs, Transform WASH encouraged Silafrica to initiate manufacturing of the product at its factory in Ethiopia. To justify the investment, they wanted a market projection of demand for the product. While encouraged by rough estimates, Silafrica agreed with PSI to import one batch of AIM slabs to establish a supply chain and assess subsequent demand for the product.

Once imported, Transform WASH needed a strategy to get these products quickly and efficiently to end users.

### Introducing SATO products into the supply chain





## 3.5. Introducing Products into the Supply Chain

### 3.5.5. Establishing the SATO Pan Supply Chain

Lixil proposed to use corporate social responsibility funds to donate SATO pans to the project via the UN High Commissioner for Refugees (UNHCR), which had already established an agreement with Lixil to distribute products to refugee camps. UNHCR shipped approximately 7,000 units to Ethiopia for Transform WASH, which took nearly six months to arrive and considerable patience to accommodate various bureaucratic systems.

To jump start the supply chain, the imported SATO pans were offered at a one-time zero price to selected wholesale distributors on the condition that they be sold to retailers at the set price of 100 ETB (approximately US \$3.70). This pricing, which matched the expected price of a locally manufactured product, was agreed to ensure minimal distortion of the market when launched.

The project worked closely with Lixil to establish a distribution strategy, which was intended to be adopted by Lixil once manufacturing were to come online.

In anticipation of consumer demand, and the time it would take Lixil to establish local manufacturing facilities, the project planned to source at least one more batch of products for the market. USAID approved purchase of approximately 6,500 additional SATO pans from Lixil at cost using project funds, and Lixil agreed to cover transportation and shipping so that a consumer price as close as possible to market price of a locally manufactured product could be offered. The products were to be sold to the selected distributors as per normal commercial terms. This is a

signal to the market that no more free product would be distributed, and market expectations could be reset before Lixil manufacturing comes online.

### 3.5.6. Establishing the AIM Toilet Slab Supply Chain

USAID also approved the use of Transform WASH funds to order an initial batch of 1,200 slabs from Silafrica Kenya to test consumer demand in Ethiopia.

Initially, the project secured the interest of a local importer, called Citrus, to make a one-time purchase of the products from Silafrica Kenya and sell to wholesale distributors. However, due to a severe shortage of foreign currency in Ethiopia, Citrus was not able to follow through on this commitment.

As of completion of this learning note, the slabs have arrived in Ethiopia and are being used to test sales and marketing approaches, such as partnering with village savings and loan associations that have raised funds for slab purchases.

### 3.5.7. Progress on Local Manufacturing

The project has encouraged Lixil and Silafrica to engage in manufacturing their respective products locally. They have supported this by prototyping the products in the field and investing in initial batches of products to develop the supply chain and test consumer demand.

Information gathered from Lixil indicates that company registration in Ethiopia is nearly finalized and they will soon be ready to manufacture the products in the country.

Silafrica Ethiopia, however, is facing a difficult financing situation. While they

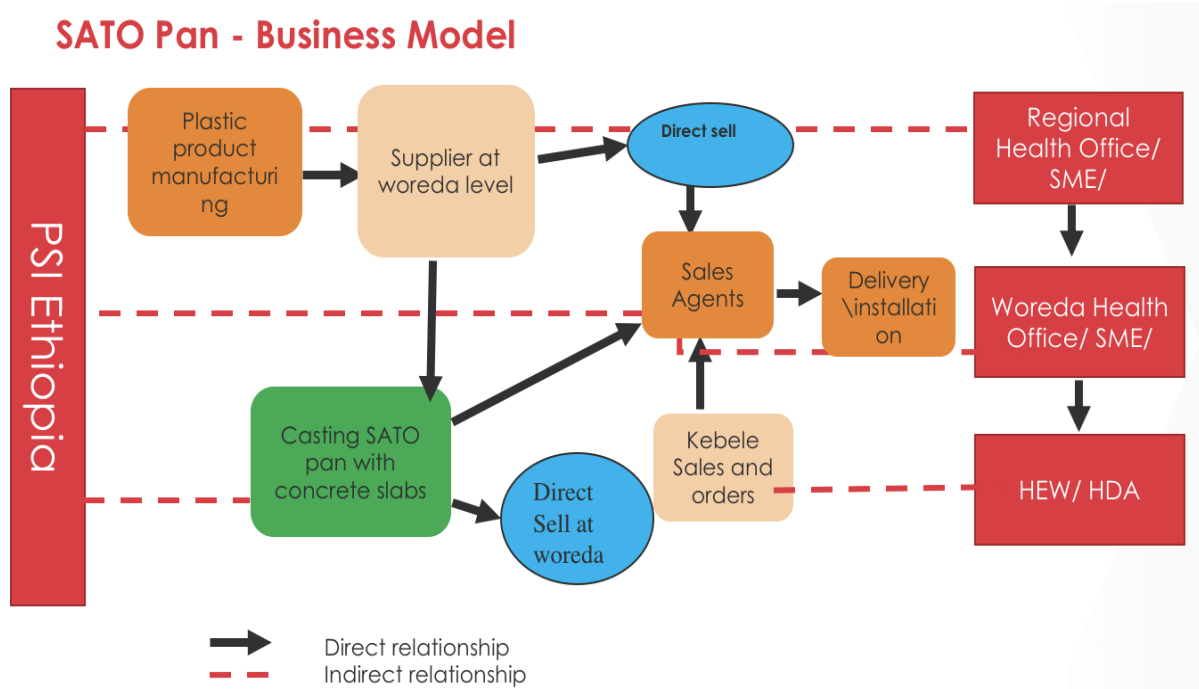
have received internal approval to move forward with importing the slab molds that will enable mass production of the slabs in country, they require access to more foreign currency than they have been allotted by the national bank to import the molds and other raw materials required for manufacturing. This remains an on-going issue, and manufacturing by Silafrica is unlikely to start soon.

However, the creation of the toilet slab design was funded by an international donor, so the design is not proprietary. Transform WASH is exploring partnership opportunities with other local manufacturer in the event that Silafrica is unable to proceed.

### 3.5.8. Distribution Channels

In the first year of the project, Transform WASH set out to identify local enterprises interested in distribution of the products.

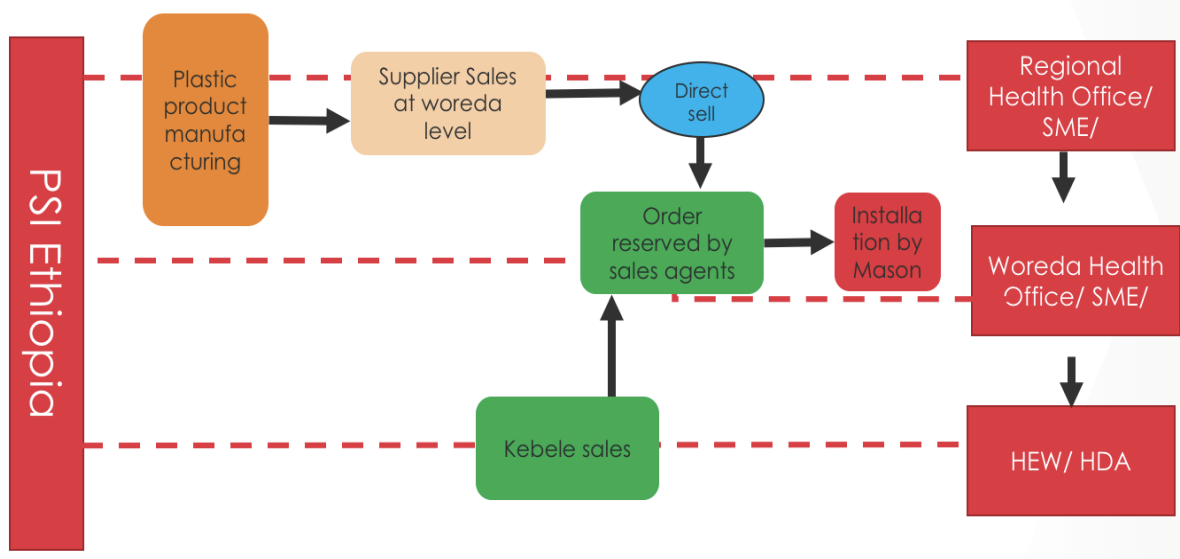
The project identified one wholesale distributor in each of the regional capitals and at least one retailer per implementation district. When sales began in the Southern Nationalities and Nations region (SNNPR), 9 retailers and 23 concrete slab producers had been inducted into the project as business partners, as well as 42 sales agents to be paid by businesses on a commission basis.



Lixil has shared marketing materials with Transform WASH, which trained business partners and raised awareness in rural areas about the SATO pan. These direct marketing activities are expected to be picked up by Lixil gradually as the project reaches completion.

Transform WASH will follow a similar process with the AIM plastic slabs. However, because Silafrica normally sells direct to businesses and doesn't normally carry out consumer marketing activities, their distribution strategy after the program ends will depend on the level of sales during the project and expected future demand.

## AIM Toilet Slab - Business Model



### 4. Key Challenges

Bringing these innovative plastic sanitation products to the local market has raised numerous challenges. It took nearly nine months longer than was originally planned. The bureaucratic hurdles (importing, customs, logistics, NGO policy, company registration, high tax rate on imported goods, investment decisions of corporate leaders, and so on) and the commitment and priorities given by the range of actors involved in the process created numerous delays.

Lack of foreign currency has created the most significant long-term impediment to importation and local manufacturing of these products. It has also limited the potential involvement of local companies in the process, and the issue is unlikely to go away soon.

The high rate of import duty (60%) imposed on manufactured goods (and inputs to manufacturing) also creates a challenge because products would have to be sold

at a loss to remain affordable to households (Lixil and project partners

arrived at the consumer price of 150 ETB (US \$5.50) for the SATO pan through estimates of willingness to pay and manufacturing cost).

Finally, a strong debate has taken place within the Federal Ministry of Health and the SNNPR health bureau about the suitability and desirability of plastic sanitation products. Several concerns were raised about the environmental impact of plastics, the need for water to flush the SATO pan, and whether initial installations were 'improved' (for several months, sale of SATO pan was disallowed in SNNPR). The Transform WASH team, with UNICEF and other partners, engaged in discussions that led to ministerial level guidance on the products. Improvements in business partner and sales agent training also provided solutions to the installation issues.

## 5. Lessons Learned

The following lessons may be of use to others involved in introducing new products into markets serving low-income populations and promoting increased private-sector participation:

- Establishing local manufacturing takes significant time and should not be assumed to be possible. Programs should plan to import products into the country at the outset to build and 'prove' the market while local manufacturing is established.
- Importing products into countries is not always straightforward, and projects should explore forming creative partnerships with others to do this in the shortest time possible.
- Influencing markets is complex. Getting the right product and service (or product package) to the community at an affordable price entails many issues and potential pitfalls. Projects need to consider limiting factors in the market, problem solve for those, hypothesize how various ideas could change the final outcome or create negative effects, and take action. This requires accepting some things that cannot be controlled and prioritizing those that can be, i.e. "pick your battles".
- Local manufacturers should be engaged from the outset to produce products that have had success in other markets. This will reduce reliance on imports and the requirement for foreign currency, but some inputs may still have to be imported.
- Aligning projects to government priorities and guidelines is essential for winning support from government. In Ethiopia, it was important to align product options and distribution systems with the government job creation plans and on-going sanitation marketing initiatives.
- Involving regional and local government actors in product identification and introduction must include carefully managing expectations about what the project can deliver, and what is/is not in scope.
- A good strategy to encourage international companies to establish local manufacturing is to carry out user acceptance testing and import products to get the distribution and sales strategy established quickly, keeping in mind the need to align strategies for long-term viability.
- Bureaucratic challenges cannot be fully known, but the goal should be to minimize delays by finding the path of least resistance while staying compliant with the rules. Advocacy for business-friendly policies will almost always be a vital component of any market development approach.