Designing Effective Sanitation Enterprises
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What is WASHPaLS?

• Water, Sanitation, & Hygiene Partnerships for Learning and Sustainability. 5-year (2016–2021) research and technical assistance project

• **Goal:** Enhance global learning and adoption of the evidence-based programmatic foundations needed to achieve the SDGs and strengthen USAID’s WASH programming at the country level
The WASHPaLS Research Design Summary

**Goal**
- Achieve universal sanitation and hygiene

**Key Questions**
- When and how are sanitation approaches effective and sustainable?
- What does it cost?
- How to repeat success at scale?

**Outputs**
- Ongoing field research with partners
- CLTS Desk Review
- This MBS Desk Review
- Play Spaces Desk Review
- Pending field research with partners
Poll:
Attendee connections to MBS
The sanitation market can be depicted through this framework, which allows for diagnosis and problem-solving for scale.
MBS interventions face barriers to scale across the sanitation market system

- Unsupportive social norms
- Long history of subsidies reducing demand
- Poor transport infrastructure—roads etc.
- Challenging geographical context—population dispersion, terrain, etc.

- Lack of public goods (e.g., customer insights, product designs)
- Poorly penetrated associated supply chains (e.g., cement)
- Lack of credit for customers or entrepreneurs
- Inhibitory market rules (e.g., policy)

- Lack of awareness
- Lower priority accorded to sanitation
- Lack of savings/seasonal incomes limiting ability to make upfront payments
- Inadequate income to afford available products

- Lack of “critical mass” of customers to serve profitably
- Lack of product systems that are acceptable to customers and suppliers
- Lack of cost-effective mechanisms to activate demand
- Lack of efficient mechanisms to fulfill orders

- Low profitability—at unit/business level and/or absolute amount
- High opportunity cost in selling toilets
- Limited availability of entrepreneurs, especially in rural contexts
- Lack of affordable capital to invest in sanitation enterprise
The sanitation enterprise is at the core of the sanitation market and enables the exchange of goods and services.
Target market selection is important to ensure entrepreneurs can profitably serve customers and sustain their participation in the market.

**Market segmentation for Mi Baño in Peru**

- **Target market** (0.5 million HHs) - Innovation in Product and Delivery Model
- **Potential / limited** (1.8 million HHs) - Innovation in Product and Delivery Model + Credit
- **Subsidized segment** (1 million HHs) - Innovation in Product and Delivery Model + Subsidy

- Served (5 million Households)
Market selection factors include both demand and supply-side considerations in addition to broader contextual factors.

Market segmentation for 3Si in Bihar, India

Note: mn = Million households; Bubble labels (e.g., A, B) are a 3Si internal naming convention for customer segments

Source: Adapted from Supporting Sustainable Sanitation Improvements (3Si) in Bihar, India
Appropriate product systems, which are acceptable to both customers and entrepreneurs, are an outcome of iterative product development processes.
Product system design does not imply novelty—incremental improvements are of value to both customers and entrepreneurs.

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Options</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Re-engineering</td>
<td>• Efficient raw material usage</td>
<td>Pre-cast collection chamber box</td>
</tr>
<tr>
<td>Standardization</td>
<td>• Material or component substitution</td>
<td>Molds to standardize components</td>
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<td>Delivery &amp; Installation</td>
<td>• Economies of scale</td>
<td>Self-installation guide</td>
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<td>• Upgradeable products</td>
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<td></td>
<td>• Easy to transport products</td>
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<td></td>
<td>• Simplified installation process</td>
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Flexibility in product range is required for multiple target markets but too many options can be problematic.

The appropriate range of products that balances customer choice, simplicity of the buying process, and viability of sanitation enterprises is contextual and requires learning.
**Demand activation** is the missing middle that can enhance households’ willingness to purchase toilets.

**Customer state of mind**

1. “Open defecation is acceptable in my community and there is no benefit to using a toilet”
2. “I see some value in getting a toilet and am thinking about how to build one”
3. “I’ve decided to buy a toilet and have/am ordering one”
4. “I have a toilet in my home”

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**Demand generation**

- Raise awareness of the problem

**Demand activation**

- Promote a solution(s) benefiting entrepreneurs

**Demand fulfillment**

**CATS / CLTS**

CATS: Community Approaches to Total Sanitation; CLTS: Community Led Total Sanitation
**Sales & marketing** of toilets entails intense one-on-one direct communication with customers to prompt a purchase.
Demand activators are distinguished by their primary incentive, which can be financial or otherwise.

**Professional sales agents**
- Experienced salespersons
- Fresh graduates/drop-outs
- Employed part-time with primary occupation

**Community opinion leaders**
- Village head/chief
- Local government representative/official

**Community influencers**
- Community health workers
- Religious leaders
- Savings or women’s group leaders

**Typical incentives**
- Monetary
- Employment
- Political/social mandate
- Interest in community development
- Social recognition
- Community development

**Typical traits**
- Geographically mobile
- Focus on easy prospects
- Persistent
- Limited mobility/area of influence
- Prone to attrition
- Limited mobility/area of influence
Independent demand activators require support initially to market and sell toilets on behalf of enterprises.
A range of **delivery models** exist and should be used based on the context to simplify customers’ buying experience.

- **Mason/DIY**
- **Network**
- **One-Stop Shop (OSS)**
- **Turnkey Solution Provider (TSP)**

**DIY:** Do-it-yourself

- **Focal Point**
- **Customer**
- **Concrete products manufacturer**
- **Pan supplier**
- **Mason**
- **Super-structure materials**
- **Brick supplier**
- **Cement, sand, gravel etc.**
The choice of model depends on customer’s and entrepreneur’s willingness and capability to aggregate supply chain components.

**Delivery model**

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### No Aggregation

**Mason/DIY**
- **Customers**: Lack critical mass (e.g., remote, sparsely populated areas)
- **Entrepreneurs**: Limited pre-casting capabilities

### Full Aggregation

**Network**
- **Customers**: Seek information but prefer self-aggregation inputs from multiple vendors
- **Entrepreneurs**: Prefer specialization and willing to recommend other suppliers

**One-Stop Shop (OSS)**
- **Customers**: Value packaged product but prefer arranging super-structure elsewhere
- **Entrepreneurs**: Unwilling or lack capacity to stock super-structure materials or manage masons

**Turnkey Solution Provider (TSP)**
- **Customers**: Incur high transaction costs and willing to pay premium for end-to-end solution
- **Entrepreneurs**: Possess assets and capabilities to manage product and service aspects of delivery

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[Diagram showing models and their applicability]
The design of a sanitation enterprise is an iterative process and can start with any one element.

Sanitation enterprise design in TSSM and RWSSP programs in Tanzania

1. Identified SanPlat to retrofit unimproved latrines
2. Target Market
   Identified customer segments whose preferences (i.e., low maintenance, child safety, and low-cost) were met by SanPlat
3. Delivery Model
   Initiated a mason model and evolved to turnkey solution provider model
4. Sales & Marketing
   Developed sanitation marketing campaigns and promotion by community members
5. Product System

ENTERPRISE

USAID
FROM THE AMERICAN PEOPLE
Designing effective sanitation enterprises addresses barriers to scale in the sanitation market system

- Lack of "critical mass" of customers to serve profitably
- Lack of product systems that are acceptable to customers and suppliers
- Lack of cost-effective mechanisms to activate demand
- Lack of efficient mechanisms to fulfill orders
Learn more in the desk review available at Globalwaters.org (https://www.globalwaters.org/resources/assets/washpals/rural-mbs-desk-review)
Listen to the previous webinar available at Globalwaters.org (https://www.globalwaters.org/resources/webinars/review-of-rural-mbs-programs)

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Operational definitions

**Market-based Sanitation:** The development of a sanitation market in which the user makes a **full or partial monetary** contribution (with savings and/or cash equivalents) toward the purchase, construction, upgrade, and/or maintenance of a toilet from the **private sector.**

**Toilet:** A sanitation fixture used for capture and storage, or disposal of human urine and feces. The term toilet refers to the basic **substructure** (underground) components and the **interface** (e.g., slab, pan, water closet). A toilet may include the **superstructure** (walls, roof, and a door).