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Technical Brief 2

RURAL SANITATION

USAID Water and Development

TECHNICAL SERIES

INTRODUCTION

The purpose of this technical brief is to provide an overview of the important factors to consider in USAID rural sanitation programming. Drawing upon the latest evidence, it provides guidance for developing and implementing rural sanitation activities.

KEY TAKEAWAYS

- **Aim for area-wide geographic coverage.** Go beyond the household and community levels to invest in area-wide (district or county) or market systems-level approaches to support impact and sustainability.
- **Address governance, financing, markets, and behaviors.** Successful sanitation programming must include interventions on governance, financing, markets, and behaviors and move away from an exclusive focus on direct service provision. The mix of approaches should be in direct response to the context.
- **Targeted subsidies can be effective.** Subsidy is not a dirty word. Targeted sanitation subsidies should be considered when seeking to reach the extreme poor and most vulnerable and can be successful when carefully combined with, or as a complement to, other approaches.
- **Leave space for failure and learning.** There are and will continue to be failures in rural sanitation programs, and there are not proven strategies/methods for all contexts (e.g., reaching the ultra poor). Plan for space and time and for staff to fail, iterate, assess progress, and adapt plans to ensure progress and sector-wide learning.

BACKGROUND

Two billion people lack access to basic sanitation, and 72 percent of them live in rural areas.¹ The Sustainable Development Goal (SDG) goal of ending open defecation by 2025 would cost \$3.6 billion in total, while the cost for toilets and safe excreta management to meet the SDG goal of universal safely managed excreta by 2030—in rural areas only—is estimated at \$24 billion annually.² A recent study estimated that the global cost of poor sanitation reached \$223 billion in 2015.³ In Africa, economic losses due to inadequate sanitation account for 1–2.5 percent of gross domestic product (GDP).⁴

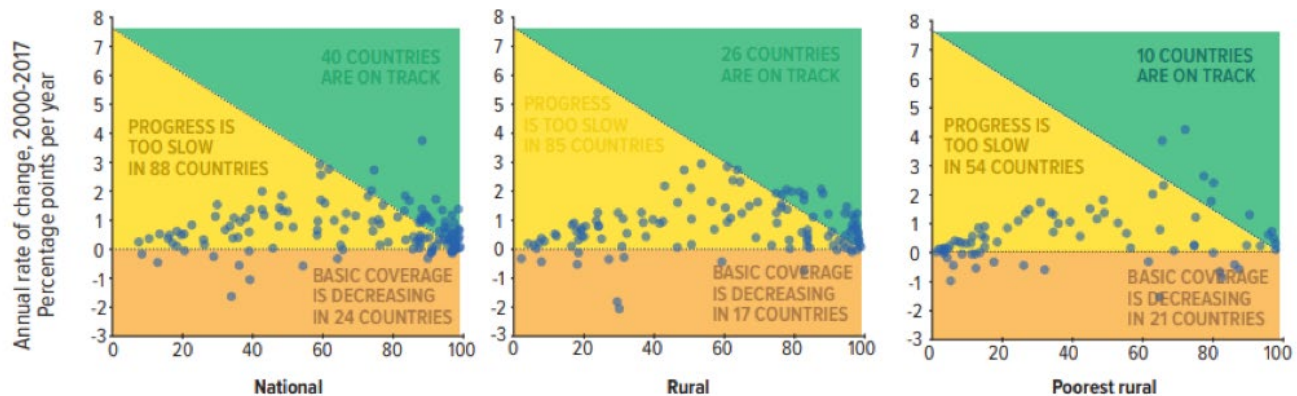


FIGURE 1: PROGRESS TOWARD UNIVERSAL BASIC SANITATION SERVICES BY NATIONAL, RURAL, AND POOREST WEALTH QUINTILE (2000-2017) AMONG COUNTRIES WITH GREATER THAN 99 PERCENT COVERAGE IN 2017

Adapted from 2019 JMP.

Of the 62 countries with substantial levels of open defecation, only 18 are on track to become Open Defecation Free (ODF) by 2030. Progress for the rural poor is even worse, with only 10 countries making enough progress to get close to universal access to basic sanitation in rural areas by 2030 (see Figure 1).⁵ At the current rate of progress, universal access to safely managed sanitation will not become a reality until the 22nd century. There are a number of barriers and challenges contributing to this lack of progress, including:

- Insufficient political prioritization and resourcing.** While there are a few notable exceptions, most governments do not prioritize rural sanitation in the national agenda or make adequate financial commitments. In 2017, 90 percent of all countries reported insufficient financing to meet national targets for rural sanitation, and 73 percent had no financing plan that was consistently followed.⁶ Weak institutional structures for rural sanitation hamper effective resource mobilization. High levels of sanitation coverage are not achievable without political prioritization and significant investment.
- Inability to demonstrate lasting at-scale results.** Programs have struggled to demonstrate results at scale with equitable outcomes, and the ability of countries to sustain gains achieved remains a concern. These poor outcomes are due to a number of factors, including lack of local capacity, unsustainable financial resources, or reduced social or political commitment, further undermining the already fragile political backing for rural sanitation and hampering mobilization of resources.
- Blanketing a single approach.** Over the past decades, rural sanitation programming has seen a shift from infrastructure-driven approaches towards social mobilization and behavioral change approaches, including,

¹ World Bank. (2019) *Why rural sanitation matters*.

² Hutton, G. and Varughese, M. (2016) *The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation and Hygiene*. World Bank. Water and Sanitation Programme.

³ LIXIL & Oxford Economics. (2016) *The True Cost of Poor Sanitation*, in collaboration with WaterAid. Lixil Group Corporation, Tokyo, Japan.

⁴ World Bank. (2012a) *Economic Impacts of Poor Sanitation in Africa*. Water and Sanitation Programme.

⁵ UNICEF and World Health Organization. (2019) *Progress on household drinking water, sanitation, and hygiene 2000-2017. Special focus on inequalities*. New York.

⁶ UN-Water GLAAS. (2019) *National systems to support drinking-water, sanitation, and hygiene – Global status report*.

among others, Community Led Total Sanitation (CLTS). While this has been an important step to reducing open defecation, there have been mixed outcomes across contexts. CLTS does not work everywhere all the time and is simply not enough to reach everyone. Further, CLTS is designed to end open defecation, but additional approaches are needed to reach a higher level of sanitation service. There is always a need to contextualize approaches to governance, financing, markets, and behaviors to scale access to rural sanitation.

Through the Journey to Self-Reliance, USAID is working toward strengthening country capacity to deliver and maintain basic rural sanitation services. For USAID programming, this means **moving away from direct implementation of services** (i.e., USAID implementers providing latrines or triggering CLTS directly), to **applying systems strengthening approaches** that target key functions of the enabling environment around sanitation service delivery. However, in some contexts, such as fragile states with weak government capacity, more direct implementation may be unavoidable, but it should also be done in close collaboration with local government and actors and alongside all components outlined in this guidance (governance, financing, behaviors, and markets).

BUILDING SUSTAINABLE RURAL SANITATION SERVICES

A rural household asset, such as a latrine, is considered a private good, but **when used correctly and consistently**, its contribution to an excreta-free community also makes it a public good. The level of contamination at a household is affected by the level of contamination in the community overall. Therefore, households benefit when neighbors improve sanitation around them. There is both observational and experimental evidence showing that area-wide sanitation is more effective at reducing diarrhea than household sanitation, supporting the hypothesis that area-wide coverage provides a level of herd protection.^{7,8}



FIGURE 2: USAID'S RURAL SANITATION ELEMENTS

Achieving this area-wide sanitation coverage depends on both the public and private sectors to ensure adequate infrastructure, regulations, and markets while individual households are largely responsible for acquiring, maintaining, and using sanitation services.

The water, sanitation, and hygiene (WASH) sector now recognizes that the delivery of sustainable safe rural sanitation services is not simply about constructing toilets, but requires a complex system of interacting factors. To help conceptualize the system and facilitate the identification of critical challenges, gaps, and solutions, USAID considers four core elements in effort to contribute to universal sustainable sanitation services (Figure 2). These components are:

- **Governance** – the policies, strategies, and delineation of roles, functions, and effective coordination; as well as the capacity of authorities at all levels of government to organize effective technical, administrative, and institutional support to strengthen markets and service provision. This includes monitoring systems that routinely collect and analyze relevant data and regulatory oversight to protect public health and the interests of consumers and service providers.
- **Financing** – the public funds to support governance functions described above and implement programming aimed at increasing access to sanitation, such as behavior change campaigns and targeted subsidies. This category also includes private consumer finance for households to invest in sanitation, and working capital finance for sanitation enterprises.

⁷ Wolf et al. (2018) *Impact of Drinking Water, Sanitation, and Hand Washing with Soap on childhood diarrhoeal disease: updated meta-analysis and meta-regression.* Trop Med Int Health 23(5).

⁸ Jung, Y.T., Hum, R.J., Lou, W., Cheng, Y. (2017). *Effects of neighbourhood and household sanitation conditions on diarrhea morbidity: systematic review and meta-analysis.* PLoS One, 12 (2017), Article e0173808

- **Behaviors** – the individual, community, institutional, cultural, economic, and environmental norms and behaviors for the adoption, use, and operation and maintenance of sanitation facilities and services.
- **Markets** – local, regional, national, and niche markets that facilitate the purchase of aspirational and affordable sanitation products or services by end-users, centered around sanitation enterprises that must be able to profitably supply them within the context of the rules and enabling environment for private sector participation in sanitation.

STEPS TO DEVELOPING EFFECTIVE RURAL SANITATION PROGRAMMING

The following describes steps for applying these four factors of rural sanitation to develop or evaluate effective rural sanitation programming.

UNDERSTAND THE CONTEXT

Project and activity design should be driven by context and data. It is good practice to conduct a desk review of existing sector evaluations or assessments, after which additional assessments may be needed. It is important to consult and coordinate with sector stakeholders before launching into the scoping and design phases of a rural sanitation intervention. One place to start is the country’s WASH or sanitation working group and understanding country progress on the sanitation ladder (Table I).

There are very few rural sanitation or even sanitation-specific assessment tools. However, there are a number of broader WASH tools available that can be useful when applied to rural sanitation and cut across one or more of the rural sanitation components described above. This is a list of recommended assessment tools that can help facilitate the identification of key stakeholders as well as the challenges and opportunities to strengthen rural sanitation services:

- **Stakeholder Mapping.** Stakeholder mapping helps create a shared understanding of who the key stakeholders are, what their levels of interaction and influence are, and, based on these findings, where USAID should strategically place time and effort cultivating relationships.

TABLE I: SANITATION LADDER

USAID aligns with the WHO/JUNICEF Joint Monitoring Programme (JMP) sanitation ladder.

SAFELY MANAGED	<p>Use of improved facilities which are not shared with other households and where excreta are safely disposed in situ (on-site) or transported and treated off-site (known as fecal sludge management or FSM).</p> <p>On-site treatment is common in rural areas, with FSM still needed where there is a lack of space between housing, or for schools, health facilities, market places, government buildings, industry, or commercial operations.</p>	
BASIC	<p>Use of improved facilities which are not shared with other households.</p> <p>Previously called improved sanitation during the MDG period, the term “improved” now only refers to the physical characteristics of the facility, meaning a cleanable platform that safely separates humans from feces. This can also be referred to as washable and fly-proof latrine in rural areas.</p>	
LIMITED	<p>Use of improved facilities shared between two or more households.</p> <p>Common example is compound sanitation where one facility is shared by multiple families.</p>	
UNIMPROVED	<p>Use of pit latrines without a slab or platform, hanging latrines, or bucket latrines.</p> <p>Common example is when latrine waste is channeled directly into drainage or a water body.</p>	
OPEN DEFECACTION	<p>Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste.</p>	

- **Institutional Analysis (e.g., Political Economy Analysis (PEA)).** PEA is a structured approach to examining power dynamics and economic and social forces that influence development (See ODI guidance note.⁹)
- **Sector building-block analysis (e.g., WASH Bottleneck Analysis Tool (BAT)).** The WASH BAT tool aims to assess the enabling environment for WASH service delivery by identifying and tracking the barriers to delivering sustainable and efficient services at national, regional, service provider, and community levels.

DESIGN THE PROGRAMMING MIX

Rural sanitation programs should appropriately layer and sequence a mix of approaches to achieve objectives based on local context. The following section highlights common approaches and includes suggestions for practices to avoid and promote under each of the four rural sanitation program components.



Governance

Strong governance at all levels is critical to reach sustainable rural sanitation at scale. This requires national level policies to be in place, along with clear strategies, delineation of roles and responsibilities, and effective coordination. Responsibilities for sanitation are often split among several ministries in a given country, making policy development, planning, and regulation difficult. **Coordination and joint planning, or Memoranda of Understanding (MoU)** between the institutions working on elements of rural sanitation (e.g., government-led, multi-ministerial sector working groups), are often needed. Institutions must also have the capacity to monitor coverage, enforce sanitation-related regulations, and provide technical assistance to local governments and service providers. Activities should therefore **focus on forming partnerships with decision makers** at all government levels and civil society and supporting one another to achieve common policy reform, coordination, monitoring, regulation, and capacity development objectives.

There has never been a successful at-scale rural sanitation program that did not have **high-level political leadership**.^{10,11} This leadership is typically motivated by a desire for economic advancement, national pride, and modernity, not created through community-driven demand approaches. When advocating and supporting policy or institutional reform, political priorities must be addressed in order to align actions with the political incentives of key actors.

Common interventions for sanitation governance include technical assistance for conducting assessments or evaluations, supporting data analysis, supporting planning and budgeting, policy or regulation reform, procurement and supervisory capacity, supporting coordination platforms, supporting monitoring platforms, and/or providing targeted training and mentoring to key government or civil society institutions.

⁹ Kooley, M. and Harris, D. (2012) [Political economy analysis for operations in water and sanitation: a guidance note](#).

¹⁰ UNICEF. (2016) [Strengthening Enabling Environment for Water, Sanitation and Hygiene \(WASH\) Guidance Note](#).

¹¹ WaterAid. (2014) [Achieving total sanitation and hygiene coverage within a generation – lessons from East Asia](#).

TABLE 2: APPROACHES TO AVOID AND PROMOTE IN GOVERNANCE FOR RURAL SANITATION PROGRAMMING

Promote	Avoid
Prioritization of rural sanitation within national plans, budgets, and government spending	Contributing to aid dependency by displacing a government budget line item
Policies that enable a variety of approaches to rural sanitation	Pushing for the development of policies that support only a single approach to rural sanitation (e.g., CLTS)
Improved clarity and greater capacity among stakeholders to fulfill roles and responsibilities	Paying for consultants that temporarily fulfill key roles and responsibilities of local stakeholders
Strengthening of mechanisms for ongoing monitoring of sanitation access and use	Conducting a stand-alone “one-off” monitoring activity (outside of activity compliance)
Increasing contributions to, and availability of, data for all stakeholders, and their use in decision-making	Using proprietary software, and high-tech (not off-the-shelf and simple) data collection and management systems that inhibit broad participation and use



Financing

Many governments do not prioritize rural sanitation in the national agenda or make adequate financial commitments. Access to sanitation in rural areas is often seen as a household expense; yet public finance is critical to supporting behavior change initiatives, regulatory institutions, monitoring systems, capital investments in infrastructure and targeted subsidies for the extreme poor and vulnerable, where applicable. Support for **increased budgets for rural sanitation** and

improvements in tracking expenditure of public funds are critical to successful financing.

Assessing Financing for Rural Sanitation

The cost of sanitation varies widely across contexts. Assessing the financial needs, potential sources of financing, and financing gaps is critical to designing appropriate interventions. For example, Life Cycle Cost Analysis¹² is one tool for understanding costs over the full life of an asset, rather than only capital expenditure. Willingness-to-pay studies¹³ can be used to better understand customer demand and whether people will purchase products at the price they are being offered. Financial analysis may also be done at the level of a sanitation enterprise (e.g., developing a profit and loss statement to understand business viability¹⁴).

¹² IRC WASH. (2011) [Applying the life-cycle costs approach to sanitation](#).

¹³ Peletz, R. et al. (2017) [Supply and Demand for Improved Sanitation: Results from Randomized Pricing Experiments in Rural Tanzania](#). *Environ. Sci. Technol.* 2017, 51, 12, 7138-7147

¹⁴ USAID (2020) [Enterprise Viability Case Study: A Retrospective Analysis of Rural Sanitation Enterprises](#).

Engaging the private sector in rural sanitation often requires support from the public sector and development partners. While this is obvious for investments in costly infrastructure, it is also true of the localized small- and medium-sized enterprises that can profitably deliver sanitation services in rural areas. Sanitation businesses are in need of financing options to develop and expand, as they often lack the capital to diversify the types of products they can offer or have the means to expand their coverage area. Although there are a growing number of commercial banks and microfinance institutions willing to provide business loans to sanitation service providers, they are still few and far between. It often requires intervention by implementing partners to convince financial institutions that rural sanitation is a worthwhile investment.

It is critical to ensure poor and vulnerable households can afford to adopt quality sanitation products and services. Making household sanitation more affordable often requires a **diversity of financing mechanisms available** to both sanitation service providers and consumers (e.g., microfinance and payment plans). A segment of the population is still unlikely to be able to afford sanitation, even with the availability of credit. In those cases, **subsidies targeted at the extreme poor and most vulnerable segments of the population through local pre-existing poverty identification mechanisms and markets or communal incentives, may be required.**

TABLE 3: APPROACHES TO AVOID AND PROMOTE IN FINANCING FOR RURAL SANITATION PROGRAMMING

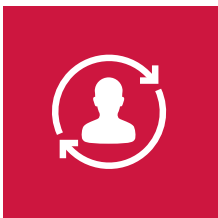
Promote	Avoid
Increased national budgets and government spending on rural sanitation, including intra-government transfers to lowest suitable level	Spending directed only at sanitation infrastructure as opposed to non-hardware inputs (e.g., human resources, capacity building, monitoring, social and behavior change)
Availability of credit and credit-worthiness of sanitation businesses	Displacing or interrupting local finance markets by directly providing credit or loans
Availability of diverse credit or payment options for households to purchase sanitation products through local suppliers or financial institutions	Blanket direct subsidies to households or businesses that may disrupt current or future markets for sanitation products and services
Targeted subsidies with clear eligibility criteria that enable the poorest and most vulnerable to afford sanitation, delivered through local markets	Providing a subsidy valued greater than an amount the local government/service provider could sustainably afford

Example from the Field: Smart Sanitation Subsidies in Cambodia

Cambodia recently became one of the first countries to reintroduce subsidies as part of its national strategy towards achieving universal access to sanitation. These studies not only helped to drive gains in coverage among the poor, but showed positive spillover effects where non-eligible populations were also more likely to adopt sanitation when the subsidies became available.

Based on prior lessons from implementation of sanitation subsidies, the Cambodian Ministry of Rural Development issued a set of [guiding principles](#) that outline how subsidies should be responsibly applied toward rural sanitation hardware without distorting markets, undermining willingness to pay, or creating dependency. These subsidies must be:

- **Targeted at a specific segment of the population (e.g., the poorest), with clear and transparent eligibility criteria.** Cambodia's subsidy approach benefited from having a national government-led poverty identification system, called ID-Poor, that identified who was eligible for the subsidy. Utilizing the ID-Poor system ensures that only the poorest receive the subsidy. Moreover, it strengthened transparency, acceptance by the community, and reduced administrative costs.
- **Context specific to local markets and consumers.** Market research including willingness/ability to pay studies and pilot projects conducted by various development partners were used to help determine the subsidy level and required household contributions. These studies provided a good understanding of the costs of the various materials and services that are locally available and consumer preferences.^{15, 16}
- **Appropriate to local capacity and resources to administer, monitor, and fund.** The Cambodian subsidy guidelines were developed and implemented by the Government of Cambodia. Monitoring of subsidies is done through government and development partner reporting and periodic joint-sector reviews. The guidelines include a stipulation on how much should be subsidized, keeping the cost at a level that could feasibly be managed within local government budgets.



Behaviors

Behavior change is critical to ensuring sustainable access and use of sanitation. Past approaches in the WASH sector have largely failed due to an over-reliance on increasing knowledge of the health benefits of sanitation without addressing other crucial factors that bear upon individual motivations, demand, community norms, and access to products and services.

The predominant method for triggering behavior change in rural sanitation in recent years has been CLTS.¹⁷ The success of the CLTS as a behavior change approach to ending open defecation is attributed, in large part, to its dual approach of addressing personal drivers such as disgust and fear while creating new social norms by leveraging shame, pride, and dignity.

But CLTS is not a silver bullet. Evidence to date has shown that CLTS can work effectively but not necessarily for everyone, everywhere, or all the time.¹⁸ The most disadvantaged within a given community often do not benefit from CLTS as much as others, because those with the most limited financial means are the least able

¹⁵ iDE Cambodia and IDInsight. (2013) *Understanding Willingness to Pay for Sanitary Latrines in Rural Cambodia*: Findings from Four Field Experiments of iDE Cambodia's Sanitation Marketing Program.

¹⁶ Rivera, R. et al. (2016) *The Effect of Smart Subsidies and Sanitation Marketing on Latrine Uptake in Rural Cambodia*. Thrive Networks, Bill & Melinda Gates Foundation, Australian Government, The World Bank Water and Sanitation Program

¹⁷ Zuin et al. (2019) *Policy Diffusion in the Rural Sanitation Sector: Lessons from Community-Led Total Sanitation (CLTS)*. World Development, v124.

¹⁸ USAID (2018) *An Examination of CLTS's Contributions Toward Universal Sanitation*.

to invest in durable latrines. CLTS can be adapted and/or coupled with other measures including market-based sanitation, targeted subsidies, and other behavior change interventions that reinforce consistent use of latrines, timely pit emptying, safe disposal of child’s feces, political engagement, or other behaviors that improve personal and environmental cleanliness.

In addition to addressing individual and community motivations, there is increasing focus on addressing the physical environment where behaviors take place. The development of nudges to facilitate change (in the absence of or in addition to communication efforts), as well as the focus on creating habits for consistent latrine use are examples of innovations for WASH behavior change.

TABLE 4: APPROACHES TO AVOID AND PROMOTE FOR BEHAVIOR CHANGE IN RURAL SANITATION PROGRAMMING

Promote	Avoid
Interventions designed and implemented based on a behavioral framework	Interventions designed and implemented based on tradition, ease, or simplicity alone
Interventions that are evidence-based and address the target audience’s key barriers and motivations for change	Knowledge-based interventions and messaging that focuses solely on health benefits or that relies on traditional behavior change communication alone
Linking behavior change efforts to the supply of locally available, complementary products and services	Promoting behaviors that depend on products or services that are not accessible for target populations
Linking behavior change efforts to markets and tapping into motivators such as aspiration and convenience	Low quality, low aspirational, self-supply, product solutions without technical assistance (e.g., tippy taps, rock-sticks-and-mud latrine)
Social and behavior change interventions that leverage local decision makers and influencers	Social and behavior change interventions implementation directly by implementing partners
Programming through professional government or private actors that can be sustained over time	Over-reliance on voluntary promoters for delivery of interventions



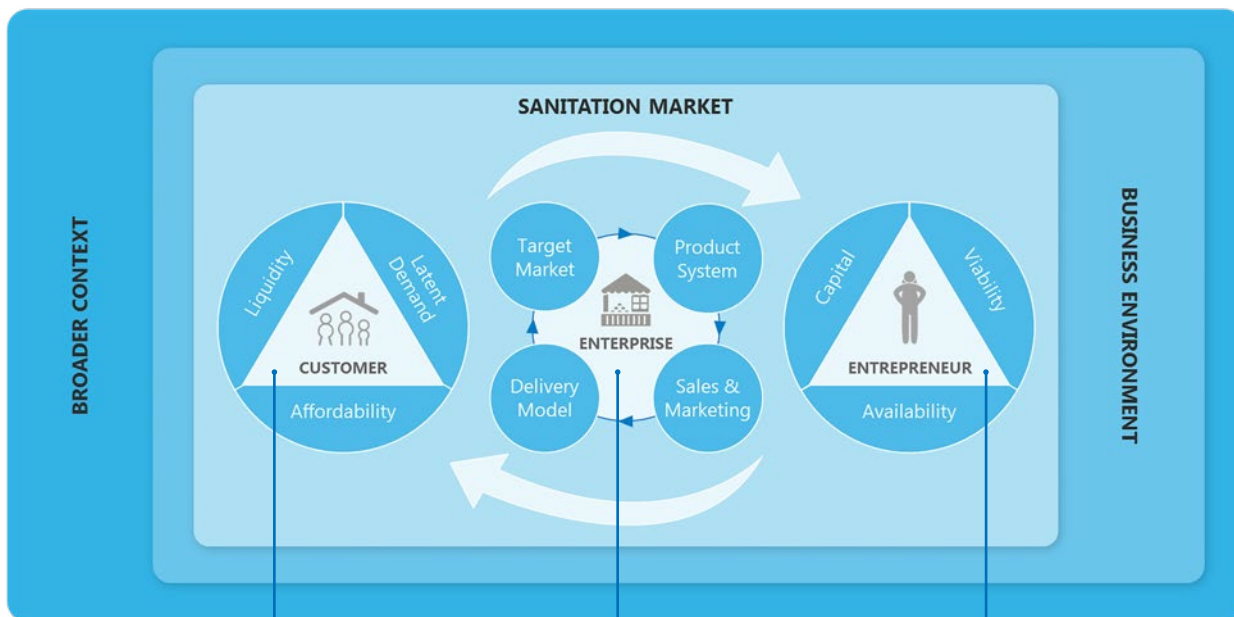
Sanitation Markets

Functioning local markets are critical to a household’s ability to adopt improved sanitation facilities. The concept of **market-based sanitation (MBS)** refers to interventions in which end-users (i.e., customers) make full or partial monetary contributions towards the purchase, construction, upgrade, and/or maintenance of a toilet from the private sector. MBS facilitates ownership and use of sanitation facilities through the use of one’s own resources, thereby unlocking domestic

resources, particularly from household financing, and utilizes private sector enterprises, a proven player in the construction and provision of sanitation, increasing self-reliance by strengthening local actors rather than relying on external entities. Enabling viable sanitation enterprises is the focal point of making sanitation markets work.

In 2018, USAID introduced the Sanitation Market System framework to capture the interaction among the elements underlying a functioning sanitation market. The framework can be utilized by governments and development partners to analyze, design, and prioritize MBS interventions and consists of three domains:

- **sanitation market** – centered on the enterprise that facilitates transactions between customers and entrepreneurs
- **business environment** – government policy, the reach of associated supply chains for raw materials and hardware, and access to business and consumer capital
- **broader context** – social norms, infrastructure, and macroeconomic and environmental factors



The **customer** (also referred to as the “buyer” or “user”) is the household or head-of-household that purchases, uses, and oversees the construction, operation, and maintenance of a latrine.

The **sanitation enterprise** is the business that sells latrines, latrine components or sanitation services to customers for payment. Generally sanitation is only one of multiple lines of business for the enterprise.

The **sanitation entrepreneur** (also called a businessman or businesswomen) is an individual who manages one or more enterprises.

FIGURE 3: USAID MARKET-BASED SANITATION FRAMEWORK

The design of a sanitation enterprise is often an iterative process and involves making choices on the different elements of the framework that individually and collectively are locally appropriate. It is important to keep in mind that the entrepreneur must see sanitation as a viable business (i.e., one that provides sufficient profits for him or her to remain in business) for this to be sustainable. For this reason, sanitation enterprises are rarely standalone businesses. Sanitation is more often one of many business lines in a given enterprise. Approaches aiming to build and strengthen sanitation markets

ASSESSMENT TOOLS FOR SANITATION MARKETS

- Market Research
- Human-Centered Design
- Feasibility Assessments
- Enterprise Viability Assessment

must also address the rules, regulations, and overall enabling environment for private sector participation in sanitation. Importantly, approaches must also support enterprises to offer products that customers will purchase; they must be aspirational and affordable. Market-based sanitation efforts take time and do not often deliver quick results but sustainable and lasting change.

TABLE 5: APPROACHES TO AVOID AND PROMOTE IN MARKETS FOR RURAL SANITATION PROGRAMMING

Promote	Avoid
Recruit staff with business expertise to lead and manage market based sanitation work. Sanitation experience is preferable but not required	Recruiting or asking traditional WASH staff, health promoters, community mobilizers, or engineers to manage market based sanitation work
Building the capacity of entrepreneurs (business men and women) to manage and grow sanitation business lines	Recruiting individuals without entrepreneurial skills with an assumption that they will become successful business owners
Working with proven entrepreneurs in businesses connected to sanitation (e.g., construction, cement manufacturing) and focusing on profitability	Building businesses that rely on selling latrines only
Understand local preferences for products that can be delivered through local supply chains, possibly through human-centered ¹⁹ design processes	Importing or promoting sanitation products that may not be well suited to local preferences
Facilitating adjustment of market rules to strengthen the viability of sanitation business	Providing all of the materials, equipment, marketing support and other items a business needs to be viable
Strengthening supply chains and distribution networks from manufacturers to sanitation businesses	Acting as a distributor of sanitation products without a plan to hand this over to a local actor
Ensure the marketing and sales mix addresses both demand creation and demand activation (conversion of latent demand into sales)	Focus only on making products and services cheaper

¹⁹ Human-centered design, also called user-centered design, is an iterative design process in which designers focus on the users and their needs in each phase of the design process.

Example from the field: Supporting Sustainable Sanitation Improvements (3Si) in Bihar, India²⁰

The 3Si intervention was implemented by Population Services International's (PSI) from 2013 to 2017, aiming to create a functioning sanitation market in 19 rural districts in Bihar. PSI worked with 741 enterprises that sold 220,145 toilets between 2013 and 2017. The 3Si approach included coordinated demand and supply-side activities including:

- Product development of toilet options
- Building a delivery model centered on cement ring manufacturers with links to other stakeholders
- Recruiting and paying “toilet motivators” (sales agents)
- Supporting access to enterprise loans from microfinance institutions

One of the entrepreneurs in this program, *Shyam*, was able to create a large, high profit enterprise. Shyam has been in the sanitation business for over a decade, starting out as a part-time sub-contractor manufacturing cement rings, and selling life insurance policies and distributing food ration cards on the side. His sanitation enterprise grew rapidly on the strength of his social network; he was part of the local government leadership committee for five years. He actively marketed his sanitation enterprise, working with sales agents (recruited either by him or PSI) and convening village meetings to spread awareness about his business. As Shyam's enterprise gained traction, he took out microfinance institution (MFI) loans in 2016 to stock additional, sanitation-related components, which grew his profits further.

Analysis of Shyam's enterprise in comparison to other 3Si enterprises, showed that Shyam's success is due to:

- A larger customer base, due to investment in demand activation and customer service and location in a larger potential market for toilets
- Ability to charge higher prices, due to Shyam's strong social standing and trust in his market
- Lower costs, due to the lower labor costs in Shyam's area
- Higher sales of pit covers and additional sanitation-related products, because of customer preference for purchasing all products from a single shop
- Ability to stock these additional products through working capital loans

By studying Shyam's enterprise and other sanitation enterprises, implementers of MBS programs can better understand the drivers of profitability, which is critical to creating viable businesses. These lessons can be used to support other enterprises to become viable.

MEASURE SUCCESS AND ENSURE LEARNING

Continuous learning is critical to successful programming, as the solutions to rural sanitation challenges are not known for all contexts. This is especially critical with regard to market activities that require iterative development and dynamism to scale-up. Programs should build in space, time, and staffing for experimentation, failure, and refinement of approaches. This will require approaches to learning beyond monitoring indicators or doing evaluations and may require use of qualitative data, pause and reflect events, dedicated staff time for reflection and adapting plans, or other learning techniques.

²⁰ USAID (2020) *Enterprise Viability Case Study: A Retrospective Analysis of Rural Sanitation Enterprises in Bihar, India*.

It is important to select standard and custom indicators that measure how the activity is working and ensure the program is learning from its experience. Activities must be able to measure access gains achieved through market mechanisms, which usually requires baseline and endline surveys. Indicators should also go beyond tracking the number of people reached to capture both near term and long term outcomes, changes in the market and governance systems, and progress on market actors and household behaviors.

MEASURING SUCCESS FOR RURAL SANITATION ACTIVITIES

USAID has standard indicators for sanitation, which focuses on first time access and service quality improvements (HL.8.2-1, HL.8.2-2, HL.8.2-3, HL.8.2-4, HL.8.2-7) as well as tracking improvements in institutional capacity (HL.8.3-3). Custom indicators are also a critical component of monitoring for the likelihood that these services will be sustainable in the long run. Illustrative examples of these include:

Governance

- National policy, standards, and guidelines for sustainable rural water services in place
- Roles and responsibilities of sector institutions are clearly defined

Financing

- Percent of national or sub-national budget dedicated to rural sanitation services

Social Norms and Behavior Change

- Number of districts certified ODF
- Number of communities ODF one year after ODF certification
- Change in attitudes or norms

Markets

- Number of latrines/products sold or service calls
- Percent of target areas serviced by supported business partner
- Percent change in sanitation enterprise revenues
- Amount of sustained sales

SELECTED RESOURCES

1. USAID. (2017). [An Examination of CLTS's Contributions Toward Universal Sanitation](#) and Webinar
2. USAID. (2017). [Scaling Market-Based Sanitation: Desk Review on Market-Based Rural Sanitation Development Programs](#) and [Webinar](#)
3. WaterAid. (2019). [Rethinking rural sanitation](#)
4. WHO (2018) [Guidelines on Sanitation and Health](#)
5. Tillet, W. and Gensch, R. (2019) [Strengthening Sanitation and Hygiene in the Wash Systems Conceptual Framework](#). Sustainable Services Initiative.