GUIDANCE ON MARKET-BASED SANITATION
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For more information on this publication, contact the WASH team at UNICEF HQ at wash@unicef.org or the Market and Supplier Financing team at UNICEF’s Supply Division at market.influencing@unicef.org.
GUIDANCE ON MARKET-BASED SANITATION
Acknowledgments

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Abbreviations

AFD  Agence Française de Développement
AMC  advanced market commitment
APC  advance purchase commitment
BCC  behaviour change communication
C4D  Communication for Development
CATS  community approaches to total sanitation
CCT  Conditional cash transfer
CLTS  community-Led Total Sanitation
CSO  civil society organization
CSR  corporate social responsibility
DCC  direct consumer contact
DHS  Demographic and Health Survey
FI   financial institution
GIS  geographic information systems
GLAAS  Global analysis and assessment of sanitation and drinking water
JMP  WHO-UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene
HCD  human-centred design
IPC  interpersonal communication
ITB  invitation to bid
LLIN  long-life insecticide net
MBS  market-based sanitation
MFI  microfinance institution
MICS  Multiple-Indicator Cluster Survey
NGO  non-governmental organization
OBA  output-based aid
OSS  one-stop shop
ODF  open defecation-free
PAHO  Pan American Health Organization
PHAST  participatory hygiene and sanitation transformation
RBF  results-based finance
RFP  request for proposals
RUTF  ready-to-use therapeutic food
SDG  Sustainable Development Goal
SME  small- and medium-enterprise
SNV  Netherlands international development organization (Stichting Nederlandse Vrijwilligers)
TSP  turnkey service provider
UNICEF  United Nations Children’s Fund
VSLA  village savings and loan association
WASH  water, sanitation and hygiene
WHO  World Health Organization
WSP  Water and Sanitation Program (World Bank)
Apex bank: A second-tier or wholesale organization that channels funding (grants, loans, guarantees) to smaller financial institutions (such as micro-finance institutions) in a country or region (e.g., in Ghana, the ARB Apex Bank is a mini central bank owned by and funded collectively by Ghana’s rural and community banks).

Advocacy: An organized effort to inform and motivate leadership to create an enabling environment for achieving programme objectives and development goals. Advocacy promotes the development of new policies or changes to existing laws, helps redefine public perceptions, and influences funding decisions.

Above the line sales and marketing: Promotional methods typically involving mainstream radio, television, billboards, print and film formats, designed to reach a mass audience.

Behaviour change communication (BCC): The strategic use of communication to promote positive health, education and other outcomes.

Below the line sales and marketing: Promotional methods that seek to directly engage with target customers in person to promote products, such as an in-store/in-person demonstration of a product that consumers may wish to investigate in person.

Bridge financing: An interim financing option that allows the borrower short-term access to funds until a long-term option can be arranged. In the case of results-based finance (RBF), bridge financing can provide the borrower with funds to invest in the outputs that trigger RBF payments. The RBF payments can then help repay the bridge finance loan.

Business model: A business model defines how a business creates, delivers, and captures ‘value’.

Cash subsidy (including conditional cash transfers): Funds provided in cash directly to a household towards completion of a desired activity (e.g. toilet construction), with the expectation that the household will then use the funds toward the completion of that activity. The cash subsidy can be unconditional or conditional on a pre-defined result (results-based finance), and can consist of one, multiple, or ongoing payments. Generally employed in emergency response, recovery, and reconstruction situations.

Conditional cash transfers (CCTs) are a specific type of cash subsidy. CCTs are series of upfront cash payments for which ongoing receipt is conditional on continued performance of a measurable desired behaviour (e.g. toilet construction steps, continued toilet usage). Each subsequent upfront payment is disbursed following independent verification of past behaviour/achievement. CCTs are usually highly restricted to the poorest and most vulnerable population segments that are unable to perform the desired behaviour without upfront cash subsidies.

Community approaches to total sanitation (CATS): Demand-driven approach to sanitation promotion that encapsulate various approaches to community-based sanitation such as community-led total sanitation and school-led total sanitation, among others.
Community-led total sanitation (CLTS): A rural behaviour change approach for ending open defecation through community participation. It concentrates on the whole community and the collective benefit rather than on individual behaviours.

Credit by supplier: A credit scheme whereby toilets, toilet components, or services are sold to a customer on full or partial credit (installment payments) by a supplier (e.g. retailer, mason).

Customer: The household or head-of-household that purchases, uses, and oversees the construction, operation, and maintenance of a toilet. Alternatively referred to as ‘consumer’, ‘user’, or ‘buyer’.

Demand activation: Direct sales and marketing activities carried out to persuade customers to convert product awareness and interest into a purchase decision.

Demand fulfilment: Activities related to the delivery of sanitation goods and services by a business to its customers in response to successful demand activation (a customer’s decision to purchase).

Demand generation: Activities carried out to drive awareness of and interest in hygienic sanitation behaviours and improved sanitation products and services.

Enabling environment: A set of interrelated functions that allow governments and public and private partners to engage in a sustained and effective WASH service delivery development process. In the context of UNICEF’s work, an enabling environment for WASH is one that creates the conditions for a country to have sustainable, at-scale WASH services and achieve the SDGs.

Entrepreneur: An individual who manages one or more enterprises.

Focal point business: A business in the sanitation value chain that plays the role of primary or initial retail contact for purchase and delivery of a toilet product system to a customer.

Hardware: Physical sanitation-related technologies and/or components and construction materials in the sanitation sector, such as toilets and sewage infrastructure.

Human-centred design (HCD): An approach to problem solving commonly used in design and management frameworks that develops solutions to problems by involving the human perspective in all steps of the problem-solving process. In the case of sanitation products and services, HCD aims to develop toilet products/services that are desirable to customers, technologically feasible, and viable for suppliers to produce and delivery sustainably, by focusing on and balancing users’ and suppliers needs and desires, with technical requirements for safe hygienic sanitation.

Improved toilet: A toilet that is designed to hygienically separate excreta from human contact.

Interpersonal communication (IPC): Direct, face-to-face exchange of information, ideas, thoughts and feelings between two people or among a group of people. The exchange allows people to receive immediate response or feedback that can lead to mutual understanding, agreement and action.

Large-scale sanitation businesses: Sanitation businesses with over 100 employee (e.g., national or multinational sanitation product manufacturers or suppliers, private utilities).

2 WHO/UNICEF Joint Monitoring Programme (JMP) definition.
**Market-based sanitation (MBS):** A development approach to improve sanitation in a country by building the sanitation market of goods and services for which the customer makes a full or partial monetary contribution (with savings and/or cash equivalents) toward the purchase, construction, upgrade, and/or maintenance of their toilet from the private sector. It does this by strengthening domestic private sector supply of and stimulating and activating customer demand for sanitation goods and services. It includes approaches such as ‘sanitation market shaping’, ‘sanitation as a business’, and ‘sanitation marketing’ (or ‘SanMark’).

**Micro-, small- and medium-enterprises (MSMEs):** Definitions vary country-to-country (for example, the European Union defines micro-enterprises as less than 10 employees, small as less than 50 employees and medium less than 100 employees). In this document, MSMEs are defined as businesses with less than 100 employees.

**Microfinance:** Financial services for low-income individuals or those who do not have access to typical banking services, including loans, savings, and insurance. Microfinance service providers can include microfinance institutions (MFIs), commercial banks, self-help groups, non-governmental organizations (NGOs), savings and loan clubs, and others.

**Microfinance institutions (MFIs):** Organizations dedicated to providing financial services to low-income clients. They tend to focus on microcredit, though some MFIs also offer savings and remittance services.

**Operation & maintenance:** Operation and maintenance of a toilet, which includes daily use, upkeep/cleaning, repair, pit/tank emptying, and/or other aspects of faecal sludge management.

**Output-based aid (OBA):** A type of results-based finance in which aid is given to the implementer/local government/sanitation provider or to a household upon achievement of a pre-defined output or result. A consumer rebate (fixed amount refunded towards expense borne by an actor) is a typical example of OBA at the household level.

**Performance award:** An in-kind or cash award given as an incentive to an individual or a group after achieving a specified result (e.g. awards to a community upon achieving open defecation-free status).

**Results-based finance (RBF):** Finance that is design to achieve a desired result, rather than pay for inputs. This is a broad category of finance delivery mechanisms that includes pay-for-performance, ex-post performance awards, conditional cash transfers, consumer purchase rebates, and other forms of output-based aid.

**Revolving fund:** A loan fund in which the loans, when repaid, are disbursed again as loans.

**Sanitation market shaping:** A strategy developed by UNICEF based on experiences in the health and nutrition sectors, which combines carefully targeted catalytic actions, selected on the basis of in-depth market analysis, designed to stimulate a diverse range of appropriate sanitation services, products and suppliers, and ensure the market as a whole remains healthy and sustainable.

**Sanitation suppliers:** Any business involved in supplying sanitation raw materials, products or services, usually a medium- or large-scale business (e.g., toilet component suppliers, raw material suppliers).

**Savings and loan groups:** A group of individuals living close to one another who make regular savings contributions to a central pool that lends money to the members.

**Social mobilization:** A continuous process that engages and motivates various inter-sectoral partners at national and local levels to raise awareness of, and demand for, a particular development objective. This approach focuses on people and communities as agents of their own change, emphasizes community empowerment, and creates an enabling environment for change.
**Toilet product system**: An on-site toilet facility used for capture and storage of human urine and faeces. Unless specified otherwise, the term ‘toilet’ in this document refers to the complete interface (e.g. slab, pan, water closet) and associated substructure (underground) components. Throughout this document, ‘toilet’ is used in place of ‘latrine’, for consistency and regional universality, even if ‘latrine’ was used by the original source.

**Upgradeable toilet**: A toilet design that allows the customer to add to existing components or replace them with superior or higher quality materials for increasing utility, convenience, or appeal in a way that caters to a wide range of income groups via flexibility for customization (e.g. addition of tiles to a cement slab or replacement of a thatch roof with a tin roof). Subsequent investments usually build upon the initial one so that, in principle, very little or none of the customers’ money or effort is ‘wasted’.

**Village savings and loan associations (VSLAs)**: A form of saving and loan group, in which a group of people save together and take small loans from those savings. The activities of the group run in cycles of one year, after which the accumulated savings and the loan profits are distributed back to members. The purpose of a VSLA is to provide simple savings and loan facilities in a community that does not have easy access to formal financial services.

**Voucher**: A subsidy provided in the form of a printed coupon or ticket that entitles the holder to a discount on, or that can be exchanged for, specific goods or services from a sanitation provider. The subsidy amount is transferred by the implementing organization to the sanitation provider after the voucher has been redeemed and the underlying activity pertaining to the voucher has been performed.
GLOSSARY
1 

Introduction

1.1 Practical guide to market-based sanitation programmes

1.2 Overview of the guidance
1.1 Practical guide to market-based sanitation programmes

Background

UNICEF has committed to support the global achievement of Sustainable Development Goal (SDG) target 6.2 by 2030, which calls for access to adequate and equitable sanitation and hygiene for all and an end to open defecation. While UNICEF will rely on proven strategies such as demand creation and systems strengthening to help governments ensure delivery of sustainable services at scale, new accelerators are needed. One of the key programming approaches adopted in UNICEF’s Strategy for WASH (2016-2030)\(^3\) is to build sustainable markets for sanitation goods and services by working with the private sector.

What is market-based sanitation?

Market-based sanitation (MBS), an umbrella term that includes approaches such as ‘sanitation marketing’ (SanMark), ‘sanitation market shaping’, and ‘sanitation as a business’, is a strategy governments and development partners can use to build sanitation markets to improve sanitation in a country. MBS refers to 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. The aim of MBS programmes is to increase sustained access to and use of basic sanitation with a focus on low-income populations. It does this by supporting sustainable, competitive businesses to better reach and serve the unmet sanitation needs of low-income households.

MBS programmes work with local government, businesses and households at the same time to link and expand supply and demand for basic sanitation. MBS helps businesses profitably and sustainably deliver and sell affordable toilets and related services, so that households can easily get the ‘good toilet’ they want, for a price they are willing to pay, and helps customers to get the finance they need to make the purchase. At the same time, it supports local government to take the lead in motivating households to prioritize this investment, while ensuring competition and quality. MBS helps to develop and link demand and supply by:

- Using market development and market facilitation investments, to support local businesses to expand the delivery and sale of affordable, desirable toilets and related services;
- Using social marketing, commercial sales and small business marketing techniques to activate household demand and increase willingness to purchase and invest in durable, hygienic toilets.

MBS and other market mechanisms can play an important role in the sanitation policy and programming mix where conditions are right (addressed in 2.1 Assessment). But developing the market does not replace governments’ central responsibility for ensuring the adoption of adequate sanitation by all households and protecting public health. As the duty bearer, governments must take a lead role on both the demand and supply side: building their own capacity to facilitate community-led efforts to stop open defecation, and promoting household investment, whilst engaging with and encouraging local businesses to ensure they deliver good-quality sanitation services at fair prices.

MBS includes a sub-set of systems-level strategies aimed at creating a conducive business environment for sanitation markets (see below and Figure 1). UNICEF refers to this sub-set as ‘sanitation market shaping’, defined as a combination of targeted catalytic actions, selected

\(^3\) See Resources and further reading at the end of this section.
based on in-depth market analysis, designed to stimulate the wide availability of a diverse range of appropriate and affordable sanitation services, products and suppliers, and ensure the market as a whole remains healthy and sustainable. More details can be found in UNICEF’s 2018 Sanitation Market Shaping Strategy Brief.\(^4\)

### Why consider a market-based approach?

Sanitation markets in which customers seek to purchase their own sanitation systems from local businesses have delivered much of the basic sanitation gains achieved in many developing countries. However, these markets are often limited in their reach, are inefficient, and face numerous barriers to scale and expansion. They also often perform poorly at serving the needs of lower-income populations.

Sanitation markets exist in every country and context in the world, from low to high capacity as well as emergency settings and fragile states.\(^5\) This does not imply that MBS approaches will be useful and applicable in every one of these contexts. In this guide you will find the tools you need to assess sanitation markets across different contexts and decide whether an MBS approach could work.

### Commitment to equity and gender

If a market-based approach to sanitation is considered, it will be essential to promote and monitor equity within the expanded sanitation market, to ensure the poorest and most vulnerable are benefitting from increased access to basic sanitation services. This is a core UNICEF mandate and commitment as the UN agency responsible for upholding the Convention on the Rights of the Child. It will also be essential to consider gender inequities to ensure MBS programme investments contribute to progress towards gender equality (or at least that they do no harm).

In this guide, equity and gender-responsive MBS programming actions are highlighted in each relevant stage of the programme cycle, with specific reminders and tips for each stage of MBS. There is also a dedicated section on market-compatible consumer subsidy and financing tools to reach the poorest in market-based interventions (see 3.5 Reaching the poor through consumer financing).

### Government sanitation goals

MBS helps governments to reach their sanitation goals in three fundamental ways. First, it leverages household investment in an improved toilet. Second, it leverages domestic private sector investment and builds local private sector capacity to deliver more affordable, desirable improved toilet options to more people and places. This can lead to a domestic sanitation industry with greater resilience, sustainability, and capability. Third, by helping sanitation markets function more effectively and broadly to serve low-income households, governments can achieve the programmatic principles of sustainability and scale, more equitably and inclusively:

- **Sustainability**: MBS programmes support businesses to sell affordable, desirable toilets and related services to low-income households where they can do so profitably, sustaining and growing sanitation businesses so that they can continue serving customers over time and after initial programme interventions cease. Sustainability refers to both sustained use of sanitation and sustained market availability of toilets.

- **Scalability**: MBS encourages greater household investment in basic sanitation and works with local businesses to respond to this new demand. After initial investments to catalyse the new market, ongoing programme investments are kept to a minimum. Supported by local, government-led sanitation behaviour change and a supportive business environment, local sanitation markets can grow and expand into new geographic areas as more local businesses take up the new MBS product system models and sanitation business strategies.

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\(^4\) See Resources and further reading at the end of this section.

\(^5\) For more on country contexts and sanitation markets, refer to UNICEF’s Strategy for WASH (2016-2030).
• **Equity and inclusivity**: Encouraging those who can afford it to pay for services allows for better targeting and more efficient use of public funds towards demand creation and support to those who are truly unable to afford basic levels of service. Availability of more affordable and desirable high-quality toilet products and services in local markets close to households allows governments to design and use subsidies for the poorest and most vulnerable, to reach a greater number of marginalized households more efficiently. Investing in development of local sanitation markets expands roles for people as toilet producers, workers, retailers, sales agents and promoters, which presents an opportunity for both women and men to benefit, both financially and through learning new skills.

In addition, government and partners can remain impartial by making market information generated publicly available, to support fairness, integrity and transparency.

**Figure 1**: USAID’s conceptual framework for the sanitation market

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**Understanding market-based sanitation**

USAID have developed a conceptual framework that is useful in understanding the sanitation market, its key parts, and the market system in which it functions. These include (1) the **context**, such as the economic environment and geographical conditions, which interveners must seek to understand but typically cannot influence, and social norms, which UNICEF has invested in influencing for sanitation, (2) the **business environment**, shaped by things such as government policy, the availability of raw materials and financial services, and access to market intelligence or small business development services, which interveners can potentially influence, depending on complexity and resources available, and (3) the **core sanitation market**, which is comprised of customers, entrepreneurs (business owners), and sanitation enterprises (businesses), which may be impeded from serving the sanitation needs of households by barriers that can be addressed through targeted interventions. This document concentrates on designing interventions directly in the core sanitation market.

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6 USAID (2018). See Resources and further reading at the end of this section.
GUIDANCE ON MARKET-BASED SANITATION

primarily in rural areas, to address barriers that block households from purchasing improved toilets in a given country context. It refers to and closely aligns its terminology with USAID’s MBS conceptual framework, presented in its 2018 Scaling MBS desk review.7

A change of mindset

Approaching sanitation as a market requires a shift in how we think and work. Whereas in the past, governments and sanitation programmes often looked at businesses as input suppliers and contractors, in MBS, local government engages local businesses as key partners in accelerating basic sanitation access. MBS also focuses on households as active customers rather than passive beneficiaries. It takes a user-centred and business-supplier approach to designing toilet product systems that people want and can afford, and that local businesses can also profitably deliver and sell.

<table>
<thead>
<tr>
<th>From…</th>
<th>To…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households</td>
<td>Beneficiaries</td>
</tr>
<tr>
<td>Local businesses</td>
<td>Contractors / input suppliers</td>
</tr>
<tr>
<td>Implementing organization</td>
<td>Project execution</td>
</tr>
<tr>
<td></td>
<td>MBS strategy development, testing, and scale up</td>
</tr>
</tbody>
</table>

Taking on new roles and functions

At the national level, government may already play a role in collaborating with and setting the ‘rules of the game’ for sanitation businesses, such as by setting standards and guidelines for quality assurance. At the local level, MBS programmes also broker new collaborative relationships between businesses and governments, helping to build trust and enabling businesses to service households that have been traditionally left out of the market. They do this by helping local government and development partners take on new roles in facilitating the growth of market transactions between sanitation businesses and new household customers. Examples of new facilitating roles include:

- Helping to generate new customer demand through promotion of sanitation products;
- Linking businesses to households that are ready to purchase;
- Building skills and providing local market intelligence to help businesses respond to new customer demand;
- Supporting competition in the market;
- Developing capacity for monitoring service quality, to protect consumers and public health; and
- Exploring and developing finance options for both businesses and customers.

Supporting government to build capacity to take on MBS roles in facilitating, regulating and monitoring the new sanitation market ensures that suppliers can continue to grow their businesses and reach more consumers long after initial market facilitation activities are finished.

Required skills

Designing and implementing MBS interventions to fit local market conditions requires different sets of skills and expertise at different stages of the process. Skills and expertise needed in the design phase of an MBS intervention include market research, human-centred product design, construction optimization, small enterprise business development, and sales and marketing. In the implementation phase, MBS implementing partners need field-based operational teams with strong co-ordination, supervision, and process monitoring and action learning capacity, as well as experience working effectively with local government.

Specialized technical skills during implementation include small business training, mentoring and coaching, sales and marketing, and sales data collection, tracking and analysis.

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7 USAID (2018). See Resources and further reading at the end of this section.
How does market-based sanitation fit with CATS?

Since 2008, UNICEF has invested heavily in ‘community approaches to total sanitation’ (CATS), with good results in achieving community-wide elimination of open defecation. CATS programmes are demand-driven and community-led and emphasize the sustainable use of safe, affordable, user-friendly sanitation facilities by all. UNICEF supports programming based on the CATS principles in more than 50 countries.

During this period, UNICEF has worked with governments to adjust policies away from the ineffective hardware subsidies and supply-driven construction programmes of earlier eras, building political awareness and institutional capacity for demand-led sanitation approaches. CATS programmes have shifted the focus away from ‘doing’ and ‘building’ and towards facilitating and catalysing changes in behaviours and community norms. These programmes have demonstrated strong success in mobilizing community-wide action to end open defecation and have triggered new demand for building and using a toilet.

Market-based sanitation builds on this progress and shifts away from past supply-driven approaches and offers a demand-responsive, market-based approach to ensure sustained access to local market supply of affordable, desirable household sanitation products and services.

The goals and many of the principles of MBS are compatible with those of CATS (see Table 1 below). In sanitation, catalysing changes in social norms around open defecation and toilet use and developing local markets are the most promising approaches to establish and sustain long-term safe toilet usage for communities. It is not a question of ‘behaviour or technology’: achieving basic sanitation for all requires both. Both CATS and MBS are demand-driven and encourage communities and households to decide how to solve their own sanitation problems, meaning that both need local government mobilization and good community leadership to work. Both approaches depend on government to take an active role to reach scale and sustainability. Critically, both approaches view programmes that supply subsidized or free

### Table 1: Comparing goals and principles of CATS and market-based sanitation

<table>
<thead>
<tr>
<th>Aspect</th>
<th>CATS</th>
<th>Market-based sanitation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOAL</strong></td>
<td>Eliminate all open defecation</td>
<td>• Uptake and sustained use of basic sanitation by all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased local availability of basic sanitation products and services</td>
</tr>
<tr>
<td><strong>KEY PRINCIPLES</strong></td>
<td>• Demand-driven</td>
<td>• Demand-driven</td>
</tr>
<tr>
<td></td>
<td>• Households choose what they want to build</td>
<td>• Households choose what they want to build</td>
</tr>
<tr>
<td></td>
<td>• No direct hardware subsidies to households</td>
<td>• No direct hardware subsidies to households</td>
</tr>
<tr>
<td></td>
<td>• Intervenes at the community scale</td>
<td>• Intervenes at both the community AND individual household scale</td>
</tr>
<tr>
<td></td>
<td>• Gets people on first step of the sanitation service ladder</td>
<td>• Gets people on basic (or limited) step of the sanitation service ladder</td>
</tr>
<tr>
<td></td>
<td>• Attention to equity</td>
<td>• Attention to equity</td>
</tr>
<tr>
<td></td>
<td>• Includes all households in changing open defecation behaviour and social norms</td>
<td>• Explores financing interventions to reach very poor households, and sustained social subsidies for the poorest of the poor</td>
</tr>
<tr>
<td></td>
<td>• Engages government as a key partner</td>
<td>• Engages government AND private sector as key partners</td>
</tr>
<tr>
<td></td>
<td>• Builds local community capacities to ensure sustainability</td>
<td>• Builds market capacities and household investment to ensure sustainability</td>
</tr>
</tbody>
</table>
hardware directly to households as problematic, because they often ignore the need for behaviour change and limit the numbers of households that can be reached. Both approaches have demonstrated success on their own; combining them could be highly effective where conditions are right. Such favourable conditions are explored in 2.1 Assessment.

Considerations for combining CATS and MBS

CATS and MBS complement each other and together can accelerate achievement of basic sanitation within the same geographic areas. In practice, however, programmatic aspects of CATS and MBS regarding start-up times, techniques, geographic scales, required skills, and results timeframes (see 2.2 Planning and budgeting) mean that integrating the two approaches into a single programme can pose operational challenges. MBS planning and operational aspects should be carefully considered, including how to integrate and sequence MBS and CATS activities within your rural sanitation programming.

For example, MBS is often presented conceptually as following CATS – the prevailing logic being that the first task is to change community norms and behaviours. In fact, CATS and MBS ‘sequencing’ has two different dimensions to consider which challenge this thinking:

- **Programme planning:** This refers to timing and execution of activities required to effectively develop and implement MBS and CATS on the ground in a new geographic area under area-wide programming. For MBS, substantial start-up time and investment is needed for research and strategy design and testing before implementation can begin. Implementation needs to occur across a large population base from the start, with business capacities and commitments ready to cover the target area. For CATS, much less time is needed for start-up and testing, and the programme can initially target just a few communities, expanding as and where capacity to trigger develops. The mismatch in timing and geographic scale mean that MBS programme development activities should start as soon as possible, and before CATS start-up in new areas if the desire is to link implementation in communities on the ground, so that businesses are ready to provide the ‘right’ products and services at affordable prices when community demand is generated from CATS activities.

- **Linking community-level work:** This refers specifically to the timing of CATS triggering and MBS product and business introductions within a particular community. That is, when do we ‘introduce’ a product promotional event, a new set of products, or a local small business who supplies them – before, after, or perhaps even during a CATS triggering event? After a village is declared open defecation-free? Here there is less systematic evidence, but experience points to a mix of workable models and flexible adaptations to fit local context.

Since markets are broader than individual communities, it is simply impossible to confine MBS activities to specific communities. In practice, MBS may not always be suitable in all CATS programme contexts, just as CATS may not be suitable in all MBS programme contexts.

These and other considerations will need to be weighed up by UNICEF and its partners to determine whether, where and how MBS might be most effective in your country context. Answering these questions forms the basis of MBS programming, and the core of this guide – an overview of which is set out in the next section.

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8 For further discussion of the evidence and considerations for linking CATS and sanitation marketing approaches, see UNICEF’s 2013 Sanitation Marketing Learning Series Guidance Note 10: Sanitation Marketing and CATS (details in Resources and further reading).

9 CATS and MBS programming are also explored in more detail in 2.1 Assessment, as well as in Plan International, UNICEF and WaterAid’s 2019 Guidance on Programming for Rural Sanitation (details in Resources and further reading).
Resources and further reading


WHO (2018). Guidelines on Sanitation and Health. Available at: https://apps.who.int/iris/bitstream/handle/10665/274939/9789241514705-eng.pdf?ua=1


Websites


1.2 Overview of the guidance

What is the purpose of this guidance?

This guidance aims to provide practitioners with simple, easy-to-follow and evidence-based resources to plan, design, implement and monitor MBS interventions that build the market for sanitation goods and services, as part of comprehensive and context-specific sanitation programmes to achieve SDG 6.2.

It is organized around the project cycle, to help you plan and organize key activities needed to design and implement effective MBS interventions, to build sustainable sanitation markets that reach the unserved. These actions are not intended as a strict blueprint or model to follow. Rather, they suggest a process for systematically determining whether a market-based approach is suitable within your programme context, and if so, how to design the MBS programme’s core sanitation market development strategies to fit the sanitation market conditions and enabling environment in your country.

The guide provides examples from different contexts, offering tips and advice based on current evidence and experience. Much of the guidance draws from the global evidence base on rural sanitation and is therefore focused on rural settings, though some approaches may be applicable in small towns or peri-urban environments. The guidance also draws on UNICEF’s experiences shaping markets for health and nutrition supplies and the evidence generated from this work. The guide builds on important existing guidance materials such as USAID’s Sanitation Marketing for Managers and WSP’s Sanitation Marketing Toolkit. The guide can be used to gain a better understanding of the overall MBS approach, and to learn the practical steps involved in designing and implementing an MBS programme for different contexts in your country.

The guide will be useful for those just beginning to consider MBS, as well as those who already have MBS initiatives underway. In either case, we recommend reading every section in this MBS guide before beginning work, to gain a thorough understanding of how intervention design and implementation build and rely on the cumulative outcomes and insights of each previous section. Reading the full guide before beginning will help you understand the types of activities, tasks, and skills and resources required to systematically plan for and implement MBS.

How does this guidance fit with other sanitation guidance?

A key lesson from large-scale sanitation programmes is that one approach, or even one combination of approaches, will not work everywhere. Contexts vary, conditions and capacities evolve over time, and different populations (and groups within these populations) face different challenges and have different priorities. UNICEF’s work in sanitation has traditionally focused on rural areas, where the majority of the unserved live. Experiences show that most large-scale rural sanitation programmes use aspects of the following implementation approaches, adapted to context:

- Community-based behaviour change, such as CLTS
- Market-based sanitation and technical support
- Sanitation finance and other support to the disadvantaged

Details for both of these are in Resources and further reading at the end of this section.
1.2 OVERVIEW OF THE GUIDANCE

While some success has been achieved combining approaches, the universal access and higher level of service required by the SDG sanitation target will require programming that is more comprehensive, inclusive, effective and sustainable. This means that sanitation programmes should also address hygiene behaviour change, environmental sanitation, and strengthening the enabling environment.

In 2019, UNICEF, Plan International and WaterAid jointly developed Guidance on Programming for Rural Sanitation and Guidance on Costing of Rural Sanitation Approaches. These documents encourage the development of rural sanitation programmes that are large-scale and area-wide, comprehensive, adapted to context, evidence-based and designed to achieve equitable and sustainable outcomes and services. We recommend that readers review the content of these two core documents before reading this MBS guide. This MBS guide should be read as a companion piece, providing more detailed and specific operational guidance for the design and delivery of MBS interventions in relevant contexts. The guide also consolidates and updates UNICEF’s Sanitation Marketing Learning Series Guidance Notes from 2013, drawing on new experience and lessons.

This guide aligns with UNICEF principles on market shaping and will inform and complement sanitation market shaping approaches as these are developed and tested over the coming years.

Who is this guidance for?

The primary audience for this guide is practitioners: programme implementation actors, including UNICEF country offices and government partners, non-governmental organizations, and other support agencies and consultants working to improve sanitation services. Within UNICEF country offices, the guidance is aimed primarily at WASH and supply colleagues, though other programme colleagues may also find it useful. Throughout the guidance, the term ‘you’ is used to refer to the reader, referring to people directly planning, managing, implementing, or supervising MBS initiatives. It may also be useful to agencies funding MBS programmes during appraisal of project proposals, to determine whether they contain robust designs, adequate durations, good implementation monitoring, and the necessary activities and budgets to achieve successful MBS development outcomes.

What is the guidance’s scope?

The guide focuses on designing a coherent set of MBS strategies to directly engage with businesses and their household customers to build sanitation markets within sanitation programmes, primarily but not exclusively in rural areas, with the aim of achieving sustained household and community-wide sanitation outcomes. It is not focused on institutional, public or large-scale urban sanitation infrastructure (such as sewerage networks).

Figure 2: The sanitation service chain

Capture Containment Emptying Transport Treatment Safe reuse or disposal

Source: Adapted from WHO (2018). Guidelines on Sanitation and Health

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11 Details for both of these guidance documents are in Resources and further reading at the end of this section.

12 See Resources and further reading at the end of this section.
Within the domestic sanitation market of a country, typically there are different sub-markets for the three essential sanitation service chain functions of: a) faecal capture and containment, b) faecal waste emptying and transport, and c) faecal waste treatment and disposal/reuse.

In a market context, capture and containment is the package of purchased goods and services needed to build a particular toilet design, including its containment sub-structure, referred to together as a toilet ‘product system’. Different toilet product systems can be thought of as different combinations of construction materials, pre-fabricated components (e.g. sanitaryware, concrete pit lining rings, platforms) and construction services (e.g. pit diggers, masons). They must be assembled at the customer’s home and installed correctly in order to provide access to safe faecal capture and containment at a minimum basic level.

The scope of this guide is primarily focused on the toilet product system for on-site capture and containment, since this is the critical public health issue in rural contexts (as well as many small towns and informal urban settings), particularly as it relates to ending open defecation and ensuring access to basic sanitation.

Although many of the market-based principles and design processes here can be adapted to address urban sanitation problems and the other sub-markets of the sanitation service chain, this guide focuses mainly on MBS approaches for delivering on-site sanitation in rural and peri-urban environments.

This guide does not comprehensively cover how to combine MBS approaches with other sanitation approaches, though some guidance on CATS and MBS complementarities is provided. For more information on combining sanitation approaches, refer to the Guidance on Programming for Rural Sanitation published by UNICEF, Plan International and WaterAid.  

What is the MBS process?

This guide is organized around the programme cycle to help you plan and organize key activities needed to design and then implement effective strategies for MBS. It captures the essential elements of successful MBS programmes that have accelerated rural sanitation coverage gains across large geographic areas. It is an evidence-based method to systematically build a strong MBS programme to fit the market conditions and enabling environment in your country and captures best practices of successful MBS programmes to date.

The process takes an iterative approach to designing and testing what works, in which programme strategy decisions made in each successive programme design activity depend on outcomes, insights and design decisions accumulated in previous design activities. There is a period of ‘trial-and-error’ or ‘learning-by-doing’ built into both the design and implementation phases of the process. Because MBS relies on market research to determine which strategies are likely to work best in the context of your country, no two country programmes will be identical.

The MBS process is structured around the programme cycle, with three main phases: 1) planning, 2) programme design and 3) implementation. Each part of the process is important and builds on earlier work done: for example, high-level planning precedes market research, market research informs good design choices, and field-based testing and refinement of design decisions are critical for successful implementation. There is no need to duplicate work that has already been done in the country within each stage: for example, if others have done good market research studies, or consumer-driven product systems have already been designed and market-tested, make sure this work is identified and incorporated into your programming planning from the outset. If an area of programming has never been undertaken in your country or context, it is best not to skip it, since this can cause problems during implementation. As with most approaches, sector co-ordination and government engagement from the start will lead to the best results.

13 See Resources and further reading at the end of this section.
PLANNING PHASE

Carry out an assessment and start planning to lay the groundwork for your programme design:
- Assess whether MBS is right for your context and where conditions are most favourable to begin (2.1 Assessment)
- Develop a plan and budget for where and how to begin (2.2 Planning and budgeting)

PROGRAMME DESIGN PHASE

Design and test the most appropriate and context-specific MBS intervention strategies, informed by market research, for the core sanitation market, and to address the business environment as needed:
- Conduct market research to diagnose market shortcomings, identify incentives and opportunities, understand consumer preferences, local businesses and supply chains, and select the target market segments and initial options for designing your MBS intervention (3.1 Market research)
- Product system design. Develop the right toilet system packages and services for the selected target market to address the users’ entire toilet experience (3.2 Product system design)
- Delivery approach and business model design. Design and test the best ways for focal point businesses to deliver the new product packages and services profitably (3.3 Delivery approach & business model design)
- Demand activation. Design and test best ways to reach and motivate customers to invest in basic sanitation and purchase the new product systems (3.4 Demand activation)
- Consumer financing. Consider a range of financing options and market-compatible social subsidy approaches to reach the poorest to include in MBS programme strategies once the core intervention design is working effectively (3.5 Reaching the poor through consumer financing)
- Optimizing market interactions. Improve sanitation market dynamics by reducing transaction costs, improving market information flows and balancing supplier and buyer risks (3.6 Optimizing market interactions)
- Expanding access to business finance. Consider ways to expand affordable working and growth capital for entrepreneurs to invest in the sanitation enterprise (3.7 Expanding access to business finance)
- Market enablers. Consider ways to improve the business environment through changes to market rules, government policies, standards and regulation (3.8 Market enablers)

IMPLEMENTATION PHASE

Carry out an assessment and start planning to lay the groundwork for your programme design:
- Implementation. Bring it together in a full-scale MBS programme, with new roles for different market facilitation actors (4.1 Programme implementation)
- Monitoring. Keep learning what works by actively monitoring and adapting your programme (4.2 Monitoring)
While the MBS process is based around the concepts and stages of the programme cycle, its ultimate goal is much broader and longer-term; to create and sustain robust sanitation markets that will continue to serve communities. It is essential to build in an ‘exit’ strategy for UNICEF’s hands-on involvement in the market, transitioning from intensive market development to a more robust and sustainable sanitation market.

MBS works best when it is planned from the start to work at scale and to collaborate on market research and strategic design activities. MBS is about catalysing and facilitating the growth of sanitation markets – that is, helping the private and public sectors to work together to deliver services to households on their own, to accelerate basic sanitation gains. From the start and throughout the process you should consider whether your new market facilitation strategies and activities pass ‘sustainability’ and ‘scalability’ criteria. Questions to consider may include:

**Sustainability**

Can businesses continue to sell their sanitation products and services profitably to customers without the need for ongoing external donor finance? Are businesses, sales agents and others suitably motivated and incentivized to continue promoting and supplying customer demand? Are households provided with all the product information they need to properly install, use and maintain their toilets over time?

**Scalability**

Are new toilet product systems attractive and do they meet the needs and context of a large target population? Are project activities cost and time efficient? Can they be efficiently replicated on a larger geographic scale? Are tools and systems simple enough to be used by second- or third-generation programme staff and local partners?

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**How long does it take to reach scale in MBS programmes?**

USAID’s 2018 MBS desk review\(^{14}\) found that successful MBS programmes require funding for six years or more to achieve results at large scale. New toilet sales in these longer, successful programmes begin to accelerate four to five years after initial design stage. Amongst large-scale programmes, on average, 90 per cent of toilets were sold from year 4. Therefore, it will be important to secure at least five years of initial funding for a new MBS programme, ideally with additional commitments through years 6 to 10. As toilet sales accelerate around year 4 to 5, cumulative MBS programme expenditure per person gaining access to basic sanitation drops steadily, reaching less than US$10 around year 6 to 8 in the most successful large-scale programmes in Asia. Data suggest timeframes to reach scale may be longer and MBS programme unit costs higher in sub-Saharan Africa than in Asia – however, these data in sub-Saharan Africa are from MBS programmes with durations of four to five years or less.

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**What is involved at each phase?**

**Planning phase**

Carry out an assessment and start planning to lay the groundwork for your programme design.

2.1 **Assessment**

To begin, you will assess broad market and partnership conditions to decide whether and where to initiate work with sanitation markets in your country. You may also need to build understanding among sector stakeholders about what MBS is (and what it is not). In the assessment phase, you will scope the landscape of potential opportunities and favourable conditions for doing MBS. This includes the enabling environment, potential partners, and available funding sources and skills.

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\(^{14}\) See Resources and further reading at the end of this section.
This information can help you to decide if a market-based approach makes sense and if so, where to start (a potential outcome of your assessment might be the decision not to move forward, because market or other conditions are currently not favourable enough for MBS to work).

2.2 Planning

Depending on the results of your assessment, if you decide to move forward you will begin to develop your plans, general timing, and rough budget for the remaining phases and activities of your MBS programme.

Programme design phase

Design and test appropriate and context-specific MBS strategies for developing the core sanitation market (see above), informed by market research (to identify the target market, and strategic insights, opportunities and options), and address the business environment, as needed.

3.1 Market research

Good market research is the foundation of any market-based approach. It involves qualitative as well as quantitative methods and requires a national perspective. In this activity, you will assess your market shortcomings and their root causes, and identify distinct market segments and the strategic insights, opportunities and options for developing the rural sanitation market. You will start to define and understand your target market – their desires, needs, priorities and practices as well as how they purchase durable products they want. You will also identify and understand the main businesses already involved in supplying toilets to rural households or those that could potentially become involved – what they offer, how they operate, and how they link together. Market research will allow you to clearly identify the target market, set the strategic direction, and obtain detailed information needed for the critical design decisions and testing during programme design.

3.2 Product system design

This activity considers the product system by exploring available toilet products systems and developing designs that fit your target market and market context. From your assessment and planning stage, you know what toilet technologies, construction materials, components and building services are currently available, the costs to build them in local markets across the rural landscape, and what people think about them. In many cases, what is available does not meet the needs of the target market. When this is the case, use your market research as the starting point for an iterative design process to test and refine suitable toilet product system packages that meet your target consumers’ needs and preferences. The design processes address the user’s entire experience with the product system – including how it will be purchased, packaged, transported, installed, used and maintained. In designing the ‘right’ toilet product systems, you will consider technologies, user preferences, and the capacities and needs of local businesses who will make, deliver and install the package options. The right product systems should be more attractive to families, more affordable, easier to purchase and quicker to install for your target consumers. They should also be feasible and profitable for local businesses to offer, sell, deliver and install.

3.3 Delivery approach and business model design

You will now focus on the delivery approach by businesses. You will have already identified the target customers and the product system designs they want, and talked to existing local business owners in your initial target areas who might be able to offer them (these are your potential consumer-facing ‘focal point’ businesses). You will also have analysed business finances to get an idea of what product systems might cost to produce, transport and install. Now, you are ready to start testing how a focal point business can deliver these offerings in a lot more detail – to develop and test a workable business model for focal point businesses to profitably sell and

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15 A toilet ‘product system’ refers to the package of materials, components and labour required to install, at a minimum, the toilet interface and below-ground containment sub-structure. It may or may not include the superstructure.
deliver the new toilet product system to customers. A business model defines how a business creates, delivers and captures ‘value’ – the benefit that customers receive by using a product or service. This will involve working with existing businesses to optimize the potential delivery approach of the new product system packages with enough profit to sustain and grow. You are looking for ‘proof of concept’, and still in testing phase.

3.4 Demand activation

You will now turn to activating latent demand by the customer, and sales and marketing by businesses. As you test the new product system packages and installation services, and work with focal point business owners on their initial business models, you will also need to identify local actors to be community sales agents/promoters (also called ‘demand activators’) and start developing and testing promotional and sales activities. Local sales agents and other promoters will need promotional and marketing concepts, materials and activities to use in community meetings and in door-to-door visits, to create new awareness of the product system options and generate new toilet sales for focal point businesses. You will use commercial and social marketing techniques as well as customer insights you have gathered to address three communications objectives: 1) stopping open defecation; 2) motivating household investment in a durable, hygienic toilet; and 3) generating sales by creating customer awareness of the new product systems packages, their prices, the focal point businesses who make and sell them, and how to order and pay. Because this is still part of programme design, at this stage you are trialling and testing what works, including the messages, activities, and sales agent actors most suitable for reaching and ‘activating’ customers in your initial target market to purchase.

3.6 Optimizing market interactions

This chapter addresses the transactions between the customer, entrepreneur and enterprise in the core sanitation market. There will be opportunities to improve sanitation market dynamics and incentivize sanitation enterprises, through catalytic interventions that improve the exchange of products and services between entrepreneur and customer. This chapter reviews approaches to reduce transaction costs, improve market information flows and balance supplier and buyer risks, and how to anticipate benefits or drawbacks in your context. It leverages lessons learned from interventions that have been trialled in sanitation markets, as well as from market shaping approaches that have been successfully implemented at scale in other sectors, and discusses how these can be adapted to the sanitation context.

3.7 Expanding access to business finance

This section addresses capital and viability of the entrepreneur. The lack of access to affordable working and growth capital to invest in the sanitation enterprise is a common barrier that frequently hinders entrepreneurs from entering or operating more effectively and efficiently in local sanitation markets. At this point, you will examine how sanitation enterprises typically source their funding and the key factors that limit their access to capital in the form of equity or debt from the formal financial sector. To facilitate access to capital from diverse sources, a range of approaches can be considered such as low-interest or guaranteed loans, blended financing, or impact investing. By investing in product design and business model improvements, MBS makes basic sanitation more affordable and accessible to low-income households. However, even after successfully reducing market prices and improving market access, some households – especially the poorest – may still find it difficult to purchase basic sanitation. This section presents a range of consumer financing and market-compatible social subsidy options to reach these target groups and ensure they have access to the new market. During the programme design phase, consider which of these mechanisms will be considered and when.
element of the MBS design process will help you to identify opportunities for UNICEF to pilot or support the scaling up of promising models in their respective local contexts.

3.8 Market enablers

This chapter considers the sanitation business environment. The market research and industry consultation may identify market barriers linked to market rules, government policies, standards and regulation. This part of the design process considers why and how to work with governments to explore these barriers and seek solutions to strengthen the local sanitation market, by improving the overall business environment. For example, you might support to governments to set appropriate policies, incentives, standards and guidelines. This could include product standards, quality assurance systems, regulation and enforcement, or consumer protection. You may also choose to explore research and development, or investigate the impact of value-added tax and import duties on sanitation-related commodities and services.

Implementation phase

Put it all together into a full-scale programme and keep learning what works by actively monitoring and adapting.

4.1 Implementation

Once you have designed your intervention, you are ready to bring all the elements together into full-scale programme implementation, to facilitate sales and drive uptake in the new sanitation market. To launch the new MBS programme approach, start in an area of reasonable scale. The programme should roll out the newly designed and tested strategies and activities in a co-ordinated way. During implementation, you will need to consider how the programme trains, supports and monitors different actors, including local government, and ensures good co-ordination and timing of all activities.

4.2 Monitoring

Although presented last here, programme monitoring should begin at implementation, so you will need to begin planning your monitoring approach before you begin implementation. Implementation activities will evolve quickly, especially at the start, and will require responsive and flexible management as the programme evolves. Active, hands-on, frequent monitoring – every week initially – is essential for programme management teams and will help you adapt and adjust your strategies as the market responds (or fails to in some places). A strong system for monitoring business profitability and performance, toilet product system sales and installation, and household uptake will be essential to help the programme learn quickly, replicate good ideas, and course correct as needed.

The role of government in MBS

You should involve sub-national and local government actors who are responsible for sanitation in MBS intervention communities in the implementation and monitoring phase of MBS, as it will help ensure the long-term sustainability of MBS investments in building sanitation markets. The sections on implementation and monitoring examine their roles and functions in detail. Government partners at national and sub-national level and other sector stakeholders interested in MBS programming should be consulted during the planning phase, and on decisions and strategic outcomes during market research and product system design. This guide considers ways to engage government in these decisions in each section.16

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16 UNICEF’s 2013 Sanitation Marketing Learning Series Guidance Note 6 (in Resources and further reading at the end of this section) provides a detailed discussion of the roles and responsibilities of government, from national to local level, in the development of rural sanitation markets in MBS.
How to use this guide

This guide can be used to design a full-scale programme from the very beginning, or to adjust elements of an existing MBS programme. Whilst we recommend reading the whole guide regardless of whether you are just starting out or are considering MBS, or you already have an MBS programme underway, you may want to focus on specific areas of the guidance, depending on what stage you are at in your MBS programming. Consider where you are in your programming to decide where to focus:

<table>
<thead>
<tr>
<th>If...</th>
<th>Focus on:</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are considering an MBS approach, but you are not very clear on what is involved</td>
<td>The full guidance. Begin with planning and move through the guidance. Pay close attention to the planning phase to determine whether and where to start, and to plan and organize for the design and implementation phases.</td>
</tr>
<tr>
<td>You have decided to try MBS, and you are just beginning to design your strategies</td>
<td>Start at market research and focus on ensuring that all aspects of programme design have been considered. Use the market research methods to identify market shortcomings, review your product options, business delivery approach, and demand activation strategies to see if they are meeting customers’ needs and are profitable enough for businesses. Consider additional actions to address the market structure and business environment.</td>
</tr>
<tr>
<td>You have an ongoing MBS programme, but you want to strengthen it or make it more sustainable</td>
<td>Start with implementation and monitoring. Focus on evolving your strategies as the market matures and strengthening your monitoring systems to understand market trends. Consider adding customer financing options to ease the burden of up-front purchase and/or market-compatible social subsidies to reach the poorest. Consider how to further optimize market interactions, address the broader sanitation business environment, and remove remaining barriers to business finance.</td>
</tr>
<tr>
<td>Your MBS programme is working reasonably well, but you are concerned mainly about broadening its scope and reach</td>
<td></td>
</tr>
</tbody>
</table>

The main sections of the MBS guidance follow this introductory chapter. You will find details for planning, organizing and budgeting for your MBS programme, including estimated time needed for each task and important issues and tips to carefully consider in preparing plans and budgeting. These sections also explore the roles, functions, and responsibilities of UNICEF country offices in the execution of the activities and tasks of each phase of the process, should you decide that MBS is the right approach for the rural context in your country.

Can MBS advance gender equality?

Any sanitation programme has the potential to reinforce negative gender norms, roles and stereotypes. On the other hand, successful MBS programmes are an opportunity for new sanitation business opportunities and income for rural people – for example, as toilet component producers, skilled masons, transporters, retailers, sales agents, and other market players. It will therefore be important to understand the different needs and roles of women and men as consumers, users and caretakers of improved sanitation facilities in the home, as well as the functions women play now (or their absence) in the sanitation supply chain during the planning phase before designing your MBS strategies. Where feasible, avenues and opportunities to expand women’s roles in the sanitation economy should be examined and explored, so they too might benefit financially and by learning new skills. These efforts will increase the likelihood that your MBS programme makes a positive contribution towards gender equality and avoids unintended negative effects. Specific guidance on gender considerations at each phase in the programme cycle are outlined next page.
### Table 2: Gender considerations in the MBS process

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
<th>Specific gender consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1: Planning</strong></td>
<td>Assessment and planning</td>
<td>Seek out gender-disaggregated data on sanitation coverage, access and use and gather gender-specific outcomes from prior MBS experiences, sanitation market demand and supply studies, and studies of sanitation consumer behaviour. Identify gender-responsive issues for attention and action in subsequent phases.</td>
</tr>
<tr>
<td><strong>Phase 2: Programme design</strong></td>
<td>Market research</td>
<td>Assess whether existing household gender roles and responsibilities in the current toilet pathway to purchase process (i.e. deciding, choosing, purchasing, installing) and subsequent use, operation and maintenance of installed toilet designs result in poor outcomes for women and girls, regarding access, usage and/or burden of housework. Observe and ask about what roles, activities and jobs women are doing in the sanitation supply-chain now, including supporting roles of wives and daughters of male business owners working in the family sanitation business.</td>
</tr>
<tr>
<td></td>
<td>Product system design</td>
<td>Ensure the needs and preferences of women and girls, along with those of men and boys, are equally explored, understood and addressed in product system design and testing, by including women consumers, as well as men, from different socio-economic strata in the iterative design and testing of product systems in the MBS programme.</td>
</tr>
<tr>
<td></td>
<td>Demand activation</td>
<td>Ensure that the portrayal of women and men in sanitation communication or marketing materials does not reinforce negative gender norms, roles or stereotypes. Make efforts to recruit and train women as well as men for paid promotion or commissioned sales positions, and consider gender differences in training.</td>
</tr>
<tr>
<td><strong>Phase 3: Implementation</strong></td>
<td>Implementation</td>
<td>Consider ways to leverage and enhance women’s roles in purchase decisions and to share the economic benefits of MBS activities such as toilet marketing and sales, production and retail, and business expansion.</td>
</tr>
<tr>
<td></td>
<td>Monitoring</td>
<td>Ensure gender disaggregated data collection on household toilet coverage and usage, and on the economic benefits of increased toilet sales, by tracking gender proportions of sales agents, owners/co-owners of focal point businesses, and associated growth in toilet sales, as well as of other paid (and unpaid) front-line actors in the new sanitation market.</td>
</tr>
</tbody>
</table>
Resources and further reading


Websites


2 Planning

2.1 Assessment

2.2 Planning and budgeting
2.1 Assessment

Quick reference

| What is involved? | • Decide whether and where to start MBS  
• Collect and review existing data and information to assess market conditions  
• Review government policies and existing programmes for alignment with MBS  
• Consult with national and sub-national government and other stakeholders to improve understanding and assess their support for starting MBS |
| What are we trying to achieve? | • Consensus on whether and where to proceed with an MBS approach  
• Improved understanding of the approach, and how it fits within broader government policies and strategies |
| How long will it take? | 1-2 months |
| What skills and resources are required? | • Document review, situation analysis, and report writing  
• Presentation and meeting organizational skills |

UNICEF equity and gender reminders

• Use disaggregated rates of rural household adoption of improved toilets, unimproved toilets and open defecation, by wealth or income quintile to assess demand-side market conditions and potential market size  
• Obtain the most recent national data for the household poverty income threshold and rate of poverty across administrative levels  
• Seek out gender-disaggregated data on household sanitation coverage, access and use, and gather gender-specific outcomes from prior MBS experiences, sanitation market demand and supply studies, and studies of sanitation consumer behaviour  
• Identify gender-responsive issues for attention and action in subsequent phases

Overview

Strengthening sanitation markets requires a long-term approach and effort. To begin, you will need to decide whether and where to initiate work in sanitation markets, together with the government and other partners. The assessment and planning activities are essential, as they will help you make important decisions about where to focus and identify the enablers and challenges that you will encounter in each context.

For your assessment, you will collect and review existing data and information to assess market conditions, and review government policies and existing programmes for alignment with MBS. You will consult with national and sub-national government and other stakeholders to improve understanding and assess their support for starting MBS. If you decide to proceed with an MBS approach, you will need to decide where to start, and then plan and budget for the design of your programme, plan your partnerships and collaborations, and start thinking about mobilizing funds and resources for design and implementation.

If you are already working with MBS in your country, you may still wish to revisit your assessment to review your decisions about targeting and update your programme planning and design accordingly.
Deciding if and where to start

To assess opportunities for MBS in your country, you should carefully consider the consumer demand and supply-side market conditions, as well as government policy and programme context. Conducting the three tasks below will help you to decide whether and where to start MBS.

Task 1: Decide whether to initiate MBS by considering favourable and challenging conditions

The first task is to decide whether conditions are right to initiate MBS at all. Consult available secondary data and talk to stakeholders and informants to assess whether the broad national/sub-national and government policy and programme conditions are generally favourable for MBS at country level and in the particular region/s where you want to work (see Table 3). This includes:

- Consulting national census data, large-scale household sanitation and living standards surveys, poverty and socio-economic statistical data, which can provide good high-level sources for understanding general demand-side market conditions.
- Consulting JMP and equity data to get a general understanding of the size and scope of potential target markets, including rates of open defecation, and access to improved and unimproved toilets by household wealth or income quintile.
- Compiling and mapping, where possible, population data sets and sanitation access rates at the lowest administrative level for which geographic information system (GIS) location layers are available. Include road networks and market town location layers. This will help you start to understand how core demand and supply conditions vary across different contexts. These data sets and GIS mapping layers will be valuable for further planning, should you decide to progress with MBS. They will also help you during your market research, as you estimate the number of households in different market segments, if you decide to move forward.
- Ensuring you utilize the knowledge within your team, which can be an important source of demand and supply-side information. You can learn a lot about local markets for construction products by talking to your operations and supply colleagues, who are often in direct contact with importers, distributors, and retailers of common materials used in toilet construction.
- Consulting with relevant national and sub-national government and other development partners to assess the level of understanding and views on MBS and hardware subsidies. More advocacy and information sharing may be needed to build consensus for the approach.
- Speaking to economic and construction industry experts, who may have information on some of the supply and demand-side conditions, and the general enabling environment for rural markets and market investment.
- Conducting a rapid field visit, if time allows, to get a rough picture of the demand and supply side conditions on the ground in the region you want to work in.17
- Using existing tools to understand the policy environment, institutional arrangements, and existing roles and capacities of government counterparts and other sanitation partners.18 This will help you to determine partnership opportunities and who might be best placed to take on different sanitation market development and facilitation roles.

Once you have carried out initial scoping exercises to assess what favourable and challenging conditions exist for starting MBS programming in your country, you can move on to Task 2 to decide where it might be most successful to start. Table 3 next page outlines a range of potential favourable and challenging conditions which should form the basis of your decisions on whether and where to begin MBS. There is no strict ‘rule’ on how many

17 More guidance and tools on situation analysis and assessment for MBS can be found in USAID’s Sanitation Marketing for Managers guidance (see Resources and further reading at the end of this section).
18 Such as UNICEF’s Sanitation Marketing Learning Series Guidance Note 6: Enabling Environment (see Resources and further reading at the end of this section).
It may be possible to support government to consider re-programming these budget items as pro-poor targeted consumer financing options or output-based aid that are compatible with an MBS approach.
Table 3 (continued): Favourable and challenging conditions for starting rural MBS

<table>
<thead>
<tr>
<th>FAVOURABLE</th>
<th>CHALLENGING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHERE TO START – SUPPLY-SIDE MARKET CONDITIONS</strong></td>
<td><strong>WHERE TO START – SUPPLY-SIDE MARKET CONDITIONS</strong></td>
</tr>
</tbody>
</table>
| **Technology solutions:**  
  • On-site sanitation systems are feasible public health solution  
  • Hydro-geologic and soil conditions do not require excessively expensive or complex technologies | **Technology solutions:**  
  • Safe pit emptying and faecal sludge disposal are the critical sanitation public health challenge  
  • Difficult hydro-geologic or soil conditions likely to require complex, costly technical solutions  
  • No space to construct a new toilet |
| **Product system options:**  
  • Potential options for lowering product system costs, improving desirability can be found  
  • Low-cost product options exist in nearby countries with similar cultural practices and preferences | **Product system options:**  
  • Lower cost product system options have been heavily subsidized in the target area, and cannot be re-designed to raise consumer appeal |
| **Supply-chains:**  
  • Sufficient number of importers, distributors and retailers of construction materials operating in the country (even if not well-networked)  
  • Existence of some businesses supplying improved toilet building products and services  
  • Commercial transport options exist  
  • Masonry/concrete casting skills exist  
  • Adequate formal or informal financial services for small enterprises | **Supply-chains:**  
  • Little or no supply of key construction inputs, equipment (e.g. moulds for concrete components) at country-level  
  • Monopoly or shortage conditions that result in price-fixing, excessive costs for construction materials, sanitation components  
  • No businesses supplying toilet building materials or services  
  • No construction materials or concrete-related building services within commercially viable transport distance  
  • Little or no masonry or concrete casting skills in the area  
  • Development programmes (e.g. government, NGOs) have severely disrupted or distorted local toilet supply chains or prices |

**OTHER FAVOURABLE FACTORS**

- Sector partners and donors willing to collaborate or share costs for MBS start-up investments in market research, product design, business model testing, or developing consumer financing options
- Reputable microfinance institutions in target area providing finance to small enterprises
- Reputable microfinance institutions in target area willing to test consumer loans for toilets

Conditions should be favourable in order to decide to proceed; rather, rely on the collective expertise and experience of you and your partners to make these decisions. Note that Table 3 is primarily focused on guiding decisions about MBS in rural areas; while the criteria may be useful and apply to other contexts, urban contexts will require other considerations, such as those related to faecal sludge management.

The absence of some favourable conditions or the presence of some challenging conditions do not necessarily indicate that you should not proceed with MBS. Rather, the existence of more favourable conditions should be favourable in order to decide to proceed; rather, rely on the collective expertise and experience of you and your partners to make these decisions. Note that Table 3 is primarily focused on guiding decisions about MBS in rural areas; while the criteria may be useful and apply to other contexts, urban contexts will require other considerations, such as those related to faecal sludge management.

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20 Government action and policies may be needed to finance market entry or fund investment in new technology innovations.
and/or less challenging conditions should guide your initial selection of where to start. Challenges, especially with supply-side market conditions, are unlikely to exist across the whole rural landscape: many can be overcome by well-designed MBS interventions and can be investigated further during your market research (see 3.1 Market research). For example, if a large hardware subsidy programme is the stumbling block, your research and subsequent work can build the case and engage government for re-programming hardware subsidies to support market access and choice for the poor. In cases where the government subsidy programme delivers low quality construction or solutions that do not meet users’ sanitation needs, this may not be a barrier to MBS development. For example, PSI’s MBS programme has been successfully working at scale in Bihar, India, alongside the government’s large-scale toilet subsidy programme, in part by offering a higher quality toilet system while ensuring it aligned with the government’s preferred technology prescription.

Task 2: Identify provinces or districts with more favourable conditions

When initiating MBS for the first time in a country or in a new programme area, start where conditions are favourable (see Table 3 above). This will improve your chances of success and allow you to learn by doing. It will also build a strong base of knowledge, skills, local business partners and experience for expanding into more challenging areas in the future. Keep in mind that favourable areas for MBS might not overlap with all CATS programme areas, and that not every ODF community may be favourable for MBS start-up (see Table 4 next page).

In evaluating conditions for starting MBS in rural areas, you should be thinking in relative terms about physical proximity to market infrastructure (i.e. rural market centres, permanent roads, secondary towns/cities) and household-level demand-side market conditions across the rural landscape. For example, to help decide where to start MBS

in rural Bihar, India, PSI developed proxy indicators of the relative favourability of household demand-side conditions and combined them into an ‘ease of conversion’ score applied to groups of households, aggregated at sub-district level.\textsuperscript{21}

If you have a CATS programme, use the criteria in Table 3 above to assess whether favourable market conditions exist across your CATS programme area. In some cases, communities where you are using CATS may also be favourable for MBS, but this will not always be the case – or conditions may be favourable in certain districts, but not all of them. Many of the favourable community-level characteristics for successful CLTS triggering are challenging conditions for MBS (see Table 4 next page). If this is the case, consider choosing other districts or geographic areas within your districts that have the most favourable conditions. Once your market development model is further developed, you can expand your support to geographic areas with communities that have more challenging market conditions, over time.

You should also consider evidence of sub-national government interest and leadership in sanitation when selecting the provinces/districts in which to start. Engage relevant government authorities early on to build MBS interest, understanding and partnership support.\textsuperscript{22} Always keep the national perspective in mind when you are planning for the beginning of your MBS approach, and focus on demonstrating proof of concept that can be taken to scale.

Task 3: Select the geographic area with the most favourable conditions for initial large-scale proof-of-concept development and testing

Though you will need to work at province or district level to demonstrate successful market development and build government support for the approach, initially, you will want to select a smaller concentrated target area with favourable

\textsuperscript{21} See Figure 9 on p21 of USAID (2018), and also the original report: Monitor Deloitte (2013). Details of both in Resources and further reading at the end of this section.

\textsuperscript{22} For more on building interest and engagement in MBS see Annex 1: Advocacy for MBS, in the accompanying MBS Guidance: Annexes document.
conditions for initial development and testing, or proof of concept. Although the goal is an MBS programme at scale, it will be important to test new product systems and get proof of concept for the new delivery approaches, business models and demand activation tactics you develop during the programme design phase, before moving into a full-scale programme implementation. It will therefore be important to identify potential geographical areas with the most favourable conditions that are most likely to bring you some early successes; once the first businesses start selling and early customers start buying, support and momentum will grow.

Because of the nature of markets and marketing, working across 10 or 20 villages is not enough. Your initial proof-of-concept geographic area for MBS needs to have a large enough market size. As a rough rule of thumb, plan to ensure you include an area (which may cut across districts) that has at least 200-500 communities, that are not too far from roads and market centres, in rural regions where population densities are relatively higher and basic sanitation coverage is low. For an example of applying these considerations to select an initial programme area, see Case study 1, which illustrates how the NGO WaterSHED selected an initial programme area in Cambodia.

MBS works best when you are thinking and working at scale, both for impact on sanitation coverage and because markets and businesses cannot be artificially confined to limited geographic areas. You should target an entire geographical area and all the communities within it, rather than selecting a small number of geographically dispersed communities. Businesses should not be confined to working in pre-determined ‘programme’ communities and should be encouraged to service all communities and households they can profitably reach within or even outside target areas.

Start in areas that are on or close to main roads and near supply chains and market centres. This is because, when you scale up to large scale implementation, your work will begin by building supply chains and addressing barriers on the supply-side. As the programme progressively expands, the network of suppliers, businesses and distributors will grow and expand outwards from rural centres of commerce and small towns along roads towards more challenging areas.

<table>
<thead>
<tr>
<th>CLTS HANDBOOK</th>
<th>MIS-MATCHED FAVOURABLE COMMUNITY CONDITIONS FOR CLTS AND MBS</th>
<th>STARTING MBS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Favourable</strong> conditions for ODF triggering</td>
<td>• Small size community</td>
<td><strong>Challenging</strong> conditions for starting MBS</td>
</tr>
<tr>
<td></td>
<td>• Remote from towns and big roads</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Socially and culturally homogenous, cohesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unprotected water supplies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Where diarrhoea rates are high</td>
<td></td>
</tr>
<tr>
<td><strong>Challenging</strong> conditions for ODF triggering</td>
<td>• Large settlement</td>
<td><strong>Favourable</strong> conditions for starting MBS</td>
</tr>
<tr>
<td></td>
<td>• Close to towns and roads</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Socially and culturally diverse</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Protected water supplies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Where people are relatively healthy</td>
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</tbody>
</table>
In 2008-09, the NGOs iDE and WaterSHED assessed conditions for starting MBS in Cambodia. They found that an initial challenge was a large-scale Asian Development Bank (ADB) funded programme that supplied rural households with subsidized latrines built by contractors. The subsidy programme spanned five neighbouring provinces, covering two thirds of Cambodia’s then-population of 13.4 million people (see Figure 4).

At the national level, however, conditions were generally favourable for MBS: strong economic growth, increasing household consumption, political stability, and low rural access to improved sanitation. Other promising signs for MBS were the high percentage of household toilets in use in rural areas which had been delivered by the private sector, despite the presence of subsidized hardware in the country, as well as a successful rural MBS project in neighbouring Vietnam – a country with similar sanitation cultural preferences and close economic ties.

iDE and WaterSHED decided national-level conditions were favourable to proceed, but that they would avoid the ADB-funded programme provinces in choosing where to start. WaterSHED launched discussions with Ministry of Rural Development (MRD) officers responsible for rural sanitation at both national and provincial-level to begin planning, and Kampong Speu province was identified as a potential place to start. The province had a high proportion of poor households compared to other provinces, but high population density, and is bisected by a

Figure 4*: Subsidized toilet programme area, Cambodia, 2009

23 Royal Government of Cambodia (2010). See Resources and further reading at the end of this section.
national highway – strong conditions for rural market development. WaterSHED’s strong relationship with provincial government in Kampong Speu also provided a good basis for a partnership to develop and pilot the approach. The provincial government also had sanitation programming experience with a large, four-year CLTS programme in Kampong Speu, and while positive changes had occurred in some CLTS villages, there were sanitation challenges that MBS had the potential to address. CLTS-triggered households almost exclusively constructed unimproved dry pit latrines, and while these latrines helped initially reduce open defecation, they were unpopular, because they did not allow for the long-standing cultural practice of anal cleansing with water. However, the provincial government was unfamiliar with MBS and doubted that low-income rural households would invest in improved sanitation without hardware subsidies such as the ADB-funded programme.

Once the provincial government was convinced to proceed in Kampong Speu, WaterSHED explored where the most favourable conditions were for MBS across the province. Using GIS layers and secondary data sets, including geo-referenced administrative boundaries, village point locations, road networks, and population data, as well as input from provincial officials and rapid field visits, the team chose a 10 km-wide strip on each side of the national highway as the MBS pilot area (see Figure 5). It included 537 villages and over 55,000 households, covering 41 per cent of the total population of Kampong Speu.

*The designations employed in this publication and the presentation of the material do not imply on the part of the United Nations Children’s Fund (UNICEF) the expression of any opinion whatsoever concerning the legal status of any country or territory, or of its authorities or the delimitations of its frontiers.
**Advocacy and creating buy-in for MBS**

Government and other partners in the sanitation sector may have little understanding of what MBS is. Explaining to them what it involves and why investing in MBS is needed is a crucial part of your planning and preparation process. One of the first steps for creating an enabling environment for carrying out MBS is to organize an initial workshop with government and other key partners, to introduce and discuss the MBS approach and best practices in this guide. Early consultations with any partners or agencies that may have tried MBS before is strongly recommended, so that lessons and concerns can be addressed in these very early stage meetings. Annex 1: Advocacy for MBS lists some of the key rationales for carrying out MBS that may be useful in your discussion with government and other stakeholders, as well as some points to counter common arguments against it.

If the decision is made to go forward with an MBS programme, it will be important to keep national and sub-national government and other development partners engaged in the programme planning, and the design process which follows. This can be done by:

- Engaging key government partners on strategic decisions at key points to ensure agreement, get input and build increasing ownership for the programme. For example, you could consider setting up a small steering committee of key stakeholders to guide the process.

- Sharing evolving plans and outcomes with the broader group of government partners and sector stakeholders at key points in the MBS process, especially during market research and product system design, which should be viewed as sector-wide public good investments for developing the national rural sanitation market. This can be done through meetings or workshops, but also through email updates to sector stakeholders, through blogs, or via other sanitation sector networks available in the country.

- Considering the use of local government field-level sanitation officers and/or implementation partner field staff to assist in some of the market research and participate in product system design. This can build hands-on understanding of MBS and create strong advocates for explaining and supporting the approach.

- Considering exchange visits to take government partners to visit successful MBS programmes in neighbouring countries in your region. This is a great way to build understanding and interest during or even before MBS design work begins. During its programme design stage, WSP facilitated an exposure visit to Cambodia for national, provincial and district officials from the Lao People’s Democratic Republic. The allowed visiting officials to talk to their Cambodian counterparts about practical issues and to see mature MBS programmes in action.

- Making a head-start on activities in order to build some quick wins and provide early evidence. For example, UNICEF Sierra Leone worked with government to undertake consumer and supply chain sanitation market research, then presented early findings in a national workshop to build understanding and momentum for their next steps.
To kick-start MBS efforts in Ghana in 2015, UNICEF worked with national government stakeholders to deliver a one-week orientation and training package for national, regional and district government, as well as other implementing agency partners. The workshops included:

- A clear articulation of how the sanitation marketing approach fits within Ghana’s rural sanitation model and strategy, and how it complements ongoing CLTS efforts
- An overview of the rationale, key principles and activities involved in developing and implementing an MBS programme
- Presentations from implementing agencies on current and past interventions, including mason training, village savings and loan initiatives, and others, to understand what is already working in rural Ghanaian contexts
- Facilitated discussions to address stakeholder concerns about the approach, and to clearly differentiate sanitation market facilitation from previous ‘SaniMart’ physical demonstration sites and past hardware subsidy programmes
- Intensive 4-day training for implementers and consultants on how to undertake each design element
- A presentation from the market research firm on the work plan, approach and steps for undertaking planned national market research

The workshops included district environmental health officers from the Environmental Health and Sanitation Directorate, district engineers from public works, and district business advisory centre officers from the National Board for Small Scale Industry. The inclusion of business development officers has proved particularly strategic: for the first time in Ghana, these officers were included as part of the core district team undertaking market research and strategy design, under the banner ‘Sanitation is Everyone’s Business.’ Their perspective and skill set are a new addition and complement those of ‘traditional’ WASH players.
Resources and further reading


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2.2 Planning and budgeting

Quick reference

<table>
<thead>
<tr>
<th>What is involved?</th>
<th>• Plan and budget for the programme design phase and, in some cases, develop a rough plan and budget for implementation</th>
</tr>
</thead>
</table>
| What are we trying to achieve?                                                    | • Partnerships and collaborations to undertake key activities  
• Mobilization of funds and resources to continue design and implementation, if the decision is to proceed |
| How long will it take?                                                            | 1-2 months                                                                                                               |
| What skills and resources are required?                                          | • Document review, situation analysis, and report writing skills  
• Presentation and meeting organizational skills  
• Planning and budgeting skills                                                  |
| UNICEF equity and gender reminders                                                | • Identify gender-specific issues for attention and action during subsequent programme design and implementation phases  
• Ensure a balance of men and women on the team within UNICEF and its implementing partners |

Overview

At this stage, you have decided to proceed with an MBS approach, have identified a geographic area with favourable sanitation market conditions for starting, understand what work will need to be done to improve the enabling environment, and have reviewed the programme design and implementation phase sections of this guide to understand what needs to be done and in what order. You will carry out market research as the critical formative research step of the programme design phase, to generate the information, data and insights to identify the best opportunities and evaluate options for key design phase decisions. Market research helps you to identify market shortcomings and their root causes, and to select the target market segment(s) and will provide the information and insights to inform the design of suitable product systems, delivery approaches and business models for focal point businesses, and demand activation activities. You will now need to develop and plan market research and the other programme design phase activities, as well as setting a budget for your MBS programme, beginning to think about mobilizing funding and resources, and considering what partnerships and collaborations will be necessary.

Planning for programme design

The design phase is focused on developing the right interventions for actors in the sanitation market to address barriers across the sanitation market system, beginning with market research and moving systematically to determine the target market and the product system, delivery approach, and sales and marketing strategy to best reach them. You will also be considering financing for both consumers and businesses, as well as other changes to the business environment and sanitation marketplace that can optimize transactions and catalyse greater investment.
You should give yourself at least 12 months and up to two years for design and testing. After market research, the programme design activities will all involve iterative testing of promising options. You will need to check with target customers to see what is working throughout the process. This should be done by field testing and trials with consumer-facing businesses and their nearby communities with favourable demand conditions (as set out in Table 3 above – ‘Community-level’).

Note that each aspect of the core sanitation market must be considered in order: you cannot design product systems without knowing who they are for. And you cannot consider how businesses will deliver and sell products if you do not first define what the product system offering will be. It is recommended that you move systematically through market research and product design, then conduct delivery approach and business model design in parallel with demand activation. This will help you structure trials to jointly test delivery of the product systems with the sales and marketing activities in selected communities as a joined-up simulation of what your actual implementation might look like.

Think of the entire programme design phase as peeling back the layers of an onion: iteratively getting a deeper and more refined understanding of how the new sanitation market will function to better reach low-income households through your programme. In this sense, you can expect and plan for some overlap: these are not discrete, stand-alone activities.

In the programme design phase, the outputs and decisions can serve as programme milestones. Plan for a major milestone at the end of the design phase, to include 1) the detailed workplan and refined budget for large-scale pilot implementation, and 2) the outcome targets expected by the end of the large-scale trial:

1. Workplan and budget: An output of the design phase will be refined work plans and budgets that are more detailed than your original estimates. You can expect that there may be some need for revisions to your initial budget, so building in this milestone is essential.

2. Outcome targets: Do not attempt to set firm sales, sanitation coverage or other implementation phase targets at the very start. The initial implementation phase results framework should include the indicators you want to measure (see 4.2 Monitoring), baselines (if known), and – if strictly required by the funding agency – general estimates for targets. The major design phase milestone will include setting and agreeing on the final implementation phase targets.

Planning for programme implementation

During implementation, you should plan to launch in an initial focus district or province to demonstrate an intervention delivered at some scale, starting in an area with the most favourable conditions, then rolling out across the pilot area, and eventually expanding to a much broader geographical area over time. The programme will need to evolve, through trial and error, based on how the market responds to the initial interventions. A review of mature MBS grant-funded interventions found that programmes that had achieved scale had durations of five to seven years and that 90 per cent of programme outputs (measured by toilet sales) occurred after year four. In general, you should plan for at least three years of implementation to fully see the impact of your strategies (see Table 5 next page).

MBS programmes do not typically launch implementation everywhere all at once. Getting started is often the most difficult part and will require start-up investments such as heavy recruitment and convincing of sceptical businesses or government officials. Market dynamics will change, and your programme will need to evolve along with them. Plan for progressive roll out, following the principle of starting where conditions are most favourable in all cases. MBS is a learning-by-doing approach, so plan to do some intensive support at the start. Things will move faster as you get going. Section 4.1 Programme implementation provides guidance on the key start-up implementation activities you need to be planning for.
**Table 5: Overview of timeframes and resources required**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
<th>Indicative timeframe</th>
<th>Resources/skills required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning</strong> (6-9 months)</td>
<td>Assessment, planning &amp; budgeting</td>
<td>2-3 months</td>
<td>• Document review, analysis, and report writing skills</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>• Presentation and meeting organization skills</td>
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<td></td>
<td></td>
<td></td>
<td>• Planning and budgeting skills</td>
</tr>
<tr>
<td></td>
<td>Market research &amp; target market selection</td>
<td>4-6 months</td>
<td>• Qualitative and quantitative research</td>
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<td></td>
<td></td>
<td></td>
<td>• Small- &amp; medium-enterprise (SME) business analysis</td>
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<tr>
<td></td>
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<td></td>
<td>• Strong methodology, research plan and question guides</td>
</tr>
<tr>
<td></td>
<td>Product system design</td>
<td>3-4 months</td>
<td>• Qualitative research &amp; product design skills</td>
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<td></td>
<td></td>
<td></td>
<td>• Industrial design/engineering skills</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Clear design brief</td>
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<td></td>
<td></td>
<td></td>
<td>• Adequate work space and budget for materials, labour and tools to prototype</td>
</tr>
<tr>
<td></td>
<td>Delivery approach &amp; business model design</td>
<td>3-6 months</td>
<td>• Business model design, financial analysis, and SME development skills</td>
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<td></td>
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<td></td>
<td>• Private sector experience</td>
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<td></td>
<td>• ‘Business Model Canvas’ and other business model design tools</td>
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<td>• One or two pilot businesses to engage in testing</td>
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<td>• Budget for testing and trialling, including small batch production, distribution and sales</td>
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<td>Demand activation</td>
<td></td>
<td>• Communications design, rural direct marketing and sales skills</td>
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<td></td>
<td>• Clear creative brief(s) based on market research findings and new product system offerings</td>
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<td></td>
<td>• Budget for creative design and pre-testing with target customers, front-line sales promoters and focal point businesses</td>
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<tr>
<td></td>
<td>Consumer financing</td>
<td></td>
<td>• Financing and policy analysis skills</td>
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<tr>
<td></td>
<td>Expanding access to business finance</td>
<td>6-12 months, throughout design and/or implementation phase(s)</td>
<td>• Social policy expertise</td>
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<tr>
<td></td>
<td>Optimizing transactions</td>
<td></td>
<td>• Private sector experience, business design and financial analysis skills</td>
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<tr>
<td></td>
<td>Market enablers</td>
<td></td>
<td>• Plan for evidence generation and learning</td>
</tr>
<tr>
<td><strong>Design</strong> (at least 1 year)</td>
<td>Programme implementation</td>
<td></td>
<td>• Finalized implementation workplan and budget</td>
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<tr>
<td></td>
<td>- Large-scale pilot (first 12 months)</td>
<td>2-3 years</td>
<td>• Business and market development skills</td>
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<td>- Progressive expansion</td>
<td></td>
<td>• Communications execution and planning skills</td>
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<td>• Clear procedures and suite of accompanying tools and templates for field operations</td>
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<td>• Training budget and field-tested training materials for delivering required training to different actors</td>
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<td></td>
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<td></td>
<td>• Programme management, field supervision, co-ordination and monitoring</td>
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<td></td>
<td></td>
<td>• Strong government leadership</td>
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<td></td>
<td>Monitoring</td>
<td></td>
<td>• Monitoring and programme management experience</td>
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<td></td>
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<td></td>
<td>• Frequent tracking of sales, quality and customer satisfaction</td>
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<td>• Simple data collection systems &amp; forms</td>
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<td>• Database and data entry skills and tools</td>
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</table>
Options for planning and budgeting

There are two ways that you can go about planning and budgeting for your programme. Which way you choose will depend on existing partnerships and country-level commitment to MBS, as well as available resources.

Option 1: Plan for design and implementation at the start

Where momentum and commitment at country-level for MBS exists, broad plans can be made to undertake both the programme design and the implementation phases of the MBS process, assuming these have not been done before. Organize your work plan to include programme design and implementation phases with a planning horizon of no less than five years.

By the end of the programme design phase, you should have: 1) a detailed work plan and refined budget for large-scale pilot implementation, and 2) the outcome targets expected by the end of the large-scale trial.

In the implementation phase, you will roll out the programme, progressively expanding across a large-scale pilot area and to new geographical areas over time. The overall outcome of a five-year programme should be the successful achievement of all targets, and a detailed plan and budget for national replication and scale-up across a large number of regions. This will include the core package of proven MBS interventions in the core sanitation market, as well as complementary strategies to support the market to reach remaining households within your existing programme areas.

Option 2: Plan in stages

In some cases, it may make sense to focus in detail initially on planning and budgeting for market research and product system design. These insights can then be used to develop plans and budgets for the rest of the programme design phase. UNICEF Malawi broke down the design phase in this way for their MBS programme (see Case study 2, UNICEF Malawi’s experience next page). It is also possible to focus on executing market research only, before planning for the subsequent activities of the design and implementation phases.

While market research and product system design can be broken down into discrete activities with separate planning and execution, it is recommended that the rest of the design phase is planned and budgeted for as a single package. This is primarily because: 1) the skills required for market research and product system design are very specialized, and 2) these two activities will produce outputs (market research reports, final product system offerings, indicative guidance on focal point business delivery models and demand activation) that can be considered national public goods and which, once completed, do not need to be duplicated.

By contrast, the rest of the programme cycle involves designing and then implementing a co-ordinated set of activities to market, sell and deliver new product systems to target households in a specific area. The same core team should be responsible for all the remaining inter-related design and implementation stages. The final outputs of the programme design phase will include the operational details, such as the detailed workplan, budget, co-ordination mechanisms and staffing needed to run the programme.

Regardless of how the early activities of an MBS programme are packaged, by the end of the design stage, you must plan to have: 1) a detailed implementation workplan, 2) an implementation budget and 3) final outcome targets for implementation.
By 2013 Malawi had over 800 open defecation-free villages, following the successful introduction of CLTS in 2008. However, the sustainability of these gains was an ongoing challenge. In 2011, UNICEF Malawi began work to develop a ‘national rural sanitation marketing programme’ (NRSM) to support the Government’s ODF strategy. The strategy aimed to address concerns about the temporary and unsafe nature of many latrines built in CLTS villages, while supporting the Government of Malawi’s policy of shifting away from construction subsidies to a market-based approach. While there were many unknowns, the goal was to develop a programmatic approach for MBS that would be financially and logistically replicable by district governments across Malawi. With a national focus in mind, three geographically dispersed districts (out of the 12 districts where UNICEF was supporting CLTS implementation) were selected for initial development and testing. The three districts captured a variety of environmental, socio-economic and cultural conditions and included both lakeshore and interior areas, and districts with and without high risk of latrine collapse from sandy soils – a key challenge in Malawi for constructing durable latrines.

Drawing on guidance and best practices in USAID’s Sanitation Marketing for Managers24 programme development manual, as well as successful district-based MBS experiences in Asia and Africa,25 a five-phase design and development plan was prepared. Flexibility and adaptation were built into the process to allow for adjustment of phases as learning advanced. The scope of work, timeframe and budget were developed initially for the first three phases, with phases four and five planned to follow them, as below:

1. Market research, to understand sanitation supply and demand (three months’ duration).
2. Product design and development, using ‘human-centred design’ principles (two months’ duration).
3. Marketing strategy development, and national dissemination and sharing of the evidence and results from the first two phases. Included preliminary decisions related to product designs, pricing, and locations, as well as promotion of the approach in the context of the Government’s ODF strategy – working with government, NGOs, the private sector and university partners (two months’ duration).
4. Business model development, pilot testing, and supply chain development (to be determined after the first three phases).
5. Financial mechanisms to support customer demand and/or supply expansion (to be determined after a successful fourth phase).

Working with a modest budget, UNICEF recruited an international consultant to work side-by-side with UNICEF staff and government representatives to plan, design and execute the first three phases, drawing heavily on buy-in and provision of staff time and in-kind resources from local district governments – seen as key partners of the approach. This served to keep costs down, tap into extensive experience and knowledge of household and village sanitation conditions among front-line district officers, and build ‘learning-by-doing’, and new skills for the market-based approach among district government staff.

More on UNICEF Malawi’s experience implementing market research and sanitation product design are presented in sections 3.1 Market research and 3.2 Product system design.

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24 See Resources and further reading at the end of this section.
25 For example, WSP’s experiences in Vietnam and Benin. See WSP (2005) and (2010) in Resources and further reading at the end of this section.
# Planning principles and tips

*Table 6* below offers some tips and programming principles to consider as you begin your planning.

**Table 6: Key planning tips for MBS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Key issues</th>
<th>Planning tips and implications</th>
</tr>
</thead>
</table>
| **Timing and duration** | MBS programmes take time to reach scale, and for markets to evolve and respond to interventions. Sales and coverage rates are likely to accelerate after several years of implementation. MBS demand activation, sales and marketing activities have the highest impact when they are conducted at times when people are most likely to purchase and construct—e.g. after harvests when cash income is highest and when people have more time. | • Give your programme two to three years, including at least two harvest seasons of implementation to fully assess the impacts of your MBS work.  
• Plan for an initial programme launch when seasonal incomes are highest in your target area. Working backwards from this date, you can plan to complete all programme design activities to be ready for the peak income season.  
• Annual sales strategy planning and targets should factor in seasonal fluctuations. The bulk of purchase and construction activity will likely occur in the post-harvest months. |
| **Targets**         | The customer decision to purchase typically requires a fair amount of forethought and planning. The process of introducing new ideas and toilet product packages takes time, and usually involves ‘early adopters’ taking up the innovation first, followed by larger numbers over time. Market penetration is also linked to the growth and strengthening of sanitation supply chains, and the replication of business models. | Set modest programme uptake, coverage, and sales targets initially, but plan for exponential growth over time. Experience shows that sales acceleration starts after year 4 of the programme. If targets are too high at the start, your programme may feel pressure to move from market facilitation to project-based top-down implementation, which may sacrifice sustainability and scalability in the long run. |
| **Skills**          | MBS requires new skills for the WASH sector, related to small business and rural market development, market research, qualitative and quantitative research and analysis, product design, commercial marketing and sales generation, and others. MBS implementation also requires a high degree of co-ordination. There are several different types of new activities that must come together in a complete package in defined locations at the same time. | • Consider what additional training, new staff, and/or short-term technical assistance may be required for MBS design and implementation.  
• Look beyond traditional WASH partnerships: government departments, consultants and agencies specializing in rural market development and agricultural value chains may have the skills you need.  
• MBS implementation typically requires a very strong co-ordination function—e.g. a strong manager/co-ordinator role to provide strategic and on-the-ground operational oversight across all activities.  
• MBS implementation requires dedicated teams on the ground to facilitate and broker new relationships between different market actors (e.g. local government, focal point businesses, community sales agents/promoters) and to closely track and adapt to what is happening in the market. These teams need strong operational supervision, training and flexibility. |
Table 6 (continued): Key planning tips for MBS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Key issues</th>
<th>Planning tips and implications</th>
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</thead>
<tbody>
<tr>
<td><strong>Scope and coordination</strong></td>
<td>The programme design stage only needs to be done once, if done well. After the up-front investment is made in the design stage, implementation agencies can adopt and adapt the product systems and market facilitation tools and strategies.</td>
<td>• Take a national-scale approach to market research and product system design and invest in these as sector-wide public goods available to all stakeholders and organizations interested in MBS development.</td>
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<td>• Encourage stakeholders to pool resources for programme design, especially market research and product system design.</td>
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<td></td>
<td>• If an organization has already invested in good quality market research and product system design work in the same area, do not do it again.</td>
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<tr>
<td><strong>Management approach</strong></td>
<td>Market-based approaches are based on local market conditions, so it is difficult to predict what implementation strategies and activities will be needed before you conduct market research and design your strategies. Market conditions and trends will change over time.</td>
<td>• From the outset, discuss the need for adaptive management and flexibility with donors and partners.</td>
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<td></td>
<td>• Do not prepare a detailed implementation budget until the programme design becomes clear. Require a detailed workplan, budget and outcome targets as the core deliverable at the end of design stage.</td>
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<td></td>
<td>• Take an iterative ‘learning-by-doing’ approach; monitor and test what works and be open to changes.</td>
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<tr>
<td><strong>Equity and inclusion</strong></td>
<td>The goal of MBS is to help the market to better reach and serve low-income and unserved customers. This can only happen if your programme is explicit about targeting the poor and the poorest. MBS should also ensure it avoids unintended negative outcomes on gender equality or other dimensions of equity.</td>
<td>• Use available poverty and vulnerability data to help define the scope of your MBS activities. Ensure that the bottom two wealth quintiles are consulted in consumer market research, the development and testing of new product packages, and demand activation strategies. Hold separate focus groups with them, seek them out for consumer interviews, and adjust field schedules to facilitate their participation.</td>
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<td>• When consulting with household decision makers during market research and at product design stages, be sure to explore patterns of toilet usage, and reasons for non-usage, of all household members, including children, adolescent girls and boys, the elderly/disabled. Make sure you explore the method for infant faeces disposal.</td>
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<td></td>
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<td>• Plan to collect income, gender and disability-status disaggregated data on household uptake and facility usage as part of monitoring and evaluation, so you can evaluate how well the programme is serving the poorest households and contributing to gender outcomes.</td>
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<td>• Disaggregate and examine sales performance data by gender for sales agents and focal point business owners.</td>
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</table>
Evolving roles and building technical capacity

Understanding who does what in the new sanitation market will take some time and experimentation. Local government and external agency roles in particular will evolve over time. During the design phase, you may rely more on technical input from external support agencies and consultants, to conduct market research and to develop and test suitable product packages, business models, and focal point businesses, as well as sales methods and promotional strategies. But even if you do rely heavily on external resources for early MBS design activities, there are many opportunities to actively involve local government (see UNICEF Malawi experience in Case study 2, above).

As part of your implementation phase planning, it is important to budget funds to train, support, and mentor local government leaders so they can take on key implementation roles over time. These roles include demand promotion activities, introductions at community and household level to local sanitation businesses as well as in business forums, and support for enforcement of quality standards and other consumer protection activities. Section 4.1 Programme implementation offers further guidance on potential roles for different actors, including government at local and national level. Once the programme has gained some implementation experience and proof of the effectiveness of the MBS intervention strategies, and begins to scale up and replicate, sub-national and local government may take more of a lead in ongoing market facilitation, training, monitoring and other roles.

UNICEF’s role

Table 7 below highlights the potential roles, functions, and responsibilities for UNICEF country offices in the execution of MBS activities and tasks. These could be on a wide spectrum: from hands-on planning, managing and direct execution, to providing funding or co-funding for an implementing agency to plan, manage and execute the process, to co-ordinating with other organizations to fund and execute the process independently while enabling and strengthening government to support the process. Especially when funding and contracting others to do the work on behalf of UNICEF, it is critical that UNICEF programme managers have a thorough understanding of what is involved, as well as best practices and tools to ensure and measure successful outcomes. 2.1 Assessment.

Table 7: UNICEF roles in MBS

<table>
<thead>
<tr>
<th>MBS phase/activity</th>
<th>UNICEF country office roles</th>
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</thead>
</table>
| Throughout the MBS process | • Manage the partnership with government and ensure collaboration on all strategic decisions  
• Convene sector stakeholders and MBS development partners to discuss plans, get inputs and share outcomes at key milestones  
• Consider forming an MBS working group or steering committee to advise and support on the process  
• Consider funding and contracting modalities – for instance, through contracts or partnerships, directly, or through government |
| Assessment and planning | • Directly do this in-house  
• Engage with in-house supply division staff, and gender and disability focal points  
• Consult with government, partner NGOs, and sector stakeholders  
• Ensure consideration of equity and gender issues |
<table>
<thead>
<tr>
<th>MBS phase/ activity</th>
<th>UNICEF country office roles</th>
</tr>
</thead>
</table>
| Market research     | • Plan, prepare, manage and fund a TOR (individual contract), ‘request for proposals’ (contract with a firm/institution), or partnership agreement with an NGO/civil society organization (CSO) to carry out market research  
  • Depending on the modality, help organize field work or consultations  
  • UNICEF must review and facilitate partner review of market research planning, TOR, inception reports and results  
  • Ensure consideration of equity and gender issues |
| Product system design | • Find and fund a partner NGO/CSO (via partnership) or institution (via contract) to carry out product system design  
  • Contribute to developing the creative design brief and reviewing interim and final product system designs, consider innovations  
  • Ensure co-ordination with sub-national and local government and other stakeholders interested in MBS  
  • Ensure consideration of equity and gender issues |
| Business model design | • Find and fund a partner NGO/CSO (via partnership agreement) or institution (via contract) to carry out business model development and testing  
  • Ensure co-ordination with sub-national and local government and other stakeholders interested in MBS |
| Demand activation    | • Find and fund a partner NGO/CSO (via partnership agreement) or institution (via contract) to carry out demand activation design and testing  
  • Ensure co-ordination with sub-national and local government and other stakeholders interested in MBS  
  • Ensure consideration of equity and gender issues |
| Consumer financing   | • UNICEF may work with governments, NGOs/CSOs, financial institutions on the design and testing of pro-poor financing mechanisms |
| Implementation       | • Via agreement with a partner NGO/CSO and in co-ordination with government and other stakeholders  
  • Consider bundling design aspects into one contract or partnership, ensuring necessary product development, small business development, and sales and marketing expertise and skills are available on staff or via consultants, expert services and/or sub-contracts  
  • Encourage gender parity in staffing by partners where feasible  
  • Engage partners in other sectors to strengthen gender and equity |
| Monitoring           | • When funding a partner to carry out MBS work, UNICEF must ensure accountability for results, by doing the following:  
  • Working with the partner to develop a results framework (in line with overall country programme theory of change) and agree on report template and frequency  
  • Providing supportive, hands-on monitoring with the partner(s), particularly during early implementation, to ensure flexible and adaptive programming  
  • Reporting internally in UNICEF systems |
Resources and further reading


Water for People (2016). Strengthening Public Sector Enabling Environments to support sanitation enterprises. Available at: https://www.susana.org/_resources/documents/default/3-2623-7-1472215705.pdf

3 Programme design

3.1 Market research
3.2 Product system design
3.3 Delivery approach & business model design
3.4 Demand activation
3.5 Reaching the poor through consumer financing
3.6 Optimizing market interactions
3.7 Expanding access to business finance
3.8 Market enablers
3.1 Market research

Quick reference

What does market research involve?

- Gaining national perspectives on supply chains, customer segments, market dynamics, barriers and their causes
- Assessments to estimate market size and identify target segments (different groups of similar consumers) across the focus geographical area
- Qualitative in-depth research to understand household consumers, and sanitation businesses and supply chains
- Market scans of available toilet construction materials, components, and services, as well as their costs along the entire supply chain

What are we trying to achieve?

- Defined target market segment(s) for the programme
- A strong understanding of household motivations, toilet design preferences and barriers to investment
- A strong understanding of available businesses, existing sanitation business models, improved toilet system designs, purchase and construction materials and processes, and drivers of total and component customer costs to build across the rural landscape
- Market research will provide the detailed data, findings and insights needed to identify opportunities and develop the right product system offerings, focal point business models, and demand activation strategies for the selected target market

How long will it take?

4 to 6 months (including 1 to 2 months of field research)

What skills and resources are required?

- Qualitative and quantitative research skills, ideally also skills in geographic information systems (GIS)
- SME business analysis
- Strong methodology, research plan and question guides
- Outline of final report structure and headings

UNICEF equity and gender reminders

- Ensure that households in the bottom two wealth quintiles are consulted in consumer market research. Seek them out for consumer interviews and adjust field schedules to facilitate their participation
- When consulting with household heads and their spouses during market research, be sure to explore toilet usage patterns of all household members, including children, adolescent girls and boys, the elderly/disabled and disposal means for infant faeces, and any reasons for non-use
- During customer interviews, assess whether current improved toilet designs result in poor outcomes for women and girls, regarding access, usage and/or burden of housework, and why, including whether gender roles in the purchase process contribute to poor outcomes
- Observe and ask about what roles, activities and jobs women are doing now in the construction and sanitation supply-chain, including business ownership, as well as any supporting roles of wives and daughters in male-owned family businesses
- Seek to interview female, as well as male owners of rural construction-related businesses, where they exist
Overview

Good market research to generate the information and insights for strategy design and implementation is the foundation of any market-based approach. Good market research should assess the interactions and dynamics between actors in the whole market, as well as identifying barriers and their root causes. Good market research is also actionable. In other words, it should be designed to directly inform your programme design and the roles of different actors in the market. For this reason, you should carefully read the programme design section of this guidance before beginning to plan market research, in order to fully understand the critical outputs you need from your market research to design an effective MBS programme.

Market research should be viewed as a public good – an investment to develop the rural sanitation market in your country. Thus, if your budget and stakeholder conditions permit and such a study has yet to be undertaken, do your sanitation market research at national (or very large sub-regional) scale. If this is not possible, your research should still always take a national perspective. Use as much national secondary data as possible to frame your market research plan, select target areas for field work, and make subsequent design decisions in ways that will inform and be informed by the broader national market context (see Haiti example in Box 2).

In MBS, households are viewed as consumers of sanitation products and services, and treated as customers of sanitation businesses, rather than beneficiaries of an intervention. When low-income rural households build an improved toilet – whether it is their first toilet, a replacement, or an upgrade from an unimproved or temporary facility – they are making a significant investment decision. To motivate households to spend hard-earned money and effort on an improved toilet, the first step is to understand them better.

The first objective of market research is to define and understand the target market for your MBS intervention, including customer needs, motivations and preferences, as well as the overall likely market size. You will need to learn what
decision-makers and their spouses in your target households think and worry about; what they value, believe, and want for their family; what toilet features they care about; and what motivates or prevents them from investing in an improved toilet. You will also need to understand their priorities and practices, and how they currently purchase durable products that they want.

The second objective is to **identify and understand the main businesses** already involved in toilet construction on both a local and national scale, including what they offer, how they operate, who they serve, and how they link together. To work with businesses – whether they are large distributors and manufacturers, customer-facing retailers and small local concrete block casters, or very small service providers and masons – your programme must understand what they need, worry about, and what drives them. You will need to understand what would motivate a business to take on the sanitation business opportunity in their local market or expand the sanitation activities they do now, what is currently preventing them from reaching and serving your target households with the toilet product systems they want, and how sanitation fits into their broader business activities. You may also choose to assess businesses that are not currently involved in sanitation but with the potential to become involved.

The third objective is to **understand the business environment** and factors that may be facilitating or hindering interactions between consumers, entrepreneurs, and enterprises. These factors may include lack of market information, policies or standards, mechanisms for partnership between public and private actors (such as public-private partnerships (PPPs) or service-level agreements), or access to finance for businesses and households.

The insights you gain from market research help you identify and begin to develop the ‘right’ product systems for target market consumers, the ‘right’ focal point businesses and business models to reach and effectively deliver the product systems to them profitably, and the ‘right’ messages, channels and sales techniques to motivate them to decide to invest and purchase. Your market research will guide your focus in all aspects of your programme design:

- **Product system design**: Market research will help to identify and develop one or two affordable, desirable basic sanitation system options, with the key features that target consumers want, that can be easily purchased and quickly installed.

- **Delivery approach and business model design**: Market research will help you identify which local focal point (consumer-facing) businesses to work with and guide the development of sanitation business models that will allow these businesses to profitably produce, sell and deliver the new product systems efficiently to target consumers.

- **Demand activation**: Market research will help you identify and develop the marketing and sales communication strategies, messages, channels and actors to reach and motivate target households to invest in basic sanitation and to introduce and sell the new product packages directly to them.

- **Consumer financing**: Market research will help you identify the financing options and market-compatible social subsidy approaches that might be introduced during implementation to reach the poorest.

- **Expanding access to business finance**: Market research will help you identify the options for expanding affordable working and growth capital for entrepreneurs to invest in the sanitation enterprise.

- **Optimizing market interactions**: Market research will help you identify the barriers in the market, such as high transaction costs, poor market information flows and imbalanced supplier and buyer risks, which you can address during implementation.

- **Market enablers**: Market research will help you identify areas for improving the business environment to have the biggest enabling effect on sanitation enterprises, such as changes to market rules, government policies, standards and regulation.
Conducting consumer research with households

What do you need to know? Three core research questions

1. For consumers in your target market, what is a ‘good’ toilet, what features and functions should it have (and not have) and why, and how much should it cost?
2. What would consumers and their families gain personally from having and using a good toilet, compared to what they have and do now for defecation?
3. How can you make the process of learning about, purchasing and installing a good toilet a lot easier, quicker, and more reliable?

To answer these questions, your market research should explore:

- Household income, purchase priorities and general purchase behaviours;
- Current defecation practices and toilet usage of all household members;
- Knowledge of and preferences for different toilet technologies, designs, features and materials (e.g. tile floor, wood seat, pan material);
- Willingness to purchase and pay for different types of toilet facilities;
- Knowledge of locally available toilet designs, cost to build, businesses who sell;
- Intention, motivation and triggers for improved toilet ownership;
- Decision-making, purchasing and construction processes and costs (including transport) and durations for building existing toilet systems;
- Barriers to purchase and finishing installation;
- Access to and interest in financing options such as microfinance or instalment payment; and
- Cleaning, maintenance (including practices, preferences, intentions and options for dealing with full pits/tanks) and upgrading of existing facilities.

Gathering consumer insights

Consumer research uses qualitative research methods first and foremost, such as in-depth interviews and discussions, focus groups, observations and informal assessments. Extended one-on-one interviews with household heads are the best way to gain insights about what people want and need for their family and to understand their past choices. Small focus group discussions with no more than eight carefully selected participants can also work well, but require more skill to run effectively, and may be better suited to explore emerging design ideas and options in later phases of field work, as was done in Haiti (see Box 2).

When you meet and talk with consumers, it is important to assume nothing, and to ask open rather than leading questions. The emphasis is on asking ‘why?’ to probe deeply into the reasons behind people’s actions, beliefs, hopes and fears and then listening to what they actually say. Interviews and focus groups can include the use of photos and images of common toilet types and feature options, or construction and delivery methods, to probe specific product knowledge, preferences, and perceptions around prices and affordability. While a central focus should be on the toilet sub-structure and interface, also investigate superstructure design preferences and perceptions.

Have discussions with owners of different types of toilet designs, including improved and unimproved, and with those who have no facilities at all. Avoid households who own toilets provided by a subsidy programme or organization. Include a mix of male- and female-headed households, and men and women, to understand differences in their views. Speaking to self-financed toilet owners is particularly important to understand the current consumer ‘pathway to purchase’ (see Figure 6), including what local sanitation construction-related businesses and transport methods exist and where these businesses and providers are located relative to each community. These local businesses and transporters will be a key starting point for the supply-chain market research, so keep a running list including their names, contacts and locations. A deep understanding of the ‘pathway to purchase’ and the local landscape of available
customer-facing construction and transport businesses will be fundamental for identifying opportunities to make the process easier, quicker and more predictable (in terms of cost, time, effort and quality) for households.

**Sampling households, communities, and regions**

In general, your qualitative research plan will include a ‘stratified’ sample of toilet owners and non-owners from a range of households, including different livelihood sources and income levels, demographic profiles, and ethnic and cultural backgrounds. Your sample of households will be spread across communities selected to represent different geographic ‘market proximity segments’ (based on closeness to/remoteness from existing market infrastructure and supply chains) in different sanitation contexts across the rural landscape. Thus, a first step in planning market research is to divide all of the rural landscape into broad geographic ‘market proximity’ segments (see Box 2).

**Tips for developing geographic ‘market proximity’ segments:**

- By ‘market infrastructure’, we mean the inter-connected system of larger centres of commerce, small rural market towns and the transport routes that connect them to each other and to surrounding rural communities.
• Conduct scoping and consult with rural experts, sub-national and local government officials, and rural-focused businesses to estimate a rough ‘buffer’ zone of geographic proximity to key market infrastructure. The buffer zone could be the distance from 1) a road, 2) a rural market town, and/or 3) a large rural centre of commerce, within which rural communities have regular and easy access to an existing market town/centre and its transport systems, for any kind of goods.

• Buffer zones will depend on topography and road infrastructure. For example, in the mountainous areas of rural Haiti, communities located beyond two kilometres of a year-round road were considered remote from any market unless they happened to be near a centre of commerce. On the other hand, in Cambodia’s central plateau, rural communities up to ten kilometres from a year-round road were considered close to market towns and easily reachable by existing transport systems (see WaterSHED Cambodia’s experience in Case study 1).

• Using maps, create initial buffer zones around the three key market infrastructure features. Where feasible, use publicly available GIS data files and software to do this, otherwise use paper or digital maps of the road network, provincial and district centres, smaller towns, and surrounding rural communities.

• Every rural community, in principle, can then be placed into a ‘market proximity’ segment based on its location:
  – The segment that is highly accessible and within the buffer zone (i.e. near to a rural market town, larger centre of commerce or main rural road)
  – The segment that is completely remote and inaccessible by road – requiring human or animal transport – from all three of these features
  – The segment in-between these two extremes

You will also want to consider regions with different sanitation contexts due to different hydro-geologic, topographic, and/or distinct cultural groups in terms of markedly different
sanitation practices, in the market research, if these represent important portions of the rural population without basic sanitation. Similarly, consider both CATS/CLTS triggered and non-triggered communities to understand and compare insights. These contextual differences can be captured through appropriate selection criteria for choosing representative regions for field study. Then within each representative region, select rural communities for field work according to their geographic market proximity segment.

When taking a national perspective to market research, a rule of thumb would be to conduct in-depth interviews with two to four individual households in one or two representative communities in each market proximity segment, across two to four representative regions of the country. Communities in the remote market segment, located in geographic areas far from all three basic market infrastructure features, are likely to be more challenging places to start MBS. While you should plan the fieldwork using these broad market proximity segments, the market research results themselves will provide the basis for defining actual sanitation market segments and selecting the target market for your MBS programme.

While conducting market research in a community, complement in-depth qualitative consumer research with a rapid assessment of existing household toilets, building practices, and preferences for toilet types, and speak with local authorities, community leaders and key informants to confirm findings. This will help you complement the core qualitative research with some rough quantitative estimates of relative demand for different toilet types. These rapid assessments should not be viewed or approached as large KAP or baseline surveys; they can be done very simply by local government staff. When planning your consumer research, remember it is better to have a smaller number of high-quality in-depth interviews than hundreds of short general surveys. Depending on the size and diversity of contexts selected for the market research, you may need to conduct 30 to 60 in-depth interviews across the range of households, market proximity segments, and regions to gain the insights you need (see the Haiti example in Box 2).

Estimating market size

In addition to critical insights from the in-depth consumer research, you will need to gain a broad understanding of the overall sanitation market size (i.e. numbers of households) and the size of potential sanitation market segments (i.e. different groups comprised of households with similar characteristics) across the rural landscape. First, consult available secondary data on existing toilet coverage and toilet types, as well as income, house type, rental status, water service level, and other socio-economic details on rural households in the programme target areas. This information can usually be found in recent national census reports and other general surveys and combined with population and sanitation coverage data and GIS mapping layers you assembled during assessment and planning. This helps build a broad understanding of the overall consumer market for sanitation. Do they primarily practice open defecation? Do most own an unimproved toilet? Is there a large proportion of shared facilities? What type of improved technology do most households have? Is water scarcity a major barrier to water-based technologies? What share of each income quintile have each type of improved toilet technology? Are there multiple families living in one compound or large proportions of renters? What is the rough estimate of total ‘market need’ in terms of numbers of rural households without an improved facility overall, and in each potential sanitation market segment in your initial geographic sub-area identified during the planning stage?

Where support and funding for national-scale market research permits, a quantitative national/regional household sanitation demand survey can be done to complement the in-depth qualitative consumer research with representative data from quantitative surveys – as was done by UNICEF in Sierra Leone (see Case study 4). Examples of household sanitation demand surveys for national scale market research from Cambodia can be found in Annex 2.

There are many good existing resources and tools to develop and conduct sanitation consumer research for MBS, as well as strong examples of sanitation market research from many countries (see Box 3).
In 2017, the World Bank commissioned a national market research study in Haiti to analyse the sanitation service chain in rural areas and small towns in order to make programming recommendations for the World Bank funded Sustainable Rural and Small Towns Water and Sanitation Project, implemented by the Direction Nationale de l’Eau Potable et de l’Assainissement (DINEPA), the national water supply and sanitation company.

This box describes the sampling and segmentation methodology used by Aquaya to conduct the MBS market research in three departments pre-selected by DINEPA for their strategic importance for the Project. The research took place over a period of six months from inception to final presentation of recommendations to DINEPA.

**Task 1: Broad geographic segmentation of the rural landscape**

To prepare the sampling plan, publicly available national GIS data sets were collected first, showing administrative boundaries, roads, rivers, terrain, flooding, secondary cities, small towns, and other available features. These were linked to population census data at multiple administrative levels across rural Haiti’s 10 departments and 145 communes. At this stage, the rural landscape was conceptually divided into three broad geographical segments based on physical market proximity: i) small towns; ii) peri-urban communities near secondary cities; and iii) ‘dispersed rural’, containing all other rural communities, with the caveat to refine this latter segment during field work.

**Task 2: Cross-referencing with terrain type and other data to select communes in the three selected departments**

Four terrain types expected to affect sanitation business feasibility and the cost of sanitation options in Haiti were identified: mountainous, high plateau (elevated, flat), low-lying non-floodable (flat), low-lying floodable (flat). Because nearly all construction-related goods are imported, DINEPA was keen to understand how toilet costs and market function were impacted by distance from points of importation. They also wanted to understand possible market effects of CLTS and mason training programs. Geographic mapping and various information sources were used to characterize the 35 communes in the three selected departments according to terrain type, distance to nearest importation point, presence of CLTS and/or mason training, presence of cholera risk, and presence of a population/market centre. After excluding communes without a town of at least 5,000 people (i.e., no economic or sanitation construction market), nine communes (three per department) were selected to ensure inclusion of the largest city in each department, all four terrains, and areas with CLTS and mason training programmes.

**Task 3: Selecting villages for in-depth research**

In-depth scoping visits to each department were used to confirm the choice of communes and pick specific communities to begin in-depth interviews with households - the market actor at the end of the rural sanitation supply chain. Villages were selected to capture each of the three broad geographic market segments (see Task 1), however, within the ‘dispersed rural’ geographic market segment, communities beyond any kind of road and reachable only by foot or donkey, were excluded on the basis of information indicating no construction material supply chains reached these remote areas in Haiti. An overall aim was to ensure construction material supply chains could be traced from each selected community to its nearest rural market town, and up through any intermediary economic market centre/s to the relevant national importation point.

**Task 4: Executing data collection**

In total, 27 in-depth household interviews (mostly with latrine owners), as well as 7 focus group discussions to test emerging toilet product design and delivery model ideas, were conducted across 20 villages in nine communes. In parallel, 62 private sector interviews were conducted with local customer-facing toilet construction businesses, as
well as with national/regional businesses engaged in construction material supply chains.

Following field work, the market segmentation model was refined to include one urban and five distinct rural sanitation market segments (see Figure 6 below):

1. Secondary cities (more than 30,000 people);
2. Rural small towns (between 3,000 and 10,000 people);
3. Peri-urban communities within easy reach of secondary cities;
4. Rural accessible (within 2 km of national/paved roads);
5. Rural isolated (along secondary and tertiary non-paved roads); and
6. Rural inaccessible (reachable only by foot or donkey).

The study recommended an MBS programme strategy to target segments 2, 3, 4 and 5 together. Across these four segments, the research found similar household product preferences and purchasing behaviour across genders and income levels, as well as favourable demand and supply market conditions. This indicates that the same sanitation products, business model design, demand activation approach and implementation strategy could initially be used across these segments.

For more information, please contact askwater@worldbank.org.

Figure 6: Rural sanitation market segment types in Haiti
Box 3: Resources for sanitation market research

- USAID’s ‘Hygiene Improvement Project’ (HIP) published *Sanitation Marketing for Managers: Guidance and Tools for Program Development* in 2010, which has detailed instructions for preparing, planning and managing market research, and example interview and focus group guides and tools, analysis templates, probing techniques, sampling criteria and selection methods, and examples of outputs based on application in Benin, Ghana, Uganda and the United Republic of Tanzania.

- The online ‘Sanitation Marketing Community of Practice’ has examples of MBS market research studies and reports that include study design, methods, results and annexes with interview guides and data collection tools from many countries. The examples below may be particularly useful:
  - SNV’s Bhutan sanitation market research (SMR) study, for supply chain research methods and tools;
  - IDE’s Cambodia SMR demand study, for consumer household quantitative survey design, methods and tools;
  - IDE’s Cambodia SMR supply study, for supply side research methods and tools;
  - UNICEF’s Sierra Leone national SMR study (carried out by Nestbuilders International), for demand and supply qualitative and quantitative research methods and tools;
  - World Bank & UNICEF’s Vietnam supply chain market research;
  - Willetts, et al.’s Vietnam and Indonesia remote area supply chain research;
  - World Bank & DINEPA’s Haiti ‘Aquaya Supply Chain’ market research report and tools.

- WSP’s *Introductory Guide to Sanitation Marketing* and its online ‘Sanitation Marketing Toolkit’ has guidance on developing, procuring, and managing large-scale market research studies. This includes example terms of reference for market research firms, and example market research reports.

- IDEO’s *Field Guide to Human-Centered Design* toolkit has methods and tips for conducting consumer market research, developing insights and generating design ideas.

- The ‘Business Model Canvas’ tool helps identify important topics for in-depth interviews with business owners, in order to understand and characterize their business model. Many online business model canvas tools and templates are available for download, such as [this one](#).

- The ‘BEAM Exchange’ – in partnership with the Donor Committee for Enterprise Development – is a platform for knowledge exchange and learning about the role of markets in poverty reduction.

- USAID WashPalS MBS Enterprise Viability Toolkit (forthcoming) includes basic tools to collect data on the costs, revenue, income for the sanitation activities of a SME business and constructing a profit and loss statement.
Understanding the consumer pathway to purchase

Often, it is difficult and complex for households to collect and arrange purchase and transport of the materials, components and services to build existing improved toilet designs. Rural households have to go to many different shops and negotiate prices for labour, materials and transport. Frequently they return to suppliers multiple times to purchase more materials to finish construction. In the end, each toilet may be custom-built with a unique final cost and total time to finish installation. If the purchase process is confusing and time-consuming, and customers don’t know what the final cost or duration of construction will be, this can be a major barrier to investment, especially for poorer households. Your market research will explore these issues in detail by mapping out the ‘consumer pathway to purchase’. By understanding the steps, time and costs involved in each step of the current purchase and construction process, you can generate ideas about how to simplify it while also reducing costs and time. Figure 7 below outlines how the consumer pathway to purchase changed after an MBS intervention by WSP in Cambodia.

Figure 7: Understanding the consumer pathway to purchase

The consumer purchase process before and after an MBS intervention in Cambodia:

**BEFORE**

- The purchase process for the required materials and labor is complex and confusing, requiring significant investment in time and transport. Households lack information on what to buy and how much it should cost.

- **Decide to purchase**
- Arrange (and pay for) transport
- **Concrete Producer (concrete rings)**
- **Retailer (ceramic pan, others)**
- **Retailer (bricks, sand, other materials)**
- Arrange (and pay for) transport
- **Assemble components at house**
- **Construction support & mason supervision**
- **Consult mason/ talk to neighbors to get list of needed materials**
- **Hire mason, agree on fee**

**AFTER**

- The new model allows households to purchase all underground components of the latrine by making a single phone call. Home delivery is included in the retail price and the latrine package can be self-constructed. Households can collect materials to start with a simple natural shelter, upgrading over time as resources become available.

- **Decide to purchase**
- **Call enterprise or sales agent to place order**
- **Enterprise arranges home delivery**
- **Wait at house on delivery day**
- **Collect materials for simple shelter**
- **Follow instruction to construct yourself**
- **Upgrade shelter over time**
Rather than contracting the work, UNICEF Malawi chose to manage market research themselves with help from an international consultant and a small budget. They engaged and trained local district environmental health officers (EHOs) in each of three start-up districts to carry out the research and undertake the data collection in their respective districts. Each EHO formed a local district research team of four staff, consisting of assistant EHOs, health data officers, and health surveillance officers.

A mix of research methods and triangulation were used, drawing significantly on the market research tools and guidance in USAID’s Sanitation Marketing for Managers programme development manual and methods from IDEO’s Human-Centered Design toolkit. They conducted qualitative research consisting of in-depth interviews with 35 households and 10 focus group discussions, as well as 14 interviews with suppliers and 10 with government representatives. They supplemented this by a quantitative survey of 222 randomly selected households to collect a snapshot of toilet building attitudes, knowledge and practices in five villages.

A core aim in developing the methodology was to support the Government to improve the entire sanitation sector. Thus, regular workshops to build understanding, discuss findings, and gain buy-in for the strategy were held, and short updates and top-line results were shared through a nationwide email list.

The research found that existing toilet options were very limited, consisting of either an unimproved or an improved design, capturing two extremes of durability and cost, with nothing in between. Poor durability and inherent risks of collapse of existing traditional ‘do-it-yourself’ unimproved pit toilets were key barriers to sustained ownership and use: nearly all households currently without a toilet had built one that subsequently collapsed. Dissatisfied with constantly rebuilding these traditional toilets, households wanted improved toilets for their durability, enhanced social status, greater privacy, the reduced effort required to repair/rebuild each year, and the ease of cleaning them. However, the perceived high cost of building the existing improved design was found to be a key barrier, because of the need for substantial cement – a scarce and expensive commodity in rural Malawi. Improved designs required significant savings for rural dwellers, 75% of whom lived below Malawi’s poverty line at the time. No proven, profitable business model in the rural sanitation market was identified. Artisans currently provided pit digging, wood frame/floor construction, and masonry services. They were male, used word-of-mouth marketing, had no formal training in toilet construction, and did not provide building materials. High household awareness and expectation of hardware-subsidies for toilet construction was a major barrier to both consumer demand and local sanitation businesses. This perception and the continued use of hardware subsidies by NGOs would be a challenge for MBS. However, the research suggested valuable insights into how an MBS approach might move forward, such as:

- Developing a limited range of modular options for the subsurface and interface components (i.e. pit lining, flooring and slab) for durable improved toilet designs
- Aiming for a $20 to $35 price point range
• Using alternative materials and minimizing cement inputs
• Engaging existing rural women business owners, currently not involved in sanitation supply, to test new innovative network business models for rural distribution of the new toilet designs
• Being prepared to counter ingrained conceptions of improving sanitation, especially with district government and village leaders who are accustomed to receiving hardware subsidies.

Full details of the research process, tools, findings, recommendations and next steps are available in several UNICEF Malawi market research report and a journal paper (see Resources and further reading at the end of this section). A major benefit of partnering with local government in Malawi was the creation of a key group of district level experts able to advocate for the MBS approach with peers and national government by sharing their skills and experience.
To better understand the sanitation market, UNICEF Sierra Leone commissioned a research firm to undertake a large-scale national demand and supply chain assessment, covering both rural and urban areas. The study used a mix of quantitative and qualitative methods to understand household consumers, supply chains, and existing products. On the demand side, it included a representative sample of 2,200 household surveys, 90 in-depth interviews and 20 focus group discussions in all 14 districts of Sierra Leone. On the supply side, a total of 114 sanitation service providers were interviewed and 40 retail stores were visited to collect product and pricing information. With a total budget of about US$240,000 for the two studies, the firm completed the work in about 8 months in 2011.

The study found that about 50 per cent of rural Sierra Leoneans owned a toilet; mainly traditional pit toilets with no slab. While income and costs were found to be key barriers to toilet adoption, they were not the only ones. In rural areas, land type, a reluctance to build low-end toilets and a lack of attractive low-cost options in the sanitation market were all challenges. Social pressure, privacy, the avoidance of embarrassment and the wish for guests to have a facility to use were significant drivers motivating households to invest in improved toilets. On the supply side, the study found a very limited range of toilet products and a complete break in the rural supply chain for materials and toilet products. Lack of capital, inadequate training, poor access to materials and high transportation costs were key challenges for service providers and businesses. All supply chain actors relied on a passive sales approach. Poor collaboration and information flow between supply chain actors resulted in inefficiencies, lack of awareness of consumer preferences, and lack of ability to innovate, package, and set prices for products and services that address consumer needs.

Using insights from the market research, preliminary recommendations were developed for further demand and supply side strategy development. This included specific toilet facility design feature preferences and willingness to pay. Product design to improve desirability, affordability, storability and transportability of toilet products was the core recommended intervention. Other key recommended interventions included: a strong social marketing campaign using community and radio channels; links to microfinance and consumer credit to reduce up-front costs; business development services to service providers and small businesses; and the development of supply chain associations to increase co-ordination of key supply actors.

Immediately after the study, findings and recommendations were presented in a national stakeholder workshop of government and other partners. While the market research was not immediately used for designing an MBS programme, its high quality was recognized by stakeholders in 2013. The experience highlights the need for a clear plan to be in place to make use of the market research, and to begin advocacy work and next steps planning before the research is commissioned, so that momentum is not lost.

In 2013, the international NGO GOAL used the 2011 research to design Sierra Leone’s first MBS pilot programme. Rather than commissioning another large-scale study, GOAL carried out small-scale validation research in their target area and were then able to move quickly to a product, business model, and communication strategy based on the 2011 market insights. Working closely with UNICEF, GOAL supported the Ministry of Health to put in place a ‘National Sanitation Marketing Advisory Group’, to guide them through the programme design steps. By November 2013, they had moved into pilot implementation.
Global insights into consumer behaviours

Market research on rural sanitation consumers around the world has shown that many of the motivations for purchasing an improved toilet relate to private non-health ‘quality of life’ benefits, including ones linked to positive, aspirational drivers. Common facility preferences are also linked to non-health features such as greater privacy, improved aesthetics, cleanliness and comfort, more value, and modernity. While constraints to investment often relate to affordability, they are also closely linked to the complexity of the purchase process, unpredictable costs, and a lack of suitable options that offer value for money. While your own local market research will be essential to understanding your target consumers in your own country context, Table 8 next page summarizes some key insights from global research into consumer motivations, preferences and barriers to improving sanitation.

Figure 8: Key elements and actors in sanitation supply chains

<table>
<thead>
<tr>
<th>Supply chain element</th>
<th>Raw material</th>
<th>Manufacturing</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How, when and from where do supplies and material inputs reach manufacturers?</strong></td>
<td><strong>How are these raw materials converted into finished products?</strong></td>
<td><strong>How do products reach end customers?</strong></td>
<td></td>
</tr>
<tr>
<td>Sand suppliers</td>
<td>Masons</td>
<td>Retailers</td>
<td></td>
</tr>
<tr>
<td>Rock suppliers</td>
<td>Builders</td>
<td>Transport service providers</td>
<td></td>
</tr>
<tr>
<td>Cement factories and suppliers</td>
<td>Gravel producers</td>
<td>Sales agents/promoters</td>
<td></td>
</tr>
<tr>
<td>Importers/large scale distributors</td>
<td>Concrete producers</td>
<td>Masons</td>
<td></td>
</tr>
<tr>
<td>Wholesalers</td>
<td>Brick makers</td>
<td>Contractors</td>
<td></td>
</tr>
<tr>
<td>Equipment/tool producers</td>
<td>Plastics manufacturers</td>
<td>Microfinance institutions</td>
<td></td>
</tr>
</tbody>
</table>

End customers

26 These are updated findings from a synthesis of sanitation consumer market research from more than 12 developing countries in Africa, Asia and Latin America, compiled by Jenkins, M., and S. Sugden (2006). See Resources and further reading at the end of this section.
What do you need to know? Three core research questions

1. What are the different types of businesses in or near target communities that provide goods and services for toilet construction directly to rural customers, or to adjacent industries that serve rural customers: what are their key characteristics, operations, customer bases, and needs; where are they located; and how are they connected to each other and to businesses further up their supply chains?

2. What are the current toilet designs, and component products and services available in local markets, and what do they cost customers to build?

3. How can local customer-facing businesses be motivated to profitably deliver ‘good’ toilets to our target customers at a lower price for low-income households?
To answer these core questions, your market research should explore:

- Types of customer-facing businesses, locations of key markets/businesses and business networks
- For different types of businesses, their approximate size, product and service offerings (including non-sanitation offerings to understand their full business), assets, and existing customer base (including businesses and organizations/institutions) and sanitation-related sales volumes
- Current approaches and strategies to business and financial management, human resources, cash flow, access to credit and financial challenges
- Current approaches to marketing, promotion and sales, and geographic reach
- Available toilet components and material inputs, including prices (and cost drivers), upstream suppliers, margins and sales volumes, including potential for innovation
- Business relationships between inputs suppliers, manufacturers, transport service providers and retailers
- Degree of competition and/or collaboration among similar types of businesses nationally, regionally and in local markets
- Construction and related maintenance services, including pit/tank emptying and disposal, and skills capacities
- Estimated scale of market activity, including number and geographic reach of market players in local markets of each sub-region, and distribution channels from national to provincial, and down to local level

Supply chain research involves understanding costs, prices and margins at each step of the supply chain down to the end-customer, including for transport services. Calculations need to be made to work out the total customer cost of toilet construction, including materials, services and transport (see Figure 10 and Table 9). This must be compiled based on actual customer-reported quantities used, purchase locations, number of trips, and transport modes, etc., for building and installing each improved toilet design encountered in self-financed owner households, combined with current retail and service prices collected in the field, in different geographic market proximity locations and regions.

Gathering supply chain insights

Supply chain research typically uses in-depth, qualitative interviews and discussions with different types of businesses and ‘product scans’ to answer supply research questions. It is best if supply research is done in conjunction with household consumer research, since this will help you start to understand the critical linkages between customers and businesses (see Figure 7). At this stage, you want to understand how a business’s sanitation-related sales fit into their broader business portfolio, so it is good to probe beyond just sanitation.

In supply chain research, it is common to use a sampling technique known as ‘snow-balling’, whereby the research team identifies the next businesses to consult with by asking for referrals from other supply chain actors as they interview them. For example, your research team might begin in a rural village and ask households for the business/es where they usually purchase their building materials. You can then go to those identified businesses and ask them where they get their supplies, and so on. Similarly, you should also talk to the major national-level manufacturers and suppliers of sanitary components and construction materials and ask where and to whom they distribute and sell their supplies across the country, and how these are transported. By moving up and down the chain, you can build a map of the suppliers, distributors, producers, and service providers, including business names, numbers, and locations, who are active in sanitation and related construction – and you can assess how well they link together.

By talking to different businesses, you can develop a ‘supply chain map’ – a qualitative picture of how the market system works (see Figure 9) – as well as a working understanding of costs. For example, you might speak to a pour-flush pan importer in the capital city, a pan distributor in a district market centre and a pan retailer in a smaller town. In this way, you can start to understand the costs, prices and profit margins for a particular input (e.g. a bag of cement) or service (e.g. truck transport) at each step or link in the supply chain. This helps to identify where the bottlenecks and barriers in the supply chain are, and how to address them. As with your consumer research, a smaller number...
of high-quality in-depth interviews is better than a high number of superficial ones. In supply research, you will need to ‘follow the supply’ of necessary inputs, which will often mean venturing beyond your target area and national borders, to understand costs associated with importing key materials and inputs. Depending on the nature of supply chains in your country, you may need to conduct 30 to 40 in-depth interviews across the range of business types to gain the insights you need. The central focus should be on local customer-facing sanitation businesses in rural markets, including transporters, the wholesale distributors who supply them, and manufacturers or importers of key input materials higher up the chain. Examples of supplier and supply chain research can be found in Annex 3.

Assessing existing business models

Besides understanding how sanitation businesses networks are functioning, your supply research will help you to analyse existing business models. In most cases, sanitation is just one part of an owner’s broader business. With the help of the ‘Business Model Canvas’ tool, you can map the sanitation and non-sanitation activities of an existing business to understand how they operate and what problems they face in expanding their sanitation business activities. Are businesses making enough profit to sustain their operations? If so, how? And if not, why not? For example, can they access the moulds they need at an affordable price? Are material suppliers making it easy and affordable for customers to buy and transport the right amount of materials and labour they need to install the final product? These details help you determine which local businesses have the best fit characteristics to be the focal point toilet business for MBS development, how their existing business models could be improved, and will help you work out the best way for your new toilet product system package to be introduced to serve your target markets (see 3.4 Demand activation).

Assessing available product and service offerings

An important component of market research is to understand what toilet designs, components and construction materials and services are already available on the market locally or regionally, and what they cost. Combining conversations with customers to ‘reverse engineer’ the design, construction and total cost of their toilets (e.g. material quantities used, businesses they purchased from, transport methods and distance, and skilled and unskilled labour inputs), and conversations with supply chain businesses, you can build a database of what is already available and costs, including samples and pictures of components. Your initial product scan should answer questions such as:

- What toilet systems are available? What are their features? Are they available everywhere, or are they hard to find?
- Are rural households aware of these toilet systems? Do they have them installed? What are their experiences? How have they adapted or altered the toilet systems?
- How easy is it for a rural household to purchase the required components and materials and have them installed? What and whose expertise is required for installation?
- What toilet systems are currently being marketed? What sales techniques are being employed? What are the sales rates?
- What are retail prices of key inputs and materials needed for households to build each toilet system? How variable and predictable are they? What is the total cost to install toilet designs in different market locations (broken down by materials, transport and installation)?

In your product scan, it is often useful to break down products and services by sub-surface pit, slab or interface, and shelter solutions for on-site sanitation. By understanding these different elements, you will begin to see if any of the available toilet systems have potential to be part of your MBS programme. You can begin to assess ways that existing designs people prefer can be improved to lower costs, increase quality, enhance customer value, or make purchase and installation easy, for example, through product design modifications, production changes such as standardization and/or pre-fabrication of components, re-packaging, new business models for delivery, and/or sales marketing and promotion. All of this lays the groundwork for your product system design as well as your interlinked business model design and demand activation strategy.

Global insights into sanitation supply chains

Market research on rural sanitation supply chains from around the world has highlighted some common characteristics and barriers of undeveloped sanitation markets and rural sanitation businesses (see Table 9). As with your consumer-side market research, your own local research will be essential to understanding the supply side for sanitation in your country context.
These include: generic construction materials (e.g. cement, gravel, sand, rebar, cement block, brick, pipe, wood, corrugated sheet, nails, etc.); pre-fabricated toilet construction components (e.g. pre-cast concrete rings for pit lining, connector box, slab floor); specialized sanitaryware (e.g. ceramic, cement or plastic squat pan or platform, toilet seat, flush toilet bowl and cistern, tiles); and services from pit diggers, masons and transporters.

**Table 9: Global supply-side findings and insights from rural sanitation market research**

**Common characteristics of undeveloped sanitation markets and rural businesses prior to MBS interventions**

| 1. Toilet product system and costs | Custom built on-site, usually by mason.  
|                                   | Pit, sub-structure, interface dimensions and designs vary greatly; non-standard dimensions increase material costs and wastage.  
|                                   | Customer responsible for purchasing and transporting all materials, components, and services individually by themselves.  
|                                   | Non-standard informal construction techniques, often resulting in haphazard quality/over-building, further increasing mason labour and material costs and increasing unpredictability. Labour often makes up 50% per cent of total costs (see Figure 10).  
|                                   | Concrete slabs custom cast in-situ (poured in-place, over pit or hole) rather than pre-casting slabs on-site using re-usable standard forms. This increases costs, waste materials and labour.  
|                                   | Unpredictable final costs mean most rural customers construct their toilet over repeated cycles of saving, purchasing materials, and building until funds/materials run out, sometimes taking 2-3 years, and may never complete their superstructure. |

| 2. Local businesses involved in toilet construction | Given how improved toilets are sold and constructed (see above), customers depend on the local presence of these businesses:  
| Masons | Pit diggers  
| Construction material suppliers (heavy/bulky: cement, rebar, wood boards, corrugated sheets) | Hardware stores (sanitarywares, nails, pipes, hinges; may or may not offer some construction materials)  
| Pre-cast concrete/cement product manufacturers (cement block, cement rings, slabs) | Gravel seller (quarry owner, rock collector, self-collect)  
| Sand seller (quarry owner, sand collector, self-collect) | Transports (big truck, small truck, tuk-tuk, moto owners) |

| 3. Typical characteristics of businesses in the rural construction and sanitation market | Micro-, small- or medium-sized enterprises.  
| Typically do not keep detailed records of accounts and transactions. Often have low business skills, need support to realize how they might create more value.  
| May operate informally, below the radar, lack licensing or ability to pay taxes.  
| Masons may have little formal training or exposure to quality toilet building.  
| Single proprietor (as in pit diggers/masons) or family businesses in which owner’s spouse, children, or relatives may assist.  
| Business acumen increases with assets (e.g. buildings, yards, vehicles, equipment, inventory) owned and managed, employees, years of experience.  
| Sanitation is often not the primary business line. Customers who purchase toilet-related construction goods/services almost always represent small, irregular portion of sales, revenue and income.  
| To mitigate intrinsic seasonality and variability in rural construction demand, they have multiple lines of business, sometimes including non-construction. |
4. Current customer segments (target market) • Small- and medium-sized enterprises (SMEs) in rural construction/toilet market may target a variety of customer segments within their geographical market-reach, including:
  – NGOs
  – Public sector: regional or local government, institutions (schools, clinics)
  – Contractors, working for commercial customers or wealthy households
  – Smaller retail businesses located in more remote market centres
  – Masons
  – Individual households (DIY builders)

• Two factors can indicate that a business is potentially a good fit to be an MBS focal point business:
  – Individual households are an important customer segment now, or in future growth plans
  – Business is already reaching communities in the geographic market segment/s of interest for starting MBS

5. Current sales and marketing tactics • Typically wait for customers to find them at their premises.
• Depend almost exclusively on word of mouth to market their products and services.
• Rely on repeat customers to maintain income, and satisfied customer referrals for new customers.

• Strategies used to retain customers and attract new ones through referrals:
  – Offering good customer service and competitive prices
  – Maintaining a reputation for good quality
  – Offering flexible payment options, including informal credit and instalments to reliable & repeat customers

• To distinguish themselves from their competition, and retain customer share, some offer extra services, such as arranging delivery, providing reliable technical and product information, or offering credit.

6. Delivery approach for toilet products • Little or no co-ordination among the many rural business needed to build a toilet, resulting in a highly fragmented and complex market place for customers to understand, navigate and master on their own.
• A typical customer visits as many as 5-7 different businesses in different locations, and may need to travel to each of them in person to negotiate.
• Customers must arrange with and pay transporters to get materials from each location back home.
• Customers often return to purchase more construction materials from a supplier mid-construction, because the initial material quantity list from the mason was approximate, they did not know the full amount needed and/or did not save enough to purchase and transport all inputs when they began.
7. Profit margins

Margins (the mark-up on costs that an SME charges for toilet-related goods and services) vary with the type of goods/service, amount purchased, and other factors, including local demand:

- Generic construction materials (e.g. cement, wood boards, rebar) usually have very low margins, because volumes are high (stock turnover is high) and/or there is competition. Transport costs in the supply chain are often the main factor affecting the final retail price in a given local market.

- Specialized toilet components, such as ceramic pans, other sanitarywares, special pipe sizes, or pre-cast concrete rings for pit linings, typically have higher margins because these goods have low turnover/low demand, and consume a greater share of scarce and valuable business resources (storage space, working capital). If fragile (e.g. ceramic), margins must also cover losses due to breakage.

- Masons rarely have set prices for a job in order to negotiate the highest price they can extract from each customer. They also consider the income they can get from other jobs, as well as the number of visits and complexity to complete a job. While masons have low input costs, these may be higher for small jobs like toilet construction. Inputs include travel time and costs to/from a customer’s home and tool investments. When jobs take longer, they may demand more.

8. Sources of business finance

- SME owners need seed capital to start, operate and grow a business. Personal savings and savings borrowed from relatives are often the main sources of seed capital for rural businesses.

- Rural SMEs usually depend on supplier credit to maintain their inventory of goods, offer new products, and grow sales. Supplier credit can dry up, for example, where construction goods are imported and currency fluctuations are common, or when distrust exists or develops between supply chain actors.

- Access to and preference for small business loans from microfinance institutions (MFIs) or banks varies greatly, depending on context, local availability, loan requirements and interest rates, and capacity and formality of the business, among other factors.

Market barriers for customers in undeveloped rural sanitation markets

1. Why rural households with demand hesitate to buy an improved toilet

Market research across countries consistently finds high rates of household dissatisfaction with their defecation place and high rates of desire for a good toilet among both poor and non-poor rural households without basic sanitation, yet both poor and non-poor households hesitate to invest in building improved facilities.

- A major reason found in nearly all studies is that rural enterprises engaged in sanitation are not currently offering households the products and services they want to buy.

- The major market barrier for poor rural households is liquidity, or cash flow, rather than inability to pay, even among the extreme poor. Many rural households have uncertain and seasonally variable cash incomes, and face competing priorities for this cash. For poor households, it can be nearly impossible for them to save up the lump sum for building a toilet, especially when the total amount required to complete construction is unknown, and varies from household to household.

2. What rural households (both poor and non-poor) want in a product system in order to buy it

- Poor households want good quality products that are simple to maintain, accessible service/suppliers, credibility and choice, and a complete service.

- They admire and aspire to have the same kinds of facilities that their wealthier, early adopter neighbours have and use.

- Customers care about the product package and the provider. When deciding to buy or not, they care most about price, reputation, assurance of after-sales services, easy transport, and a limited variety of package options/add-ons.

- Reputation and trust in the provider and their offering is as important as the toilet product package itself.

- An instalment payment option is one of the most frequently cited desired service options poor households want from their sanitation provider, beyond the right product system.
3. MARKET RESEARCH

Conducting research on the business environment

The business environment is shaped by government policy, as well as the availability of raw materials and financial services. Depending on complexity and resources available, you may prioritize actions to address core barriers in the business environment.

What do you need to know? Research questions may include:

- What policy frameworks are in place, how effective are they, and to what extent do these policies contribute to ensuring product systems reach the poorest?
- What regulations/standards are in place and are they effective in ensuring the quality of the products on the market? Are regulations/standards facilitating or constraining competition, entry of new products into the market, or affordability?
- What are the functions, motivations, barriers and influences of key institutions in establishing a conducive business environment?
- What financing sources and structures are in place for suppliers and for households, and are they affordable?
- What public-private partnerships (PPPs) exist at the local/national level for sanitation, and are they effective?
- What taxation and tariff structures are in place, and how do these influence the availability and affordability of sanitation commodities and services?

To conduct research on the business environment, you may wish to start with a desk review of relevant policies and reports that capture the challenges and enabling factors that face enterprises in your context. Next, you will use in-depth, qualitative interviews as in previous components of your market research. Your key informants might include government officials from agencies that have a role in regulating or encouraging business development (such as bureaus of standards or SME development agencies), business associations (such as chambers of commerce or associations of sanitation workers), and owners of businesses of different sizes and types.

Planning and managing your market research

Close management of the market research process – typically by WASH and supply specialists working in partnership – is essential to ensure that you get the information you want, which will allow you to proceed with strategic decisions and preparations for the next steps in designing your MBS intervention. Here are some tips for planning and managing the process:

1. Create the terms of reference (TOR)

Developing a good TOR requires clarity about how the research will be used. It is good practice to conduct consumer and supply chain research together in the same research study, for efficiency and consistency.

If a good-quality market research study has recently been done in your country, it is often not necessary to repeat the effort. Instead, you can engage in a much smaller-scale effort to validate the findings in your target area, fill gaps or answer any remaining questions (see the Sierra Leone example, Case study 4). During TOR preparation, check with other stakeholders and review any previous work to determine the required scope of new market research. If you decide that additional market research is needed, be sure to include previous studies and reports as references in the TOR.

To prepare your TOR:

- Define the research purpose and scope, the questions you want to answer, and the objectives and outputs you would like to see.
- Reflect on how you will use the results and information you collect to inform your product system and focal point business model design, demand activation strategies, and actions to improve the business environment.
- Determine how you want the data to be analysed and presented. A useful framework for analysing sanitation consumer behaviour is the ‘Sanitation Preference, Intention, Choice Decision Stages Model’.29

This framework can be included as an annex to the TOR, for bidders to consider as they develop their proposals.

Consult example market research TORs (see Annex 5) and market research reports for ideas and inspiration (see Box 3).

It is possible to combine market research TOR within wider programme design TOR, working with an implementing partner. In Nepal, UNICEF commissioned small-scale consumer and supply chain ‘deep dive’ research as part of a broader product design process. In Ghana, UNICEF packaged in-depth research as the first stage of business model and product development. Depending on your resources and timeframes, combining market research with subsequent programme design activities may save time and ensure consistency and momentum. At a minimum, there should be a good overlap of team members and access to the market research data and results during the subsequent programme design activities.

2. Scope the effort

Establish a budget envelope and get a sense of the usual rates for market research firms and consultants for similar projects. You can consider using a specialist firm (as in Haiti in Box 2 and Sierra Leone in Case study 4) or one or two consultants (as in Malawi in Case study 3). Research costs will vary depending on which approach you use, the geographic areas to be covered, the data collection and analysis methods, sample sizes, and ease/difficulty of reaching target areas. Depending on the scale and scope of the effort, market research can take four to six months.

3. Recruit a qualified team

Consider recruiting a professional market research or business development services firm, or one or more qualified consultants. Make sure the proposed team has demonstrated experience in qualitative research methods and quantitative data analysis, ideally also GIS skills. Strong qualitative research skills and a strong understanding of local market contexts are more important than knowledge or

29 See Jenkins, M. & Scott, B. (2007) in Resources and further reading at the end of this section.
expertise in sanitation, public health, or engineering. Firms specializing in rural market or value chain development (for example, in agriculture) are often well-placed to conduct this type of research.

The team should include local people who can communicate fluently in the required local languages. Check the experiences and backgrounds of the proposed team, but more importantly check their past work. To build capacity of your own team or local partners, consider including one or more of them in the research process.

4. **Provide support and input**

Once the consultant or firm is ready to start, meet to clarify the proposed research plan, timeline and deliverables. In developing the research protocols, encourage the research team to consult and build on existing questions guides, sampling guidance, and other tools (see **Box 3: Resources for sanitation market research**). For large contracted studies, the firm should prepare an inception report, covering the detailed field methods, draft instruments, pre-testing plan, sampling methods, analysis plan, and timetable. For smaller qualitative studies, UNICEF should review the interview and discussion guides, study sites and sample selection, and data analysis approach before fieldwork begins. As the research gets underway, stay informed of progress and challenges, and request regular updates from the field team.

5. **Analyse and share the results**

The final research study report should include top-line results, a description of methods, and presentation of the full findings and results. The initial draft may go through several revisions based on your team’s feedback and review. Depending on the type of research you are conducting, you may want to ask for translated transcripts or summaries of individual interviews and focus group discussions, or clean copies of primary data sets including the lists and contact details of interviewed businesses. The final research results and analysis are a key input into the other activities in your MBS programme design, so make sure you receive these on time. It is always possible to go back later to conduct further analysis if required. When the results are ready, the research team should present and share them in a workshop with key government partners and other stakeholders, so that you can discuss and analyse findings together and brainstorm directions for the next steps of your programme design. USAID’s *Sanitation Marketing for Managers* programme development manual[30] includes guidance and tools for organizing a stakeholder workshop to present and discuss the sanitation market research results. You may want to consider organizing one or more separate events with private sector industry partners, including importers, manufacturers and distributors of key toilet construction components, to review and validate the results, and engage them to discuss ideas for developing rural sanitation markets to support government mandates (for more on carrying out industry consultations, see **Annex 6**).

6. **Use market research to effect change in the market**

Market research is not just a tool for designing your MBS strategies. Once your programme is up and running, you can use the same methods and approaches to understand how consumers and businesses are responding to your market facilitation interventions. You can use in-depth interviews and surveys to understand customer satisfaction with new products and services or continued barriers among those who have not invested. You can use the ‘Business Model Canvas’ tool and WASHPaLS’ ‘Enterprise Viability Toolkit’[31] to understand the operations and profitability of businesses offering the new product system package and associated services. Local product scans can be performed to determine changes in local market prices. In a market-based approach, market research is used continually, to track market trends and evolve programme strategies.3.1 Market research

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30 USAID (2010). See **Resources and further reading** at the end of this section.
31 See **Resources and further reading** at the end of this section for details of these tools.
Resources and further reading


Examples of sanitation market research studies and reports:

Bhutan


Cambodia


1 ∙ 2 ∙ 3.1 MARKET RESEARCH


Haiti


India


Indonesia (and Vietnam)


Malawi


Sierra Leone


Uganda


Vietnam

London School of Hygiene and Tropical Medicine (2015). *Sanitation and Hygiene in the Northern Mountains and Central Highlands of Vietnam*.

**Websites**

‘Business Model Canvas’ tool. At: [www.businessmodelgeneration.com/canvas](http://www.businessmodelgeneration.com/canvas)


‘Human-Centered Design Toolkit’. At: [http://designkit.org](http://designkit.org)

‘Sanitation Marketing Community of Practice’ (resources for sanitation market research studies and related tools and materials). At: [http://www.sanitationmarketing.org/resources](http://www.sanitationmarketing.org/resources)


See also WSP Sanitation Marketing Toolkit website to download supply chain studies from Cambodia, India, Indonesia and the United Republic of Tanzania at: [http://www.wsp.org/toolkit/conducting-formative-research](http://www.wsp.org/toolkit/conducting-formative-research)

**Videos**

Alex Osterwalder. *Business Models Beyond Profit*. Available at: [http://slidesha.re/15BMIJ](http://slidesha.re/15BMIJ)

# 3.2 Product system design

## Quick reference

| What does it involve?                                                                 | • Iterative process of user testing and product prototyping with target customers and businesses to develop product concepts  
|                                                                                     | • Industrial design and engineering to refine product concepts and production/construction processes  
|                                                                                     | • Deeper insights into potential delivery approaches to simplify the consumer pathway to purchase  
|                                                                                     | • Deeper insights into potential focal point businesses and business models for delivering the new product system(s)  
|                                                                                     | • Deeper insights into how to activate customer purchase decisions for the new product system(s) |
| What are we trying to achieve?                                                       | • At least one affordable, desirable core product system option (possibly with extensions/add-ons) for the target market that is viable and marketable for local businesses to offer  
|                                                                                     | • Define the product system offering(s) that will drive the development of business models and demand activation strategies |
| How long will it take?                                                                | 3-4 months |
| What skills and resources are required?                                               | • Qualitative research and product design skills  
|                                                                                     | • Industrial design/engineering skills  
|                                                                                     | • Initial insights from market research on ways to reduce costs, improve quality, increase desirability, and simplify purchase and delivery of the target market’s desired toilet  
|                                                                                     | • In-depth understanding from market research of businesses in the local construction market and how they operate  
|                                                                                     | • Clear design brief based on market research findings and defined target market  
|                                                                                     | • Strong methodology, fieldwork plan and user testing guides  
|                                                                                     | • Adequate work space and budget for materials, labour and tools to prototype |
| UNICEF equity and gender reminders                                                     | • Ensure the needs and perspectives of customers from different socio-economic strata, including the two lowest wealth quintiles, are included in the iterative design and testing of product systems for the MBS programme  
|                                                                                     | • Ensure the needs and preferences of women and girls, along with those of men and boys, are equally explored, understood and addressed in product system design and testing, by including women customers and design team members, as well as men, in the iterative design and testing of product systems for the MBS programme |
Overview

With good market research and the target market segment(s) identified, you will know whether there are already product systems available that meet the needs of your target market segments at an affordable price. Where there are no product systems that meet their needs readily available, or where designs need to be further optimized, this should be a starting place for your MBS programme. Without focusing on this critical aspect, you may waste effort in considering other parts of the market system when the products fundamentally do not meet the needs of your customers or are simply unaffordable.

Typically, product system design in the rural MBS context is in fact ‘re-design’ or ‘re-packaging’ of materials or configurations for an existing toilet system that most people already want, rather than introducing radically new options (for example, advanced treatment technologies), which require much longer lead times and sophisticated research and development skills. While in many cases, a new component or production step may be re-designed or introduced (for example, commercial plastic pans in Nigeria, re-engineered toilet rings in Indonesia, an innovative new pre-cast concrete component in Cambodia, or pre-fabricated doors in Bihar), these will need to be designed and configured within a full integrated product system package.

Product design is not just about technology features. You will need to apply a design approach that addresses the user’s entire experience with the product system – including where and how it is purchased, packaged, transported, installed, used and maintained. In designing the ‘right’ product systems, you will need to think about people, technologies and businesses. Toilets must be delivered profitably by local businesses and must be easy for local demand activators to ‘sell’ to target customers within your MBS programme area. The ‘Human-Centered Design Toolkit’ can be used to develop the ‘right’ toilet designs that your target low-income households will want, purchase and use.

A key function of the market is to offer target customers options that match their preferences and budgets. However, many MBS programmes fail to invest sufficiently in product design. This step is often the least familiar and most misunderstood by WASH and development stakeholders.

It is often assumed that products already available are good enough, or that existing technology offerings are sufficient for ‘informed choice’ to households. Some programmes skip directly to designing delivery systems, business models and market activation approaches without carefully considering the product system offering. But without clarity on product systems, it is impossible to make good decisions about how to deliver or sell them. And without addressing real issues related to cost and construction, it may be impossible to penetrate the low-income customer market.

The purpose of product system design

In MBS, product system design (or, more typically, re-design) aims to:

1. Reduce customer cost: Good design should ensure more equitable access for low-income target customers by focusing on reducing costs of an improved toilet (see Table 9).

2. Improve customer value: Equally important, product system design aims to improve customer value. This means ensuring that toilet systems are both affordable and desirable to targeted low-income customers. Focusing on value does not mean designing a product system at the very lowest cost. Usually, the cheapest possible solutions offer very poor value, are not desirable to customers, and are not something they are willing to invest in. Your design work will consider trade-offs between cost and desirability to arrive at the best-value solutions for your target customers.

32 See Resources and further reading at the end of this section
33 USAID (2018). See Resources and further reading section at the end of this section
In this guide, the term product system refers to a toilet facility used for capture and containment of human urine, faeces and menstrual blood, comprised of three core elements:

1. The substructure (e.g. pit, septic tank)
2. The user interface (e.g. slab, pan, platform, water closet), and
3. The superstructure (e.g. walls, roof, door).

Product systems are different combinations of toilet construction materials, pre-fabricated toilet components (e.g. sanitaryware, concrete rings, platform slabs) and construction services (e.g. pit digging, building, assembly) and the specific way they are packaged together and installed into a usable facility. MBS product design typically focuses on packaging integrated product system(s) for the substructure and interface, and not just on a single component (e.g. a toilet pan).

Operation, maintenance and hygienic safety are also fundamental aspects of a product system, including what happens when containment systems become full. WHO’s 2018 Guidelines on Sanitation and Health provides detailed technical guidance on safety considerations, and contains ‘Sanitation System Fact Sheets’ with specific technical performance, design and operating considerations for the most common on-site sanitation technology systems in rural and urban areas.

What is an ‘upgradeable toilet’?

An upgradeable toilet is a toilet product system that allows the customer to add to existing components or replace them with superior or higher quality materials for increasing utility, convenience, or appeal in a way that caters to a wide range of income groups via flexibility for customization (e.g. addition of tiles to a cement slab or replacement of a thatch roof with a tin roof). Subsequent investments build upon the initial one so that, in principle, very little or none of the customers’ money or effort is ‘wasted’.

Box 4: What is a toilet ‘product system’?

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See Resources and further reading at the end of this section.
3. **Simplify purchase and installation**: As the product systems are defined, you should start to consider business models that would improve customer value, as well as delivery systems that would reduce the difficulties, complexity, and effort of buying, transporting, and installing them. These will be further developed, tested and refined during delivery approach and business model design as explained in the next section.

Design thinking uses insights about people’s desires, potential technologies and business needs to develop new ideas and create new products and services. Design thinking asks three key questions (see Figure 11 previous page):

1. What do people want and need? (Desirability)
2. What is technically possible to produce and sell? (Feasibility)
3. What is financially possible for local businesses? (Viability)

**Engaging in the design process**

A simple three-phase design process can help you think about these three key questions. The design process moves from ‘inspiration to ideation to implementation’ (see Figure 12 below). Note that the term ‘implementation’ in this context refers to the design process step, and not to full MBS programme implementation. The process does not just happen in a straight line, but rather goes through repeated cycles and shortcuts to explore and develop ideas; designers jump between stages to test ideas and develop concepts. The design process is typically driven by a design team (described below). The design team should bring in relevant stakeholders at all stages of the process to inform and complement its own abilities; in design thinking, good ideas can come from and be inspired by anyone, not just ‘technical experts’.

**‘Inspiration’**

The ‘inspiration’ phase, where you gather the relevant insights about customers and businesses, began during your market research with in-depth, qualitative interviews and discussions with relevant actors (typically household decision-makers, masons, concrete producers, retailers, manufacturers, NGOs, government sanitation workers and others). By requiring insights and ideas for product system designs/re-designs as a core output of market research, you will be in a better position for inspiration. Preferably, at least one key member of the market research team should also be part of your design team. At a minimum, they should participate in the inspiration stage.

Your design team will likely need to do some rapid field validation of the consumer and product insights and ideas from your market research. The team will want to interact with potential customers and businesses for themselves, in addition to reviewing the reports and key findings from the market research. Take caution not to skip right to design before doing the qualitative and quantitative market research to understand and select your target market (who you are designing for) and fully
understand the range and operations of existing local businesses in your market research. Rapid qualitative insights to inform product design do not replace the need for broader market research to determine your market segments and understand other enabling market conditions. See Annex 7 for example question guides for focus group discussions to gather product insights.35

The goal of the inspiration phase in the design process is to trigger new ideas. Often a single conversation or market research finding can lead to a great idea. At this stage, it is very useful to go back and talk with people who are doing something exceptional to learn what makes them different from others and to understand how to apply their thinking and actions to create new sanitation solutions. We call these people ‘positive deviants’. For example, in Cambodia, building on strong national market research studies, the design team conducted rapid field research, seeking out a villager who had made a homemade pour-flush toilet out of a cut and deformed PVC pipe. Talking to him helped the team develop a key insight about consumers’ lack of understanding of toilet plumbing, which greatly informed later designs.

‘Ideation’

During the ‘ideation’ phase, the focus is on generating and developing ideas. Early on, brainstorming and sketch sessions can be a good way to get many ideas onto paper quickly. Once the design team has a lot of ideas, you can select which ones might be the best to develop into rough prototypes to get feedback from users. Prototypes should be viewed as tools for prompting conversations and answering questions. There are many creative ways to generate design ideas in an ideation session. The Bill & Melinda Gates Foundation’s User-Centered Design (UCD) in Sanitation microsite36 includes a comprehensive list of relevant tools and experiences to give you inspiration (see Box 5 next page). Experienced designers will be familiar with these types of tools and how to use them.

When sharing prototypes with customers and other stakeholders, you want to find out what they think. What do they like? What needs to change? The learning you get from testing basic prototypes is used to inspire and inform better ideas and more refined prototypes in an iterative process. Ideation sessions are best with a small group of diverse thinkers from a mix of disciplines. They should be kept short (one to two hours for brainstorming and sketching; one to four hours for rough prototyping) and have a specific goal (e.g. brainstorm 100 ideas or build five rough prototypes) focused on a specific topic (such as ‘how to reduce costs of concrete rings’ or ‘how to install a plastic pan securely’).

During ideation, you can work directly with customers and local businesses as designers. For example, in Malawi, the design team facilitated a series of three-day design workshops with local masons, environmental health officers and community members to generate prototypes and ideas (see Box 10).

‘Implementation’

During the design ‘implementation’ phase, you will turn ideas and prototypes into reality. This phase involves beginning to work with local businesses and with the supply chain to understand how the product systems and their components might actually be made, and what they might actually cost to build. You will need to involve relevant businesses early to ensure that you do not design something that cannot be made, or would be too difficult or expensive to distribute and install. Design implementation typically involves refining the product concepts through industrial design and engineering to turn them into viable, marketable product system offerings. This includes integrating the product systems into existing manufacturing or construction processes, and identifying and refining any required equipment, processes, or techniques.

Depending on whether you are modifying existing product system designs and configurations, redesigning product components, or introducing

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35 You can also find guidance on FGDs in USAID’s 2010 Sanitation Marketing for Managers, and in Aquaya’s 2017 market research study in Haiti (see Resources and further reading at the end of this section).
36 See Resources and further reading at the end of this section
Box 5: Prototyping

What is a prototype?

A prototype can be anything that represents an idea – physical models, photos, a hand drawing, a rendering, a cartoon storyboard, an imaginary advertisement, even an existing product.

Why prototype?

- People respond better to concrete, visual ideas rather than verbal descriptions.
- User feedback on prototypes will improve your ideas more quickly.
- Prototypes let your users be part of the creative process.

Rules to follow when prototyping

- Consider who and how you will ask for feedback. Men and women often have different perspectives on what they value most and on family member needs. Focus groups with women alone can often yield insights that might go unheard in mixed groups.
- Always show at least three options, so users can compare and contrast.
- Present prototypes of equivalent quality, otherwise people will always pick the better drawn or better constructed one.
- Test out your prototype before showing it to users; you do not want it to break during testing.
- Prototypes should be built to answer questions; know what you want to learn when you build or select a prototype. For example, ‘what is the optimal size and shape for the defecation hole?’

Encourage feedback – prototypes are ‘sacrificial concepts’, used to generate ideas and make changes. When testing with customers and businesses, encourage them to offer suggestions for improvements or changes, and do not try to explain or defend a particular idea. Be prepared to let go of ideas.

Box 6: ‘User-centred design’ for sanitation: useful tools and resources

The Bill & Melinda Gates Foundation’s UCD in Sanitation microsite (www.ucdinsanitation.com) provides tips, examples and video stories from the field on how to apply design thinking to sanitation challenges.

The site’s ‘Tool School’ offers step-by-step videos on how to use tools like speculative design, service blueprinting, pitch tests and design games for sanitation design. It also has links to a comprehensive set of design toolkits, guides, and courses. The microsite should have everything you need to get started and get inspiration. Participating organizations can also be reached, if you want to follow up directly to learn more about their work.

IDEO’s ‘Human-Centered Design’ (HCD) approach is a process and a set of techniques developed by design firm IDEO to create new solutions, including products, services, business models and modes of interaction. The HCD field guide and toolkit has adapted the approach to developing country contexts, resulting in new product system designs for MBS like the one in Cambodia (see Figure 12). It is an excellent resource for sanitation product system designers. The full ‘Human-Centered Design Toolkit’ can be downloaded at www.ideo.com/work/human-centered-design-toolkit/. UNICEF has negotiated long-term agreements (LTAs) with human-centred design firms; a full list is available via Supply Division.
entirely new components, the design team should plan to go through the three phases (inspiration, ideation, implementation) about two to six times before finalizing product system options and their costs, including transport costs and profit margins for the businesses who will deliver them. Each time you go through the design phases, you narrow down further and further, until you reach a final set of product system offerings that you feel confident your target low-income customers want and can afford, and that existing businesses can technically produce and profitably sell. Activities such as rapid unit revenue and cost modelling, small batch production, and transport testing should start during initial product design, but will likely continue for some months as ideas are adapted and refined. This early work during product system design will help you make final decisions on the right focal point businesses, delivery approaches and business models later in your MBS programme design.

**Lowering product system costs**

Affordability is usually identified by MBS target households as one of the key barriers to investment, so addressing costs of the product system is essential for an MBS programme. Drivers of cost identified in market research will vary from country to country, however, material transport costs and labour are often significant contributors to high cost of building improved toilets in existing rural markets (see Table 9). When developing product system designs or evaluating existing ones, below are some common design techniques to reduce costs while retaining or increasing desirability.

**Re-engineer**

Product system re-engineering can often reduce input costs and/or incorporate lower-cost components without sacrificing durability. Toilet system components are often ‘over-built’. In Kenya, some masons build 8-inch thick concrete slabs that only span three feet and are strong enough to support a truck – this is expensive and unnecessary. Masons may not apply proper engineering methods and factors of safety to the design of toilet components, increasing up-front material costs, transport difficulty and transport costs. Often this is done out of lack of knowledge or to overcompensate for poor manufacturing or material quality. By applying engineering principles during the product design process, it is often possible to reduce the amount of material and the weight and size of the toilet components, while increasing production rates. Examples from rural India, Benin, and Mozambique point to opportunities to reduce weight, materials and construction time while improving quality. However, care must be taken to ensure that new designs will be accepted by customers and businesses. In Cambodia, for example, engineering innovations, including thinner rings and the use of rice husk ash for strengthening the concrete mix, considerably reduced costs and inputs, but were ultimately rejected by local producers.

As with local masons and suppliers, development engineers are sometimes guilty of ‘over-engineering’. Often done with good intentions, such over-engineering can make products unaffordable and stifle markets. ‘Legacy products’ from previous subsidy programmes can sometimes lead to rigid standards or techniques that are less suitable to the consumer market. Rural toilet product systems should be ‘fit for purpose’; engineering efforts should be focused on reducing material inputs and simplifying designs without compromising structural or sanitary safety. If building standards are applied to the products, make sure that they are relevant and necessary.

**Standardize the offering**

Current toilet product systems are often custom-built: each facility is made-to-order, with slightly different dimensions, specifications, and materials. Households and masons typically need to work out every detail. When there is no clear product system offering, it is often difficult for households or masons to estimate the overall price to complete installation. While some choice is critical, too many options and choices can lead to customer paralysis and delay. Consider standardizing a base model and one or two upgrade options, with clear indicative
price tags. Standardization can help facilitate choice and make the entire purchase and construction experience more predictable for households. For businesses, standardized options with consistent feature sets (e.g. through the use of the same mould or set dimensions) can help them to provide consistent quality, reduce wastage, and improve efficiencies. In Bhutan, the Ministry of Health reduced the choices available from over 22 slab, pit and shelter options to three product system options, each with their own one-page promotional flyer. This contributed to a 45 per cent increase in basic sanitation in the pilot area after one year of implementation.38

Offer multiple prices

Think of your product system portfolio as a ‘sanitation benefits ladder’ (see Box 9) whereby households can invest a little at first, and then make incremental improvements to build on what they have. Rather than ‘moving up’ from one technology to another, think of the product portfolio as offering a core toilet design that people really want with progressively more value to customers for increasing price. Consider options for ‘upgradeable toilets’ (see Box 4), including ways to facilitate simple upgrades and retrofits over time).

As you develop the set of product system offerings, look to include related options at different prices. It is useful if each of these the offerings bears some relation to each other, and uses the same dimensions, moulds and construction processes. This makes marketing easier and enables customers to see what they are (or aren’t) getting. In Nigeria, businesses offer related product systems at different prices that share similar hole shapes, lids, foot rest features and overall geometry, including one option for retrofitting existing systems. In Asia, many concrete producers offer

38 SNV (2014), see Resources and further reading at the end of this section.
an option of adding tiles or paint to concrete slabs, which adds to product cost but offers more choice (many low-income households chose to spend the extra money).

**Aggregate products to reduce retail and transport burden**

Product purchasing and transportation can be a logistical and financial burden on households. In most countries, households must typically go to two or more different retail stores, negotiate prices and arrange product transport to get everything they need for building their toilet. This can become an expensive burden. By packaging components into a single retail purchase with a predictable price, this burden can be greatly reduced. In South and Southeast Asia, this is often done by pre-casting and prefabricating concrete components and selling complete toilet kits.

Encouraging enterprises to offer home delivery as part of the product package is another way to reduce the burden on households. Consider these factors now, at product system design stage, and build on these concepts as you move into developing the delivery approach and business model.

**Reduce the labour**

In many countries, labour costs of custom-build toilets can comprise 70 per cent or more of the total cost of installing just the sub-structure and user interface. Households often must use masons because they have unique tools or masonry skillsets required to build a toilet. Masons also hold unique knowledge of the underground plumbing (especially water-based solutions) and what components must be purchased. By simplifying and demystifying the purchasing and construction process, you can increase customer knowledge and reduce household dependence on masons for highly customized solutions.

**Focus on the substructure**

Households will rarely understand how a toilet system is supposed to work (especially where the preference is for water-based solutions) and what is supposed to happen underground. In many cases, an MBS programme can be successful if it just solves the underground problem. For example, the ‘core’ toilet system offered through Cambodian MBS programmes provides a single, basic solution to toilet plumbing that people can easily understand, purchase and install.

**Go smaller**

Most households will probably tell you they want the biggest toilet slab possible – until they see the cost. Remember that the material usage goes up as the square of the product dimension. Reducing slab width or thickness can reduce materials and cost. Large slabs, shelters and pit liners are a luxury, not a necessity (see Box 9). As prototypes are developed to test new ideas, make sure households are made aware of the projected retail costs (even if it is only a rough estimate or range), so they can compare costs versus benefits when providing feedback.

**Right-size the pits**

In many countries, the bulk of the toilet construction cost is in the pit digging. In Kenya, pit digging rates can be more than US$10 per foot depth, and households often want to dig pits of 30 feet deep or more. Frequently, these pits will collapse long before they fill up. Proposing a more reasonably-sized pit will help reduce installation costs dramatically.

**Allow the user to make the superstructure**

Shelters can cost a lot or a little, but they usually offer the same benefit from a hygienic safety perspective regardless of the cost. Many MBS programmes offer solutions for the sub-structure and user interface, but leave the shelter up to households to customize, to fit their family’s needs and preferences. Typically, this will be acceptable because shelters (unlike underground ‘plumbing’) require similar knowledge to home construction, and households are familiar and comfortable enough with the principles to handle such construction on their own. Poorer households can be encouraged to start with a simple, natural shelter and upgrade over time.
Find the right price, not the lowest price

Trying to reach the lowest price possible can sometimes be counterproductive. A toilet is a significant investment for a rural household and makes a statement to neighbours and to other family members. In both Indonesia and Bhutan, households were offered the option of a low-cost ‘dry’ system as part of the suite of offerings. While the lowest in price, these waterless options did not meet low-income household preference and were eventually not offered. In Cambodia, although the cheapest entry-level core system included a slab without tiles, the vast majority of customers – including identified poorer households – opted for a tiled slab even though it added about US$7 to the purchase price.

Design for emptying and safe treatment

In low-density rural environments, MBS focuses on the toilet system, since the capture and containment/storage part of the sanitation service chain is the critical public health issue. Even if you are not considering service design for the rest of the sanitation service chain, at this stage, you should consider what happens when the containment structure is full and how the product system may be emptied in the future (see the ‘Sanitation System Fact Sheets’ in WHO’s 2018 Sanitation and Health Guidelines). This means designing suitable access points to enable emptying. In many African countries, toilets are designed without access to the pit, requiring households in dense environments where space is constrained to break holes into the concrete slab to access the pit and empty the contents when they fill up.

Planning and managing product system design

When the market research identifies that products or product systems are non-existent or not fit-for-purpose, UNICEF will need to develop a plan for this design work. This is because designs, particularly with investment of public funds, should be open source and available for all to use, as part of a conducive business environment.

UNICEF may choose to carry out product system design with its partners as a sector-wide public good, and pool resources across stakeholders to do this together. In this directly managed model, UNICEF will take an active role in supporting research and development – for instance through funding designers or an implementing partner. This is the most common model of product system design and has been successful in many contexts.

In mature markets where the private sector is more developed, UNICEF may consider an open call approach to drive other actors to adapt and create new solutions to meet consumer needs. This new approach has been used in other sectors and could provide lessons for the WASH sector to learn from. In this model, UNICEF provides information from market research and the research and development is done by other actors, with UNICEF encouragement. In this case, be prepared to answer questions about UNICEF’s intention – or

Box 7: ‘What about ‘local solutions’?

There is often concern that MBS may somehow dampen local innovation or try to replace local low- or no-cost solutions. On the contrary – MBS product design builds on local solutions by:

- Designing with local communities, involving target households and businesses as designers, and getting community feedback throughout the process
- Gaining inspiration from good local solutions to design product packages that can be delivered more widely through the local private sector
- Helping businesses offer toilet systems that improve on local designs, so that households can access more durable, hygienic and sustainable facilities

39 The fact sheets can be found as an annex to the Sanitation and Health Guidelines document. See Resources and further reading at the end of this section.
lack thereof – to directly procure new products. Note that businesses may not be interested in producing ‘open source’ designs once they have invested in their development.

**Option 1: Directly managed design development**

In this scenario, either UNICEF or its implementing partner will need to bring together a design team. A design team typically has a lead designer and a small group of others with relevant design skills and experience. The design team should propose a project plan and manage the day-to-day activities.

Whether UNICEF or an implementing partner carries out this process, below are five key steps you should undertake to manage the design process so that you get the results you want.

1. **Create a TOR and design brief**

A successful design process starts with a good brief that describes the desired results of the project (see **Box 8** below) and will serve as a point of reference throughout the project. In the brief, present the problem, schedule and constraints clearly, and let the designers respond with a proposal describing how they will tackle the project. You will need to be comfortable with some level of ambiguity from the designers, since they will need time to move through the design process and will not know the exact outcomes of the process in advance. Note that the best designers will want to amend and improve the brief with you. Insights gained from the field may actually lead you (and them) to change the brief even after the project has started. This design brief can be attached to the TOR.

2. **Develop a rough budget and scope**

The core product system design stage of MBS programming should take about 10-16 weeks, depending on the complexity of the project and the experience (and size) of the design team. It is important to factor in a budget for this work, including consultant costs, and expenses to support the team’s field work and all stages of the process (‘inspiration, ideation, implementation’).

3. **Finding designers**

In bringing together your core design team, look to engage three to five people rather than an individual person – design is a creative process so a team will generate better ideas than an individual. It is okay to have only one experienced designer on the team; the rest of the team can be people with sector-relevant knowledge in the country or region, including local people with existing understanding of local culture and language and who can help facilitate, coordinate and build rapport with key stakeholders. Preferably, the team should include people with different skill sets and from different disciplines, and a mix of men and women.

To evaluate potential lead designers, be sure to check their past design portfolios. Portfolios are

**Box 8: What’s in a design brief?**

- **Background**: What is the background and history of the issue you are trying to address?
- **Problem statement**: Who are your identified target market segments? What were the primary product system insights coming out of the market research? What are the specific problems you want the design team to focus on?
- **Objectives**: What prices and market segments do you need to reach? What technologies do you need to incorporate?
- **Milestones**: What time-based benchmarks does the design team need to hit?
- **Success criteria**: What would be a ‘successful’ project? What deliverables do you expect?

The design brief template at Annex 8, example design brief at Annex 9 and example TOR for design at Annex 10 can help you get started.
Box 9: The sanitation ‘benefits ladder’: A useful frame for developing your design brief

Rather than thinking about moving up the ‘technology ladder’ from temporary or unimproved to more improved technologies, the ‘benefits ladder’ takes the perspective of the target customer and asks: ‘What is the minimum product system feature set that can deliver the improved toilet benefits that customers want most?’ In this framing, costs increase with additional benefits.

The benefits ladder allows us to consider target price points for a menu of product system options based on the value they deliver to the customer. In your design brief, you can fill in a template benefits ladder with your market research insights and the cost data you have collected, including what your target market values most, and what (roughly) they might be willing to pay for these features.

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4. Evaluate the proposal

In addition to evaluating the portfolio of the designers, you will also need to evaluate their proposed approach. Look to see a clear description of their design process. Who do they plan to meet with? What kinds of questions do they want to answer? How will they create and iterate upon ideas? How will they plan to implement those ideas? Did they give themselves enough time to undertake enough design and prototyping cycles? How well did they respond to the design brief?

5. Build stakeholder consensus

Strong design processes will have a small multi-stakeholder advisory group from government, NGOs and other sector experts who understand the overall MBS process and are available to periodically meet with the design team to share and evaluate feedback from the design process. Such stakeholders may already be identified through the process of stakeholder mapping, or through identifying partners for industry consultations.
This will ensure that design directions and final design decisions have high-level buy-in from sector stakeholders. It is often necessary to build stakeholder consensus, and there can be differences between what customers want and what sector professionals want. The design team will need to work within the defined parameters (for example, existing government guidelines): the less rigid or technical these are, the more the design team will be able to build on local innovation.

Actively seek out updates, even if brief, on a weekly basis and ask for larger milestone meetings with the advisory group every three to five weeks, to ensure the design process stays on-brief and gathers support at all levels.

6. Supervise and monitor the process
The design effort should meet all the criteria that you set out in your design brief. The set of designed products system offering should meet clearly articulated functional, emotional and financial needs and desires of the programme’s target low-income customers. They should facilitate the purchasing and installation process and build upon existing strengths of local businesses identified in your market research. They should provide a profitable income stream that businesses will want to pursue over the long term. You should hold the design team accountable for providing solutions that meet these criteria.

Box 10: Human-centred design with environmental health officers to develop lower cost product systems and avoid collapsing toilets in rural Malawi

Building on market research findings and successful experience employing an international consultant to work directly with UNICEF and district government teams to implement the work, UNICEF Malawi used human-centred design to refine toilet product systems. Their mission was to identify, prototype, and refine new designs and ways of building durable, desirable toilets (integrated sub-surface through slab interface designs) with little or no cement, and using local materials as much as possible, that households would want.

The first stage involved three-day workshops with up to 30 participants, based near to where ‘user’ participants lived and worked, at a location with a meeting room and outdoor space to construct prototypes. The workshops were held in three districts chosen to represent different contexts particularly in respect to the soil conditions. The workshops brought together teams comprising local builders/masons, householders and district environmental health officers. Each workshop followed a four-step process described below:

1. Exploration: The teams discussed the pros and cons of existing village toilets and presented their findings in plenary.
2. Discovery: Teams were then tasked to identify potential options to meet this design challenge: ‘Create a toilet that matches what the majority of villagers want, need and can afford using locally available materials – using little or, preferably, no cement’. Each team presented drawings of their design and after much discussion selected the three most suitable designs that they wished to prototype.
3. Prototype: Teams created small/medium sized models of their design with local available materials to explore construction challenges and make design adjustments.
4. Feedback: Teams presented their prototypes to local community members (potential customers) to review options and obtain their feedback.

A total of nine design workshops were conducted, at an average cost of US$2,000 per session in various locations in the three start-up districts, to cover different soil conditions such as typical clay, sandy, and water-logged. Emerging designs from each district were presented and shared at national workshops. Among the most promising designs is the ‘corbel’ toilet which involves local burnt or unburnt bricks with mud as mortar to partially line the top half of the pit in a ‘dome’ shape. There is also a version for water-logged conditions where the corbelled dome protrudes above the ground.

Customers appreciate this design as it used locally available materials to provide a ‘stronger, longer...’
Option 2: Open call for design development

This scenario is suitable for mature markets with a well-developed private sector. In other sectors with these characteristics, UNICEF has used market information to drive developers to adapt and create new solutions to meet consumer needs.

These lessons could be trialled in the sanitation sector where the private sector is mature and interested in investing their own funds into research and development. These steps could be carried out directly by UNICEF or via an implementing partner.

1. Defining the need

The first step in the process is to better understand both the consumer or end-user perspective as well as the context around the product system from key actors, such as national governments and implementing partners.

This should be based on the market research but it may be necessary to delve into specific requirements in greater detail through stakeholder consultations. The result of this could also be a design brief, as in the directly managed design development process outlined in Option 1 above.

Figure 14.a: Corbel design

Figure 14.b: Local artisan building the corbel toilet

last toilet’ that is an affordable improvement on the traditional pit toilet, where the platform – made from mud and logs – is more susceptible to collapsing and termites. The estimated cost to rural households was US$35-8040 in total for materials and labour.

The second, longer stage involved an adaptive process to improve the design, building methods and business model. This took place over multiple years in rural Malawi in partnership with the ‘SMART Centre’ at Mzuzu University to create an information hub, testing and training centre for all new toilet designs.

40 Cost of sub-structure includes labour for digging pit, labour from trained builder for corbel construction and cost of burnt or unburnt bricks (actual costs vary from location to location but burnt bricks tend to be twice the price of unburnt bricks).
2. Create a TOR and ‘Target Product Profile’ (TPP)
UNICEF or its partner can use a design brief or other documentation to develop a ‘Target Product Profile’ (TPP). The TPP should be broadly shared (specifically targeting relevant developers) to communicate the minimum and ideal desired product performance requirements, based on the specific context of target populations, regulatory requirements, the size of the market, pricing, potential use-cases and more. TPPs are less prescriptive than procurement specifications, in order to allow for creativity and product design flexibility. A ‘Target Product Profile’ template for UNICEF is provided in Annex 11. 41

3. Develop a rough budget and scope
The timeline for responses to a TPP may be from 6 to 18 months, depending on the complexity of the desired product or product system. It is necessary to develop a rough budget for the project including all stages in the process, from need definition to scale up. Research and development in this scenario is left to the private sector, academia or NGOs using their own resources.

4. Launch and revision of TPP
After a TPP is launched, UNICEF works with developers to provide additional information on the TPP. Industry and stakeholder consultations are often organized to allow for a more direct dialogue around the TPP, and to facilitate collaboration between developers, regulatory bodies, and donors. UNICEF does not interfere in the strategy of developers (who they partner with, whether they are for-profit or non-for-profit, whether their solutions are intellectual property backed or open source, etc.). The engagement with developers is essential for UNICEF to assess whether and when the TPP requirements can be met, with what products and for which use-cases. This exchange often leads to amendments to the TPP.

5. Launch request for proposals (RFP)
Once the TPP has been finalized, a request for proposals (RFP) can be launched by UNICEF or its implementing partner. The RFP will include the TPP requirements, as well as the requirements for field testing and validation, and details of the potential market size and demand for the product or product system. RFPs should encourage flexibility to allow submissions to develop truly innovative solutions. However, the validation and field-testing requirements should be defined by UNICEF and the project partner.

6. Evaluation
Submitted proposals will need to be evaluated using criteria based on the minimal and ideal requirements in the TPP, as well as the proposed approach. Since the cost/affordability of products/systems is likely to be included in the TPP criteria, it may be possible to combine technical and financial evaluation, or these aspects can be requested separately.

7. Validation and field trial
Validation of proposed products and/or product systems will usually take place via field trial. Clear criteria for assessment need to be established prior to implementation and sufficient time for the field trial allocated. This is likely to take several months. The costs, acceptability, replicability and sustainability of the proposed solution all need to be assessed through the field trial process.

41 More on TPPs can be found at: https://www.unicef.org/supply/index_91816.html.
Resources and further reading


Annexes

Annex 7: Example questions for focus group discussions
Annex 8: Product design brief template
Annex 9: Example product design brief
Annex 10: Example TOR for product design

Case studies and country examples – sources and further information

Benin


Cambodia


Haiti


Indonesia


Malawi


Mozambique


Zambia

Pinfold, John V., et al. (2017). Sanitation Marketing in Rural Zambia: A Replicable Business Model. Available at: https://repository.lboro.ac.uk/articles/Sanitation_marketing_in_rural_Zambia_a_replicable_business_model/9589076

Websites


‘Human-Centered Design Toolkit’. At: www.ideo.com/work/human-centered-design-toolkit/

‘Positive Deviance Initiative’. At: www.positivedeviance.org

Videos

## 3.3 Delivery approach & business model design

### Quick reference

<table>
<thead>
<tr>
<th>What does it involve?</th>
<th>What are we trying to achieve?</th>
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</thead>
<tbody>
<tr>
<td>• Determining the right type of existing local business(es) to be your ‘focal point business(es)’ and the best way to deliver new product systems to your target market</td>
<td>• Clear identification of the delivery approaches and focal point business type(s) to reach your target markets with the new product system offerings</td>
</tr>
<tr>
<td>• Exploring and testing potential delivery approaches and focal point business model(s), including detailed cash flow and financial investment analyses</td>
<td>• One or more viable business models for identified focal point business(es)</td>
</tr>
<tr>
<td>• Testing and trialling of production, distribution, transport and other delivery mechanisms, alongside testing of demand activation strategies, with focal point business(es)</td>
<td>• A working understanding of how product system, business model and demand activation activities will be integrated in implementation <em>(Reminder: delivery approach &amp; business model design is best done in parallel with demand activation design)</em></td>
</tr>
<tr>
<td></td>
<td>• Indicative understanding of business development needs and training tools and approaches that best suit your focal point business(es) for the implementation phase</td>
</tr>
</tbody>
</table>

| How long will it take?                                                                 | 4-6 months                                                                                                                                                                                                                   |

| What skills and resources are required?                                                                 | Business design, financial analysis, SME development skills, private sector experience (preferably in rural market context)                                                                                     |
|                                                                                                      | New product system offerings designed, developed and tested, and other market research findings                                                                                                                            |
|                                                                                                      | ‘Business Model Canvas’ and other business model design tools                                                                                                                                                               |
|                                                                                                      | ‘Sanitation Business Model Design’ checklist                                                                                                                                                                                |
|                                                                                                      | One or two pilot businesses to engage in testing                                                                                                                                                                             |
|                                                                                                      | Budget for testing and trialling, including small batch production, distribution and sales                                                                                                                                |

### Overview

At this point, you have identified and listened to your target customers and developed a core product system(s) they want and can afford, and you have started interacting with existing customer-facing businesses that might be able to offer the product system(s). You have considered a few different types of businesses in the rural construction and sanitation market, and have ideas about which ones could be the focal point business for your MBS programme. You have started doing the calculations to get a general idea of what the new product systems might cost to produce and transport, and what the main cost drivers will be. Now you are ready to determine what type of business(es) will be your focal point sanitation business, and to start identifying and testing how they can deliver the product system offerings in more detail.
Thinking like a business

MBS requires you to think of households as consumers. But just as critical to the process is treating the private sector as business partners. This means understanding profit, risk and investment; in other words, ‘thinking like a business’. No matter how small a business is – whether a single independent mason or a family enterprise – there are always opportunities to encourage entrepreneurship and profitable business practices. This brokering of new relationships with the private sector is what sets MBS apart from other sanitation approaches.

Approaching sanitation as a business requires a shift in how government authorities and typical WASH organizations think and work. Whereas in the past, sanitation strategies often looked at businesses as input suppliers and contractors, MBS sees businesses as key partners and independent, viable enterprises to be influenced, supported and regulated, but not controlled or contract-managed.

A few related concepts are key to understanding any business:

- **Profit**: Profit is total revenue minus total costs. For a new business area such as sanitation, profit is the financial reward a business receives for the risk that it takes. Without enough profit from toilet or service sales, businesses will not be viable or sustainable.

- **Risk and investment**: Business risk involves making an investment in the hope of seeing a financial return. Investments in sanitation can be financial, for example to purchase moulds, equipment, stock, and inputs like cement, as well as providing customer credit (3.5 Reaching the poor through consumer financing). Investments can also be non-financial, for example time and effort to learn about new production methods or business management techniques. Although MBS programmes try to lower risks and barriers to entry for new sanitation businesses, some risk is essential: partner businesses must demonstrate they have a stake in the business by making up-front and ongoing investments.

The MBS delivery approach: considering your options

Your market research and product system design work should have clearly addressed the options for your identified target market segment. You can now focus on the type of delivery approach to reduce complexity in your target customer’s ‘pathway to purchase’ of an improved toilet, and fragmentation among the rural businesses that directly serve them. This is a good time to re-consider and further analyse the consumer purchase pathway maps and the supply chain maps you developed during your market research (see 3.1 Market research).

The delivery approach is the (re-)organization of different businesses selling goods and services in order to get the product system to the target customer the lowest-cost and most efficient way. Improved delivery approaches reduce the number of transactions and interaction points for customers to increase convenience and reduce costs. Delivery approaches can be differentiated by the degree of aggregation – that is, the ways in which products and services that comprise the product system are bundled or grouped together. The goods and services for a toilet system that a customer typically needs to procure include:

- Raw materials
- Construction and hardware materials
- One or more fabricated toilet components
- Transport and delivery
- Pit digging and installation
- Construction and installation advice
- Information and/or provision of financing options

Table 10 below presents four common delivery approaches, from little or no aggregation, to full aggregation. The focal point business is the primary customer-facing business typically responsible for doing aggregation of product components, services and information and to which sales promoters and co-ordinators at community level are linked (see 3.4 Demand activation). Each delivery model is suited to a different context, as outlined in the ‘Market suitability’ column of the table.

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42 See USAID (2018) in Resources and further reading at the end of this section.
The degree of aggregation will depend on the local market context and be determined through trial and iterative refinement. In some contexts, delivery models that aggregate various supply chain components may simplify customers’ buying experience and reduce costs, while in other contexts customers may pay a premium for the convenience of aggregation. The degree of aggregation will be influenced by the geographic reach of businesses and the spread of target market segment(s), level of fragmentation of the existing supply chain, customer willingness and preferences, and local enterprises’ assets and capabilities.

When you consider higher level, national component manufacturing supply chains, it may be appropriate to consider the degree of aggregation and its influence on product cost and availability. Aggregation can be thought of in two ways: ‘vertical integration’ and ‘horizontal

### Table 10: Four common sanitation enterprise delivery approaches

<table>
<thead>
<tr>
<th>Delivery Approach</th>
<th>Description</th>
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</table>
| **Mason/DIY**     | • Masons provide on-site, build-to-order service to customers in nearby villages, for standardized designs  
• Masons might procure materials, or provide list for DIY procurement from associated business(es) |
| **Network**       | • Loose affiliation of businesses, with potential for any network business to be focal point  
• Businesses in the network sell some components while connecting customers to others for procuring remaining inputs  
• Focal point network business aggregates information for customers about other network businesses for remaining components and services to navigate purchase more easily and quickly |
| **‘One-stop shop’ (OSS)** | • Focal point business adds value by fabricating key components of the toilet system (e.g. concrete rings, slab with integrated pan) to offer ready-to-install packages  
• May offer services (delivery, installation) as optional add-ons  
• May offer additional materials (e.g. for superstructure)  
• Costs lowered, quality raised through pre-fabrication with increasing efficiencies at higher volumes |
| **‘Turnkey service provider’ (TSP)** | • One focal point business aggregates all products and services needed to deliver the completed toilet system at a premium  
• Reduces number of touch points to the customer to only one |

Source: Adapted from USAID (2018).
Vertical integration happens when businesses acquire or partner with other businesses along subsequent parts of the sanitation service chain. A business is ‘vertically integrated’ when it controls two or more consecutive stages of the chain. For example, imagine a company working in urban sanitation, using a waterless flush toilet technology. This company is providing two links of the service chain – capture and containment – and has partnerships with local partners who provide emptying and transport, who in turn have partnerships with businesses who produce energy and fertiliser for sale, using waste products. We can say that this business model is vertically integrated. In some cases, integration can improve the efficiency of supply chains, using a range of partnership instruments such as license contracts, joint ventures, strategic alliances, contracts, associations, franchises, mergers and acquisitions.

Vertical integration happens when businesses acquire or partner with other businesses along subsequent parts of the sanitation service chain. A business is ‘vertically integrated’ when it controls two or more consecutive stages of the chain. For example, imagine a company working in urban sanitation, using a waterless flush toilet technology. This company is providing two links of the service chain – capture and containment – and has partnerships with local partners who provide emptying and transport, who in turn have partnerships with businesses who produce energy and fertiliser for sale, using waste products. We can say that this business model is vertically integrated. In some cases, integration can improve the efficiency of supply chains, using a range of partnership instruments such as license contracts, joint ventures, strategic alliances, contracts, associations, franchises, mergers and acquisitions.

Table 10 (continued): Four common sanitation enterprise delivery approaches

<table>
<thead>
<tr>
<th>Market suitability</th>
<th>Common constraints</th>
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<tbody>
<tr>
<td>• Usually the only option in remote areas with low population density, poor transport connectivity</td>
<td>• Very small addressable market in remote, sparsely populated areas – masons have very small operational area</td>
</tr>
<tr>
<td>• Best suited for markets where pre-casting businesses do not exist</td>
<td>• Limited demand for sanitation among households</td>
</tr>
<tr>
<td></td>
<td>• Lack of capital, especially for moulds to cast a slab</td>
</tr>
<tr>
<td></td>
<td>• Sustainability and success depends on mechanisms such as referral fees or reciprocal business for the focal point, as well as trust</td>
</tr>
<tr>
<td></td>
<td>• Customers must be willing to trade their time and effort working with multiple businesses to gain better prices</td>
</tr>
<tr>
<td></td>
<td>• Toilet system designs already standardized and well understood</td>
</tr>
<tr>
<td></td>
<td>• Works where toilet system components and services are easily available and price competition exists, and customers save money by making multiple transactions</td>
</tr>
<tr>
<td></td>
<td>• Suitable in places where market fragmentation and customer information (rather than accessibility or other factors) are the main constraints</td>
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integrated, because it provides sanitation solutions across the entire sanitation service chain (capture, containment, emptying, transport, re-use).

**Horizontal integration** happens when businesses acquire or partner with other businesses within the *same stage* of the sanitation service chain. For example, imagine a local manufacturer of plastic products that enters into a long-term licensing agreement with a multinational manufacturer. The licensing agreement provides the local company with access to the multinational company’s designs for sanitation products, such as pans. As a licensee, the contract benefits the local manufacturer through product and customer diversification, and the ability to use spare manufacturing capacity for a new business line (sanitation). As the licensor, the contract benefits the multinational company by providing access to local distribution at low entry-cost, and utilizes local capacity to provide their products. It is important to be sure that competition is not reduced through businesses partnering horizontally.

Where greater aggregation is feasible and desirable to customers and businesses, UNICEF or its partners can consider facilitating introductions, create conducive conditions, or even provide incentives for businesses to partner to more effectively deliver sanitation goods and services.

**Selecting a delivery approach and focal point business**

There are many factors to consider when choosing a best-fit delivery approach and focal point business. Your focal point business(es) must have sufficient reach and/or exist in sufficient quantity to

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**Box 11: What is a focal point business?**

A focal point business is an existing local customer-facing business (usually, but not always, one already in the sanitation market), who becomes the primary contact for toilet product purchase by the customer. The focal point business provides information and facilitates purchase of components, materials or services for the new product system. The focal point business is typically the prime ‘aggregator’ of product components, services and information directly to the customer. Table 11 next page sets out things to consider when assessing potential for a business to become your MBS focal point.

**What is a sanitation line of business?**

Within a business or company, a line of business is a general term referring to a particular product or set of related products or service offering that fulfils a particular customer purpose – in this case, a toilet system. In rural markets, construction-related businesses involved in sanitation supply chains will rarely have sanitation as their sole line of business. This is because a toilet is not a repeat-purchase item – once a customer buys from you, they may not return to buy another toilet for 10-20 years or more. Thus, prior to and initially in your MBS intervention, the sanitation line of business is likely to comprise a relatively small, and seasonably variable, portion of total business revenue for your focal point businesses. This is important to bear in mind as you consider the viability of the initial business models you design.

**What about other businesses in the supply chain?**

Other businesses in the supply chain, for example upstream distributors, manufacturers (e.g. of cement or plastic components), or single component retailers are of course important to understand and analyse, especially in terms of the extension of trade credit and relationships with rural retail businesses. It may be the case that your programme will need to engage at a high level to address major supply chain bottlenecks. However, the vast majority of your time and energy – especially in the design phase and early implementation of your MBS programme – should focus on selecting, recruiting and supporting focal point business in an optimal customer delivery approach.
directly service your target market. If your product system options are made of pre-fabricated concrete products and you decide, for instance, to work with concrete block producers, but later find that they can only be found in small numbers in the main district towns, you will run into difficulties.

Your delivery approach and business model should be designed to reach and sell to low-income households lacking basic sanitation, considering their geographic ‘market proximity’ segment. Well-designed market research should map out numbers and types of customer-facing businesses involved in rural sanitation and construction, in each market proximity segment, so that you understand the scope, reach and quantity of different types of available businesses, including masons, retailers, raw material suppliers, cement block/concrete manufacturers and others. For smaller-scale businesses, you will need to consider the potential geographic reach and main customer segment of the focal business. What is a realistic market catchment for them? Masons may only service their own communities and those immediately neighbouring them. District-level businesses may service a wider area, and national-level manufacturers a wider catchment still, but might not consider rural households as important for their business. Table 1 identifies characteristics to consider when assessing an individual business’s potential to serve as the MBS focal point business. Information on these characteristics can be collected using the ‘Business Model Canvas’ tool (Annex 3) during supply side market research.

Table 1: Favourable and challenging characteristics to consider for selecting potential MBS focal point businesses

<table>
<thead>
<tr>
<th>COMPLEMENTARY/FAVOURABLE</th>
<th>MISMATCHED/MORE CHALLENGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has large and/or important portion of customers that match MBS rural target market household segments</td>
<td>Most of customer base is construction contractors, NGOs, government, institutions, other businesses, or wealthy urban/modern households; rural households minor or unimportant to the business</td>
</tr>
<tr>
<td>Already reaches or is able to reach a large number of surrounding rural communities/households of interest for MBS programme</td>
<td>Lacks supplier credit</td>
</tr>
<tr>
<td>Good relationships with upstream suppliers</td>
<td>Lacks basic record or book-keeping</td>
</tr>
<tr>
<td>Receives supply chain credit for purchase of goods from their suppliers</td>
<td>Does not or is unwilling to extend customer credit</td>
</tr>
<tr>
<td>No/few stock outages</td>
<td>Very small or no market reach in surrounding rural communities of interest for MBS programme</td>
</tr>
<tr>
<td>Regular procurement and adequate transport from their key upstream suppliers of construction/sanitation goods</td>
<td>Little or no interest in expanding reach to serve more rural communities, rural households</td>
</tr>
<tr>
<td>Does basic record and book-keeping</td>
<td>No stores or storage yard/space to stock increased inventory of construction or specialized sanitarywares</td>
</tr>
<tr>
<td>Extends customer credit to MBS target market segment</td>
<td>No experience pre-casting concrete</td>
</tr>
<tr>
<td>Access to some financing for capital investment in business assets, growth or inventory, either from own/family or MFIs</td>
<td>No relationships with construction material transporters, or ability to transport</td>
</tr>
<tr>
<td>Established reputation in the community for fair pricing, good quality</td>
<td>No interest or significant barriers in expanding sanitation line of business</td>
</tr>
<tr>
<td>Owns vehicle/s for customer delivery or transport of goods, or has good working relationship with independent transporters</td>
<td>Unknown reputation in target areas</td>
</tr>
<tr>
<td>Stores/yards available for stocking adequate inventory</td>
<td></td>
</tr>
<tr>
<td>Interested in and looking for opportunities to expand rural household customer sales for sanitation or complementary construction lines of business</td>
<td></td>
</tr>
<tr>
<td>Has experience pre-casting concrete</td>
<td></td>
</tr>
<tr>
<td>Has introduced new products or services successfully in the past, has plans to do so again, and/or interested to take risks again</td>
<td></td>
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</table>
In 2012 PSI launched the first MBS project in India in Bihar, partnering with Water for People and PATH, and funded by a US$8.7 million grant from the Bill & Melinda Gates Foundation. At the time, only 18 per cent of households in Bihar had a toilet. Market research identified barriers and opportunities to improve the local market, as well as key insights for product systems and new business model designs. This included a need for aggregated business models to simplify the purchase process.

Working with its partners, PSI developed lower cost appropriate toilet product systems, based on customer preferences and market suitability. Through standardization, re-engineering and component pre-fabrication, the costs, labour and delivery time for product systems were reduced and quality was improved, without sacrificing customers’ non-negotiable features. The project then decided which consumer-facing businesses were best suited to be focal points, and which delivery model would best simplify the customer purchase process. A landscape study that was carried out at the beginning of the project as part of the programme’s market research suggested two models: a ‘turnkey service provider’ (TSP) model and a ‘network’ model, with cement ring manufacturers (CRMs) as the focal point businesses. Considering the fragmented supply chain and desire for a high level of aggregation, PSI selected the TSP model in which local entrepreneurs (such as hardware store owners) would become the focal point business, offering customers a single transaction price for end-to-end delivery of the toilet system packages, including transport, installation, construction management and all materials. PSI identified entrepreneurs to set up the model and provided training in construction management, which was new to many of them. As the TSP model required the entrepreneur to procure and manage all of the costs and labour prior to receiving customer payment, PSI supported the new TSP entrepreneurs with access to credit and capacity building.

Within nine months, regular sales monitoring showed that expected outcomes were not being achieved. Talking to customers, PSI learned why the TSP model was not working. The premise of TSP model was that the cost of delivering a TSP toilet would reduce at a certain scale of sales, which in reality the entrepreneurs were not able to achieve, due to limited catchment areas and increased transportation and storage costs. High customization by the customers further delayed delivery of the toilet, making the return on investment for the entrepreneurs very low. Programme monitoring suggested that customers preferred to buy the key toilet components for the substructure and interface directly from local CRMs, because they were seen as a traditional sanitation business for toilet purchase. Despite the efficiencies of aggregation, customers were uncomfortable buying from the hardware stores who were not traditionally part of the local toilet-building system. Hardware store owners also lacked expertise in service provision, struggled with managing construction labour and quality, and the toilet itself was more expensive, because of the added margins. Lastly, the TSP model required high working capital, and the new financing options brought substantial risk for existing small- and medium-enterprise lenders.

As a result, PSI made a course correction to focus on a new ‘CRM+’ model, with the CRM as the focal point business for toilet construction, creating a more flexible delivery model which linked them to other businesses needed to build a toilet. In the CRM+ network model, CRMs are the first point
of contact and purchase for a customer seeking the new product system package. Customers were free to purchase all or some of the toilet components from the CRM and receive guidance on the additional materials they needed to construct the rest of their toilet, and referrals to networked businesses to acquire them. CRMs were well suited to advising customers and had expertise working with and managing masons and providing sanitation construction services. The model had a lower final cost and the savings were worth the effort to customers, likely because local construction markets are easy to access and highly competitive.

As the focus shifted to building up the network of CRM+ business partners, sales rapidly accelerated. The model was easy for CRM businesses to adopt, needing much less PSI support compared to the TSP model, making it easy to replicate as the programme expanded geographically. PSI support included training CRMs in quality production and service delivery, providing customer-focused information, and helping generate sales through demand activation. In October 2016, PSI had trained over 750 CRM businesses and facilitated the sale of 77,000 new pour-flush toilets to first-time rural customers. By the end of the programme in 2017, sales had reached 204,409. A 2015 assessment indicated 39% of sales were to the poorest households, and that an important contributor to successful outcomes was the provision of capital for loans and loan guarantees to an MFI partner, for customers and small business financing.
Nearly all decisions about the right delivery approach and focal point businesses to work with will be driven first and foremost by your target market and the product system offerings you have developed. It is often possible to deliver the same product system through different delivery approaches and business models. For example, a concrete-based product could be pre-cast on-site at the customer’s home by a mason. The same product could also be manufactured by a business located along a transport route and then transported by truck to a village. Now, you will systematically examine the options to see what works best. This will involve both technical and financial analysis of different business types and a mapping of all the possible production, distribution and transport solutions.

It often makes sense to test two or more different delivery and business model options and combinations. In Bihar, India, the MBS programme tested a turnkey service provider (TSP) model and a network model. They found the network model with a concrete ring producer as the focal point business was far more effective in reaching more low-income customers in the programme’s target geography (see Case study 5 above). On the other hand, in East Java, Indonesia, the government-led MBS programme abandoned their mason DIY model after several years in favour of a more effective ‘one-stop-shop’ model, operated by a rural sanitation entrepreneur/contractor (see Case Study 7 from Indonesia). Approach this testing phase with an open mind, and do not assume that you must work with a particular business type, such as masons. When you reach implementation, it is best to start in communities in relatively more accessible zones (e.g. nearer to roads and market towns) and consider a progressive expansion of services to less accessible zones, but only after focal point businesses in these accessible areas are efficiently and profitably selling the product system. You will need to keep this in mind as you develop delivery and business models.

**Understanding business models**

In testing different delivery approaches with potential focal point businesses, you will need to go further than just ensuring a sufficient quantity of a given business type in your target area. You will need to understand their existing business models and help them to consider how to redesign the business model for their sanitation business line. This includes understanding up front what it will take to make sanitation a sufficiently profitable line of business, in absolute terms and relative to their other business lines. This requires going beyond just understanding unit profitability to understanding the number of needed toilet sales per month and year, price to charge, and associated revenue and profit.

A business model defines how a business creates, delivers and captures ‘value’ – the benefit that customers receive by using a product or service. MBS interventions create value for customers by focusing on: improving the product and service offerings; reducing their costs; and making them easier for consumers to purchase and install. These three goals must be balanced alongside the need to ensure that the offerings can be profitably produced and sold. The ‘Business Model Canvas’ tool (see Annex 3) provides a framework and tool for thinking about business models that covers the four main areas of a business:

1. **Offering**: The products and services that a business offers to meet the needs of its customers. These are the value proposition of a business and what distinguishes the business from its competitors.
2. **Customers**: The different customer segments that a business tries to serve with its offering. The channels through which the business delivers value to the different customer segments (e.g. retail store front, village events, etc.) and the relationships that a business creates with its customer segments.
3. **Infrastructure**: The key activities that the business performs to achieve its value proposition. The key resources that are needed to create value, which can be human, financial, physical (assets such as equipment, vehicles, warehouses, stores, land, staff etc.) or intellectual property. And the partners needed to complement a business so it can focus on its core activities (e.g. suppliers, service providers, transporters, lenders, etc.).
4. **Finances**: The costs of doing business (including fixed costs, variable costs, economies of scale, etc.) and the income that comes from sales to customers in each customer segment.
(which may include sales of goods, services, usage fees, subscription services, etc.). Income has to be greater than costs for a business to be profitable.

During your market research, you assessed existing business models using the business model canvas to find out how and where they are working and not working. Now you are ready to consider what changes can be made to improve existing models, or what new business models might be able to deliver new sanitation options to your target markets.

**Working with focal point businesses to improve business models**

Designing (or more typically improving) sanitation business models involves trade-offs. For example, you may find that the cheapest possible product system design is not something consumers are willing to invest in, but adding key features (e.g. tiles, paint) or services (e.g. home delivery) can help businesses to greatly increase consumer value and trigger sales, even though it raises the final retail price. On the other hand, you may find that businesses simply cannot deliver certain features or options that consumers want (for example, due to limitations in access to raw materials, moulds or other components). In this case, you will need to work within the market constraints, helping businesses deliver the important benefits, even if the final product system design is less than 100 per cent of consumers’ vision of their ideal toilet.

All business models will have advantages and disadvantages. In the end, the best models will be those that adequately address consumers’ needs and the four key areas of the business, with enough profit to sustain and grow. The essential thing to remember is that the right business models and products will be completely determined by the existing market barriers and opportunities: ‘transplanting’ a model from one context to the next may work some of the time, but only if both the demand and supply market conditions happen to be similar.

It is critical to carry out business and financial analysis with existing business types to understand their current models, and especially their revenue and cost structures. Ensure your team has the skills to do this – whether through developing skills internally or working with partners. It is not enough to define a delivery approach and identify a business type. You must also understand what impact a proposed approach will have financially on an individual focal point business, including how the sanitation business line fits into their broader business operations. **Table 12** maps two common sanitation delivery approaches to using the business model canvas.

**Changing the way we engage with the private sector**

Many sanitation programme supply-side strategies have not gone to scale because they make the wrong assumptions about what consumers want, what the main market bottlenecks are and how best to address these. The cause is usually failure to invest in good quality MBS design, informed by actionable market research. For example, the sanitation sector has learned the hard way that training masons in technical construction alone is usually not enough to catalyse a sanitation market, if mason opportunity costs of finding new customers and engaging them in building toilets are too high. Even in existing MBS programmes, lack of proper upfront market, business and financial analysis has been identified as a primary constraint to success.43

Using the same business model canvas you used for existing businesses in your market research, you can map the **infrastructure** required for masons to offer sanitation services and understand the **finances** involved (costs and incomes). These can be compared to the efforts and profits masons make from their other **offerings**, such as house construction, farming, or sale of labour. By not considering the opportunity cost to the mason, your training efforts may result in many ‘trained’ masons, but very few actively involved in selling sanitation.44

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43 CSWASH Fund (2018). See Resources and further reading at the end of this section.

44 Water for People (no date) explores lessons learned from the failure of a mason model in Malawi. See Resources and further reading at the end of this section.
**Mason DIY delivery business**
- Offers small range of standardized designs/price points, that can be customized
- Usually offers full pre-cast production and installation service at customers’ homes in exchange for cash
- Builds on existing masonry skills, but usually requires some training in new techniques, standardized designs to lower costs and increase value

**‘One-stop shop’ precast concrete focal point business**
- One-stop purchase offers easier more predictable purchase experience, for small range of standardized designs/price points, cheaper than separate purchases and customized construction
- Can involve centralized manufacture and/or pre-cast on-site production/installation
- Innovative models include home delivery (and sometimes installation, for an additional fee) to reduce transport difficulty, speed installation
- Modular designs allow for self-installation, expansion (e.g. second pit)

**Segments:**
- All households within a mason’s village or nearby villages with a poor-quality toilet or no toilet
- Build in stages or offer instalment payments to lower income quintiles

**Segments:**
- All households without toilets or with poor quality toilets within a feasible transport distance
- Initial all-cash sales aimed at higher income quintile ‘early adopters’
- Instalment payments may be offered to expand sales to lower quintiles

**Relationships:**
- Long-term, multiple transactions
- Customers and masons typically know each other and have conducted business in past and/or may do so in future

**Relationships:**
- Can be short-term transactional relationship
- Sanitation often used as an ‘entry point’ to expand rural client base for other pre-cast concrete products (concrete grave stones, house posts, rain water tanks, etc.) and/or construction materials (e.g. gravel, sand, cement) and services

**Channels:**
- Reach new customers through community-based sanitation promoters and referrals by local government and/or CATS actors
- Word-of-mouth from neighbours and family
- Interpersonal communications are usually most effective: village events, door-to-door sales

**Channels:**
- Reach new customers through community-based sales promoters and referrals by local government and/or CATS actors
- Often pay sales promoters a small commission for each toilet sale
- Interpersonal communications are usually most effective: village events, door-to-door sales

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**Table 12: Mapping the focal point business model for two common sanitation delivery approaches**
Table 12 (continued): Mapping the focal point business model for two common sanitation delivery approaches

<table>
<thead>
<tr>
<th>Mason DIY delivery business</th>
<th>‘One-stop shop’ precast concrete focal point business</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key partners:</strong></td>
<td><strong>Key partners:</strong></td>
</tr>
<tr>
<td>• Community-based promoters, village WASH committees, local government &amp; NGOs</td>
<td>• Suppliers of raw and construction materials, toilet components</td>
</tr>
<tr>
<td>• Other semi-skilled or unskilled labourers, such as pit diggers</td>
<td>• Community-based sales promoters (often commission-based), local government &amp; NGOs</td>
</tr>
<tr>
<td>• Sometimes in business relationships with material suppliers</td>
<td>• Sometimes in business relationships with preferred masons, or directly employing mason teams</td>
</tr>
<tr>
<td>• Sometimes certified by government</td>
<td>• Sometimes certified by government or part of industry association</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Resources:</strong></th>
<th><strong>Resources:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Light-weight portable moulds</td>
<td>• Concrete fabrication equipment (e.g. moulds, mixers, hand tools)</td>
</tr>
<tr>
<td>• Masonry tools</td>
<td>• Adequate space for concrete casting and stock</td>
</tr>
<tr>
<td>• In some cases, moulds provided by external programmes</td>
<td>• Truck and/or motorcycle with trailer</td>
</tr>
<tr>
<td></td>
<td>• Labourers and/or mason teams</td>
</tr>
<tr>
<td></td>
<td>• Capital to build stock and buy equipment</td>
</tr>
<tr>
<td></td>
<td>• Access to raw materials, water supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Key activities:</strong></th>
<th><strong>Key activities:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sub-structure and interface construction, including pit lining, foundation, slab fabrication and others</td>
<td>• Production and pre-casting of concrete toilet components</td>
</tr>
<tr>
<td>• Manage basic financial transactions</td>
<td>• Delivery of pre-cast components</td>
</tr>
<tr>
<td></td>
<td>• Financial, sales and inventory, and human resources management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Revenue streams:</strong></th>
<th><strong>Revenue streams:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sales of services for toilet construction (often with some pre-payment and instalments)</td>
<td>• Cost-plus model (cost of all inputs plus a profit margin)</td>
</tr>
<tr>
<td></td>
<td>• Discounts for group bulk purchases</td>
</tr>
<tr>
<td></td>
<td>• Small premiums for add-ons (e.g. delivery, installation service)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cost structure:</strong></th>
<th><strong>Cost structure:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Negotiated price for services (household responsible for raw materials)</td>
<td>• Fixed investment in fabrication equipment (and transport vehicle)</td>
</tr>
<tr>
<td></td>
<td>• Variable investment in raw materials, marketing costs (brochure &amp; banner printing), vehicle fuel and maintenance</td>
</tr>
<tr>
<td></td>
<td>• Per-sale commissions to sales agents</td>
</tr>
</tbody>
</table>
Similarly, experience has shown that ‘SaniMarts’, which are set up as physical demonstration sites or shops by external programmes to sell only sanitation products are not viable. Analyzing these situations with the business model canvas, we often find that SaniMarts are not viable because the cost structure and resources required to run a fixed location business cannot be covered by the revenue generated by selling only sanitation, and that there is not a large enough customer base at the rural level where these shops are being established.

Table 31 (in 4.1 Programme implementation) discusses initial business engagement in much more depth, including common pitfalls from past MBS experience. You should review these potential pitfalls and try to avoid them through good business model design.

Planning and managing the testing process

MBS programmes must look holistically at a business, do the financial analysis, and generate new ideas on how it can profitably reach new markets. This means focusing in particular on the ‘last mile’ of rural distribution to get products and services out to new customers in communities within reach, as well as harder-to-reach places. Here are some tips to consider as you undertake the delivery approach and business model design process:

1. Use the insights from market research and product system design to identify potential delivery approaches and focal point businesses

Do not skip directly to business model design. Start with an analysis of your market data (especially the concentration of different business types in your area) and use it to carefully assess different options. Be open and flexible to potential approaches but try to quickly rule out options that will not be feasible. Engage different stakeholders in the process of analysis, discussion, and additional data collection as needed. Once you have decided on the focal point business types you want to test with, track their attributes so that you can later understand which groups perform better: for instance, large-scale concrete ring manufacturers along a major road or in a district town, versus small-scale concrete ring manufacturers on the outskirts of small towns or in the village. Critical factors such as turnover, revenue, staff and others will determine which individual businesses in each business type might eventually become programme partners at implementation.

2. Conduct iterative experiments and real-time trials

The best way to learn what works is to convince one or two businesses to invest in the opportunity, and then help them to test options on the ground. This might include setting up small sales and distribution trials, producing a small batch of products for testing, experimenting with packing, stacking and transport options, or trialling different ways to link businesses to your demand activation activities.

In the Lao People’s Democratic Republic, programme designers worked with two potential one-stop-shop concrete producer businesses to test different production, distribution, and demand activation sales options through a series of small-scale ‘mini-pilots’. Over a few weeks, these businesses agreed to prepare a small batch of stock of the new low-cost product system offerings, to arrange truck transport, and to attend a small number of direct sales events where village-based promoters were offered sales commissions.

Although the trials were done in only six villages, they allowed the team to test production, transport, order-taking, payment systems, and sales tactics in a co-ordinated way, generating immediate practical feedback on actual costs, potential problems, and opportunities. This led to a further round of business model refinement and final financial and business model analysis. Be sure to include time and budget for at least one or two rounds of trials.

45 See R. Kumar, et al. (2011), and S. Hanchett, et al. (2011) for evaluations of rural sanitary marts in India and Bangladesh respectively. Details in Resources and further reading at the end of this section.

46 Pedi, et al. (2012). See Resources and further reading at the end of this section.
depending on what you might need to test, and plan for teams to be based in or make extended visits to the field for this work.

3. Be flexible and bring in the resources you need and/or make sure you have the right the people in-house

At this stage you are in design and testing mode; you are not yet ready to begin ‘selling’ the opportunity to a wide range of businesses. While you will be gathering insights about the new types of information or skills that might be required for your focal point business, you are not yet ready to begin preparing detailed training or business support materials. The business proposition and any necessary business development support will be developed only after you have established your business models and promotional and sales strategies – and shown that they work in the field.

At this stage, you will need creativity and business thinking – consider seeking out and recruiting local expertise, such as rural business development service providers who can help you work through the details.
GUIDANCE ON MARKET-BASED SANITATION

Resources and further reading


PSI (2014). ‘Getting to know PSI’s market-based sanitation work in India’. (Blog). Available at: https://www.defeatdd.org/blog/getting-know-psis-market-based-sanitation-work-india

PSI (2015). Making Markets Work: How We Got to 10,000 Toilets. Available at: https://www.psi.org/2015/06/making-markets-work-how-we-got-to-10000-toilets


Annexes

Annex 3: ‘Business Model Canvas’ tool

Websites

‘Business Model Canvas’ tool. At: www.businessmodelgeneration.com/canvas


Videos

Alex Osterwalder. Business Models Beyond Profit. Available at: http://slidesha.re/15BMU
3.4 Demand activation

Quick reference

<table>
<thead>
<tr>
<th>What does it involve?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Determining the MBS communications objectives and sales and marketing strategy for demand activation</td>
<td></td>
</tr>
<tr>
<td>• Creative design and pre-testing of communications activities and tools, with a focus on ‘below-the-line’, interpersonal communication (IPC)</td>
<td></td>
</tr>
<tr>
<td>• Mini-piloting of demand activation activities and messages jointly with delivery approaches and focal point business (see section 3.2)</td>
<td></td>
</tr>
</tbody>
</table>

| What are we trying to achieve?                                                                 |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------|
| • Identified candidates or actors to work as sales promoters and co-ordinators to generate sales in target communities linked to focal point businesses |
| • A creative concept and pre-tested IPC activities and tools for front-line sales promoters and partner businesses |
| • A demand activation strategy and plan, including roles for local government actors and sales promoters, to motivate customer interest and trigger a decision to purchase the new toilet product system offerings |

| How long will it take? | 3-6 months |

| What skills and resources are required?                                                                 |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------|
| • Communications design, rural direct marketing and sales skills |
| • New product systems, and findings based on your market research and product system design work on target customers’ motivations, desires, perceived advantages of the new product systems, and the places and channels to directly reach and effectively engage them |
| • Clear creative brief(s) based on market research findings and new product system offerings |
| • Budget for creative design and pre-testing with target customers, front-line sales promoters and focal point businesses |

| UNICEF equity and gender reminders                                                                 |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------|
| • Select demand activation channels, activities and methods that reach and directly engage rural households in the two lower income quintiles as well as the middle |
| • Ensure that the portrayal of women and men in sanitation communications and marketing materials does not reinforce negative gender norms, roles or stereotypes |
| • Make efforts to recruit and train women as well as men for paid promotion or commissioned sales positions, and consider gender differences in training |

Overview

During this part of the design phase, you will use key insights and customer findings from your market research and product system design to inform the content of communications messages, and identify the best ways to reach and persuade target customers to invest in basic sanitation and purchase the new product system offerings. At the same time, you will identify local actors to work as ‘demand activators’, also referred to here as ‘sales promoters’, and develop direct sales and marketing activities and materials to raise awareness about the new product system offerings, as well as helping focal point businesses to reach, promote and sell these offerings directly to households.
Three demand activation communications objectives in MBS

Promoting and activating demand in MBS is just one component of a broader behaviour change communication strategy for achieving safe sanitation and hygiene for all that addresses the first phase of demand generation, for example through CATS/CLTS. In MBS, we focus on three main communications objectives:

Objective 1: Reinforce CATS messages to stop open defecation (OD)

MBS communications reinforce CATS messages by using creatively designed tools and materials and additional community engagement activities, if needed. Figure 16 gives examples from WaterSHED Cambodia’s ‘Hands-off’ MBS programme, which was used to re-enforce the disgust of essentially ‘eating shit’ from open defecation and promote toilet use as a cultural norm.

Objective 2: Motivate household investment in a durable hygienic toilet

MBS communications aim to position private ownership of a hygienic durable toilet as highly desirable by using persuasive messages. MBS programmes often use humour and emotion to highlight the personal inconveniences and disadvantages of open defecation or the dislikes of unhygienic toilets. For example, Figure 17 shows one of a series of communications tools from Benin’s ‘National Rural Sanitation Promotion Programme’, highlighting lack of safety as a disadvantage of open defecation (other examples of MBS programme communications materials can be found in Annex 14). At the same time communications promote the private benefits of investing in a good toilet, using the consumer insights and key drivers from your market research and from your product system design work.
Objective 3: Raise customer awareness of new product system offerings and support sanitation businesses to promote and sell them

MBS communications actors and activities are needed to:

- Introduce the new product system offerings directly to households, including their costs, their key features that consumers care about and want, how they are installed and operated, and how to purchase and build them.
- Introduce focal point businesses in the area that can supply the new product package and service offerings to households.
- Equip focal point businesses with generic, easy-to-understand simple advertising tools (e.g. flyers, business cards, banners, product catalogues, installation instructions) that can be easily and cheaply reproduced, personalized, and distributed by them to promote their specific products and service offerings (see examples in Annex 14).
- Train and support front-line sales promoters to give consistent, effective sales pitches to overcome objections and convince households to invest.

Tools and messages should draw directly from the insights gained from customer consultations during your product system design stage, regarding things customers like and care most about the new product systems, and information customers want to know about them, such as how they are purchased, delivered and installed.
households most interested in functional benefits like durability and strength? Or are they concerned most with cost and construction quality? This third communications objective will also depend on the delivery and business models used to produce, distribute, sell and install the new offerings, so close co-ordination between this work and your business model design work is essential.

Which objective should you focus on?

Table 13 above presents different sanitation demand cases for MBS and the relevant communications objectives that your MBS demand activation strategy will need to address.

**Case 1: High open defecation**

As long as open defecation is being practiced, CATS or other community-wide mobilization methods should continue to be used and MBS communications should address all three objectives. This case is an opportunity to jump directly to better-quality facilities that provide basic sanitation services and provides the fastest sales growth opportunity for MBS business partners.

In rural Benin for example, OD rates were high and most households had never thought about building a toilet before the national sanitation promotion programme began in 2002. Demand activation followed a sequence of communications activities, beginning with demand creation through a village-wide meeting using ‘Participatory Hygiene and Sanitation Transformation’ (PHAST)-inspired tools to mobilize the community to stop OD and build toilets (Objective 1). This was followed quickly by home visits to each household by trained community-based volunteer promoters using communications tools to motivate investment (Objective 2). Promoters returned to motivated houses for a second visit to introduce new toilet designs at three price points and the steps required for planning and building (Objective 3) and then introduced them to programme partner masons to negotiate and prepare building plans, while continuing to advise households on construction steps. For more details on the demand activation activities used in Benin, see WSP’s 2011 field note in Resources and further reading at the end of this section.

**Case 2: High unimproved services**

Where communities have achieved open defecation-free status, or where there is already a tradition of using household toilets, but those toilets are unimproved facilities providing a poor level of service, MBS demand activation can concentrate on Objectives 2 and 3. This is the case in many Eastern and Southern African countries where using pit toilets is a long-standing inter-generational practice. The pace of sales is often slower for businesses and limited by the rate of toilet replacement.
Case 3: Affordability challenges

If market research shows most households are already motivated to invest in a particular improved toilet design, but lack access to affordable quality product systems and services, MBS demand activation can concentrate on Objective 3. In Cambodia, market research found that over 90 per cent of households without any toilet who defecated in the open had thought about building a toilet, and knew which model they wanted, but could not find local suppliers offering what they wanted at reasonable prices.

Communications methods for MBS

Three major types of communications methods for MBS are outlined below in Table 14. Below-the-line interpersonal communications that engage with target customers directly are considered much more cost-effective and powerful for activating demand than above-the-line mass media methods (see Box 12 below). ‘Direct consumer contact’, contrary to its name, functions mainly as an above-the-line method – it acts in a similar way to mass media, just on a smaller, seemingly more intimate scale. Interpersonal communication uses two-way dialogue with small groups or an individual to convey multiple interlinked messages, to answer questions, and to build trust between the target audience and the sales promoter. Examples of IPC tools include flip-chart stories, role plays, image cards and other materials that are used with target customers in a face-to-face, interactive setting. Experience with MBS has shown that rural households are most influenced to invest in basic sanitation by talking to trusted sources of information such as neighbours, relatives and friends. They also learn most about toilet designs from direct exposure to the product system offerings, for example, by seeing, touching and ‘trying’ them at a village triggering or sales event, or at an early adopter neighbour’s home.

Mass media channels are limited to one-way messaging, for example through mainstream radio, posters, or billboards. They may reach more people, but typically few of them are your MBS programme’s target customers. While this type of messaging is good to raise awareness and reinforce personal experience, it is unlikely that a radio spot, poster or billboard – even when it manages to reach a target customer – will motivate them to buy by itself. TV is expensive, and usually has very poor reach among poor rural households. On the other hand, local radio may have good rural penetration in some countries. If a local radio station is identified during market research as a widely used regular source of new information in the majority of rural communities and households in your programme pilot area, consider including a budget for design and testing.
of creative radio communications to complement your MBS community-based IPC activities. Remember to fully consider the rural reach and past effectiveness for the middle and bottom two rural income quintile segments, when investigating rural mass media channels such as radio, billboards, and posters during your market research. Often the poorest rural households have the least media exposure, rarely leave their village, and are best engaged directly in village-based small groups and through door-to-door interaction.

IPC also differs from direct consumer contact (DCC), which typically involves scripted events requiring large budgets for skilled professionals, event equipment and set-ups, and travel costs. This often limits DCC reach to audiences in larger towns with few target customers and increases demand activation communications costs for MBS replication and scale-up.

**Prioritize community-based IPC for demand activation**

IPC activities and tools implemented in the community by local government actors and community sales promoters are flexible, adaptable and replicable for reaching and persuading rural households where they live in their communities. They can be used in community meetings, at village sessions following CATS triggering, and in one-to-one motivational visits or sales pitches to individual households.

Sales promoters can use IPC tools in every village and household they visit as many times as they need, so there is no need for a large ongoing budget for media placement or professional events. IPC tools can be used by respected community volunteer promoters, community health workers, front-line field staff of NGOs, local government staff, and others already living or working in target communities. The key is that community sales promoters be trusted sources of information with energy and enthusiasm for conveying the messages. Community-based IPC is cost-effective, scalable and sustainable, as well as operationally compatible with CATS programming in terms of their village-level focus. Table 15 provides examples of IPC activities and tools for the three MBS communications objectives.

**Adding mass media, direct consumer contact and generic advertising to support the IPC strategy**

Once you have a clear sense of what your IPC strategy should look and feel like, you can consider supplementing and reinforcing its messages with other communications methods. Table 16 gives some examples of above-line-line mass media and DCC communications, as well as below-the-line generic product and business advertising, some of which might be added to support an effective and proven MBS community-based IPC strategy for demand activation.

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**Table 14: Three types of social and commercial marketing communications**

<table>
<thead>
<tr>
<th>Method</th>
<th>Description and examples</th>
<th>Main purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal communication (IPC) ('below-the-line')</td>
<td>Two-way facilitated dialogue, in small groups or with individual household decision-makers</td>
<td>Ask/answer questions about the product, build skills/confidence, problem solve, provoke thinking, persuade, change attitudes</td>
</tr>
<tr>
<td>Direct consumer contact (DCC) ('above-the-line')</td>
<td>Scripted events (theatre, product demonstrations, mobile video), using 'edutainment' approaches at venues/locations with large audiences</td>
<td>Raise awareness, introduce new products, convey information, provoke thinking, reinforce IPC messages</td>
</tr>
<tr>
<td>Mass media ('above-the-line')</td>
<td>TV advertising, radio, print (posters, billboards, banners, t-shirts, hats, flyers, placards, shop signs, etc.)</td>
<td>Raise awareness, convey information, remind and reinforce IPC messages</td>
</tr>
</tbody>
</table>


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Simple generic product marketing and instructional print materials for wide distribution to households in target communities are one form of below-the-line marketing which is critical for Objective 3, to raise customer awareness and support focal point sanitation businesses to promote and sell their new sanitation offerings (e.g. simple generic banners, business cards, product flyers, visual installation instructions, and product catalogues; see some examples in Annex 14).

Before moving forward with creative radio communications, such as those in Table 16, carefully examine the geographic coverage and language of potential radio channel(s) relative to the coverage of your network of active sanitation focal point businesses and languages spoken in your target area to make sure they match up. If your market research shows only a small fraction of target households listen regularly to the same radio station, or that few households ever pass by and notice billboards and posters, or people wearing programme t-shirts are rarely seen, these channels will be ineffective.

DCC tools and activities may be combined with community-based IPC activities to achieve Objectives 2 and 3. Examples include showing a short video to provoke discussion at a community IPC session, or holding a toilet fair of new product system offerings at a market centre close to a group of target villages in conjunction with village IPC sessions before the event, followed by door-to-door sales visits right after the event. The ‘Pan...

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**Table 15: Examples of IPC activities and tools for MBS demand activation**

<table>
<thead>
<tr>
<th>Communications objective</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Reinforce CATS messages to stop open defecation</strong></td>
<td></td>
</tr>
</tbody>
</table>
• Creative visuals to reinforce faecal disgust, new social norms against OD, and pride in total sanitation during village-level IPC sessions.  
• Reminders of the community’s commitment to staying ODF as part of any IPC on broader MBS, such as having a large poster of their ODF certificate prominently displayed at all times during all community IPC sessions. |
| **2. Motivate household investment in a durable hygienic toilet** |  
• Steps and messages with creative visuals for conducting a community IPC session, or house visit.  
• Invitation flyer distributed before a community session to achieve high attendance.  
• Simple training tools for facilitators to make learning how to conduct community sessions and house visits easy.  
• Simple visuals for use by facilitators to introduce toilet design options, construction planning, and/or installation steps. |
| **3. Raise consumer awareness of new sanitation offerings and support sanitation businesses to promote and sell them** |  
• Steps, actors, roles and materials for an initial community ‘sales’ event to introduce new toilet product system offerings, features, prices, how to purchase, and how to correctly install and use (e.g. product brochure, visual installation instructions; see Annex 1d) and for follow-on sales ordering procedures.  
• Invitation to focal point businesses to a community event to introduce themselves, their toilet product systems and services.  
• Simple training tools for local facilitators to learn sales techniques, overcome objections, etc.  
• Visual steps on how to order and pay for a new product system.  
• Simple tools for registering and tracking new orders, including an ordering receipt to reduce error for sales agents. |
Table 16: Examples of mass media, DCC and below-the-line generic advertising activities and tools for supporting the IPC strategy

<table>
<thead>
<tr>
<th>Communications objective</th>
<th>Examples</th>
</tr>
</thead>
</table>
| 1. Reinforce CATS messages to stop open defecation | **Mass media social marketing:**  
- Local community radio news feature on a village becoming ODF, interviews with an ODF community leader, CATS facilitator, etc.  
- Inspirational video on becoming ODF targeted at local government/community leaders (see Cambodia ‘Inspirational Leader’ video in Resources and further reading at the end of this section)  
- Billboards in target areas, t-shirts, flyers, posters challenging citizens to stop open defecation, with creative, provocative visuals  
- Catchy song for radio (and DCC), about virtues and social benefits of becoming ODF  
**DCC social marketing:**  
- Mobile video drama (as above) where radio has poor reach  
- Traditional community-based competitions for best song to stimulate desire for and investment in the new product system offerings  
- Mobile video to introduce the new product system offerings and options, installation and purchase steps at community events/meetings |
| 2. Motivate household investment in a durable hygienic toilet | **Mass media social marketing:**  
- Local community radio drama about personal disadvantages of OD or of unhygienic, temporary toilets, and benefits of investing in the new product system offering  
- Billboards, t-shirts, posters, flyers highlighting the most salient message for investing in a durable hygienic toilet  
**DCC social marketing:**  
- Mobile video drama (as above) where radio has poor reach  
- Traditional community-based competitions for best song to stimulate desire for and investment in the new product system offerings  
- Mobile video to introduce the new product system offerings and options, installation and purchase steps at community events/meetings |
| 3. Raise consumer awareness of the new product system offerings and support sanitation businesses to promote and sell them | **Below-the-line product, business advertising:**  
- Generic banners, business cards, product flyers, product catalogues, visual installation instructions, specifically for focal point businesses to personalise, reproduce and distribute directly to target customers at community ‘sale’ events, home visits, and other direct sales activities  
- Local radio public service announcements about availability of new product system offerings, where to get more information  
- Local radio news features with local focal point businesses, satisfied customers of the new offerings  
**DCC consumer education and product marketing:**  
- Mobile toilet fair to display and educate consumers about the new product system offerings, how to operate, install, and maintain them, and introduce local focal point businesses and how to buy from them (see Case study 6: UNICEF India’s ‘Pan in the Van’ experience) |

in the Van’ approach to raise consumer awareness of new toilet products in remote areas of Madhya Pradesh, India is an example of using DCC to lay the groundwork for follow-up community-based IPC activities (see Case study 6: UNICEF India’s ‘Pan in the Van’ experience). When considering DCC, carefully evaluate who will pay for ongoing transport and event costs, and the cost implications of using DCC for replication, scale-up and sustainability of your MBS programme communications activities. Whether or not to add other mass media channels or DCC activities to your IPC strategy will depend on their reach and impact among your target audience, and on your MBS communications budget for creative design, testing, and implementation. You should also consider the likely limited capacity and resources of your sanitation focal point business partners to contribute to
‘Pan in the Van’ – UNICEF India experience designing demand activation for remote communities

UNICEF Bhopal India Step 5: Demand Creation and Product Promotion

In 2006, 75 per cent of Madhya Pradesh State in India practiced open defecation, with even more people lacking improved toilets. As one part of its sanitation support, UNICEF partnered with both the government at the Secretariat for Panchayat and Rural Development, and with the Energy Environment and Development Society (EEDS), an innovative market-oriented NGO based in Bhopal, to develop, design and pilot rural sanitation marketing. The programme targeted the most disadvantaged areas. The goal was to expand the supply chain of toilet components and designs to reach poor communities in remote rural areas, with toilet designs that appealed to consumers, and promote their uptake as part of efforts to eliminate open defecation.

From 2006 to 2008, UNICEF carried out market research, followed by product design and production development to improve designs and expand supply chains. The result was new methods that could be used to locally produce a range of better quality pre-fabricated toilet components, including pans. The production methods were easy and standardized, using moulds for quality control.

In 2009, UNICEF contracted EEDS to design and pilot a demand creation and marketing strategy in partnership with Panchayat (local government) leaders responsible for sanitation. The goal was to create awareness and promote uptake of the new toilet designs and production of components by local suppliers. To overcome a key challenge of the remoteness of target communities, EEDS and UNICEF developed an innovative marketing approach called ‘Pan in the van’ as part of its new WASH enterprise market facilitation and development approach.

‘Pan’ referred to the toilet component and supplies. The van was equipped with an audio video aid, a package of IEC tools and games, a plethora of technology options, exhibits, as well as a resource team for behaviour change. This included technical tools specifically focused on the capacity building of basic masonry skills for low-cost toilet construction. The van also carried IPC tools:

- Interactive games and CLTS-type triggering activities;
- Audio-video equipment and public address system as well as videos, folk songs, recording of key messages;
- Physical samples of the new toilet products and components as well as full facilities;
- Equipment for producing sanitary items (pans, p-trap, etc.);
- Display items including a power generator, folding canopy, tables, boards, podium and meeting tent (for 15-20 persons);
- Trophies and certificates for participants.

The van travel to each Panchayat, the smallest administrative grouping of villages, in rural Madhya Pradesh comprising a population typically of about 30-500 households, for three days. In that time, EEDS facilitated information, education and communications activities to introduce households and masons to the new designs, components, and production methods to increase the uptake in the local market. Over the three days, EEDS raised community awareness and reviewed WASH-related issues identified in a participatory health hygiene analysis. EEDS also trained village level water and sanitation committees, women’s self-help groups, and masons. School children were engaged through the school sanitation and hygiene mobilization, resulting in WASH action plans that included a community-led monitoring system. During the
three-day visit, all villages in the Panchayat were brought together at an all-day toilet that used a mix of inter-personal communications and direct consumer contact methods to educate and entertain people.

Critical to the success and strength of the mobile approach embodied by ‘Pan in the Van’ was to bring to physical examples of the new toilet designs and components to the people, where they live, to touch, feel, see, ask questions, and judge product quality and designs for themselves. UNICEF spent approximately US$90,000 for the design and development of the ‘Pan in the Van’ approach. The operational cost of the four steps ‘Pan in the Van’ approach is estimated to be around 5-6 USD per household, excluding one-time fixed costs.

A review of the ‘Pan in the Van’ approach in 5 districts of Madhya Pradesh between 2009 and 2012 showed that the ‘Pan in the Van’ reached 120 villages and strengthened WASH-related services and capacity in an estimated 100 Aganwadis (pre-school children development centres), 240 schools and 20,000 households. About 12,000 women and girls participated in the sanitation improvements in their community, while 100 Anganwadi workers, 700 schoolteachers and 35,000 school children to become agents of change in their communities. An estimated 600 masons were trained on different technology options, quality aspects and supply chain management for toilet construction in the remotest locations.
ongoing demand activation on their own (as well as responding to and fulfilling new orders generated by the demand created by these larger-scale communications channels) before utilizing them. When adding channels to support the IPC strategy, their implementation will need to be carefully coordinated with the implementation of IPC activities of sales promoters and local government actors, as well as with focal point business development and strengthening activities, for maximum effect.

**Building links with existing sanitation programmes and communications campaigns**

MBS demand activation addresses communications objectives and activities, specifically to motivate household investment in improved toilets and to raise customer awareness of purchase opportunities, building on and reinforcing initiatives to stop open defecation. They are not a complete sanitation BCC approach, so you will want to make sure MBS messages and activities complement the objectives of your broader sanitation and hygiene communications programme.

In the case of community-level sequencing of MBS and CATS activities, questions will inevitably arise about the timing of CATS triggering and MBS demand activation activities. When do you ‘introduce’ a new set of product system offerings, or a local small business – before, after, or perhaps even during a CATS triggering event? When should you introduce information about technical options and locally available product systems? Here there is less systematic evidence about what works, but experience points to a mix of workable models. It is best not to be prescriptive, especially in the beginning. It makes sense to test different sequencing approaches in CATS communities to see what works best in your context.

**Deciding who will carry out IPC demand activation activities in MBS programme communities**

You will also need to decide which community-level actors and sustainable structures are available on the ground in each village to carry out IPC activities and support direct sales of new product systems for focal point businesses, including playing key intermediary roles of informing focal point businesses of households ready to order and purchase, and vice versa. Especially when working with smaller businesses, it is usually best if MBS front-line sales promoters are part of existing community-based structures. These might be a member of a local village council or women’s group, a volunteer health worker, or other village or local government member. The key is that they be based in the community, and respected and trusted by households. Women are often overlooked for these kinds of roles, especially when monetary compensation might be involved. However, they should be actively recruited and trained, as women have proven to be effective and motivated community sales promoters, when given the opportunity (see **Box 14**).
Table 17: Dos and don’ts for community-level sequencing of MBS and CATS

**DO** test what works for you – set up some small action research trials of demand activation before/after/during CATS triggering to see what might work best.

**DON’T** treat MBS as a supply-side add-on to CATS work. Businesses will fail to sustain and grow if they are limited to working only in CATS areas and only when a community is triggered or ODF.

**DO** consider ‘harmonizing’ approaches in a broad sense at national and sub-national scales. For maximum cost-effectiveness, it may not be necessary or ideal to try to geographically overlap completely.

**DON’T** try to control the market. Making blanket policies like ‘no demand activation until a community is ODF’ will stifle local businesses on the supply side. On the demand side, there is no evidence that customer awareness of private sector product/service options is detrimental to ODF achievement, and there is some evidence that it may be crucial to long-term sustained ODF.

**DO** monitor community dynamics closely, and adapt strategies as you go. Are your demand activation strategies alienating/stigmatizing those with poor quality toilets? Is it clear that a local leader is preventing some businesses from freely operating?

**DON’T** try to control the market. Making blanket policies like ‘no demand activation until a community is ODF’ will stifle local businesses on the supply side. On the demand side, there is no evidence that customer awareness of private sector product/service options is detrimental to ODF achievement, and there is some evidence that it may be crucial to long-term sustained ODF.

**DON’T** take a ‘one-size fits all’ approach. While it might seem easier to just tack on demand activation activities to a community leader’s role, this may not be ideal. Turning natural leaders into a sales force is not the goal of MBS, although this has worked well in some places.

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50 See S. Hanchett et al.’s 2011 evaluation of long-term improved sanitation in Bangladesh for WSP (in Resources and further reading at the end of this section).

51 For example, see Case Study 7 (Indonesia) in 4.1 Implementation.
Some MBS programmes actively recruit and engage women sales agents or promoters, who then receive sales commissions or salaries, as a core programme strategy.

In Cambodia, disaggregated sales performance data collected by WaterSHED showed that male sales agents were outperforming female sales agents. Gender analysis found four main barriers for female sales agents which contributed to this: more limited social and professional networks, lack of confidence in their ability to communicate information about toilet options, time constraints, and mobility restrictions and risks. In response, WaterSHED developed several tailored initiatives, including the WEWork Collective, a sanitation business network run by women, for women, which could act as a strong new social and business network, allowing women to help each other to address the challenges they were facing compared to their male counterparts.

In Nepal, iDE recruits, trains and pays community sales agents – called ‘community business facilitators’ – to sell toilets across multiple villages, using group presentations and door-to-door visits. New recruits get sales training, and practice one-on-one selling to develop confidence, skills and effectiveness before leading group sales events. Nearly half of these facilitators are women, and they have been shown to be as successful as the men. Some of the most successful female facilitators can earn commissions of around $100 in an average month, providing a significant increase in their family’s finances and generating pride from the sanitation work that they do. Aside from the different cultural context, the ongoing external investments by iDE in training, support, higher pay, and supervision of MBS sales agents may have contributed to the improved outcomes for women sales agents in Nepal as compared to Cambodia.

In rural Uganda, USAID’s Sanitation for Health programme recruits and trains existing female community-based health promoters who already work as door-to-door health advisors and sell medicines in their community. They earn a commission selling toilet components directly to customers who want to upgrade their existing toilet. Female sales agents refer customers to a partner mason and follow-up to ensure correct installation, operation and usage. Early indications show rising sales and installations in Uganda, through a partnership which benefits both the female sales agents and male masons.

Sources:


Because interpersonal communication about new product system offerings is so critical to a household’s decision to invest in an improved toilet, direct sales and marketing to rural households is a fundamental component of MBS demand activation strategies. In many MBS programmes, community-based sales promoters receive a small sales commission or fee, paid by the focal point businesses for each new product system order.52 In other programmes, they are volunteers – while some programmes have used professional sales agents. Table 18 next page outlines advantages and disadvantages for your programme to consider in deciding which kinds of actors and payment schemes to use as sales promoters to directly market and sell the new toilet product systems to rural households.

In CATS programme areas, questions will arise about whether or not to use CATS facilitators

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52 For example, see Case Study 7 (Indonesia) and Case study 8 (Bhopal, India), both in 4.1 Implementation.
and natural leaders as commissioned sales promoters for local businesses. While using existing community-based CATS facilitators and natural leaders as sales promoters for IPC activities may be a good option in many contexts, and should not be ruled out, it is important to ensure that CATS facilitation is seen as separate from efforts to develop the market. Turning natural leaders into a sales force is not the goal of MBS; it is best to take an iterative approach to learn what works and build up programme knowledge. For example, if it is unclear what roles CATS facilitators should play or when they should be involved in MBS activities in a given community, you could pilot-test having them involved in different roles at MBS promotional events before, during, and after CATS triggering to see what works best. At a minimum, CATS facilitators can help encourage the installation and correct use of purchased toilet product systems, and natural leaders and other officials can be trained to provide advice on product options, and technical aspects of installation, construction and usage of new product system offerings.

### Description

**Commissioned community-based sales promoters**
- A business (often a concrete producer or other sanitation SME) offers a commission to a local agent for each toilet system sold
- Local sales agent is responsible for direct promotion, taking new orders, and sometimes arranging delivery/construction dates and/or payments
- Commissions typically range from US$1-3.50 per toilet product
- Agents are often community health volunteers, sanitation workers, or identified CLTS natural leaders from the community

**Volunteer community-based sales promoters**
- A government department (sometimes with support from external agencies) enlists community influencers or leaders to support product promotions and sales
- Volunteers, often health volunteers, or sanitation committee members, take on direct promotion, taking new orders, and sometimes arranging delivery/construction dates and/or payments with focal point businesses

### Advantages

**Commissioned community-based sales promoters**
- Motivated to help their community and fulfil government mandates
- Understand the community and are trusted
- Have other main income source - commission is minor incentive
- Businesses take more ownership of local sales force
- Less need for government/project involvement in sales co-ordination
- High sustainability
- Strengthens local relationships and co-ordination among local leaders, government staff and sanitation businesses

**Volunteer community-based sales promoters**
- Highly compatible with CATS and other community-based approaches
- Volunteers motivated to help their communities
- Understand the community and are trusted
- Non-monetary motivations used instead – additional training, recognition, prestige, new tools, t-shirts, etc.

### Disadvantages

**Commissioned community-based sales promoters**
- Potential for conflict if agents also play roles in local government and/or CATS
- Can be difficult for small businesses to manage sales force independently – support still needed
- Focus may be on sales rather than installation and consistent usage – monitoring needed
- Limited geographic reach of each promoter, which may require larger number of promoters

**Volunteer community-based sales promoters**
- Sanitation promotion may become lower priority compared to other work
- Less active selling if non-commissioned
- More need for active government/programme supervision and involvement in sales co-ordination

### Table 18: Deciding whether to use commissioned sales promoters

<table>
<thead>
<tr>
<th>Description</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissioned community-based sales promoters</td>
<td>• Motivated to help their community and fulfil government mandates</td>
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</tr>
<tr>
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</tr>
<tr>
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<td></td>
</tr>
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<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Who pays for community-based demand activation?

When thinking about who will pay for demand activators/sales promoters at community level (initially, and as the programme scales up), it is helpful to consider and separate costs into four main item areas:

1. Upfront costs of designing and testing activities, operating procedures, and tools for sales promoters to engage target customers and activate households to purchase the new toilet product systems (the focus of ‘demand activation’ – this section).

2. Costs for recruiting and training new sales promoters, including developing and testing training materials, initially and then later as the programme rolls out and scales up to new areas (see 4.1 Programme implementation).

3. Costs of paying sales commissions.

4. Costs for producing and reproducing product/business local advertising materials (‘below-the-line’), such as flyers and catalogues for focal point businesses.

Generally, external funders (such as the government or a support agency with donor funding) pay for all of the first item – upfront design and development costs – and all of the initial costs of item two; the recruitment and training of demand activators. In many cases, they may also need to support recruitment and training as a programme scales up across new areas.

On items three and four, ideally, local focal point businesses should pay for sales commissions and for their own print marketing material reproduction (e.g. photocopying) by incorporating these in their toilet product pricing and cost structure. This would be the most sustainable approach – however, there are many cases where (time-bound) external support for these last two items may be needed, in order to get the new sanitation market developed to the point when new toilet sales have taken-off.53 In MBS, focal point businesses are unlikely to generate enough profits from toilet sales to fund the full cost of demand activation and promotion, although they are often able and willing to pay small commissions to sales promoters for each new toilet customer.

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53 Experience of MBS programmes suggests new toilet product sales begin to expand rapidly after year 4 of an MBS programme. For more detail, see USAID (2018) in Resources and further reading at the end of this section.
Bigger businesses might be able to pay a small contribution of US$0.02-0.05 per customer photocopy cost for a product instructional sheet, but even that has proven to be very difficult – so be prepared to budget for this until sales begin to take off.

Sometimes the level of sales commission that a local focal point business can afford covers only a portion of the sales promoter’s effort/time/travel costs. In addition, the initial phases of demand activation may require more time, effort and costs for the first few customers in a new community. In these cases, additional incentives and temporary financial support for these demand activation costs may be needed, to motivate promoters and support local focal point businesses (ongoing and extra initial costs of demand activation once the programme is up and running is explored in more detail in 4.1 Programme implementation). Consider structuring external funding for demand activators in these cases, as payment for performance.54 Making such performance-related payments for demand activators requires considerations for geographic variability, in terms of population density and distances faced by different demand activators. They should also start at the lowest level acceptable to the activators, and you should have an exit plan from the start.

**Planning your overall demand activation strategy**

Effective IPC methods and a clear sales and marketing strategy form the backbone of successful MBS programmes. Without a proven community-based IPC demand activation strategy, and without front-line community sales promoters to directly engage individual households to invest and purchase the new product system offerings and link them to local focal point businesses, other forms of communication will have minimal impact. ‘Traditional’ or mass media communications can be costly and ineffective at activating target customers and are unsustainable. It therefore makes programmatic, operational and budgeting sense to prioritize the design and testing of IPC activities and tools with identified sales promoters, as well as product marketing print materials for focal point businesses that they can afford to reproduce, as the core components of your MBS demand activation strategy for implementation.

A further reason for focusing on IPC and local marketing is the lead time needed to set-up or improve local supply chains for the new product system offerings. If the new product systems are not yet widely available to rural households, mass media and DCC marketing activities encouraging investment in the new offerings can result in households becoming interested, only to discover the new options do not yet exist in their community, thereby confusing and frustrating potential customers.

However, where market research and other evidence does indicate that mass media marketing (such as local radio) or DCC methods are likely to be cost-effective, and there is sufficient budget for creative design and testing as well as to sustain their use in scale-up, a two-stage design process is recommended. The first stage is creative design and testing of the core, community-based IPC demand activation activities and identification of persons to carry out those activities. This can be done at the same time as the design of your focal point business model and delivery approach, and associated market facilitation and business development support activities.

The design and testing of additional activities via mass media or DCC communications channels should always be a second phase, as an addition to IPC. For example, a strategic time to design and test such additional communication channel activities might be in the second year of implementation piloting, in the period leading up to and during the peak sales season, which often comes right after harvest season when rural households have extra cash. This will put you in a position to evaluate whether adding these communications channels in co-ordination with ongoing IPC activities enhances purchase and sales of the new product system offerings and should therefore be considered for inclusion in scale-up.

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54 See Trémolet, S. (2011) in Resources and further reading at the end of this section.
If you do decide that such additional channels may be useful to bolster your community-based IPC demand activation strategies during implementation or scale up, **Box 15** below outlines some further resources for developing and implementing a large-scale social marketing communications campaign.

In planning for additional DCC or local radio mass media to support IPC activities, it will be important during the initial IPC creative design stage to have an overarching creative concept that can also be used to guide development of these complementary communications activities. A template to use to develop a demand activation communications creative brief can be found in **Annex 12**.

### Developing the core MBS IPC demand activation activity tools and product marketing print materials

Follow the steps below to develop tools and materials for local actors to use for demand promotion and customer product marketing and sales to achieve the demand activation objectives relevant to your sanitation situation in the piloting stage of your MBS programme. These steps can be adapted to include DCC activities and local community radio communications to support your MBS community-based IPC strategy, where relevant and programmatically feasible.

**Step 1: Assess the teams’ skills**

Carefully assess contractor staff skills and capacity, and capacity within UNICEF, for example of your WASH and communications for development (C4D) staff, to manage the IPC sales and marketing communications development work. If there are gaps, ensure the services of short-term expertise in below-the-line sales and marketing communications is engaged to support the team.

**Step 2: Identify and develop a rough budget for the design and start-up phase**

Develop an initial budget for developing activities and producing tools by answering the following questions. This does not need to be overly detailed to provide a framework for moving forward.

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**Box 15: Guidance and resources for developing large-scale sanitation social marketing communications campaigns to support IPC demand activation activities for MBS**


- *Hands-on Social Marketing* is a manager’s workbook by Nedra Weinreich published in 2010, and contains step-by-step guides for designing a social marketing campaign from start to finish. See [Resources and further reading](#) at the end of this section for more details.

- The *Fundamental Templates of Quality Ads* by Jacob Goldenberg, published in 1999, has guidance for developing quality creative advertising using six templates. Whether developing ideas in-house or with a supplier, these may help you identify formulas to connect with target audiences. Available at: [https://www.researchgate.net/publication/227442188_The_Fundamental_Templates_of_Quality_Ads](https://www.researchgate.net/publication/227442188_The_Fundamental_Templates_of_Quality_Ads).

• How much is your printing budget for all IPC materials and an initial set of product marketing print materials for start-up?
• How much is your consultant/agency budget for third-party consultants or agencies, to help you design the tools, take photos, hire models, do illustrations, etc?
• How much is your training budget, for training front-line community promoters and others who will be using the new tools and doing the IPC activities?

OR

• If your budget is flexible, what is your total budget envelope for printing, consultants/agencies, and training?

**Step 3: Decide how much of the creative work to contract out vs. keep in-house**

There are two main ways professional creative agencies, designers, trainers, or sales consultants can work with you: as partners (i.e. through partnership agreements) or service providers (i.e. through contracts). Partners work with you at a strategic level. They question your assumptions, provide strategic direction, and give you ideas to make your project as successful as possible. Partners should be capable of developing much of the creative content for IPC material and/or training themselves after getting your input. Usually, partners are more expensive but can offer greater value when your team does not have enough expertise in behaviour change and marketing communications.

<table>
<thead>
<tr>
<th>Question</th>
<th>Example answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What tool do you want to create?</td>
<td>A generic advertising flyer with contact information for the local toilet business</td>
</tr>
<tr>
<td>2. Why is this tool important? What problem do you want it to solve?</td>
<td>Many community members do not know the toilet producer exists, their phone number, the cost of his/her toilet, or that they offer a delivery service</td>
</tr>
<tr>
<td>3. Who will be using the tool(s)?</td>
<td>Community health volunteers with limited literacy</td>
</tr>
<tr>
<td>4. Who is the target audience?</td>
<td>Rural villagers, mix of ages and genders, including household heads, with limited literacy</td>
</tr>
<tr>
<td>5. When will the tool be used?</td>
<td>The tool will be used at the end of a 1-hour IPC village session and during house visits</td>
</tr>
<tr>
<td>6. Where will it be used?</td>
<td>In rural villages in the province</td>
</tr>
<tr>
<td>7. What’s the most important thing you want the participant(s) to remember or do after interacting with the tool?</td>
<td>That they can own a good toilet very quickly if they call their local business or contact the local sales agent</td>
</tr>
<tr>
<td>8. What are some potential reasons to believe this message?</td>
<td>There are now good toilets available for only $35. The local business will deliver it to your door!</td>
</tr>
<tr>
<td>9. How long will the facilitator have to use the tool?</td>
<td>5 minutes</td>
</tr>
<tr>
<td>10. How many copies do you need to print?</td>
<td>10,000 pieces</td>
</tr>
<tr>
<td>11. How much budget do you have to print the required copies?</td>
<td>$500 for all 10,000 pieces</td>
</tr>
</tbody>
</table>
By contrast, service providers execute whatever you tell them to do. For example, a graphic designer will ask you to provide all the copy (i.e. text and creative direction) and a trainer may ask you to provide all the training content. Usually service providers are less expensive and brought in later in the process. Annex 13 provides an example of terms of reference for contracting a professional creative agency as a partner to develop the IPC strategy and materials, and Annex 12 contains a template for a creative brief.

**Step 4: Develop a set of working draft communication tool briefs**

Whether you are considering a single one-hour community session to achieve one or more MBS demand activation objectives, a shorter session or house visit on just one objective, or a flyer to advertise a product or business, tool briefs will be the foundation to help you develop them. A creative partner can work with you to complete your IPC tool briefs. If you hire a service provider, you will probably need to develop them yourselves. Table 19 previous page shows an example of a simple tool brief.

After developing an initial set of tool briefs (you may have anywhere from 2-20), decide with your team (creative partner included, if applicable) which tools are the most important, and balance this with what you can afford. Select the final briefs and engage your partner or service provider to produce the tools.

**Box 16: Tips for managing the IPC design process**

- **Tip 1**: Many agencies do not test prototype IPC materials with target audiences and sales promoters as part of their regular process. However, pre-testing is a critical step. Ask if the agency or supplier has experience doing audience testing in the relevant communities and how they plan to test their early designs. After these discussions, potential suppliers should be able to prepare their budget and work plan, which will allow you to make your final decision. If you have hired a partner, allow them to lead the process, but ensure you stay informed on progress and results.

- **Tip 2**: For an efficient IPC design process, designate one key contact person who can give final design approval. If multiple team members need to review designs, do it in one meeting all together with the supplier/partner, rather than by email or multiple individual review rounds. Request a work plan with key milestones and dates when your team’s review/approval is needed. If working with a partner, allow some creative freedom for them to develop their ideas. Be open minded to new ideas that may challenge your assumptions. Testing first prototype designs is the best way to understand what works best with your target group.

- **Tip 3**: Creative concepts for IPC activities and tools can be adapted for other additional communications channels, as needed. For example, a storyboard that is then developed into a flip chart for IPC delivery in more remote areas could also be used to develop a local radio drama, where this has good reach.

- **Tip 4**: When developing local radio and/or DCC activities, co-ordinated implementation with ongoing community-based IPC activities in a given location will be an important dimension of planning and development. When contracting out the design and execution of these channel activities, ask for a detailed schedule and costing for coordinated implementation.

- **Tip 5**: Make sure promotional, sales and marketing tools, materials and activities developed for demand activation in the MBS programme are generic and do not have any logos of any organizations (or manufacturers) supporting the MBS programme.

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55 For more on audience testing guidance, see WSP’s Sanitation Marketing Toolkit. Details in Resources and further reading at the end of this section.
Step 5: Manage the design process

Before hiring, review portfolios of past agency or consultancy work. Meet with shortlisted candidates (based on portfolio quality) and introduce the tool briefs you have developed. Ask them to walk you through the process they would use to turn the briefs into a final product and ask questions until you are comfortable.

Once your tools are designed and tested, and community sales promoters are trained (for details on when and how to manage training, see 4.1 Programme implementation), your MBS demand activation pilot programme is ready to launch. Be sure to include regular field supervision and frequent opportunities for feedback from front-line sales promoters during initial stages of implementation rollout, so that IPC activities and tools can be improved over time.
Resources and further reading


Annexes

Annex 12: Template demand activation creative brief
Annex 13: Example TOR for contracting a creative agency
Annex 14: Example MBS communications materials

Case studies and country examples – sources and further information

**Benin**


**Cambodia**


**Bhopal, India**


UNICEF India (2013). *Bhopal sanitation marketing webinar*.

**Indonesia**


**Websites**

USAID: *‘WashPaLS Enterprise Viability Toolkit’*. (For business financial analysis, definitions, tools). [Forthcoming]


**Videos**


WaterSHED Cambodia. *Inspirational Leader*. Available at: [http://watershedasia.org/inspirational-video-latrines-for-all-cambodia/](http://watershedasia.org/inspirational-video-latrines-for-all-cambodia/).
3.5 Reaching the poor through consumer financing

Overview

MBS programmes aim to make basic sanitation more affordable and simpler to purchase for the poor, through improvements in product system design and the delivery and business models of focal point sanitation businesses. But reducing market prices, increasing accessibility to sanitation products and services, and improving the predictability of the purchase process are often not enough: it is very likely that affordability barriers will remain for some households – especially for those in the lowest two wealth quintiles. This chapter examines affordability barriers for the poor and reviews consumer financing options, including subsidy mechanisms for addressing these barriers within an MBS programme. Other activities are also discussed which you can pursue nationally and locally to improve consumer financing for MBS. Specific methods and mechanisms to target social subsidies to reach their intended sub-groups are not addressed here.56

Consumer financing options

Table 20 next page outlines different market-compatible consumer financing options for sanitation. They should be considered once an MBS programme has had high purchase rates among those households able to pay in each community, to reduce affordability barriers further for the poorest households. They include new ways of providing social welfare subsidies, such as vouchers, conditional cash transfers (CCTs) pioneered in the health, education and welfare sectors, and consumer rebates – where a rebate subsidy is paid after a verified purchase has been made. Many of these options have been tried in short-term pilots and show some promise (see the examples illustrated in Boxes 17, 18, 19 and 20). However, aside from sanitation microfinance loans in some Asian countries, most options have yet to be scaled up and sustained.

When thinking about these options, it is helpful to consider two possible dimensions of the sanitation affordability barrier that may be experienced by a household: cash flow problems (referred to as a liquidity barrier); and absolute cash poverty problems (a real inability to pay).

Borrowing and saving options in Table 20 can work for households with a liquidity barrier; those that have the ability to pay for an improved toilet over time from their own sources of cash income, but struggle to accumulate the large up-front lump sum required to purchase all at once. Lack of liquidity is a significant barrier to improved toilet acquisition for rural customers in the three middle-income quintiles (the middle 60 per cent) across the globe, and options to address it will be important to develop in all MBS programmes. Box 17 provides some examples of successful sanitation loan programmes. However, encouraging customer-facing focal point businesses to offer credit – the option to pay in instalments – directly to households may be more effective in reaching more poor households with a liquidity barrier, as experience suggests these households often prefer instalment payment to taking a sanitation loan.57

During your market research, it will therefore be useful to identify local sanitation businesses who have a practice of offering credit to their customers, so you can approach and engage them during implementation of your MBS programme.

56 You can find a review of these methods in UNICEF’s Sanitation Marketing Learning Series Guidance Note 8: Equity in Sanitation Marketing. See Resources and further reading at the end of this section.

57 example, see WSP-IFC (2013) and Pedi, D., et al (2014). Details in Resources and further reading at the end of this section.
**Table 20: Market-compatible consumer financing options to increase access to sanitation**

<table>
<thead>
<tr>
<th>Category</th>
<th>Sanitation financing option</th>
<th>How it could work</th>
</tr>
</thead>
</table>
| **Saving up**                 | VSLAs (village savings & loans associations), RoSCAs (rotating savings & credit associations), savings groups | - Households group together, each putting aside small amounts of cash on a regular basis, taking turns for who gets the funds  
- Outside source of funds not required  
- Accumulated savings used to purchase, build & upgrade                                                                                                                                 |
|                               | Lay-away purchase                                                                           | - Lay-away schemes allow households to pay businesses in advance in instalments, receiving product/service when full amount is paid                                                                                           |
|                               | Health insurance scheme                                                                     | - Health insurance premiums include free or reduced-price sanitation goods/services, or insurance premium discounts given for having/installing a toilet                                                                  |
| **Borrowing**                 | Consumer loan via microfinance institution (MFI), community or formal bank, revolving loan fund, self-help group | - Addresses cash flow problems for households with ability to repay over time (but cannot pay lump sum upfront)  
- Grant or donor funding often used for loan market research, loan product development, or credit guarantees/subsidies for loan capital and/or ongoing administration costs  
- Interest rate paid by consumer must cover loan administration and commercial borrowing costs, unless loans are subsidized  
- Often requires a new source of capital for loan fund                                                                                                                                 |
|                               | Instalment payment purchase (credit via business)                                            | - Businesses offer purchase on credit from own or outside resources, collect instalment payments from households at and after installation/purchase                                                                 |
|                               | Product leasing/renting                                                                      | - Lease towards ownership or rent when product can be repossessed and re-sold or re-used (e.g. portable toilets)                                                                                                |
| **Social subsidy to households** | Vouchers                                                                                   | - Physical coupon for price discount (or free), for specified hardware options or set cash amount, redeemed at authorized businesses  
- Can be distributed via existing social protection programmes (e.g. the identity card for the poor in India)                                                                 |
|                               | Conditional cash transfers (CCTs) for sanitation behaviour/action                            | - Cash is transferred to beneficiary, conditional on future performance of a measurable sanitation behaviour, with ongoing independent verification of behaviour performance  
- As with vouchers, can be distributed to poorest or vulnerable groups by linking to existing social protection programmes                                                                                         |
|                               | Purchase rebate (consumer output-based aid, or OBA)                                        | - Rebate is paid to household who pre-fines toilet purchase/installation or upgrade (or safe pit emptying service) meeting prescribed criteria/quality, after independent verification  
- As with vouchers and CCT, can be delivered to poorest or vulnerable groups by linking to existing social protection programmes                                                                 |

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58 See UNICEF’s *Social Protection Strategic Framework* (details in Resources and further reading at the end of this section).  
You can also contact the relevant UNICEF staff in your office, to explore opportunities for linkages with and learning from existing social protection programmes.
Social subsidy programmes are complex, require long-term funding commitments, and can be challenging to design and execute well. Engage UNICEF colleagues responsible for social policy or social protection programming to explore these options, and bring in external expertise where needed. The most important aspects of social subsidy delivery are related to strong systems for targeting, administration, fraud detection, and verification. Consider carefully the staging and phasing of any of the subsidy financing mechanism (vouchers, CCTs, or rebates). Starting too early, before new sanitation supply chains are established, can distort local markets and dampen demand among households that are able to pay.

Evaluate the sources of long-term funding for subsidies at the outset, and assess the ability of local businesses to adequately supply new subsidy-driven demand.

To address absolute cash poverty barriers, social welfare subsidies should be considered for the very poorest households. These are households who are either unable or would be unfairly burdened to pay the full costs of toilet construction or upgrading, even if spread over time for instance through a credit arrangement. These include vouchers, consumer rebates and conditional cash transfers (as outlined in Table 20 previous page).

Vouchers have been widely used globally to increase uptake of other health goods and services. For example, large-scale government-funded voucher programmes have been used successfully in several countries to encourage poor households or vulnerable groups to use antenatal and other health services, or to increase uptake of insecticide-treated bed nets. Voucher subsidy mechanisms have also been pilot-tested for sanitation and have been found to be effective. For example, see the Cambodia example in Box 18, where the MBS programme showed that targeted vouchers can be an effective way of increasing improved toilet coverage among the poorest. However, the experience reinforced the importance of delaying introduction of pro-poor targeted toilet subsidies in a community until coverage rates have risen and uptake is high among households that can afford to pay.
Box 17: Examples of successful loan programmes for sanitation

Lesotho: One of the first large-scale toilet construction loan programmes was in urban Lesotho in the 1980s. Government provided capital for a large loan fund, which was managed by a commercial bank. Loans for toilet construction were offered as part of a government-led sanitation promotion campaign, combined with development of private sector services. Loans were dispersed as a purchase order for a standard package of high-quality pit toilet and superstructure construction materials from certified businesses, who were paid directly by the bank.

Cambodia: WaterSHED Cambodia partnered with three MFIs to pilot-test the operational costs and impacts of offering toilet loans to rural households within their ‘Hands-off’ MBS programme. Considerable up-front effort was necessary to identify a workable MFI partnership model and sanitation loan package and co-ordinate MBS toilet sales marketing and MFI lending activities. Initially, cash loans (US$75-100 minimum) were offered by an MFI loan officer who attended the village toilet promotion and sales events along with the local sales agent. During trials, about 5 per cent of attendees (mainly new customers) applied for and received a toilet loan from the MFI. Many other interested households applied, but did not meet the MFI lending criteria. A more cost-effective model was later developed in which the MFI disburses an approved customer’s toilet loan directly to the local toilet supplier business, who then delivers the customer’s toilet. The business pays a small fee (2 per cent of the toilet price) to the MFI, and the customer repays the MFI over time. An initial nine-month pilot resulted in over 1,200 loans via 29 participating toilet supplier businesses to new toilet customers. MFIs continue to offer sanitation loans in MBS programme areas across Cambodia.

However, most WaterSHED partner businesses in mature markets allow poorer households to pay in instalments, as a standard practice to maintain toilet sales because households expressed a preference for this, compared to a formal sanitation loan.

Vietnam: From 2001-08, the Vietnam Women’s Union operated a large-scale government revolving loan fund (RLF) programme, providing over 46,000 low-income households in three cities with toilet loans. Hygienic toilet construction loans of around $150 were offered, to be paid back at a subsidized interest rate in three instalments to poor households in areas without sewers. Loans had to be paid back within 24 months. The Vietnam Women’s Union provided sanitation and hygiene promotion and technical guidance, screened qualified households, enforced repayment using a group-based saving guarantee model, and verified proper use of cash loans. The loan repayment rate was 99.6 per cent, and loan-funded toilet facilities were correctly operating five years later. The RLF capital was fully revolved about every two years, however, demand for the loans outstripped loan capital. The programme was scaled up via the Vietnam Bank for Social Policy across most of urban and rural Vietnam.

India: A variety of different Indian MFI and non-banking-finance companies have been documented across India offering toilet loans, including a new organization, Guardian, supported by Watercredit.org to exclusively offer water and sanitation household loans, in co-ordination with its parent WASH NGO Gramalaya.

59 Geissler, K., et al. (2012) and (2016). See Resources and further reading at the end of this section.
60 WaterSHED (2013). Details in Resources and further reading at the end of this section.
61 Pedi, D., et al. (2014). Details for both in Resources and further reading at the end of this section.
62 WSP (2010). Details in Resources and further reading at the end of this section.
63 Trémolet, S. and R. Kumar (2012). Details in Resources and further reading at the end of this section.
Sources:

Lesotho


Cambodia


WASHPaLS (2020). [forthcoming]

Vietnam


India

Trémolet, S. and R. Kumar (2012). Available at: https://assets.publishing.service.gov.uk/media/57a08a4d0ed915d3cf006b7a/microfinance_for_sanitation_in_India_May_2013.pdf
Box 18: Voucher testing in Cambodia

NGOs iDE and WaterSHED both piloted the use of vouchers in Cambodia in 2015, to reduce the purchase price of materials for an off-set pour flush toilet for the poorest rural households. Both pilots used Cambodia’s national ‘IDPoor’ social protection system to identify and target the poorest households under which the poorest 25-30 per cent of rural households are classified as either IDP1 (poorest) or IDP2 (less poor) and receive a card that provides eligibility for various social subsidies. Voucher amounts were similar in both pilots with discounting around 40 per cent for IDP1 and 20 per cent for IDP2. The modalities of the two pilots, however, were quite different. WaterSHED staff offered vouchers valid for one month to every IDPoor household without a toilet, in existing MBS programme villages that had achieved ≥80 per cent pour flush toilet coverage through market sales. In contrast, iDE sales agents offered vouchers in new MBS programme villages, irrespective of baseline coverage, during door-to-door sales visits only to IDPoor households who refused to purchase at full price, but then agreed to place an order when offered the discount as a follow-up.

In WaterSHED’s pilot, 26 per cent of eligible IDPoor households purchased with the voucher. Those who did not purchase said either that they could not afford to even with the discount, could not manage the labour to build, or faced other structural barriers. In iDE’s pilot, 15 per cent of IDPoor households used the voucher, beyond the baseline full cost purchase rate of about 8 per cent for IDPoor households. In addition, iDE found some evidence that their vouchers suppressed purchase rates among non-IDPoor households, in villages with lower baseline coverage.

For more details on the voucher testing pilots in Cambodia see:

- WaterSHED’s webpage Microfinance boosts latrine purchases in rural Cambodia, available online at http://www.watershedasia.org/microfinance-boosts-latrines/

Consumer cash rebates require the household to pay for an improved toilet, service, or other sanitation improvement before receiving the rebate. They are typically an output-based subsidy structured as a one-time post-purchase payment. While this can be an effective way of incentivizing toilet construction (see the Vietnam example in Box 19 next page), the pre-financing by the household is a condition that may limit the effectiveness of consumer cash rebates for the poorest. By contrast, conditional cash transfers (CCTs) consist of multiple and sometimes ongoing up-front payments, designed to incentivize behaviours by providing cash in advance and then verifying behavioural performance before issuing more cash. For example, ongoing CCTs funded under social transfer programmes were first used in Mexico and elsewhere to encourage consistent school attendance over time. In Cambodia, they have been piloted to incentivize antenatal and post-natal health care among pregnant women and were proposed to incentivize long-term toilet usage among very poor families with young children. CCTs have also been successfully implemented for toilet building in a large-scale housing reconstruction programme in the Philippines (see Box 20). Consulting CCT experts and obtaining a thorough understanding of such CCT experiences in other sectors is important if you are considering using them in your MBS programme.

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64 USAID Cambodia’s ‘Nurture Project’.
65 For an example proposal on CCTs, see Growing up with a latrine, in WSP, 2011. See Resources and further reading at the end of this section.
**Box 19: Household output-based aid rebate for sanitation in rural Vietnam**

The NGO ‘Thrive Networks’ (formerly ‘East Meets West Foundation’) has been operating a scheme to offer rebates of about US$20 to poor and vulnerable households who construct a household toilet that meets Vietnam government hygienic standards. The programme uses community-based targeting methods to identify qualified households, provides education and training on hygiene, sanitation and toilet construction. The NGO verifies poor-qualifying households that meet certain criteria, and signs a contract with interested eligible households who are given six to nine months to complete construction to qualify for the rebate. Local government plays an active role linking households with local sanitation businesses. Sanitation social loans are also available to top up the amount a household has to purchase a sanitation product or service. A final NGO visit to each participating household is made to verify complete construction, including shelter, and cash rebates are dispersed at a community ceremony event. Over 5,000 households benefited during the first two-year pilot, which has since scaled to 10 provinces of Vietnam.


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**Strengths and limitations of alternative consumer financing options**

It is possible to draw some conclusions from previous experiences of using different financing options for a range of durable health-related goods, including sanitation. For household toilet construction, the most promising options for reaching the poorest households at scale would seem to be vouchers, cash transfers and, to a lesser degree, rebates. However, these all require sustained funding sources to pay for administration and independent verification systems, as well as the subsidy itself. Credit and loan options, via MFIs or other mechanisms, and instalment payments offered by businesses have the potential for financial sustainability and can reach some degree of scale – depending on the MFI landscape, willingness of households to take on sanitation loans, and of businesses to take on household credit risk. However, these are unlikely to reach the poorest households who cannot (and should not be encouraged to) take on debt, and often do not qualify for a loan. **Table 21** compares direct consumer financing options in more detail.

To date, the sanitation sector has limited and mostly small-scale pilot experience with the above alternative financing options, particularly in rural areas. This means it is essential that we engage practitioners with expertise in designing...
Box 20: Conditional cash transfer (CCT) programmes for toilet construction in the Philippines

In the Philippines, the INGO Catholic Relief Services implemented a CCT subsidy programme targeted at poor households to rebuild or repair septic tank toilets and shelters destroyed by Typhoon Haiyan in 2013. The subsidy consisted of US$211 in cash for rebuilding a toilet, or US$143 to repair one – plus a toilet bowl and four corrugated roofing sheets. The subsidy was broken into two or three consecutive cash payments (depending on the category of assistance) and embedded in the shelter rebuilding/repair CCT process. Qualifying participating households were clustered by neighbourhood into self-selected groups, and the whole group was required to complete each stage of construction before members of the group were eligible to receive the next payment. Households were screened and underwent orientation and training on acceptable models and construction techniques, prior to signing contracts. In a 20-month period, 20,000 shelters and 23,000 family toilets were rebuilt or repaired in 11 municipalities across a large geographic area. While there are risks with CCTs, staff proactively mitigated them by monitoring, and improving or changing aspects of programming; out of every US$100 transferred in cash to beneficiaries, US$97 was spent to build shelters and toilets. CCT beneficiaries expressed high satisfaction rates.67


and implementing these mechanisms in other development sectors – such as health, nutrition and education. Since this is an area for ongoing learning, it is best to carefully design and trial options on a small scale, before investing in large-scale programming.

Improving the consumer financing environment

As well as exploring options for best ways to increase access to sanitation financing for the poorest, it is important to consider the broader picture and what you may be able to do to develop the enabling environment for consumer financing.

Forming and leading a national task force on sanitation inequities and markets

It will be important to develop wider sanitation stakeholder co-operation and coalitions on MBS if the approach is to gain traction nationally. Bringing government and other senior sector stakeholders together as a ‘task force’ could be particularly effective, specifically to explore new approaches for testing market-compatible, pro-poor subsidy financing options for sanitation. This would include, where appropriate, linkages with social protection programmes and policies, and could build on existing UNICEF advocacy to harmonize policies on household toilet subsidies and UNICEF’s ongoing work with government in child and social protection. The task force could systematically explore how subsidy funding could be better utilized as pro-poor, market-compatible social subsidies and examine opportunities to integrate with existing social protection programmes and policies. It could review sanitation inequity in rural areas and identify characteristics of the poorest unserved households and the most disadvantaged areas.

Seek the right partnerships to improve consumer financing for sanitation

Assess the financial services industry and MFI landscape in your country to understand existing players and the regulatory environment. Places

67 See CRS (2016) in Resources and further reading at the end of this section. The report details the Philippines CCT programme’s effectiveness, efficiency and appropriateness. It also includes a useful decision-making tool for when and how to use CCTs and strategies to minimize risks arising in household cash transfer construction programmes.
### Table 21: Comparing consumer financing options for sanitation

<table>
<thead>
<tr>
<th>Option</th>
<th>Strengths/favourable conditions</th>
<th>Limitations/risks</th>
</tr>
</thead>
</table>
| **Saving up**| • Assures that households do not accumulate debt  
• Established networks of savings groups can be a channel for sanitation product distribution and marketing in poorly served areas, but requires testing new business and sales models | • Can be very slow if savings rate is slow and/or amounts are small  
• Limited potential for scale if new groups must be created, savings rate is slow  
• Savings for toilets compete with other cash needs  
• May reach relatively better-off, who are able and have habit to save |
| **Credit/ borrowing** | • High compatibility with market delivery, can help expand access for lower income segments  
• Potential for financial sustainability where loan promotion and administration costs can be covered by borrowing rates  
• Requires favourable economic conditions and good financial sector regulatory policies  
• Requires MFIs or other lending agencies willing to disburse and manage smaller ‘social’ loans  
• No/low administrative & operational costs for instalment payment by local businesses | • MFIs often uninterested in non-income generating, infrequent, small and ‘higher risk’ sanitation loans  
• Reaches relatively better-off who can qualify for and pay back loan  
• Risk of loans being used for non-sanitation purposes, difficult to track  
• Up-front grant/donor investment needed to develop loan products and programmes tailored to demand for sanitation loans among each MFI’s client service area  
• Can overburden poorer households with excess debt or damage credit-worthiness  
• Typically requires intensive operational co-ordination between MFI and MBS activities  
• MFI brand and repayment risk if MFI actively distributes sanitation product and clients are dissatisfied  
• For instalment payment, local businesses need sufficient liquidity or financing, and willingness to carry customer debt risk |
| **Vouchers** | • High compatibility with market delivery, potential for scale and market stimulation  
• Flexibility to adjust voucher value to household needs and market fluctuations  
• Allows consumer choice  
• Can reduce inequity by targeting vouchers to qualified households  
• Can leverage existing social subsidy schemes and need-based targeting mechanisms to reach poorest and vulnerable  
• Potential to link to existing social protection programmes | • High cost of initial set-up and overheads to manage and administer system (some cost savings possible on distribution side if linked to an existing social protection programme)  
• Favours large-scale implementation, with significant and sustained funding  
• Unable to fully eliminate inequity for peripheral and remote populations beyond the reach of certified businesses  
• Risk of stock outages at redemption and retail outlets  
• High risk of fraud in voucher distribution and at redemption points, but possible to detect and control fraud with active voucher tracking, monitoring systems  
• Can suppress post-programme demand (i.e. once voucher scheme is phased out) |
to start are the ‘MIX Market’ and national and regional microfinance associations, which publish detailed data on each MFI (see Resources and further reading at the end of this section). To find the right MFI partner, consider criteria such as: overall distribution and reach; current loan portfolio, including average loan size and types of products; experience with non-traditional lending (e.g. micro-insurance, etc.); sources of finance; and their social mission.

Established MFIs, savings and loan organizations, and other groups with financial inclusion as their core business have a comparative advantage and extensive experience in workable models for consumer finance to poorer households. For this reason, you should be working directly with them as partners, rather than attempting to set up or administer these types of financing mechanisms yourself as part of the MBS programme; you should always avoid the involvement of sanitation programme staff in consumer and business financial transactions to avoid conflict of interest, for example.

If partnering with MFIs, it is important to make a clear business case. Be prepared to work through the numbers and take time to understand and test some potential models. MFI engagement will require exposure to your MBS model and the sanitation product offering. Allow time for partnerships to develop, and avoid offering high levels of subsidized finance to start. Enduring partnerships are those where MFIs see a clear benefit for engaging in sanitation lending, as part of their core work.

### Table 21 (continued): Comparing consumer financing options for sanitation

<table>
<thead>
<tr>
<th>Option</th>
<th>Strengths/favourable conditions</th>
<th>Limitations/risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCTs</strong></td>
<td>• Can leverage existing social subsidy schemes and need-based targeting mechanisms to reach poorest and most vulnerable &lt;br&gt;• Ongoing CCTs can incentivize poorer households to install and correctly use available products &lt;br&gt;• May work best where existing social subsidy frameworks and policies are maintained with long-term funding streams &lt;br&gt;• Opportunities to integrate with existing social protection programmes</td>
<td>• Potential for fraud, misuse of cash when paid in advance or without high quality ongoing independent verification &lt;br&gt;• Complex and potentially costly to set-up, manage disbursement, properly target households (if not linking to an existing social protection programme) &lt;br&gt;• Household-level verification and monitoring of ongoing behaviour a major challenge &lt;br&gt;• Unable to eliminate sanitation inequity for peripheral and remote populations beyond the reach of sanitation supply chains</td>
</tr>
<tr>
<td><strong>Rebates</strong></td>
<td>• High compatibility with market delivery &lt;br&gt;• Works best at later stages of market development after majority have installed improved toilets &lt;br&gt;• May be appropriate where improved toilets are unusually expensive, e.g. difficult hydrogeology, high transport costs</td>
<td>• Number of rebate-qualified households often exceeds availability of subsidy fund &lt;br&gt;• Rebates require pre-financing which can limit access for poorest &lt;br&gt;• As with vouchers, can suppress post-programme demand</td>
</tr>
</tbody>
</table>

Source: Adapted from Jenkins, M. (2012).
3.5 REACHING THE POOR THROUGH CONSUMER FINANCING

Resources and further reading


Watercredit.org (2012). ‘Initiative to Increase Access to Credit and Capital for Safe Water and Sanitation’. (Online post). Available at: [http://static.water.org/pdfs/WaterCredit%20Executive%20Summary%2028May%202012%20_FINAL.pdf](http://static.water.org/pdfs/WaterCredit%20Executive%20Summary%2028May%202012%20_FINAL.pdf)


Case studies and country examples – sources and further information

Cambodia


IDE (2017). Leveraging Targeted Subsidies to Increase Sanitation Coverage Evidence from a Randomized Control Trial in Cambodia. Available at: [https://www.researchgate.net/publication/334307360_Leveraging_Targeted_Subsidies_to_Increase_Sanitation_Coverage_Evidence_from_a_randomized_control_trial_in_Cambodia](https://www.researchgate.net/publication/334307360_Leveraging_Targeted_Subsidies_to_Increase_Sanitation_Coverage_Evidence_from_a_randomized_control_trial_in_Cambodia)

Kohllitz, J. et al. ‘Supporting the Poor to Access Sanitation: Key Lessons from Implementation of Targeted Household Consumer Subsidies in Cambodia’. [Waterlines. forthcoming]

Nicoletti, C., et al. (2017). A Less Expensive Toilet: The Impact of Targeted Subsidies on Latrine Purchases in Cambodia. Available at: [https://repository.lboro.ac.uk/articles/A_less_expensive_toilet_the_impact_of_targeted_subsidies_on_latrine_purchases_in_Cambodia/95891](https://repository.lboro.ac.uk/articles/A_less_expensive_toilet_the_impact_of_targeted_subsidies_on_latrine_purchases_in_Cambodia/95891)


Ghana


India

Trémolet, S. and R. Kumar (2012). *Evaluating the potential of microfinance for sanitation in India*. Available at: https://assets.publishing.service.gov.uk/media/57a08a40ed915d3c6fd0067a/microfinance_for_sanitation_in_India_May_2013.pdf

Kenya


Lesotho


Vietnam


United Republic of Tanzania


Websites

‘Cash Learning Partnership’. At: www.cashlearning.org

‘FinDev Gateway’. Financial inclusion for development microfinance gateway. At: https://www.findevgateway.org/

USAID (forthcoming) *WaSHPaLS Cambodia Enterprise Viability Case Study.*
Introduction to chapters 3.6, 3.7 and 3.8

The three chapters in this section introduce emergent thinking on how to accelerate the growth of sanitation markets to scale by catalysing broader market dynamics. The market-shaping approaches introduced are central to UNICEF’s success in influencing strategic markets across numerous sectors, such as health and nutrition. However, as MBS is itself an emerging approach to expanding sanitation coverage, the strategies have to date been under-utilized in the sanitation sector. That said, where they have been applied in the sanitation sector, the results are very encouraging.

The described approaches seek to address the barriers that typically discourage new businesses from entering, and existing ones from operating more actively, in local sanitation markets. The approaches also help reduce the affordability gap for households. There are some inherent differences in the structure and characteristics of the various markets UNICEF engages in across sectors (e.g., sanitation, health and nutrition). Table 22 lists a number of market dimensions that highlight the need to tailor approaches to your market of interest. The underlying general principles and concepts, however, apply across markets. The following chapters, therefore, introduce numerous non-sanitation-specific examples and best practices to demonstrate the power of these approaches in markets that have widely adopted the interventions.

Box 21 and Box 22 introduce two sanitation businesses, one relatively small, and the second much larger.

**Table 22:** Spectrum of market dimensions

<table>
<thead>
<tr>
<th>Market dimensions</th>
<th>Spectrum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyers</td>
<td>Centralized (e.g., governments, United Nations agencies, Global Fund)</td>
</tr>
<tr>
<td>Payers</td>
<td>Governments, with potential financing contribution from donors</td>
</tr>
<tr>
<td>Products/services</td>
<td>Products/product bundles</td>
</tr>
<tr>
<td>Supply base</td>
<td>Global</td>
</tr>
<tr>
<td>Supply chain</td>
<td>Aggregated</td>
</tr>
<tr>
<td>Technology</td>
<td>Highly complex research and development and production, with high levels of investment</td>
</tr>
<tr>
<td>Product preferences</td>
<td>Typically, uniform and driven by global/local recommendations</td>
</tr>
<tr>
<td>Industry/quality standards and regulatory oversight</td>
<td>Stringent</td>
</tr>
</tbody>
</table>
Kevin’s enterprise is in the Igbo Eze North Local Government Area of Enugu, Nigeria. He started as an entrepreneur many years ago with a cycle repair shop, and then shifted to manufacturing and selling cement blocks in 2009. His cement block business is flourishing, with three workshops. WaterAid approached Kevin about starting a sanitation enterprise in 2015. Kevin was excited and saw synergies with his cement block business. He believed that customers of his cement block business, especially those purchasing blocks for home construction or improvement, would also be interested in purchasing toilets.

Kevin’s sanitation enterprise has been successful. He sold 130 toilets in 2017/2018 and recently invested in a new plot of land and a truck to meet increasing demand. To acquire new customers, Kevin actively invested in a sales agent network. He has strengthened his relationships with the sales agents by meeting with them to understand and address their challenges, and to keep abreast of customer reactions to his products.

Kevin also recognized the need to re-engineer his products to provide customers with greater product choice. He adapted the standard product design by developing his own moulds and reducing the sizes of his offset conversions. His smaller offset conversions were less expensive and easier to transport, contributing 42 per cent of Kevin’s total sales volumes.

Kevin is optimistic about his sanitation enterprise and plans to expand further by setting up branches in other locations. His revenue from the sanitation side of the business in 2017/2018 was US$3,213, with a profit of US$626.

In the context of the global sanitation market, Kevin’s business is minuscule. However, Kevin has demonstrated the acumen necessary to grow his business. The challenge now is to encourage and support Kevin’s business to grow exponentially – from 130 toilets to 13,000 toilets, or better, 130,000 toilets.

Rajeev Kher has finally got his business model right. Sara Plast, the mobile community toilet rental company he set-up in India in 2001, has grown to an over US$6 million company and become a leader in Asia. It has been a long and challenging journey.

Inspired by the market in the United States of America, Rajeev identified the business opportunity for community toilets at Indian construction sites and festivals. The value proposition to customers was clear. Instead of building a permanent facility, save money by renting a good quality, well-managed mobile sanitation block.

Demand was not a problem; servicing that demand was. Importing the large toilet units was costly, especially as import tariffs and exchange rates fluctuated. Cash flow issues were compounded by long lead times. The lack of capital restricted Rajeev’s ability to bulk buy at discounted prices. Even with a growing, profit-making business, banks were reluctant to lend him money. When they did, it was at prohibitive interest rates of 20 to 30 per cent. A lack of reliable financing hampered rapid growth of the business.

Another challenge was finding facilities that would accept and process the waste from Sara Plast’s toilets. The more the business grew, the more waste processing became a problem.

Rajeev’s drive was tireless. He innovated and fundraised constantly, developed public and private sector relationships, produced evidence-based value propositions, and implemented business practices learned from his business school studies. Progress was slow at first, but the business grew steadily. To address the waste issue, Sara Plast expanded into the off-site waste processing sector, working with innovative waste-to-resource solutions.

A breakthrough came in 2019. Kalyani Group, a US$3 billion Indian engineering conglomerate with a multinational presence, was impressed with Sara Plast’s vision and professionalism. Kalyani committed to a joint venture. It initially invested almost US$4 million in a manufacturing plant to produce the toilet blocks locally, and committed to investing an additional US$10 million as the market grew. Local production achieved significant cost savings, enabling quicker and easier design innovation, improving inventory control and shortening lead times.

Sara Plast’s toilet blocks are being used to improve sanitation in schools, which is a focus of Kalyani Group’s corporate social responsibility (CSR) programmes. The company’s CSR budget buys the toilet blocks and donates them to schools. The toilet blocks are produced by the joint venture, which is a for-profit enterprise, and feeds profits back to the Kalyani Group. The advantage to Sara Plast is that Kalyani brings much-needed capital, high-end manufacturing capability, logistical expertise, government relationships, national brand recognition and an international reach.

Sara Plast’s school toilet block business is growing quickly. For the foreseeable future, at least 100 school blocks per month will be built.

Rajeev is a sanitation entrepreneur focused on scaling up his business. Finding the right business and revenue models was key to his success. The partnership with Kalayni has consolidated large parts of the sanitation supply chain, which hampered his growth for almost two decades. Sara Plast has developed into an end-to-end sanitation business (manufacturing, distributing, renting, servicing and waste processing), which now has the expertise and funding to grow rapidly.
The ultimate objective of these chapters is to strengthen markets to support entrepreneurs like Kevin and Rajeev to scale their businesses rapidly and robustly, and encourage other businesses to enter the market that have the expertise and capacity to build and service the market at scale. The strategies explored are somewhat complex in terms of set-up and execution, but are critical to enhancing the market-shaping steps outlined in the rest of the document.

To achieve increased, sustainable scale, it is necessary to understand and address not just market shortcomings, but the root causes of those shortcomings. For example, when faced with low consumer demand for sanitation products, market research may reveal that desirable products are unaffordable for many households. The root causes driving this shortcoming could be a combination of fragmented demand, which increases the cost of processing smaller orders, low visibility of demand and potential profitability, and an unfavourable view of the market, preventing businesses from investing in and producing desirable products for the low-income market. Figure 18 shows how the introduction of new market structures, incentives and enablers can help shift local sanitation markets from small-scale, inefficient markets, to larger-scale, more efficient markets, attracting larger businesses that have the expertise and capacity to build and serve a market at scale.

As you consider how the approaches could be adapted to your context, and begin to undertake the market research necessary to craft an appropriate intervention (see 3.1 Market research), you are encouraged to leverage the knowledge and expertise of UNICEF’s Supply Division, which is available to provide guidance in developing an approach suitable to your context.

**Figure 18:** Shaping local sanitation markets to accelerate results

<table>
<thead>
<tr>
<th>Fragmented market</th>
<th>Improved visibility on market information and opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low visibility</td>
<td>Improved demand visibility and predictability</td>
</tr>
<tr>
<td>on market</td>
<td>Economies of scale</td>
</tr>
<tr>
<td>opportunities</td>
<td>Supplier risks mitigated</td>
</tr>
<tr>
<td>Low visibility</td>
<td>Creation of synergies and improved access to technology</td>
</tr>
<tr>
<td>on return on investment</td>
<td></td>
</tr>
<tr>
<td>Lack of scalable</td>
<td>Access to affordable finance</td>
</tr>
<tr>
<td>business acumen</td>
<td>Increased affordability and access to sanitation solutions</td>
</tr>
<tr>
<td>Limited access</td>
<td></td>
</tr>
<tr>
<td>to finance</td>
<td></td>
</tr>
</tbody>
</table>

Attraction of large-scale sanitation businesses with the expertise and capacity to build and service a market at scale
3.6 Optimizing market interactions

Quick reference

| What is involved?                                                                 | • Identify the market barriers that prevent businesses from entering or expanding the sanitation market and their root causes  
|                                                                             | • Optimize market interactions by:  
|                                                                             | ‒ Encouraging the business sector to understand market potential  
|                                                                             | ‒ Engaging proactively with the business sector to unlock market potential  
|                                                                             | ‒ Empowering the business sector to make the necessary market-building investments  
|                                                                             | • Introduce market structures and incentives that have the potential to bring about cost efficiencies for small-scale enterprises and to attract larger businesses to invest in the sanitation market at a greater scale  
| What are we trying to achieve?                                                | • Engage sanitation businesses that have the market knowledge, product expertise, operational expertise and overall capacity to scale effectively, and enable them to invest and build markets, which is crucial to achieve appropriate, accessible and affordable sanitation provision at the scale required  
|                                                                             | • Develop ‘healthy’ markets at scale by encouraging the right players to enter the market or to operate actively  
| How long will it take?                                                       | Ongoing  
| What skills and resources are required?                                       | • Market/business research and analysis skills  
|                                                                             | • Understanding of private sector mindset  
|                                                                             | • Understanding of the market and business environment in which the market operates  
| UNICEF equity and gender reminders                                           | Ensure the needs of children are met, paying special attention to women and girls and those in vulnerable situations  

Overview

In this and the following chapter (3.7 Expanding access to business finance), we focus on how businesses, especially larger businesses, across the sanitation value chain can be encouraged to participate in and build a robust, sustainable sanitation market, at scale.

We examine the typical transactions between customers (households) and businesses, and look at opportunities to enhance sanitation market dynamics through catalytic interventions that incentivize businesses to rapidly scale-up the availability of and improve access to fit-for-purpose, quality, affordable sanitation products and services. This chapter examines market-shaping approaches to reduce transaction costs, improve market information flows, balance supplier and buyer risks, and improve access to technology and finance.

This chapter introduces areas where the nascent sanitation market has begun to adopt these mechanisms successfully. It also introduces interventions that have been successfully implemented at scale in other sectors to provoke thinking on how the interventions can support sanitation scale-up in your context.
The need for a sustainable sanitation market

The scale of the sanitation problem necessitates the development of a sustainable, healthy sanitation market driven by committed private sector involvement. Sanitation is not a problem that can, or should, be solved through public financing alone. In 2017, WHO estimated that providing the water and sanitation improvements needed to achieve SDG 6 would require a tripling of public funding, to US$114 billion per year, an unrealistic, if not unattainable, level.

The private sector’s involvement is essential to achieving SDG 6.2, especially in the absence of sufficient public finance. Affordable, accessible and appropriate sanitation solutions are required to catalyse the market. The private sector brings much-needed investment, innovation, production and supply expertise to support catalysation and long-term sustainability.

Who is involved in the sanitation private sector?

A wide variety of businesses are involved in the sanitation value chain, including manufacturing, distribution, sales, construction, waste collection, transportation, waste processing and maintenance. Some sanitation businesses have developed as an offshoot of, and continue to operate alongside, other businesses, such as cement producers branching into latrine construction. Other businesses are involved indirectly, such as quality control verification businesses and financiers. These businesses range in size from self-employed individuals (defined as ‘entrepreneurs’ in this guidance), such as latrine-building artisans, to multinational firms, such as global producers of cement and sanitaryware products. However, the sanitation supply chain is poorly integrated, and businesses that have the market knowledge, product expertise, operational expertise, and overall capacity to scale-up effectively have yet to play a significant role in market development. Only 18 MBS interventions out of 107 in the USAID Scaling Market Based Sanitation desk review achieved total sales of 50,000 toilets, with five achieving sales of 100,000.

Why do businesses enter markets?

Whether they are self-employed artisans or multibillion-dollar companies, all businesses engage in business for a financial return on investment (ROI). At the end of a business engagement, there is the expectation that income received will more than cover the business’ investment of time and money, and should be more attractive than, or at least comparable to, other available opportunities. The bigger the surplus (profit), the more attractive the market, and the greater potential for growth. Smaller businesses, especially micro-businesses, may be content with an ROI which enables them to ‘break even’ after covering expenses and a small income for the entrepreneur, as the risks of investing in scale-up strategies (investment in equipment, stock, larger premises, etc.) may outweigh the perceived benefit.

Financial ROI may not be the primary driver for all businesses that enter the market. Social enterprises, for example, require a financial ROI to operate, improve and expand their business services, but value the social impact (social ROI) of their business activities over pure financial returns. Clean Team Ghana, a pioneer in container-based toilet service provision in low-income urban areas, is an example of a social enterprise focused on building a sustainable sanitation business.

There is also evidence that intangible rewards, such as enhanced status within a community, are motivations for setting up a business, and ‘saving face’ may encourage unviable businesses to continue operating even when there is no real financial ROI. However, these businesses are highly unlikely to reach significant scale and be sustainable in the long-term.

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68 USAID (2018). See Resources and further reading at the end of this section.
69 WASHPALS introduce the important concept of ‘viability’ in their enterprise viability case studies. Viability is a subjective measure of profit relative to a variety of factors considered by an entrepreneur. An enterprise that makes a profit might be considered viable by one entrepreneur. For more information, see USAID, (2020) at Resources and further reading at the end of this section.
70 Interview with Geoff Revell, WaterSHED.
What prevents businesses from entering or expanding the sanitation market?

Several common barriers prevent new businesses from entering the sanitation market and existing sanitation businesses from scaling-up, including lack of business viability, scalable business acumen and finance. Market players interact with each other, and certain barriers to customer participation in the market will become an obstacle to business participation and the development of market interactions, and vice versa.

Lack of business viability

Various factors affect the revenues and profitability of businesses and determine whether the business will be viable. These include the volume of sales, the prices of the products sold, and the costs of manufacturing and operating. Low turnover and unit profitability, in particular, are major challenges that face sanitation businesses, particularly in rural areas. Low profitability from selling toilets, for example, may discourage new businesses from engaging in the sanitation market, as they predict a low and insufficient ROI.

Demand fragmentation also has a significant impact on business viability. Where demand is unpredictable and fragmented, businesses struggle to reach the critical mass of customers needed to achieve the economies of scale required to provide attractive products at an affordable price. Further, customers’ limited capacity to purchase toilet solutions may be perceived as a lack of demand, which will result in low revenues. Some businesses seek to compensate for low demand by setting high margins, resulting in unaffordable products. This further drives a lack of demand.

A lack of demand aggregation and a high degree of product customization increases the cost of servicing smaller orders and negatively impacts ROI. A local entrepreneur may need to travel further to service customers across a larger geographical area. A large manufacturer may be discouraged from entering the market due to the lack of visibility of demand, or will struggle to sell enough products at an acceptable market price to warrant the investment in specialized equipment. Small orders also limit businesses’ ability to negotiate better terms for their procurement of raw materials and impact their profitability.

A lack of regulation and quality assurance standards across the market disincentivizes investment, especially in high-quality products, as sanitation businesses fear falling foul of opaque regulations, especially if they differ across territories. The necessity of navigating various regulations and standards results in products taking more time to get to market. Further, unregulated, lower-quality and copycat products undercut prices, preventing investors from recouping their investment. For example, poor quality latrine construction has been an issue as some latrine producers have reduced the amount of materials used to lower prices. Enforced regulations could help address this challenge.

Lack of scalable business acumen

Sanitation businesses providing on-site sanitation services (including product sales, installation, sludge emptying, etc.) tend to be small-scale independent operators, often individuals or family-run businesses, which are informal, unregulated, unrecognized by municipalities, and uninteresting to financial institutions (FIs). The large majority of these micro-businesses exist simply to make a subsistence living in the absence of other, better paid work. This type of sanitation business almost always lacks the knowledge, capacity and skills, let alone the drive, to scale-up a business. A summary of a latrine producer’s business in India demonstrates how a lack of knowledge or commitment to basic business-building activities resulted in a poor performing business: “Suraj’s enterprise was unable to leverage any driver to improve its performance. He could not attract more customers, did not have the working capital to stock additional sanitation-related components,

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71 USAID (2018). See Resources and further reading at the end of this section.
72 Devine and Kullmann (2011). See Resources and further reading at the end of this section.
73 Banerjee and Duflo (2011). See Resources and further reading at the end of this section.
and did not pursue a deliberate strategy to activate demand or reduce costs. As such, his enterprise’s performance remained low.\textsuperscript{74}

An OBA World Bank project in Ghana, in which low-income urban households were encouraged to build latrines, highlighted the limitations of smaller enterprises. A backlog of latrine orders from demand creation prompted the project to engage larger contractors. Latrine installations drastically increased from 191 installations per month in the second half of 2017 to 705 installations per month in the first two months of 2018 due to the greater production and project management capacity of these larger, more professional businesses.\textsuperscript{75}

**Lack of access to finance**

Sanitation businesses require investment capital to enter new markets or expand. Smaller businesses, especially micro-businesses with very low profit margins, are often cash-strapped and struggle to sufficient resources for investment. A solution is to borrow from FIs, but the informality of many smaller businesses (which lack formal structures such as business registration, formal accounts and collateral) disqualifies them from accessing formal finance. Larger businesses also struggle to obtain finance for the sanitation sector as it is perceived by financiers as a low- or no-profit sector, with low capability to repay loans. Even if a company successfully secures a loan, the interest rates are generally prohibitive (often 20 to 40 per cent), which negatively impacts potential profits.

Micro-businesses play an essential role in the sanitation value chain, especially in rural sanitation. However, these small businesses, which have almost no access to financing, rarely generate enough profit surplus to invest in future growth and expansion, even in the unlikely event that they have the information and business acumen to pursue it. The USAID MBS desk review found that over 75 per cent of rural sanitation businesses in the United Republic of Tanzania cited the lack of access to capital as a moderate to major hindrance to operations.\textsuperscript{76} Investment for growth could involve investments in research and development, equipment, bulk buying of products, and marketing activities.

In summary, the involvement of the private sector is essential to establishing a sustainable sanitation market, especially in light of the public funding gap. A sustainable, robust market will develop when sanitation businesses with the expertise and capacity to build and service a market at scale are present and engaged. To achieve this, it is necessary to strengthen broader market systems and introduce intelligent incentives into the market. This can be addressed through UNICEF’s ‘optimizing market interactions’ approach to market-shaping, which is the focus of this chapter.

The market barriers addressed in this chapter are directly linked to the core sanitation market. Addressing barriers related to the broader business environment is explored in \textit{3.8 Market enablers}.

**Approach**

UNICEF’s expertise in optimizing market interactions has been instrumental in the innovation, availability and affordability of life-changing products such as vaccines, ready-to-use therapeutic food (RUTF) and long-life insecticide nets (LLINs). Some of this expertise has begun to be applied successfully to the sanitation sector, but generally remains under-utilized. Adoption of these interventions in the sanitation sector requires a ‘big picture’ view of sanitation and open-mindedness to proactively identify areas of applicability.

Three key concepts sum up UNICEF’s approach to optimizing market interactions:

- **Excite**: Encourage the private sector to understand market potential.
- **Engage**: Engage proactively with the private sector to unlock market potential.
- **Empower**: Empower the private sector to make the necessary market-building investments.

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\textsuperscript{74} USAID, Bihar, India (2020). See \textit{Resources and further reading} at the end of this section.

\textsuperscript{75} World Bank (2018). See \textit{Resources and further reading} at the end of this section.

\textsuperscript{76} USAID (2018). See \textit{Resources and further reading} at the end of this section.
The fundamental principle underpinning the optimization of market interaction is the improvement of market dynamics, which catalyse the exchange of products and services between the entrepreneur/business and customer. This is achieved by addressing the barriers that prevent sanitation businesses from entering into and operating actively in the market. These barriers can be organized into four primary areas of focus (see Figure 19).

To address the root causes of market shortcomings, a market-shaping intervention may comprise one, two, three, or all four areas of focus, depending on the context.

In each area of focus, there are one or more levers. These levers are specific interventions to positively influence the market. They will be introduced in more detail throughout this chapter, and the following chapter on expanding access to business finance.

The areas of focus and influencing levers are not a one-size-fits-all approach. Each market-shaping intervention should be explicitly designed for its market context. It might be helpful to think of the areas of focus and their levers as a paint palette of primary colours that can be used separately as individual interventions, or can be mixed with others. The degree to which different coloured levers are used determines the overall colour of the specific intervention.

The market-shaping strategies introduced in this chapter are aimed at market players who have, or can develop, the capability to deliver appropriate and affordable sanitation solutions at scale.

**Increasing market information**

**Why is market information important?**

Market information plays an important role in influencing business decisions. The sanitation market suffers from the perception that basic market dynamics (consumers able to buy the right product at the right price at a volume that suppliers can sustainably supply) do not work in the sanitation sector. The perception is that low-income populations do not desire sanitation products and, even if they did, cannot afford to purchase them. Businesses that could help develop the sanitation sector, such as FIs, construction companies or high-quality sanitaryware producers, often do not believe there is market demand, and consequently are not motivated to develop it. This continues to cause business inaction in the sector (see Box 23).

However, there is clear evidence to the contrary. Poor households can make substantial investments in sanitation, as much as 30 per cent of annual income, provided they recognize the need and potential benefits from it. A UNICEF/iDE market-based sanitation programme in Bangladesh (SanMarkS), exceeded its original toilet sales target by almost 100 per cent. Over 140,000 households invested US$2.7 million in sanitation improvements over the course of the project, demonstrating that poor households can and will invest in improved sanitation solutions.
sanitation options if they know about them and if they are locally available and affordable.79

The potential sanitation market is enormous. The total addressable household sanitation market in just three African countries (Ethiopia, Kenya and the United Republic of Tanzania) is an estimated US$7.4 billion, including 75 per cent for new facilities, and 25 per cent for upgrades.80

However, sanitation businesses, both large and small, often do not see the overall market potential due to a lack of information on market opportunities. Smaller sanitation businesses, such as local latrine producers, know the local market well, but often are uninformed about (or uninterested in) the national or regional market. This knowledge could help expand their customer base and implement best business practices. On the other hand, larger sanitation businesses, such as multinational latrine component producers, have little insight into the dynamics of local markets, and find it difficult to meet local product or service requirements. Even if there are suitable products, a lack of market knowledge can affect the supply. For example, without an understanding of market size and trends, larger sanitation businesses cannot build accurate forecasts of what to supply, when and where, resulting in a mismatch between demand and supply.

How can we catalyse potential sanitation businesses into action? **Empowering** the sector with the knowledge to **excite** action is part of the answer (see **Box 24**).

Focusing on market information allows us to proactively and transparently share market information, and, by doing so:

- **Excite and empower** sanitation businesses by increasing visibility and transparency of market information, enabling informed decision-making and reduced-risk investment;

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**Box 23: The importance of market information: Building a business plan**

A multinational sanitaryware producer is interested in developing a sanitation solution for low-income markets after a competitor moved into that space. The Innovation Director has to present a high-level business plan to the CEO to acquire a budget for initial research and development. To produce the plan, she needs a range of market information, including the current market size, growth trends, customer ‘pain points’, the competitive landscape, including similar solutions and their price points, available routes to market, and the business environment.

However, she struggles to acquire the necessary information. The available information appears either too academic or too generic. Without a convincing high-level business plan, the company will not even commit to an initial exploration of the market.

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**Box 24: The importance of market information: Route to market**

Bangladesh’s largest plastics manufacturer, RFL, was approached by iDE. RFL holds an 80 per cent market share in household plastics, but had not identified the 40 million rural Bangladeshis without access to adequate sanitation as a potential market. iDE educated RFL, sharing decades of customer insights and lessons learned from marketing to the rural poor. This information significantly reduced RFL’s uncertainty about market entry. iDE de-risked market entry further by using its programme experience to introduce RFL to a route to market: 3,500 local latrine producers, present in every district, were trained by iDE to install RFL’s sanitation products and became a network of independent retailers. RFL quickly acknowledged the potential of this new market. Serving customers living on less than US$2 per day is now built into RFL’s strategy, and RFL is committed to building its product offerings to this sector.

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79 Project proposal to the Swiss Agency for Development and Cooperation on Scaling Up Sanitation Marketing Systems in Bangladesh (SanMarkS II), 2019.
80 Aqua Consult. See Resources and further reading at the end of this section.
• **Foster alignment** of understanding and competitiveness among sanitation businesses by sharing information about market pricing; and

• **Engage** sanitation businesses to address gaps in the market.

This is achieved primarily through two levers: 1) information and communication; and 2) demand forecasting (see **Figure 20**).

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**Figure 20: Increasing market information**

![Image](image.png)

Adapted from USAID, Healthy markets for global health: A market-shaping primer, Washington DC, 2018.

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**Information and communication**

Markets function most efficiently when all stakeholders have access to up-to-date information on the market situation, trends and shortcomings. Businesses require market information to understand market potential. For example, limited visibility of demand for sanitation products and services (including their prices) and consumer financing options were highlighted as critical barriers to effectively functioning local sanitation markets at a West and Central Africa industry consultation, hosted by UNICEF in November 2018.81

A valuable role that UNICEF has been able to play due to its unique positioning with governments, donors and research bodies, is to provide essential market information for UNICEF target markets.82 UNICEF has demonstrated experience in collecting, analysing and sharing market data to reduce uncertainty, increase transparency, align views and inform decision-making. To do this, UNICEF uses several tools, including market dashboards, pricing databases and market notes.83 Market notes share information on critical products and highlight critical market dynamics. Businesses can then develop strategies and plans, and use them during investment discussions with banks. The information disseminated through these tools benefit all actors in the market and, as such, are considered public goods (see **Box 22**). Currently, this information is created for a selection of strategic products in UNICEF’s procurement portfolio. Household sanitation products are not included as they are typically not procured by UNICEF.

While industry consultations (examined later in this chapter) and supplier expos are powerful market information exchange forums, in this section we focus on specific information tools designed to provide market visibility for targeted business opportunities and enable transparency of demand for all market players.

UNICEF has often been the procurer in markets where these tools have been successful. This will not usually be the case in sanitation, outside of niche markets, such as emergency response or school-based sanitation. However, UNICEF is well-positioned to play a more active role in driving market information efforts at the local level and helping partners adopt these approaches by sharing tools and best practices.

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81 UNICEF (2018). See Resources and further reading at the end of this section.

82 For example, the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) reports country, regional and global estimates of progress on drinking water, sanitation and hygiene (WASH). Multiple Indicator Cluster Surveys (MICS) have become the largest source of statistically sound and internationally comparable data on women and children worldwide.

83 For more information on UNICEF’s work on influencing markets, see [https://www.unicef.org/supply/influencing-markets](https://www.unicef.org/supply/influencing-markets).
In April 2016, UNICEF issued a TPP for an accessible latrine slab for emergencies as current sanitation products (including latrine slabs and super-structures) used in emergencies did not include components to enable access by the elderly or persons living with disabilities (including children).

UNICEF worked with the private sector to develop an add-on product that attaches to the standard squatting plate to be dispatched in emergencies. After consulting with field partners and beneficiaries to understand their needs, UNICEF worked with industry partners to develop two products to meet the needs. UNICEF’s deep understanding of the need for sanitation among poor and disadvantaged populations is extremely valuable for the private sector, which may not have deep knowledge of these contexts. Both products were developed to offer simple transportation and assembly so that implementation during emergencies is quick and seamless.

This was the first-ever disability-inclusive latrine that UNICEF co-created with industry partners. The products were piloted in refugee camps in Bangladesh in 2019. Results have been positive, with elderly and disabled users now able to independently use a latrine.
Demand forecasting

Demand forecasting is the practice of accurately predicting, based on extensive research of past trends and procurer commitments, what products will be required, when and where.

Accurate, timely and reliable demand forecasts can inform sanitation businesses of current and future demand requirements and, in doing so, ensure product accessibility (i.e., enough supply will be available to meet the demand). This is achieved by providing suppliers with the information required to make the necessary investment to address that demand (see Box 26).

UNICEF has utilized the demand forecasting lever extensively to bring new suppliers into several markets, including for vaccines, nutrition products and humanitarian equipment. As a result, supply and competition have increased, and product costs have decreased. The forecasting process has evolved to become highly systemized. Forecasts usually cover multiple years (12 months assured demand, and up to five years predicted demand). Forecast data is gathered at the country level, verified by governments (in the case of government-funded programmes such as vaccines), aggregated, reassessed and validated by Supply Division before being shared with industry. However, ad hoc demand forecasting also has the potential to send a powerful message to the market.

In 2000, for example, the global demand for mosquito nets was 5 million nets, with two global manufacturers supplying the market. By 2019, the supply base had expanded to 14 manufacturers. The breakthrough moment in this massive change was the indication of demand from UNICEF’s Ethiopia Country Office in 2003. Foreseeing a malaria outbreak, UNICEF Ethiopia sought to acquire 20 million nets. This demand signal, even though it would have taken three years to fulfil at 2003 production levels, provided an important message to manufacturers and other countries that LLINs could go to scale. The market developed steadily as a result. Other market-shaping interventions were utilized, including pooled procurement and competitor price publication. By 2019, one billion mosquito nets had been distributed globally, reducing malaria cases by up to two-thirds.

Key questions to consider

- What are the perception gaps in the sanitation market?
- What information could encourage potential sanitation businesses to engage in the sanitation market (market size, product gaps, government initiatives, consumer profiling)?
- What information is available locally, and what can be leveraged from regional or global sources?
- What demand data is meaningful to aggregate at the local and national level? Which organizations are best placed to do this?
- How could market information reach its intended audience (e.g., websites, chambers of commerce, trade/business associations, business conferences, traditional or social media)?

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Box 26: The power of demand forecasting

Manila Water, a leading water and sanitation utility in the Philippines, shared its initial multi-year forecast for container-based toilet procurement with interested parties. The anticipated volume amounted to hundreds of thousands of units, and prompted two large sanitaryware producers to commit to investing in the development of new products. Knowing ahead of time what was required, when and where, enabled the companies to make informed decisions about production location, processes, logistics, budgets and financing mechanisms. These decisions de-risked the business plans and reduced the initial level of investment required.
Suggestions

- Conduct market research to diagnose market shortcomings and identify their root causes (see 3.1 Market research). Assess the market’s health using tools such as the market dashboard (see 3.8 Market enablers) and understand existing gaps.
- Explore forums for creating ongoing discussions with industry such as chambers of commerce or other industry forums. Consider supporting them to create a sanitation-specific forum to bring various market-players together to discuss opportunities and challenges in the market. In the absence of a suitable established forum, consider taking the lead in developing an appropriate information-exchange platform.
- Learn from the methods Supply Division uses for demand forecasting.
- Confirm how best to proactively educate the sector about market potential (websites, newsletters, industry forums, conferences, newspaper articles, etc.).
- Proactively communicate product and solution gaps, using tools like TPPs, to excite suppliers to undertake innovation.
- Share information regionally and globally so it can be collated to attract regional and global suppliers.

Summary and conclusion

Larger businesses do not widely understand the potential of the sanitation market, causing disengagement and inaction. These businesses require greater visibility of the market’s potential. One way to achieve this is by proactively communicating a range of market information that will excite and engage the private sector.

Reduce transaction costs

Why is reducing transaction costs important?

When entering into business ‘transactions’, such as ordering products, both buyers and suppliers face ‘costs’ that extend beyond the price of the goods being purchased. These transaction costs are usually grouped into three areas: 1) search and information costs (e.g., the costs associated with conducting market research, finding reliable suppliers of affordable, quality-assured raw materials, and identifying market opportunities); 2) bargaining costs (e.g., the costs associated with negotiating contracts, responding to RFPs, and placing purchase orders); and 3) monitoring and enforcement costs (e.g., the costs associated with monitoring stakeholders to ensure they fulfill the agreement and, if not, the cost of legal action).

Transaction costs are not restricted to direct monetary value. They can also involve structural hurdles to market interactions, such as the lack of standardized regulations, which prevent suppliers from entering or working optimally in markets.

Transaction costs are higher in disconnected (i.e., fragmented) markets. For example, when looking at the supply chain, does a product go from a manufacturer directly to the end-user, or is there a national wholesaler, regional distributor or local sales agent also involved? Each market player adds complexity to the market, which results in additional costs. Further, highly localized markets (such as rural households) tend to have fragmented demand (e.g., small demand spread across a wide geographical area). This is amplified when the small volume of localized demand is further divided across a range of products.

For sanitation businesses, the cost of servicing multiple small orders is often prohibitive, as fragmentation prevents cost savings from economies of scale. Within the sanitation sector, high transaction costs are not limited to sanitation businesses. A business’ lack of both collateral and easily verifiable business performance data means financing institutions are required to undertake rigorous (and costly) due diligence to assess loan applications. These high costs often prevent FIs from dealing with the small loans typically required by micro-enterprises and smaller businesses, effectively restricting their access to commercial finance.

The nascent sanitation market is both a cause and an effect of high transaction costs. High transaction costs directly result in high overall product costs, which, in turn, negatively impact accessibility and affordability. Low affordability causes low demand,
which results in low volume as the self-perpetuating cycle is repeated.

Reducing transaction costs allows us to incentivize market engagement, and by doing so:

- **Excite and engage** sanitation businesses with greater capability to service a market at scale to enter the market; and
- **Empower** consumers by increasing the affordability of and access to sanitation solutions.

This is achieved primarily through three levers: 1) pooled procurement; 2) variant optimization; and 3) harmonized quality assurance standards (see Figure 21).

Figure 21: Reducing transaction costs

Pooled procurement
Variant optimization
Harmonized quality assurance standards

Reducing transaction costs
Increasing market information
Balancing supplier and buyer risks
Improving access to finance and technology

Adapted from USAID, Healthy markets for global health: A market-shaping primer, Washington DC, 2018.

**Pooled procurement**

One way to significantly reduce costs and increase supply is to reduce demand fragmentation through demand aggregation, thereby enabling pooled procurement.

Pooled procurement is the strategy of creating an agent that aggregates smaller demand into a larger order to negotiate improved terms and prices with suppliers. The demand aggregator could aggregate orders from households for the purchase of toilets or aggregate orders from artisans to purchase raw materials. The benefit to the supplier, such as a cement supplier or toilet component supplier, is simplified order processing (fewer individual orders to process, fewer contracts to negotiate, fewer contact points, etc.). As a result, the supplier has greater overall demand visibility, larger order sizes and greater ability to optimize production and supply processes. For example, with aggregated demand, a toilet-parts producer can manufacture more products in one production run, minimizing the cost of production downtime. More efficiency, in turn, means more supply capacity. Buyers benefit from greater accessibility and affordability as cost savings are reflected in product pricing.

UNICEF and other global public procurers (e.g., Global Fund, Global Drug Facility, Government of the United States) have decades of experience building global markets by assuming the role of demand aggregator and using pooled procurement strategies to realize significant cost savings in sectors such as public health, nutrition and education. In household sanitation, there are smaller-scale examples of this happening with local business associations (see Box 27).

The creation of a demand aggregator should not result in a monopoly or monopsony (in which a single buyer substantially controls the market). There is room for multiple aggregators at various levels within the market (including at the household, local, national, regional and global levels). A supplier has the choice of whom to supply to. A buyer has the choice of purchasing through the demand aggregator, or through a different route. The demand aggregator’s value to its customers is to achieve better product pricing and accessibility by placing larger orders.

While further work is needed to understand how pooled procurement can best be leveraged in the sanitation sector, UNICEF’s work with LLINs provides just one example of how the intervention can dramatically increase accessibility and affordability (see Box 28).
**Box 27: Sanitation business associations and pooled procurement**

Pooled procurement is not new to the sanitation market. Through the UNICEF-funded SanMark Systems project (SanMarkS) in Bangladesh, 500 local latrine producers were trained by iDE and engaged in the sanitation supply chain. Between 2016 and 2019, 160,000 toilets were constructed, reaching more than 720,000 people. One success factor was establishing sanitation business associations, which pooled the procurement of latrine pans on behalf of the latrine producers. Pooled procurement is common in other sectors in Bangladesh, such as farming and textiles. A significant benefit to the latrine producers was the ability of the sanitation business associations to procure products directly from national manufacturers at a reduced cost, which previously had been inaccessible due to prohibitive minimum order requirements (usually around US$250). Before the establishment of the associations, latrine components were procured through ‘middle-men,’ with mark-ups as high as 150 per cent reported.

National manufacturers were excited by the sanitation business associations, as the one point of contact enabled them access to customers who had previously been inaccessible due to the high costs and complex logistics involved in services a fragmented market across remote areas.

**Box 28: Pooled procurement of long-life insecticide nets**

A combination of pooled procurement, demand forecasting and price publication strategies reduced the price of LLINs from US$5 per net in 2003 to US$1.9 in 2019. In 2010/2011, UNICEF assisted with the largest LLIN pooled procurement to date, utilizing US$100 million of pooled funding. It was the first experience of external procurement for many countries, and some were surprised by the short tender timelines and low prices achieved through pooled procurement. Kenya, for example, was able to procure nets at least US$1 cheaper and six months faster than with the country’s traditional procurement mechanism. Similarly, pooled procurement helped reduce the price of the pentavalent vaccine from US$3.6 in 2004 (when only one supplier serviced the global market) to US$0.69 in 2020 (with nine suppliers in the market).

**Variant optimization**

A supplementary approach to pooled procurement is to consolidate product options via variant optimization. With too little choice, consumers can find a product or service solution undesirable and be reluctant to commit to a purchase. Learnings from the SanMarkS programme in Bangladesh suggest that solutions need to be desirable, feasible and viable to ensure consistent consumer use and sustainable markets.

At the other end of the spectrum, with too many product choices, customers may be confused over which solution is best suited to them, making them reluctant to commit to a purchase. In Bhutan, the Ministry of Health moved away from a sanitation catalogue of 22 slab, pit and shelter options, to three product system options. This change contributed to a 45 per cent increase in basic sanitation in the pilot area one year after implementation.

In the case of LLINs, a reduction of product options from 44 to less than 10 (while still meeting local needs) was a contributing factor to price reduction.84

Too much product variation has the added disadvantage of preventing economies of scale as smaller numbers are produced. Further, each variation may require different moulds, production

84 UNICEF (2020). See [Resources and further reading](#) at the end of this section.
Box 29: Optimizing latrine shelter designs: WaterSHED Ventures Cambodia

Traditional latrine shelters in Cambodia are made of brick. They are expensive, labour intensive and slow to build. Further, the traditional brick-making process used environmentally damaging charcoal products. The lack of an affordable, attractive latrine shelter was a barrier to people committing to building sanitation facilities. WaterSHED Ventures Cambodia, a social business, saw a market opportunity in addressing this gap.

After two years of human-centric design work, and two years of proving market fit, in 2018 WaterSHED Ventures launched a pre-fabricated, flat-packed, easy-to-install, durable, quality latrine shelter. The shelters have one standard, attractive design to enable mass production. End-users can paint the structures to customize the look.

In this example, variant optimization enabled mass production that provided an affordable supply of a quality product. Sales more than doubled in the first two years, to 306 units in 2019, and the rate is increasing rapidly.

Appropriate and harmonized quality assurance standards

Another barrier to sanitation businesses making the necessary investments to grow is inappropriate quality assurance standards. Overly stringent standards, such as setting the quality of building materials or pit construction specifications too high, can increase the cost of sanitation solutions, rendering them unprofitable to supply or unaffordable to consumers. In this section, we focus on the other end of the spectrum, a lack of transparent or harmonized quality assurance standards at national and local levels. Even when standards are present, they may be unclear or unenforced.

This presents two main areas of risk for sanitation businesses that deter them from committing to the market. The first is uncertainty about the specifications of solutions required for the market and, if solutions are taken to market, whether unclear regulations will hinder adoption. For example, it is possible to utilize black soldier fly larvae as part of the process to treat human waste. The by-product can be used as protein-rich animal feed. A recent analysis of the Kenyan market suggests there is strong potential demand for this type of animal feed (one-third of Kenya’s current consumption of animal feed is imported). However, without strong regulations and enforcement of product quality, the analysis notes that the “potential could be threatened” preventing competent businesses from engaging in the market. In addition to the risk of engaging in an uncertain market, the transaction cost of the required market research to mitigate that risk can be overly onerous for businesses.

85 World Bank (2019). See Resources and further reading at the end of this section.
86 Aqua Consult. See Resources and further reading at the end of this section.
Quality assurance schemes not only reduced the risk to sanitation businesses in the World Bank project in Bangladesh, but they also catalysed more investment in the market. MFIs in the project were encouraged to make loans for household latrines. As latrines are non-income-generating assets, MFIs were concerned that if the latrines stopped working and were no longer providing a benefit, households would stop repaying the loan. To overcome this perceived risk, and to encourage MFIs to loan to the sector, pre-agreed quality standards for the latrines were established. Loans were provided on the condition that the latrines had not only been built, but had been independently verified as having achieved the stipulated quality standard. This quality standard ensured the latrines remained in good working order during the term of the loan and beyond. The programme’s high repayment rates gave the MFIs confidence in the sector and resulted in their further expansion in the sanitation market. Transaction costs were incurred through enforcement of the quality standards, but these were more than offset by the greatly reduced transactions costs achieved through the simpler due diligence process.

The second area of risk involves unfair competition as cheaper (and often inferior quality) products enter the market and undercut companies that initially invested in building the market. A finding from the LLIN case study noted that as the LLIN market demonstrated attractiveness, ‘free-riders’ entered the market at lower prices than those offered by the original manufacturers, which had invested heavily in research and development to develop the market. The ensuing competition caused downward pressure on pricing, reducing profit margins from close to 100 per cent (when the cost per net was $5) to 2-3 per cent (at $1.90 per net). Suppliers were only able to remain in the market if they received large orders. There was also concern that some manufactures were ‘cutting corners’ to improve profitability while reducing quality.

While increased sanitation business engagement and product affordability is the desired outcome of transaction cost reduction, it should be noted that it needs to be balanced with the development of a sustainable, healthy market. A growing concern in the LLIN market is that profit margins have become so low that manufacturers are no longer able to invest in continued research and development. This is particularly problematic as resistance to the currently used insecticides is becoming more prevalent.

Quality standards are difficult to enforce in Bangladesh. In the sanitation market, RFL, the Bangladeshi plastics manufacturer producing SaTo pans under license, has faced competition from lower-cost and lower-quality ‘copycat’ versions of the SaTo pan. This negatively impacts revenue as sales are lost to the copycat producers, and the inferior quality of the copycat product discredits the original brand.

Clear and enforced quality standards can help address these risks. Typically, UNICEF works with the relevant standard-setting authorities to develop appropriate standards and share them with industry.

In the absence of official standards, UNICEF, or any influential actor in the sanitation market, especially actors that support large procurement, such as sanitation business associations, can ‘shape the market’ by setting expectations of quality requirements. UNICEF accomplishes this by providing technical assistance to suppliers and publishing procurement specifications in tenders.

**Technical assistance to suppliers**

UNICEF works with suppliers, providing guidelines and technical assistance to ensure the supply network has a uniform quality standard.

For example, for RUTF suppliers, UNICEF supported the implementation of quality assurance processes and procedures that ensured the non-contamination of food ingredients. The support was subsequently extended to help ensure uniform packaging.

In sanitation, UNICEF has worked with suppliers to develop standard dimensions for emergency latrine slabs (see **Box 25**) to facilitate easy shipping and deployment in the field, and to accommodate add-ons for use by people with disabilities. UNICEF has pushed for the use of recycled materials in the manufacturing process.
and the inclusion of raised guidance features to aid use by the visually impaired.

For sanitation suppliers, UNICEF could also facilitate the establishment and hosting of a platform dedicated to sharing local designs and models to uniformize quality standards.

Publishing procurement specifications

UNICEF also has a powerful voice in setting standards, in either its own tenders, or for influential third-party tenders, such as municipalities. This expertise could be utilized by pooled procurement agents such as sanitation business associations (see Box 27). Minimum acceptable design and quality standards are communicated through instruments such as RFPs or invitations to bid (ITBs). For example, since there are no universally accepted standards for squatting plates, UNICEF published an ITB for plastic squatting plates, which details specific requirements (e.g., the plate must be able to securely support a minimum weight of 150 kg at the centre, with the two extreme ends laying off on a maximum 100 mm of firm support each, considering also tropical ambient temperatures and direct sunshine).

Key questions to consider

- Are there areas of demand (products, raw materials, etc.) that could be aggregated to generate economies of scale?
- Are there existing demand aggregation initiatives that could be leveraged?
- Which organization is best suited to act as the demand aggregator?
- If there are no viable demand aggregator candidates, could UNICEF or an NGO take on the role until a suitable candidate is developed or emerges?
- Are there products that would benefit from standardization if it achieved a significant price reduction?
- Which areas of the sanitation market are hindered by unclear quality assurance standards? How can standards be clarified or established?

Suggestions

- Look at the possibilities of demand aggregation, locally and nationally.
- Confer with neighbouring UNICEF country offices and headquarters to look at the benefits of aggregating demand on a regional or global level.
- Conduct market studies (see 3.1 Market research) to understand the core user requirements for products. Share these with industry, along with minimum quality requirements. Encourage standardization.
- Work with industry to understand which regulations (or the lack thereof) are hindering market development and work together to address these.

Summary and conclusion

High transaction costs ultimately affect the availability and affordability of sanitation products for low-income communities. Pooled procurement and variant optimization increase affordability by empowering sanitation businesses with demand visibility and sufficient order volumes to achieve economies of scale. The levers also excite and engage more participation in the market as potential demand is demonstrated. Harmonized quality assurance standards de-risk market entry, and establish a ‘fair’ marketplace for business.

Balance supplier and buyer risks

Why is balancing supplier and buyer risk important?

To optimize supply and demand dynamics, sanitation businesses require the assurance of an ROI for their products (i.e., there is demand for the product, and it can be sold at a price that achieves a profit). Likewise, buyers require the assurance that

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87 Typically, we differentiate between three distinct customer roles: ‘buyers’, ‘payers’ and ‘users’. While in some contexts, an individual or organization may perform all three roles, in others, they may be separate. In this section, “buyer” is defined as an individual or entity that procures goods and services on behalf of one or multiple ‘users’ and ‘payers’.
the products will be available at the desired time, place and price. Without the assurance of a market, the sanitation business may:

- Not engage in the market due to the risk of not recouping their market development investments;
- Oversupply the market, resulting in a financial loss; or
- Undersupply the market, preventing potential buyers from purchasing the product.

Balancing supplier and buyer risks allows us to engage, excite and empower sanitation businesses to invest in and scale-up markets through building long-term, reduced-risk supply relationships.

This is achieved primarily through two levers: 1) LTAs; and 2) special contracting (see Figure 22).

It is important to note that UNICEF’s role is not to become a key procurer in sanitation, but to identify the most appropriate actors in the sanitation supply chain where this approach will add value, and then support those actors to utilize this expertise.

Long-term arrangements

LTAs are a staple of UNICEF procurement, providing a framework that lays out terms of procurement with a supplier of a technically and commercially approved product, in the event of an order being placed. The purpose is to obtain the best value for money, improved availability and access by offering better demand visibility and predictability over a longer time frame. This, in turn, allows the business to optimize operations such as raw material purchasing, production timing and logistics. In doing so, the business saves costs. These savings enable the products to be procured at an affordable price.

LTAs are either:

- Time-bound: usually LTAs provide visibility on the period of time over which UNICEF might buy the product or service; or
- Target-bound: providing visibility on the period of time over which UNICEF might buy the product or service and an indication of the quantity UNICEF might buy.

LTAs are ‘good faith agreements’, meaning that the target volumes are not guaranteed. Where targets are set, it is often because UNICEF can accurately predict demand based on historical demand and future forecasts (see Demand forecasting). As a result, LTAs provide suppliers with confidence based on demand visibility, delivery timing, and price point to make the necessary investments in market development to achieve the targets. Consequently, buyers have an increased likelihood of receiving the products at the time, volume and price required.

LTAs are UNICEF’s standard and preferred means of supplier engagement, accounting for over 95 per cent of all supply arrangements. Other procuring organizations can also use LTAs to lower prices and increase product availability. For example, sanitation business associations could sign LTAs with cement suppliers or latrine pan suppliers.

Figure 22: Balancing supplier and buyer risks

Adapted from USAID, Healthy markets for global health: A market-shaping primer, Washington DC, 2018.
In 2009, WHO recommended that the rotavirus vaccine be included in all national immunization programmes. At the time, there was a small supplier base and limited competition. As a result, the product cost per fully immunized child was more than US$15. This made the introduction of the vaccine challenging for low-income countries. To lower the price, UNICEF, with support from Gavi (the principal funder of this vaccine for low- and middle-income countries), committed to a purchase guarantee of a specified number of doses over five years (2012-2016) and several scheduled pre-payments. These assurances allowed a global supplier to commit to supplying the vaccine at approximately US$5 per fully immunized child. Complex legal and financial arrangements were required to mitigate UNICEF’s risk.

Special contracts aim to mitigate the risks specific to the supplier. Significant time and effort are invested in crafting each special contract to ensure that the supplier risks are addressed at minimal risk to UNICEF. Special contracts are only to be used in exceptional circumstances to achieve significant market outcomes that cannot be attained through regular contracting.

### Volume guarantee

At the core of special contracting is a guarantee to purchase a minimum volume of a product that meets the requirements at a specified price. The full amount of the minimum contract will be honoured, even if the buyer’s demand is lower than expected and the buyer does not require the minimum volume by the end of the contract. This transfers financial risk from the supplier to the buyer and enables the supplier to offer the products at a reduced price. The advantage for the supplier is clear visibility of demand, which enables efficient investment and production strategies, resulting in lower product costs (see Box 30 on special contracting for the rotavirus vaccine).

With regard to sanitation, volume guarantees could be useful to encourage local production when the manufacturer is required to make additional investments (e.g., in new manufacturing premises or additional moulds). A volume guarantee helps assure the manufacturer that their investment will be recuperated. On the other hand, a demand aggregator could use this risk-sharing mechanism to commit to a minimum volume of product (e.g., bulk cement) to obtain significant rebates.

### Innovation incentives

Innovation requires a significant level of investment. Concerns over recouping these investments can be a barrier to suppliers engaging in the market. Variants of special contracting can incentivize the development of new products by ensuring that

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88 UNICEF is unable to take on any form of financial risk relating to its procurement. It is imperative that financial self-guarding (e.g., external funding) is secured before UNICEF making financial commitments. As a result, there are stringent protocols in place for entering into special contracts (contact Supply Division for more information).
research and development costs are recouped even when the market has not developed to a level that could provide a stable ROI. To stimulate the development of new products that meet defined product requirements, UNICEF can adopt one of the following approaches:

- UNICEF commits to pay a price premium for a set quantity if the demand for the product materializes (an ‘advanced market commitment’ (AMC));
- UNICEF commits to purchase a guaranteed minimum quantity at a set price (an ‘advance purchase commitment’ (APC)).

AMCs are used to incentivize the development and production of fit-for-purpose products that primarily serve markets where the profit motive is weak and where it is difficult to recoup investments costs. Under this arrangement, there is a commitment over an initial period to pay a price premium (‘top-up’) for the new product if and when the demand materializes, allowing the supplier to recoup its research and development costs. After this initial period, the supplier commits to make available the product at a lower ‘tail price’ to ensure an affordable and sustainable long-term price. The supplier bears the demand risk. To be eligible, the developed product needs to meet certain technical and performance specifications and quality criteria.

The AMC mechanism applies a ‘multi-winner structure’ and encourages more suppliers to participate and invest, providing the market with increased competition and choice of products. In this approach, the market chooses the products and, therefore, the ‘winners’ (see Box 31 on the use of special contracting for the conjugate pneumococcal vaccine).

APCs, which are a variant of volume guarantees, are used to incentivize and accelerate the development and production of new products for which demand is uncertain. Under these arrangements, there is a commitment to purchase an agreed volume of the innovation even before

**Box 31: Special contracting: Pneumococcal conjugate vaccine**

Approximately 500,000 children under 5 years of age die each year from pneumonia. The vast majority of these deaths occur in low-income countries. Since 2000, a pneumococcal conjugate vaccine for preventing severe pneumococcal infections in infants and young children has been used in wealthy countries. However, it was not adapted and developed for low-income countries as vaccine suppliers were reluctant to invest in research and development and production capacity to supply low-income countries as they anticipated: 1) high investment costs and limited profits; and 2) high levels of uncertainty around the timing of country adoption.

In 2007, multiple donors established an AMC, committing US$1.5 billion to incentivize manufacturers to supply a pneumococcal vaccine to low-income countries at a low, sustainable price, adapted to their epidemiology. Interested manufacturers who developed an appropriate vaccine committed to supplying certain quantities of the vaccine for ten years. They received a subsidized price of US$7 per dose during the initial period for a limited quantity of the new vaccines. The limited quantity was calculated to represent value for money and incentivize manufacturers to invest in scaling-up production capacity to meet developing-country demand.

In exchange, after the initial period, the manufacturers were required to supply the remaining doses at a ‘tail price’ equal to or below $3.50 per dose. Pricing the AMC was one of the most challenging design aspects as it required creating sufficient incentives while not overpaying manufacturers. As a result of the AMC, the vast majority of Gavi-supported countries have introduced the pneumococcal vaccine, reaching more than 183 million children by the end of 2018.

In 2016, WHO declared a public health emergency of international concern due to the rising number of microcephaly cases as a result of the Zika virus outbreak in the Americas. At the time, there was limited understanding around, and no availability of, pharmaceutical interventions to treat, prevent or diagnose the Zika virus. The virus was expected to disproportionately impact poor and marginalized populations, resulting in a need for diagnostic tests that could be used in low-resource settings. In this context, UNICEF collaborated with the Pan American Health Organization (PAHO) and WHO to issue a TPP for novel diagnostics for the Zika virus, signalling to industry the required characteristics of the needed product. Barriers to entry for suppliers were identified, including the fact that the uncertainty around demand for products for an outbreak disease such as Zika would create risks for suppliers investing in Zika diagnostics.

USAID provided a US$10 million grant to fund an APC aimed at de-risking market uncertainty for suppliers, reducing barriers to entry and accelerating product development by guaranteeing the purchase of potential products. This allowed UNICEF to signal to potential suppliers that if they developed Zika diagnostics meeting the criteria of the TPP, UNICEF would purchase up to US$10 million worth of tests, regardless of the ensuing demand. At the end of the process, three different tests from two suppliers met the technical specifications. UNICEF purchased more than 1 million Zika tests in 2020.

**Box 32: Special contracting: Zika Virus Diagnostic**

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### Key questions to consider

- What risks are preventing suppliers from developing the sanitation market (e.g., perceived lack of demand, lack of confidence in the ability to recoup investment)?

- Could innovative contracting be packaged with demand forecasting and pooled procurement to significantly shape the market (e.g., more supply, lower cost)?

- If so, which types of contracts are most appropriate for your market context?

### Suggestions

- Hold discussions with potential suppliers to understand their concerns about the market.

- Ascertain if these could be addressed through LTAs or special contracting.

### Summary and conclusion

The sanitation sector suffers from a lack of product supply, appropriate sanitation solutions, and innovation. UNICEF has a track record of de-risking markets for suppliers, mainly through non-binding LTAs. In exceptional cases, significant market-shaping has been achieved through the use of special contracts.
Improve access to finance and technology

Why is improving access to finance and technology important?

Access to finance is by far the most significant barrier to optimal supplier operation and growth. This will be explored in-depth in 3.7 Expanding access to business finance. Partly due to restricted access to finance, there is a lack of suitable sanitation technologies, and those available are slow to reach scale.

The purpose of improving access to finance and technology is to increase the availability and affordability of sanitation goods in the market by:

- **Exciting** synergies between suppliers to accelerate technology availability; and
- **Empowering** suppliers to invest in developing markets through accessible financing.

This is achieved primarily through two levers: 1) industry engagement; and 2) supplier financing (see Figure 23; the supplier financing lever is covered in 3.7 Expanding access to business finance).

![Figure 23: Improving access to finance and technology](image)

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Industry engagement

UNICEF’s WASH strategy (2016–2020) introduced new areas of emphasis, including more extensive involvement with the private sector to achieve SDG 6.2. To make more progress, sustainable market development requires the private sector to become co-creators.

The ‘industry engagement’ lever aims to create synergies among various actors in the sanitation market and thus catalyse markets. There is an opportunity for successful technologies and business models to accelerate scale-up by franchising or licensing their intellectual property. Complementary technologies could cluster into a more wide-reaching solution, such as latrine producers, waste emptiers and waste processing suppliers forming complete off-grid sanitation ecosystems. Whereas the ‘information communication’ lever aims to educate industry on market potential, ‘industry engagement’ proactively engages with industry to accelerate the scale-up of their knowledge, skills, products and services.

This lever becomes increasingly important as UNICEF moves into urban markets. Successful sanitation interventions require that multiple players, including product suppliers, FIs, demand creators, facility installers, waste emptiers, waste treatment suppliers, and waste by-product sellers, work together to create a sustainable sanitation environment. In addition, the government needs to create an enabling business environment. Market-shaping interventions are most successful when there are mutually beneficial, symbiotic relationships between all players in the sanitation chain, enabling an efficient market that generates economies of scale and cost efficiencies.

The industry engagement lever includes:

- **Industry consultations** to explore the barriers businesses face investing in and expanding the market (and working together to address these); and
- **Technology transfer** to facilitate the sharing of knowledge and encourage accelerated adoption of workable solutions.

Adapted from USAID, Healthy markets for global health: A market-shaping primer, Washington DC, 2018.
Box 33: Catalysing synergies in the private sector: LIXIL/Silafrica

UNICEF has taken an active role in catalysing knowledge and expertise in the sanitation sector. In June 2019 in Nairobi, it held a Sanitation Industry Consultation that showcased the synergistic business relationship between two large-scale sanitation product manufacturers, LIXIL (owner of the SaTo brand), and Silafrica (a major plastics manufacturer in Eastern Africa). The collaboration involves a three-year manufacturing agreement to produce SaTo for the Eastern African market.

This benefits LIXIL by enabling low-cost and speedy entry into these markets, using the local manufacturing and distribution capabilities of Silafrica. Silafrica benefits by expanding its product and customer range, building its reputation through an association with a global conglomerate, and utilizing its spare capacity. By showcasing these success stories, UNICEF aims to encourage additional, similar relationships.

Box 33 highlights an agreement to manufacture and distribute SaTo products in Eastern Africa.

Industry consultations

UNICEF’s primary tool for ongoing dialogue with the private sector is industry consultation. Industry consultations are designed to provide a platform for communicating market information, identifying barriers and opportunities, establishing partnerships and strategic planning. Industry consultations can also serve as a forum to collect information and perspectives to inform the creation of TPPs and tenders. UNICEF convenes industry consultations by segment/product group on a (bi)annual basis (see Box 34 on UNICEF’s industry consultations for LLINs).

For instance, to scale-up the availability and quality of RUTF, UNICEF used regular strategic engagement with the industry to catalyse market development. In the early 2000s, UNICEF worked with global partners to develop the community-based management approach to malnutrition for non-complicated cases of severe acute malnutrition as an alternative to facility-based treatment. As demand for RUTF grew, UNICEF encouraged local suppliers and other global suppliers to engage in the market to meet demand.

Consultations with potential suppliers facilitated the production of a uniform commodity that met quality standards, continual improvements to increase accessibility, and diversity and expansion of the supplier base, particularly by local producers in programme countries. To support this process, UNICEF organized a number of nutrition supplier meetings and pre-tender consultations, targeting RUTF suppliers and inviting other procurement partners and donors. New suppliers were encouraged to enter the market, mostly by providing them with technical guidance on meeting the quality standards and improving visibility on procurement needs.

The supplier portfolio increased from one supplier in 2000, supplying three metric tons, to 20 suppliers in 2018 (including 17 local suppliers in countries with high levels of malnutrition), supplying 48,000 metric tons, benefiting 3.8 million children.

Drawing lessons from these experiences in other sectors, UNICEF began to apply them to...
Box 34: Industry consultation: Long-life insecticide nets

UNICEF witnessed the catalytic effect of industry engagement in the development of LLINs. Before 2000, the mosquito net market was struggling to grow. This was primarily due to the inefficiencies of the technologies used at the time. Insecticide was originally applied to mosquito nets, and wore off after a few months. For continued protection, nets could not be washed, and needed to be re-dipped in strong chemicals.

Product innovation provided the breakthrough when Sumitomo Chemical, a large Japanese chemical company, impregnated the net threads with insecticide in the extrusion process before weaving (making re-dipping unnecessary).

Once a user-friendly solution was available, the establishment of a public-private partnership between Exxon Mobil (donation of plastics), Sumitomo Chemicals (insecticide mesh technology), and A and Z Textiles (distribution channel and sales), Acumen Fund (financial support), supported by the Government of the United Republic of Tanzania, helped catalyse the scale-up of LLINs. UNICEF’s Supply Division facilitated this synergistic alliance by hosting an all-party meeting in 2001.

UNICEF continued to build industry engagement to support market development. In October 2009, UNICEF Supply Division hosted the first LLIN supplier meeting, which was well received and became an annual occurrence. By 2013, this evolved into a joint industry meeting, with suppliers and other major buyers, such as the Global Fund and President’s Malaria Initiative.

Box 35: A sanitary industry consultation: Bangladesh

In September 2019, a two-day event in Bangladesh brought together almost 300 representatives from the Ministry of Industry, Department of Public Health Engineering, sanitation-related manufacturers, chambers of commerce, sanitation business associations, latrine producers, sanitation-related dealers and retailers, development partners, NGOs, MFI’s, academia and UNICEF staff (from the country office, regional office, Supply Division and headquarters).

A significant focus of the meeting was to identify key market barriers and opportunities to strengthen local sanitation markets. One important outcome was the commitment of the Swiss Agency for Development and Cooperation to support the scale-up of the UNICEF SanMarkS project that had been successfully piloted in Bangladesh. The project is working on blending business capacity development, micro-financing solutions and improving linkages between demand and supply, including introducing product innovations, optimizing product variants and harmonizing quality standards.

Technology transfer

As noted in Box 33, transferring technology can have a catalytic effect on a market. In another example involving the SaTo pan, its proliferation in the Bangladeshi market was due to LIXIL licensing its technology to a Bangladeshi local plastics
Box 36: Ghana’s National Sanitation Technology and Business Expo

In Ghana, the government works with the National Board for Small Scale Industries to organize an annual promotional event, the National Sanitation Technology and Business Expo. The exposition aims to create and sustain awareness of the range of sanitation products, technologies, innovations and services available to serve the sanitation market, including low-income communities. The event also serves as a platform for generating innovations and networking opportunities for entrepreneurs and businesses.

Suggestions

• Engage with influential organizations, such as chambers of commerce, trade and business associations, and individual companies to promote the sanitation market.
• If need be, establish a regular sanitation-focused industry forum that brings together government, suppliers, financiers and entrepreneurs. Focus the agenda on catalysing relationships between market actors. Aim to transfer ownership of these forums to local actors.
• Invite representatives of successful sanitation businesses from outside your region to present to the forum to accelerate business expansion in your region through business partnerships.

Summary and conclusion

The sanitation market requires innovation. However, innovation is as likely to come from synergies among current sanitation businesses, financiers and entrepreneurs, as it is from the ‘next big idea’. A platform to enable the development of synergistic relationships is crucial. UNICEF is ideally positioned, as a convener with consumer insights and government connections, to catalyse industry skills and expertise for the benefit of children. The sanitation market also requires investment, and if the private sector is to play an important role in the development of the market, the investment that will enable the private sector to do so must be accessible. How to improve access to finance to enable investment is discussed in the chapter “expanding access to business finance”.

The areas of focus and levers introduced in this chapter are examples of how markets could be accelerated to scale by reducing the fragmentation markets to enable more aggregation and economies of scale. Changing market structures makes it possible to implement market-shaping interventions that will attract more robust sanitation businesses with the financial resources and acumen to take their businesses to scale. Engaging these sanitation businesses, and enabling them to invest and build markets, is crucial to achieving appropriate, accessible and affordable sanitation provision at the scale required.
Resources and further reading


World Bank, Implementation Completion and Results Report for OBA Urban Sanitation Facility for the Greater Accra Metropolitan Area (GAMA), Washington DC, 2018.


Annexes

See Annex 6 for guidelines on conducting industry consultations.

Websites

UNICEF, Influencing markets. Available at: https://www.unicef.org/supply/influencing-markets
### 3.7 Expanding access to business finance

**Overview**

This chapter is a continuation of **3.6 Optimizing market interactions**, which explored opportunities to enhance sanitation market dynamics through catalytic interventions that improve the exchange of products and services between entrepreneurs/businesses and customers. This chapter includes an in-depth discussion of the final lever introduced in the previous chapter, **improving access to business finance**. We examine how business finance plays a critical role in scaling up the sanitation market and look at three impactful financial mechanisms with a proven track record in stimulating sanitation markets.

It is also important to consider improvements in financial service infrastructure and how to create a better regulatory environment for FIs to open their portfolios to sanitation. These systemic enablers are explored in **3.8 Market enablers**.

**Businesses need capital to grow**

Business plays a critical part in enabling sanitation solutions to scale-up. Businesses are integral

<table>
<thead>
<tr>
<th>Quick reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is involved?</strong></td>
</tr>
<tr>
<td>• Assessing the current and past involvement of FIs/MFIs in the sanitation sector and barriers that prevent them from investing further (such as high risk or limited liquidity)</td>
</tr>
<tr>
<td>• Exploring barriers to borrowing for sanitation businesses (e.g., high interest rates, inability to prove creditworthiness, collateral requirements)</td>
</tr>
<tr>
<td>• Examining the support or assurances required to excite FIs/MFIs to enter the sanitation market</td>
</tr>
<tr>
<td>• Exploring mechanisms to overcome barriers to lending and borrowing (e.g., revolving funds, guaranteed funds, subsidized interest rates)</td>
</tr>
<tr>
<td>• Creating a positive track record of lending to the sanitation sector to encourage FIs/MFIs to engage in the sector on an ongoing basis</td>
</tr>
<tr>
<td><strong>What are we trying to achieve?</strong></td>
</tr>
<tr>
<td>• Demonstrate a track record of lending to sanitation businesses to increase lending to sanitation businesses</td>
</tr>
<tr>
<td>• FIs/MFIs open their portfolios and dedicate liquidity to the sanitation sector</td>
</tr>
<tr>
<td>• Finance accessible to the sanitation sector at affordable rates</td>
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<tr>
<td>• Development of a sustainable financing market for the sanitation sector</td>
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<tr>
<td><strong>How long will it take?</strong></td>
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<td>Ongoing</td>
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<tr>
<td><strong>What skills and resources are required?</strong></td>
</tr>
<tr>
<td>• Finance skills, including around micro-finance and innovative financing</td>
</tr>
<tr>
<td>• Funding to support innovative financial mechanisms (e.g., revolving funds, guaranteed funds, subsidized interest rates)</td>
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<tr>
<td><strong>UNICEF equity and gender reminders</strong></td>
</tr>
<tr>
<td>Ensure that innovative financial mechanisms support the development of the sanitation market and are committed to expanding the production of sanitation solutions that meet the needs of children, paying special attention to women and girls and those in vulnerable situation</td>
</tr>
</tbody>
</table>
to innovating, producing, selling, delivering and maintaining sanitation solutions. All businesses, whether artisan entrepreneurs or multinational corporations, have the same type of broad financial requirements, including investment capital (e.g., for the purchase of land, factories, machinery and vehicles) and working capital to cover short-term obligations and fund business operations, such as stock-piling inventory or covering a gap in funding due to lengthy billing cycle. Currently, businesses across the sanitation market struggle to access the finance necessary to invest in growth. Robust demand-creation and local entrepreneur skill enhancement will be insufficient to catalyse the sanitation market into achieving significant scale if sanitation businesses do not have access to finance.

Financial institutions’ reluctance to finance smaller enterprises

A fundamental barrier to sanitation businesses accessing finance is the FIs’ lack of interest in lending to micro-, small- and medium-enterprises (MSMEs) in general, regardless of the sector. For example, MSMEs are recognized as being important engines of growth in sub-Saharan Africa, where they account for up to 90 per cent of all businesses, yet 90 per cent of MSMEs do not have access to credit or do not use it.

‘Unprofessionalism’ of smaller enterprises increases lending risk

A large majority of businesses involved in the sanitation supply chain, especially those serving low-income communities, are MSMEs. These businesses tend to be informal one-person operations, such as artisan latrine producers or pit emptiers, which are often unregistered. These businesses are usually unable to prove creditworthiness to formal FIs. Many MSMEs lack robust financial records and collateral, which are standard requirements for securing a loan. In sub-Saharan Africa, Agence Française de Développement’s (AFD) estimates that “only one in three SMEs produces financial statements audited by an external auditor: many of them present several versions of their financial situation depending on the recipient, which tarnishes their credibility.” The informal nature of small businesses is another challenge. Artisan entrepreneurs and pit latrine emptiers, for example, tend to be unregistered businesses and lack the robust business structures required by FIs.

In the face of this uncertainty, FIs tend to overestimate the risks involved in lending to sanitation businesses and prioritize more reliable investment opportunities. As a result, financial resources are limited as most MSMEs rely on meagre savings, family, or unofficial money lenders to access finance. Limited finance negatively impacts the potential for operational efficiencies that could lead to a gradual scaling up of business.

When access to finance is made available to sanitation businesses, the results have been promising. When local latrine producers in the Bangladeshi sanitation market were able to secure loans from MFIs through the project, sales increased by 35 per cent as buy-in-bulk, and stock replenishment became possible. In the same project, over 60 per cent of latrine producers indicated that access to financing was critical to construct more toilets.

The lack of ‘meso-finance’

Smaller businesses are not the only type of business negatively impacted by a lack of access to capital. More established businesses also face significant barriers. They run the risk of being ineligible for any type of formal financing, being too big for MFIs and too small for banks. One report noted that water and sanitation entrepreneurs,

91 USAID reports on enterprise viability for rural sanitation businesses indicate that investment capital, such as investment in moulds, is a key success factor in developing a scaled, viable business.
92 For example, the USAID MBS desk review found that over 75 per cent of rural sanitation enterprises in the United Republic of Tanzania cited the lack of access to capital to be a moderate to major hindrance to operations (USAID, 2018). See Resources and further reading at the end of this section.
93 AFD (2017). See Resources and further reading at the end of this section.
94 Project proposal to the Swiss Agency for Development and Cooperation on Scaling Up Sanitation Marketing Systems in Bangladesh (SanMarkS II), 2019.
“although they provide critical services, particularly for the poor, often find that their financing needs fall in the ‘missing middle’, so-called ‘meso-finance’ (estimated roughly at between US$2,000 and US$100,000).” As a result, their financing needs are seldom met, and their ability to expand is low.  

The high cost of borrowing

Even businesses that are large and established enough to access commercial loans face prohibitive interest rates, often 40 per cent or more. Even with a profit-making track-record and collateral, Sara Plast, the US$10-million-mobile-toilet-rental-business introduced in the previous chapter, still struggles to secure formal financing for expansion. The CEO Rajeev Kher laments that the 20-30 per cent interest rates charged place an enormous burden on the tight-margin business.

Sanitation sector viewed as unprofitable

Investment in sanitation businesses is further hindered by the perception that sanitation is a low-profit or no-profit sector. The most well-understood business model in the sector is that of a wastewater treatment service, combined with water in a utility model, which operates with the ‘3Ts’ revenue stream: tariffs, taxes and transfers (i.e., tariffs paid by the users of the services, taxes provided by domestic taxpayers through governments, and transfers provided by foreign countries). These revenue streams are not applicable to non-utility sanitation businesses, such as sanitaryware manufacturers or latrine installers, and FIs are sceptical of profitability in the sector without the reliable 3T revenue streams.

Without access to finance, sanitation businesses, from micro-entrepreneurs to large-scale companies, cannot make the investments required to innovate, develop, produce and supply appropriate, affordable and accessible sanitation solutions to the sanitation market.

Approach

The ultimate aim of the ‘expanding access to business finance’ approach is for a sustainable financing market to develop for the sanitation sector. This entails FIs and MFIs, making finance accessible to the sector at affordable rates for mutual benefit. A key component of the approach is that additional investment in the sanitation market increasingly comes from in-country FIs, reducing reliance on traditional external donors. The donors’ role is to catalyse the FIs into serving the sanitation market.

The approach is to work with in-country FIs and address the barriers preventing them from lending to the sanitation sector: the high degree of risk associated with MSMEs in general, and the sanitation market, in particular.

As with the previous chapter, the approach focuses on three concepts:

- **Excite**: Excite FIs/MFIs to open their portfolios and dedicate liquidity to the sanitation sector by addressing key barriers, such as limited liquidity and high risk.
- **Engage**: Once engaged in the market, FIs/MFIs experience the market potential. Their loans are repaid with interest, and the low default rate (often less than 3 per cent in the sanitation consumer-finance markets that have been reviewed) leads to a change of perception as a track record is developed.
- **Empower**: The track record empowers the FIs/MFIs to further engage and expand in the sanitation market, as fact-based knowledge increases, and strategies become data-driven. The experience lays the foundation for further growth of services, with the result that FIs/ MFIs expand their customer base, and the sanitation market is strengthened through increased investment.

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95 Trémolet (2012). See Resources and further reading at the end of this section.

96 Although it should be noted that the absolute value may not be as high when inflation is taken into account. A sample of inflation rates in early 2020 were: Ghana: 8 per cent, Kenya: 6 per cent, Liberia: 31 per cent, Nigeria: 12 per cent, South Sudan: 69 per cent.
This approach is most effective when the market is primed prior to catalysation. Priming activities, such as demand creation in communities, technical support for both sanitation businesses (to improve professionalism) and FIs/MFIs (to assess risk and craft appropriate financial instruments for the sanitation market) are key to success. Likewise, the wider business environment should be also be developed and improved (refer to 3.8 Market enablers).

**What is a successful financial intervention?**

The financing mechanisms explained below will be successful if, once the intervention has concluded, the FIs/MFIs:

- Demonstrate a track record of lending to sanitation businesses;
- Continue to provide accessible loans to sanitation businesses (and, where needed, sanitation consumers); and
- Increase the proportion of their lending portfolio dedicated to developing the market.

To achieve this, is it important that MFIs/FIs develop capability and experience in the sanitation market during the intervention. This requires they operate as they would in their other markets, including:

- Assuming risk and carrying out effective due diligence on their loan portfolio; and
- Committing to growing the sanitation market and creating appropriate financing products tailored to it.

Sanitation businesses require access to finance in order to grow the sanitation market. Currently, significant barriers prevent FIs/MFIs from investing in all types of sanitation businesses, whether they be latrine-building artisans, product manufacturers, or waste-to-resource sanitation facilities. These barriers include the reluctance of FIs/MFI to lend to businesses in general, the “unprofessional” nature of many sanitation businesses, and the perceived high-risk of the sanitation market.

In the following sections, three key financing mechanisms, which have a proven track record in addressing these barriers by exciting, engaging and empowering financiers, are introduced. The relevancy and effectiveness of the mechanisms depend on the country context and the intervention’s objectives. The mechanisms can be applied singularly or in combination.

**Revolving fund**

A revolving fund is a financial mechanism that involves a temporary capital injection (fund) from which loans are drawn. Often the fund will be put under the management of a large in-country financial organization, such as an apex bank, which will loan the capital to FIs/MFIs at preferential rates. FIs/MFIs subsequently loan funds to borrowers at capped rates. When a loan is repaid to the fund, the capital is recycled into new loans for the duration of the agreement, before being repaid in full to the funder.

This recycling of loans creates a long-term, flexible, sustainable source of repayable finance as any financial loss due to loan defaults is borne by the FIs/MFIs and does not deplete the fund itself. Depending on the duration of the mechanism and loans, the initial funding can be loaned multiple times, greatly leveraging the impact of the original fund (see Figure 24).
There are numerous examples of revolving funds being used to scale-up household sanitation on the demand-side (household consumer loans) over the past 40 years, such as the Vietnam Revolving Fund (2001-2004) and WaterCredit programmes. Unfortunately, the mechanism has been under-utilized for sanitation MSMEs.

One example is from Ghana, where SNV and UNICEF utilized revolving funds in their sanitation programmes, part of which involved extending finance to MSMEs. SNV launched the five-year From Possible to Profitable Programme in 2015, a €4 million revolving fund, with additional technical support to businesses to increase access to
In 2017, 23.5 million Ghanaians were estimated to live without access to improved sanitation services, and 5.2 million people practised open defecation. A study in 2014 identified a strong need for WASH MSMEs to gain access to finance to strengthen the sanitation supply chain. However, high interest rates and prohibitive collateral requirements hampered investment in much-needed growth.

To address these barriers, and increase household investment in sanitation, the Basic Sanitation Fund was launched by the Ministry of Sanitation and Water Resources in December 2018, supported by UNICEF and the Embassy of the Netherlands. Part of a larger intervention, US$500,000 was provided as seed funding, interest-free over a 12-month operational period to the ARB Apex Bank, a well-established national bank, which managed the fund. The ARB Apex Bank loaned on the capital at 3 per cent to 140 rural community banks and their network of 700 branches. This was then on-loaned to borrowers at a capped rate of 12 per cent, much lower than average bank rates, ranging from 26 to 40 per cent. Equally important to borrowers, the requirements for securing a loan were less prohibitive than the banks’, which were known to require two salaried creditors in addition to other security.

As of March 2019, a mass application process involving environmental health officers and rural banks, achieved 392 loans approved for households and ten loans approved for business (relatively small numbers but encouraging for one month). UNICEF ensured the smooth implementation of the fund by building the capacity of rural community banks and metropolitan, municipal and district assemblies. An early report stated repayment rates for month two were at 81 per cent.

WASH services at the household level. Under the management of Fidelity Bank Ghana, the fund provides liquidity to FIs/MFIs to on-loan to MSMEs and households across all ten regions in Ghana at below-market rates, which, according to SNV, encourages FIs/MFIs to lend to the WASH sector.

However, even with SNV’s revolving fund in place, it became apparent that collateral requirements for loans in this intervention remained prohibitive for some borrowers. A UNICEF-supported programme in Ghana, the Ghana Basic Sanitation Fund, had similar aims, and sought to reduce the collateral requirements in addition to increasing access to affordable loans (see Box 37).

Lessons learned from this project include the need for a longer loan period, as 12 months was considered too short to interest some potential borrowers, and the 12-month term did not allow effective recycling of the capital into new loans. As a mechanism, though, it demonstrated the potential to stimulate the sanitation market using financial mechanisms.

Guarantee fund

Current sanitation businesses tend to be MSMEs, which are often informal, with insufficient collateral and a reputation for high repayment risks. The market itself is untested and has the reputation of being a high repayment risk. As a result, FIs are often hesitant to do business in the sector. A guarantee fund can provide assurance and incentivize FIs to lend to sanitation businesses even when there are more attractive markets available.

A guarantee fund is a risk-sharing mechanism that reimburses FIs with a percentage of capital losses incurred in the event of borrower default (the fund does not cover interest payments or fees). The FIs/MFIs utilize their own capital to lend to the market. The fund can either guarantee loss of a portfolio of loans over a defined duration (for example, five years), or of individual loans (see Figure 25).
Development institutions have regularly used guarantee funds to address the high-level of the perceived risk that often prevents FIs from investing in under-served markets. USAID’s Development Credit Authority is a well-established example that typically guarantees 50 per cent of the loan’s principal value. To date, US$5.5 billion in credit has been made available in 80 countries. USAID estimates that it generates value at 20:1 in terms of cost to the United States Government compared to grants. This is due to the expectation that a large part, if not all, of the guarantee fund capital will be returned to the funder at the end of the intervention.99

AFD provides another example. Its ARIZ risk-sharing mechanism is focused on catalysing liquidity for MFIs and SMEs in developing countries. It guarantees the in-country lending institution (such as a national bank) for final losses of up to 50 per cent of the loan’s value for SMEs and 75 per cent of the loan’s value for MFIs. From 2007 to 2017, ARIZ signed 1,500 guarantees totalling €1.8 billion in 37 countries, in collaboration with 100 partner banks.100 This mechanism has yet to be applied widely to the sanitation sector. An example of AFD’s ARIZ guarantee mechanism is included in Box 38.

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99 CSIS (2017). See Resources and further reading at the end of this section.
100 AFD (2017). See Resources and further reading at the end of this section.
**Box 38: AFD’s ARIZ guarantee in Mozambique**

MSMEs are recognized as a core vehicle for growth, but in Mozambique, only 6 per cent of MSMEs have access to formal finance. The onerous collateral requirements from the banking sector tend to hinder MSME’s access to finance, thereby hampering growth. To address this, AFD’s ARIZ mechanism provided the Banco Commercial e de Investimentos with a US$2 million portfolio guarantee for a women-owned MSME credit line. The guarantee covers loans from €10,000 to €300,000 in value, with a maturity of one to five years. The loans are granted to purchase or create depreciable assets, such as machinery, office equipment and transportation. The ARIZ guarantee covers up to 50 per cent of the amount of each loan.

The fund reduced the prohibitive collateral requirements for securing a loan and increased the willingness of FIs/MFIs to lend to a broader range of MSMEs.


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**Subsidized interest rates**

The subsidized interest rate mechanism addresses the barriers to sanitation market growth on the FI/MFIs’ side and the borrowers’ side. It increases the affordability of loans to borrowers by significantly reducing interest rates. This is achieved by providing a subsidy to FIs/MFIs to compensate them for the difference between the standard market rate and the lower, pre-agreed rate to targeted borrowers (see Figure 26). Ideally, subsidized interest rate mechanisms are established as OBA programmes. This mechanism has yet to be applied to sanitation businesses. However, one of the recommendations from the two-year Bangladesh OBA Sanitation Microfinance Project by the World Bank, was to apply subsidized interest rates to stimulate the supply-side of the sanitation market (see Box 39).

Subsidizing interest rates is most effective when both households and businesses are offered affordable loans. Unlike revolving funds and guarantee funds, the financing is not refundable at

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**Figure 26: Subsidized interest rate concept**

<table>
<thead>
<tr>
<th>Financial flow - Disbursement</th>
<th>Financial flow - Loan repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing institutions</td>
<td>Private sector</td>
</tr>
</tbody>
</table>

![Diagram showing financial flows and interest rate subsidies](https://www.afd.fr/en/carte-des-projets/supporting-mozambican-smes-investments-and-job-creation)
the end of the project, but it remains a relatively low-cost mechanism for leveraging local FIs to provide affordable liquidity to stimulate the market.

### Funding sources for the financial mechanisms

Funding for the three financial mechanisms described in this chapter could be sourced from a wide variety of partners, including development banks, donor agencies and social investors (see Table 26). Subsidized interest rates are a grant-based mechanism, whereas the revolving fund and guarantee fund mechanisms have the expectation of repayment (in full for the former, and partial or full for the latter) at the end of the intervention. Funding for technical assistance and demand creation, which increases the effectiveness of the funding mechanisms, can be provided through grants as part of UNICEF programmes or partner initiatives.

### Key questions to consider

- Are there market catalysation programmes in your area that could scale-up more effectively if the sanitation business sector was strengthened?
- Are sanitation businesses struggling to service the market, and is a lack of access to finance a key constraint for them?
- Are there existing initiatives or tools within UNICEF country offices that could be leveraged, such as those for expanding access to consumer or business finance?

### Suggestions

- Understand as clearly as possible the kind of financing required to strengthen the sanitation businesses. Is it investment capital, working capital, or both?
- Understand whether the lack of financing is due to FIs not lending, businesses not borrowing, or both.
- If FIs are not lending to sanitation businesses, explore whether it is because they do not have enough capital, or that they prioritize other areas. Investigate the priority areas of lending for local FIs.
- If interest rates are prohibitive, understand what is driving this, such as a lack of liquidity in the market or the perceived high-risk of the sanitation market.
- Assess FI’s current and past involvement in the sanitation sector. What barriers are preventing them from investing more? Are they able to adequately assess risk in the sanitation market, or have they been negatively impacted by non-performing loans?
- Examine what support or assurances need to be in place to excite FIs to enter the market.
- If the businesses are not borrowing, assess the barriers. Are interest rates too high? Are the businesses unable to prove their creditworthiness? Are the collateral requirements too high? Are products inadequate?

### Table 25: Barriers to lending/borrowing addressed by subsidized interest rates

<table>
<thead>
<tr>
<th>Barrier to lending/borrowing</th>
<th>Subsidized interest rate solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI/MFI’s barrier to lending: High default rate is assumed due to perception of the sanitation sector as high-risk</td>
<td>Loan affordability is increased by the interest rate subsidization, which lowers the barrier for repayment (i.e., the borrower owes less and therefore finds it easier to repay).</td>
</tr>
<tr>
<td>Business’ barrier to borrowing: Unaffordable cost of loans due to high interest rates</td>
<td>Lower interest rates significantly reduce the cost of loans. The ability to pay in instalment plans greatly eases cash flow constraints.</td>
</tr>
<tr>
<td>Table 26: Key features of the three financial mechanisms</td>
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<tr>
<td>--------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Revolving fund</strong></td>
<td><strong>Guarantee fund</strong></td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Liquidity: To increase liquidity in the sanitation sector by incentivizing FIs/MFIs to increase their lending to MBS businesses. Track-record: To create a positive track record of lending to the sanitation sector to encourage MFIs/FIs to engage in the sector on an ongoing basis.</td>
</tr>
<tr>
<td><strong>Most relevant for</strong></td>
<td>MFIs/FIs with limited access to liquidity, charge high interest rates or do not lend to the sector.</td>
</tr>
<tr>
<td><strong>Method</strong></td>
<td>Create a fund managed by a fund manager, who lends the capital to MFIs/FIs at preferential (subsidized) rates. MFIs/FIs lend to borrowers at a capped rate that is lower than the prevailing market rate.</td>
</tr>
<tr>
<td><strong>Original source of capital for loan</strong></td>
<td>External funder, who temporarily injects liquidity into the market at below-market interest rates. MFIs/ FIs need not use their own capital for loans.</td>
</tr>
<tr>
<td><strong>Bearer of credit risk</strong></td>
<td>MFIs/FIs are responsible for any loan default. However, the default risk is slightly lowered due to the reduced cost of the loan.</td>
</tr>
<tr>
<td><strong>Likelihood of repayment of public/donor financing</strong></td>
<td>High: The fund is returned in full at the end of the term. Any losses are borne by the FIs/MFIs.</td>
</tr>
<tr>
<td><strong>Potential to lower interest rates</strong></td>
<td>High: The fund manager lends to MFIs/FIs at a relatively low rate and, as a condition of the loan, stipulates an interest cap for forward loans.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>Basic Sanitation Fund (Ghana)</td>
</tr>
</tbody>
</table>
According to JMP data, as of 2015, only 61 per cent of Bangladeshis had access to improved sanitation facilities. The choice and quality of latrines were limited in rural areas, where latrine providers tended to be MSMEs with few product options. Poorer households were willing and able to buy a latrine, but the lump-sum payment required for purchase was a significant barrier. Microfinance has a long and successful history of reducing poverty in Bangladesh. However, its presence in WASH was nascent.

The World Bank aimed to stimulate the sanitation market, increasing affordability and accessibility of household sanitation products by encouraging MFIs to lend to rural sanitation customers by offering interest-free payment instalment plans. Local entrepreneurs were trained to provide a range of better-quality latrines.

When World Bank offered technical support and US$3.7 million for interest rate subsidization, two major Bangladeshi FIs committed US$21.6 million of their own capital to the sanitation market. One FI marketed loans directly to households, while the other loaned-on interest-free finance to partner organizations to increase customer reach. MFIs and entrepreneurs jointly marketed the loans to consumers. The customer received approval for the loan only when the MFI verified that the latrine construction quality met a pre-determined standard, at which point the entrepreneur was paid. The interest rate subsidy to the MFI was also contingent on a quality latrine being constructed, resulting in both the MFI and entrepreneur having a vested interest in quality construction. The interest-free loans and instalment payment plans increased household affordability.

The programme successfully achieved the following:

- Over 170,000 households invested in purchasing latrines within two years;
- The MFIs gained experience in the sanitation market and, based on solid commercial experience, plan to expand their presence in sanitation markets in other regions; and
- There was no market distortion because, at the time, there was no existing market for rural sanitation loans.

The project focused on consumer finance. However, within the project, MFIs also offered loans to artisan entrepreneurs; 43 per cent of those involved in the project took out a loan. Unlike those to the households, these loans were not eligible for the subsidy and were charged the flat market interest rate of 12.5 per cent, which placed an additional cost burden on their fledgeling businesses. While the project demonstrated how businesses could leverage consumer financing initiatives, and catalysed demand, the subsidization of supplier loans would enable even greater investment in building effective sanitation supply chains.


Box 39: Bangladesh Output-based Aid Microfinance Project

Summary and conclusion

Enabling access to market finance should be an integral part of any MBS intervention. The three financial mechanisms examined in this chapter enable:

- Businesses across the supply chain access to affordable capital to invest in their businesses and better supply the market;
- FIs/MFIs to develop their skills, experience and customer base in the untapped sanitation market; and
- Greater market-shaping impact for donors per US$1 spent.
Resources and further reading

AFD, AFD: Your partner to finance SMEs, 2017. Available at: https://www.afd.fr/sites/afd/files/2017-10/Ariz-Brochure.pdf

CSIS, 20 Years of the Development Credit Authority’, 2017. Available at: https://www.csis.org/analysis/20-years-development-credit-authority


Websites


SNV, From Possible to Profitable (P2P) Programme. Available at: https://snv.org/update/eur6-million-wash-fund-ghana
## 3.8 Market enablers

### Quick reference

| What is involved? | • Identifying barriers and opportunities within the sanitation business environment (e.g., market rules, public goods, access to capital and supply chains)  
• Supporting governments and partners to improve sanitation-related policies  
• Identifying and supporting the production and dissemination of public goods that all stakeholders can use to better serve the market (e.g., standards and quality assurance processes)  
• Increasing market information through market dashboards, price databases and market notes  
• Identifying households who need sanitation-related subsidies  
• Supporting market-based sanitation training programmes  
• Strengthening systems to spur innovation in the sanitation market |
|---------------------------------------------------------------|
| What are we trying to achieve? | • Improved the business environment in the sanitation sector  
• Market-driven national sanitation strategy, including more effectively targeting subsidies for poor consumers  
• Improved collaboration among supply chain actors and ‘local solutions’ |
| How long will it take? | Ongoing |
| What skills and resources are required? | • Regulatory and advocacy skills  
• Experience with social protection programmes  
• Funding to support regulatory reviews, advocacy, training programmes and targeted subsidies |
| UNICEF equity and gender reminders | • Include women, children, disadvantaged communities and persons with disabilities are involved in consultations and advocacy processes  
• Ensure subsidies target the poorest households or those that have been persistently excluded  
• Include women, disadvantaged communities and persons with disabilities in training programmes |

### Overview

In the previous two chapters, we primarily focused on the entrepreneurs, businesses and customers within the sanitation market. This chapter deals with the business environment in which these market players operate. Strengthening sanitation markets requires a conducive business environment, without which MBS efforts might not reach the scale or have the impact needed to improve the provision and consumption of sanitation services.

It is the responsibility of governments to create favourable conditions for sanitation markets. Market enablers are incentives that governments and development partners can use to reduce or eliminate barriers to market entry or expansion by making business transactions easier for both customers and entrepreneurs/businesses.

The objective of this chapter is to explain how you can support governments devise and implement market enablers that foster a more conducive business environment.
Identify barriers and opportunities within the business environment

To establish effective market enablers, you first need to identify key market barriers related to the business environment as part of your market assessment and industry consultations. Unfriendly business environments negatively impact the performance of sanitation markets. Customers and entrepreneurs involved in sanitation markets are limited in what they can achieve independently, facing barriers that they are not well-positioned to address. These barriers are part of the business environment, which is shaped by factors that enable or impede the scale-up of sanitation markets. These factors can be grouped into four major components (see Figure 27):

- **Market rules**: business-related laws, regulations and policies (e.g., government programmes to provide in-kind hardware subsidies);
- **Public goods**: resources that individuals or enterprises can consume without reducing their availability to others, the consumption/use of which does not deprive others of doing the same (e.g., market information on product designs in the public domain);
- **Capital**: financial services infrastructure, which affects the availability of liquidity for customers and entrepreneurs; and
- **Associated supply chains**: the supply of products and services that support the functioning of sanitation markets (e.g., availability and price of construction raw materials used to build toilets).

You should identify market barriers and subsequent market enablers using the four major categories highlighted in Figure 27 as part of your market assessment and industry consultations.

**Market rules**

Sanitation market rules are set by government and include policies, regulatory requirements, laws, goals, strategies and commitments that have a bearing on the provision and consumption of sanitation services. The existence and enforcement of market rules (or lack thereof) influence the performance and outcomes of sanitation markets. Market rules that can negatively influence the performance of MBS include:

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**Figure 27: Business environment factors**

<table>
<thead>
<tr>
<th>MARKET RULES</th>
<th>PUBLIC GOODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies, regulations, laws with enforcement</td>
<td>Market information</td>
</tr>
<tr>
<td>Taxation, tariffs, fiscal incentives</td>
<td>Product/technology standards</td>
</tr>
<tr>
<td>Consumer protection</td>
<td>Technical guidelines</td>
</tr>
<tr>
<td></td>
<td>Quality assurance processes</td>
</tr>
<tr>
<td></td>
<td>Business advisory support, capacity building</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SANITATION BUSINESS ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and development</td>
</tr>
<tr>
<td>Innovation</td>
</tr>
<tr>
<td>Supply chain strengthening</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSOCIATED SUPPLY CHAINS</th>
<th>CAPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial services infrastructure</td>
<td></td>
</tr>
<tr>
<td>Subsidies</td>
<td></td>
</tr>
</tbody>
</table>

• **Poorly designed or targeted subsidies, such as free toilets**: While this approach might be useful to stimulate household demand for sanitation products, it can have a negative effect on the sanitation market by creating a dependency mindset on consumers, inhibiting market growth. By essentially making consumers passive participants in the market, this approach severs the transmission of demand and preference signals along the value chain. Policies that limit this interface (between customers and entrepreneurs) impede the development and deployment of more effective sanitation solutions, including reducing innovation in the market. However, as explored later in this chapter, there are situations in which subsidy-based policies make sense, especially when dealing with the poorest segments of the population.

• **Import substitution industrialization**: Policies designed to promote domestic manufacturing by raising the cost of imported final goods can discourage private sector engagement participation in sanitation markets. This is particularly problematic in countries with limited manufacturing bases or industries that rely heavily on imports for critical sanitation-related raw materials and equipment, such as cement and toilet hardware.

• **Non-enforcement of rules and regulations**: The non-enforcement of building codes or by-laws that authorize building permits only

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**Table 27: Strengthening the business environment through improved market rules**

<table>
<thead>
<tr>
<th>Market rules barriers</th>
<th>Market rules enablers</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorly designed/ targeted subsidies</td>
<td>• Ensuring that the national sanitation strategy is market-driven, including more effectively targeting subsidies for poor consumers (please see 3.5. Reaching the poor through consumer financing for more information on subsidies and consumer financing).</td>
<td>• This enabler is intended to set-up a framework that favours a market development approach to sanitation. For instance, the Government of Senegal adopted a ten-year market-based national rural sanitation strategy (2015-2025). This was done with the support of development partners, including UNICEF, World Bank and USAID.</td>
</tr>
<tr>
<td>Imported substitution industrialization policy</td>
<td>• Establishing a regulatory framework for licensing and royalty arrangements whereby global companies can license local entrepreneurs to manufacture their products.</td>
<td>• Concrete actions could include:</td>
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<tr>
<td></td>
<td></td>
<td>– Hiring a consultant to review the existing national strategy and provide advice on market-based changes.</td>
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<tr>
<td></td>
<td></td>
<td>– Identifying those who need sanitation-related subsidies by leveraging poverty identification mechanisms and government social protection initiatives. Subsidies should be targeted at the poorest households or those that have been persistently excluded. This could involve direct financial incentives to individual households in the form of consumer rebates or vouchers.</td>
</tr>
<tr>
<td></td>
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<td>– Experience from other sectors indicates that effective targeting requires different strategies for different segments of the population, some of which: 1) can afford to pay for sanitation products and services; 2) require access to credit to purchase; and 3) require subsidies.</td>
</tr>
</tbody>
</table>

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It is important to note that import substitution can also raise prices if domestic manufacturers do not have favourable economics due to labour costs, low domestic demand, etc.
for properties with toilets or that only release housing subsidies to those who construct toilets add costs and uncertainties into the sanitation market. This is most common in urban/peri-urban areas.

• **Unfavourable fiscal regulatory frameworks:**
  In countries where sanitation is not perceived as a priority, sanitation products/services do not enjoy favourable tax and duty treatment that can help lower investment and maintenance costs incurred by entrepreneurs.

Once barriers have been clearly identified, you can support governments and partners to:

- Change or abolish policies that have a detrimental effect on the sanitation market; and
- Establish policies that positively influence on the sanitation market by: 1) encouraging and supporting private sector engagement; and 2) stimulating sustained demand.

In addition, UNICEF can also provide support for the implementation of the proposed interventions/policies through trials, monitoring, evidence generation, learning and documentation. **Table 27** lists market enablers that can help overcome barriers related to market rules.

### Table 27 (continued): Strengthening the business environment through improved market rules

<table>
<thead>
<tr>
<th>Market rules barriers</th>
<th>Market rules enablers</th>
<th>Considerations</th>
</tr>
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</table>
| Fiscal framework      | • Reducing or eliminating taxes and import duties on finished sanitation products or raw materials and equipment used for the production and provision of sanitation products (plastic/ceramic pans) and services (vacuum trucks and pumps).  
  • Fiscal incentives are designed to enhance consumers’ buying power and shape their willingness and ability to pay for sanitation services. They can also influence the costs, availability and quality of sanitation services.  
  • These incentives should be considered when sanitation has been recognized as a priority by the government.  
  • Countries focusing on import substitution industrialization are more likely to approve a reduction in tariffs on raw materials to spur local manufacturing.  
  • There is a need to consider challenges, such as making a distinction between raw materials (e.g., sand, cement) used in sanitation-related construction versus materials used in the broader construction industry.  
  • Consider working with the ministry of commerce or chamber of commerce to monitor the impact on consumer prices.  
  • While there may be several barriers in a market, it is important to focus on the most significant. There is little value advocating for the removal of taxes on pour-flush pans if they represent less than 1 per cent of the cost of a toilet. | |
| Non-enforcement of building codes or by-laws | • Enacting building codes or by-laws that authorize permits only for properties with toilets or that only release housing subsidies to those who construct toilets.  
  • The enforcement of building codes or by-laws that require each homeowner to build a latrine can encourage households or landlords to purchase toilets.  
  • Concrete actions could include imposing penalties through denial of service or surcharges on households without toilets.  
  • However, this could prompt landlords to increase rents. Consider working with local consumer protection groups to advocate for the enforcement of the law and prevent landlords from increasing the rent due to enforcement of the law.  
  • Another challenge to consider is ensuring that the poorest or the most vulnerable are not affected by the law. | |
Public goods

Public goods are resources that individuals or companies can consume without reducing their availability to others and to which no one is deprived. Public goods are available to everyone, and their supply is not diminished as they are consumed. Governments can bolster the success of MBS through the development of public goods that catalyse a conducive business environment for sanitation markets. Public goods can be broadly classified into two main categories: 1) one-off goods; and 2) ongoing goods. One-off goods are public goods typically required at the start of an MBS intervention. They might include information, such as a market assessment to support the design of the MBS intervention. Ongoing goods are public goods required throughout the implementation of an MBS intervention. They include quality assurance processes, market intelligence and business development services, such as mentoring and capacity building programmes.

As part of your market assessment and industry consultations, you should identify public goods that all players can use to better serve the market. The lack of public goods that negatively affect the sanitation markets include:

- **Poor standards and quality assurance systems**: A well-functioning sanitation market requires suppliers to produce and deliver high-quality products and services. Governments are responsible for assuring the quality of goods and services through the development and implementation of adequate standards and quality assurance systems to ensure that the products/services are safe and meet established standards. Unfortunately, sanitation markets are often characterized by either unrealistically high standards or little oversight on products and services (e.g., latrine slabs/panns and emptying services) and slow and unclear processes for certifying new products. This leads to substandard quality products and services, as well as a lack of market competitiveness. Improved technical guidelines, regulations and standards, quality assurance systems and consumer protection mechanisms are public goods that can improve the sanitation market.

- **Entrepreneurs’ lack of capacity**: When entrepreneurs involved in sanitation lack basic skills in critical areas such as management and accounting, this affects their business’ productivity and viability. As part of strategies to stimulate business development, governments often provide business advisory services as a public good. The services involve training, coaching and mentoring programmes and encompass a variety of areas, including skills development, financial linkages, standards certification and market linkages.

- **Limited flow of information**: The provision of information to market actors is sometimes a missing link in sanitation markets. The limited flow of information throughout the value chain can restrict the ability of supply chain players to realize the full extent of demand for household sanitation products/services and potential business opportunities within their reach. Entrepreneurs and consumers at the household level might be stuck in a cycle where entrepreneurs perceive a lack of demand from consumers, yet low-income consumers have no exposure to potential commercial sanitation solutions because suppliers do not promote them. Developing, producing and disseminating sanitation market information is an important public good, with the potential increase in supply and demand benefiting all sanitation businesses in a market.

There is another type of market information designed to improve market visibility and reduce asymmetries of information by providing equal access to information for businesses. This kind of information involves communicating specific business opportunities and procurement tenders. Further details on this type of market information are included in 3.6 Optimizing market interactions.

Table 28 provides ways to help develop public goods designed to foster a conducive business environment that empower and excite suppliers to engage more actively in sanitation.

You can strengthen your advocacy efforts with examples of public goods successfully developed in other contexts to stimulate sanitation markets.
For example, the Water and Sanitation Programme in Kenya produced market intelligence briefs to encourage industry participation and investment in Kenya’s emerging on-site sanitation market (see Box 40). The initiative was designed to help manufacturers, distributors and other supply chain businesses understand market opportunities and make informed decisions.

In Cambodia, WaterSHED and iDE developed training modules to offer business advisory support on an ongoing basis to all entrepreneurs who were willing to supply toilets in a manner consistent with established technical and quality guidelines. Similar capacity building activities were provided by the SanMarks programme in Bangladesh (see Box 41).

UNICEF has accumulated considerable experience

Table 28: Strengthening the business environment through public goods

<table>
<thead>
<tr>
<th>Public goods: barriers</th>
<th>Public goods: enablers</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Poor standards and quality assurance processes | • Work with government standards agencies to review/develop and disseminate appropriate technical guidelines and regulations for sanitation-related product/service standards, quality assurance systems, or consumer protection mechanisms.  
• Work with government standards agencies to streamline quality and certification processes by establishing a sampling system to regularly test product quality, with clear feedback mechanisms.  
• Review or develop a catalogue of sanitation options, introducing public sector certification of technologies or government endorsement of international certification (this subject is extensively covered in 3.2 Product system design).  
• Explore ways of facilitating industry-based accreditation systems to enable manufacturers to offer warranties on installation. | • The key benefit of this enabler lies in the fact that consumers deserve products and services that meet quality standards and do not represent harm or hazards. For entrepreneurs, certification or accreditation of sanitation products and services can provide their products and services with recognition and backing.  
• Key steps to implement this enabler include supporting government standards agencies to review existing sanitation-related standards and quality assurance systems.  
• A key challenge is to avoid overly ambitious standards. For example, experience from low- and middle-income countries indicate that sanitation standards are often too high, which leads to non-enforcement, reduces competitiveness and drives up prices. |
| Entrepreneurs’ lack of capacity | • In collaboration with relevant government departments and local chambers of commerce or industry, strengthen entrepreneurs’ capacity and equip them with the knowledge and skills required to meet the sanitation needs of communities at scale, while achieving their business objectives. | • This enabler helps increase the competitiveness of the sanitation market by improving entrepreneurs’ strategic and tactical decision-making, and enhances their viability.  
• This could involve working with public enterprise development agencies or private consulting companies to design and implement an open-source ‘supplier development programme’ to support local suppliers. |
| Limited flow of information | • Support governments to develop and disseminate market information notes, including information on potential market size, demand forecasts and demand-side interventions, to encourage more investment or the entry of new actors into the market (see Annex 18 Sanitation market information brief template). | • This enabler is intended to improve the visibility of demand for suppliers.  
• Consider engaging local chambers of commerce and other relevant trade associations to identify the most effective channels to disseminate sanitation market information (e.g., industry consultations and national sanitation business expos). |
As part of the business advisory services provided to local sanitation businesses in Bangladesh, a six-day training course (spread out over several months) was provided, covering product information, entrepreneurial capacity, establishment of business relationships, linkages to public and institutional buyers, and business development skills. The SanMarkS project worked to reduce the training length from six to four days by focusing on the essentials. As a result, the cost of training per participant was cut by 50 per cent, allowing twice the number of entrepreneurs to be trained for the same cost. The cost reduction did not negatively impact the quality of the training as the course’s core elements were retained.


**Box 41: Improving the efficiency of a market-based sanitation training programme in Bangladesh**

As part of their support to the Kenyan government to catalyse the market for household sanitation, the World Bank Group, through the Selling Sanitation Initiative, helped develop a series of market intelligence briefs. The briefs were designed to encourage industry participation and investment in Kenya’s on-site sanitation market by helping the private sector understand the market opportunity and identify viable market entry strategies. The briefs highlighted information related to market potential, such as demand forecasts, market drivers and key consumers insights. The key messages also included the ongoing demand generation and promotional efforts, demographic trends, sanitation practices, geographical segmentation and an overview of products and services that could meet the need of the target markets. Contact details of key people were provided.


**Box 40: Increasing sanitation market information in Kenya**

As part of their support to the Kenyan government to catalyse the market for household sanitation, the World Bank Group, through the Selling Sanitation Initiative, helped develop a series of market intelligence briefs. The briefs were designed to encourage industry participation and investment in Kenya’s on-site sanitation market by helping the private sector understand the market opportunity and identify viable market entry strategies. The briefs highlighted information related to market potential, such as demand forecasts, market drivers and key consumers insights. The key messages also included the ongoing demand generation and promotional efforts, demographic trends, sanitation practices, geographical segmentation and an overview of products and services that could meet the need of the target markets. Contact details of key people were provided.


**Capital**

Weak financial services infrastructure and sub-optimal regulatory environments negatively affect access to capital and private sector engagement, especially in non-revenue generating sectors such as sanitation. The unconducive business environment for sanitation financing is mainly characterized by overly tight regulations and lack of financial inclusion.

Overly tight regulations can include policies such as capping interest rates, which prevent investment in financial services and limit competition keeping out small FIs. This situation results in a lack of engagement for financial service providers and decreased availability of capital. Tight regulations might also involve restrictive foreign exchange rules that often prevent businesses from accessing the foreign currencies needed to purchase essential imports.

Financial inclusion refers to the availability and equality of opportunities to access financial services. Barriers to financial inclusion include lack of financial literacy and challenging macroeconomic environments, characterized by poor infrastructure that makes the provision of financial services costly and unprofitable to FIs. Improving financial inclusion involves efforts to make financial products and services accessible and affordable to all individuals and businesses. Financial inclusion strives to remove the barriers that exclude people from participating in the financial sector and using these services to improve their lives.

**Table 29** provides ways to strengthen the business environment through improved access to capital. The proposed enablers go beyond sanitation and will improve the functioning of the financial system and create a better environment for FIs to open their portfolios to sanitation. If the market assessment identifies the need to engage in this area, it is recommended to obtain appropriate
**Box 42: Market information provided by UNICEF Supply Division**

**Market dashboard**

UNICEF’s market dashboard highlights critical market determinants for 79 life-saving products. The determinants include availability, affordability, competition, quality, acceptability/adaptability, delivery and funding security. The objective of the dashboard is to encourage suppliers to engage in the market by providing high-level visibility on the opportunities and challenges of each market. Further details are available at: [https://www.unicef.org/supply/documents/key-supply-markets-dashboard](https://www.unicef.org/supply/documents/key-supply-markets-dashboard)

**Price databases**

UNICEF Supply Division publishes pricing data as part of its influence strategy, recognizing that the free flow of information and correcting information asymmetries are critical to efficient markets. The pricing database contains information on historic, current and future pricing from UNICEF-approved suppliers. The objective is to provide transparency on which suppliers have been awarded contracts, and to increase competitiveness among suppliers by publicizing competitor pricing. Further details are available at: [https://www.unicef.org/supply/pricing-data](https://www.unicef.org/supply/pricing-data)

**Market notes**

Market notes are ‘deep-dive’ reports developed for specific product markets of interest to UNICEF. The objective is to increase supplier interest and engagement in these markets by significantly increasing visibility using information not easily available to the public sector. Market notes can vary in their format and focus, including, for example, ‘Product Profile and Guidance’ (e.g. unmanned aircraft systems), ‘Supply and Demand Update’ (e.g. human papillomavirus vaccine), and ‘Market and Supply Update’ (e.g. oral rehydration salts and zinc). The notes contain a range of information of interest to current and potential suppliers, including market trends, product supply, demand, shortages, surplus, availability, products under innovation, new guidelines, technical specifications, and areas of the market that need to be addressed. Further details are available at: [https://www.unicef.org/supply/market-notes-and-updates](https://www.unicef.org/supply/market-notes-and-updates)

expertise to support the design and implement the appropriate solutions.

Further details on raising capital for sanitation business are provided in 3.7 Expanding access to business finance.

**Supply chains**

Supply chains involve the supply of products and services that support the functioning of a market. In the sanitation sector, they primarily include raw materials (e.g., cement, pipes and fittings, sand, gravel, rebar) and capital equipment (such as moulds for casting toilet components). Barriers to sanitation supply chains include:

- **Lack of framework for innovation**: Adequate frameworks are needed to encourage entrepreneurs to innovate and introduce new sanitation products and services (or modify existing ones to strengthen the supply chain).

- **Limited availability of equipment and raw materials at the local level**: In most sanitation markets, raw materials are not widely available at reasonable prices. As a result, construction can account for 60 to 80 per cent of total production costs of sanitation products. This has a significant impact on entrepreneur viability and the price of products and services for communities.

Table 30 provides ways to strengthen the business environment through improved supply chains.

You can strengthen your advocacy efforts with examples of ongoing or past MBS initiatives designed to strengthen the supply chain of sanitation materials (see Box 45).
Capital: barriers | Capital: enablers | Considerations
---|---|---
Tight regulations | • Removing policies that can impact the willingness of FIs to extend credit to local entrepreneurs and customers (e.g., capping interest rates). | • The key benefit of this enabler is increased investment and capital injection in financial services in general, which might also benefit non-revenue generating sectors, such as sanitation.

Financial inclusion | • Encourage governments to develop laws and build collateral registries to allow and regulate the use of movable collateral (e.g., inventory, accounts receivables) to secure loans. | Key benefits of these enablers include establishing stronger legal and institutional frameworks for lending and debt resolution that create favourable lending environments and incentivize FIs to expand their portfolio to new sectors and businesses.

• Encourage governments to establish or improve credit information sharing platforms, such as credit reporting systems. These mechanisms can provide information on creditworthiness, including level of indebtedness, borrowers’ repayment capacity and willingness to repay, and reduce information asymmetries between borrowers and lenders. Increased availability of accurate and reliable information supports better credit risk assessment and encourages better credit conditions, competition in the credit market and, ultimately, access to financial services (see Box 43).

• Encourage diversity of institutions beyond commercial banks, including MFIs and credit cooperatives, to reach different geographic areas and customers. Reinforce the legal and regulatory framework that allows for these different types of institutions.

• Encourage development FIs to provide concessional loans to commercial banks to encourage them to lend to businesses and consumers in the sanitation sector.

• Establish credit reporting systems to enable the sharing of quality information, thereby reducing the overestimation of risk.

• Consider the use of sanitation funds, which can stimulate loans to both consumers and businesses.

• Support capacity building and technical assistance programmes that create new understandings, relationships, and potential opportunities between the sanitation and the financial sectors.

• Encourage governments to invest in creating an enabling environment for the expansion of digital financial services, which have proven to be a low-cost approach to reaching unserved and underserved populations.

• Key benefits of these enablers include establishing stronger legal and institutional frameworks for lending and debt resolution that create favourable lending environments and incentivize FIs to expand their portfolio to new sectors and businesses.

Actions governments can take include:

• Reforming legal, institutional and regulatory frameworks to strengthen insolvency regimes, to regulate the restructuring of non-performing loans, resolution of commercial disputes, debt collection processes and enforcement of collateral.

• Developing technical assistance programmes targeting suppliers involved in sanitation to improve their managerial capacity in areas such as accounting and financial reporting (thereby enhancing their creditworthiness).

• Developing capacity-building programmes targeting FIs to improve their understanding of the sanitation sector.

• Documenting and sharing experiences, knowledge and initiatives that have proven successful in bringing financial services closer to individuals and businesses (e.g., cashless payment channels).

• Establishing and promoting a national sanitation fund or expanding sanitation in existing housing finance funds to increase liquidity for lending institutions and ease access to capital for businesses and consumers involved in sanitation.

Further details on such mechanisms are described in 3.7 Expanding access to business finance.

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Table 29: Strengthening the business environment through improved access to capital
Box 43: Improving financial inclusion through a credit reporting system

In 2012, the Central Bank of West African States, with support from the World Bank, launched an initiative to promote access to information to creditors through a regional credit bureau. At the time, the range of products offered by banks was limited. The ubiquitous need for collateral limited access to credit and led to a high cost of borrowing, resulted in the exclusion of large segments of the population from borrowing. Access to credit for consumers and MSMEs was further hampered by a lack of robust credit data to inform lending decisions.

The objective of the project was to facilitate access to credit in the eight countries in the West African Economic and Monetary Union: Benin, Burkina Faso, Côte d’Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo.

Across the eight countries, the credit bureau legally collects from client credit history information, such as the number of credit accounts, loan repayment history and credit cards, from banks, MFIs and non-banking institutions. The data helps the creditor understand its client’s capacity to repay a loan. A key component of the project was the establishment of a single harmonized credit reporting law that governs all eight countries and allows for credit information to flow between the countries.

Implementation of a hub-and-spoke credit reporting model enables the eight-country zone to leverage centralized technical infrastructure in the hub country and effectively serve all eight countries. The regional credit bureau was established in 2015 and started operations in mid-2016. In three years, it collected over 10 million credit contracts, representing 5.5 million individuals and firms across all eight countries. The credit bureau now covers 22 per cent of the adult population in Côte d’Ivoire, 13 per cent in Togo, and 7 per cent each in Senegal and Niger, with the other countries in the zone rapidly catching up. Over time, it is expected that by utilizing credit bureau information, creditors will see a reduction in non-performing loans and an expansion of their credit portfolios. They will also require much less collateral from borrowers, enlarging proportion of the population that are ‘visible, bankable, formal and scorable’.

Box 44: Improving financial inclusion in Rwanda

The Rwanda Housing Finance Project is a Government of Rwanda initiative implemented by the Development Bank of Rwanda. The initiative’s objective is to expand housing finance to families and support housing market development in Rwanda. One of the project’s main components is the provision of long-term finance to expand housing finance, including a line of credit to support the provision of housing loans by Rwandan FIs that meet eligibility criteria. The Development Bank of Rwanda lends funds to eligible FIs at a low interest rate (6 per cent). The FIs on-lend funds to eligible beneficiaries at a maximum rate of 11 per cent for up to 20 years. The initiative seeks to promote affordable housing based on the twin pillars of ‘mortgage finance’ and the ‘production of bankable housing’ by improving financial inclusion. Key impacts include:

- Increasing the supply, bankability and affordability of housing, thereby reducing the national housing deficit;
- Improving the availability and pricing of housing finance (mortgage loans);
- Standardizing all aspects of lending, making mortgage loans a commodity;
- Improving liquidity of mortgage loans, creating risk management mechanisms to improve safety and performance; and
- Creating funding links to local capital markets where there are long-term funds and a desire to invest in mortgage securities.
To help overcome barriers in construction material supply chains, SanMarkS, a UNICEF-led MBS intervention in Bangladesh, supported the establishment of sanitation business associations to support collaboration between local producers, who are crucial to the supply chain. Local producers make the bulk of toilet components, including concrete rings and slabs for the substructure, and concrete pillars for the superstructure. Sanitation business associations helped local producers share construction techniques to improve quality and encourage innovation. Members support each other in business opportunities, even sharing the workload if an order is too big for one local producer.

Other things to consider

Now that you have identified barriers and enablers to a conducive business environment for sanitation markets, you need to engage with government to initiate the necessary market enablers. The advocacy work will involve working in close collaboration with colleagues from the M&E, social policy and planning units to develop a detailed government engagement plan.

Government is a critical stakeholder in MBS interventions, whether as regulator and policymaker, or providing supporting functions (e.g., research, information, infrastructure). The nature of engagement and partnership with government should be defined by your analysis and their envisaged role in the sanitation market. This step includes:

• Identifying governments’ line ministries and departments that will be responsible for initiating, enacting or changing business-friendly policies. Depending on your local context, the government departments might include those in charge of health, sanitation, trade, industry, finance/taxation, etc.

• Developing an engagement plan. A successful engagement plan will require working closely with local chambers of commerce, business networks or trade associations who are well-positioned to advocate for the interests of the local business communities. The plan shall be fact-based, backed up by compelling evidence from market research and industry consultations. A well-meaning but uniformed policy, based on ideal scenarios, may not work. Sharing evidence of gaps, successful experiences with sanitation businesses and the need for healthy sanitation markets can help gain public sector interest and alleviate concerns associated with new or unfamiliar approaches. An essential step to building a strong, feasible engagement plan that is of interest to public sector partners is understanding the government’s barriers, discomforts and incentives. The advocacy efforts must support and be aligned with public goals, complimenting and aligning with government objectives and activities to gather their buy-in.

• Consider exchange visits to take government partners to visit successful MBS programmes in other countries. This is a great way to build understanding and interest during or before MBS work begins.
Resources and further reading


**Websites**

**UNICEF**, Key supply markets dashboard. Available at: https://www.unicef.org/supply/documents/key-supply-markets-dashboard

**UNICEF**, Pricing data. Available at: https://www.unicef.org/supply/pricing-data

**UNICEF**, Market notes and updates. Available at: https://www.unicef.org/supply/market-notes-and-updates

4 Implementation

4.1 Programme implementation

4.2 Monitoring
## 4.1 Programme implementation

### Quick reference

<table>
<thead>
<tr>
<th>What is involved?</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>• Field operations for the progressive roll-out of your intervention</td>
<td></td>
</tr>
<tr>
<td>• Engaging, incentivizing and supporting businesses to deliver affordable,</td>
<td></td>
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<tr>
<td>desirable toilet product systems offerings to target low-income consumers</td>
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<tr>
<td>• Executing key demand activation activities to end open defecation, motivate</td>
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<tr>
<td>household investment, and educate consumers about new product system</td>
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<tr>
<td>offerings</td>
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<tr>
<td>• Training, capacity building mentoring and field co-ordination/supervision of</td>
<td></td>
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<tr>
<td>different actors</td>
<td></td>
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<tr>
<td>• Developing new roles for market facilitators as the programme evolves</td>
<td></td>
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<tr>
<td>• A successful large-scale programme pilot, followed by progressive evolution</td>
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</tr>
<tr>
<td>and expansion</td>
<td></td>
</tr>
<tr>
<td>• Co-ordinated demand and supply-side strategies that result in increased</td>
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<tr>
<td>uptake and usage of improved toilets among low-income target households</td>
<td></td>
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<tr>
<td>• Expansion of sustainable private sector businesses and supply chains to</td>
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<tr>
<td>reach these low-income target households</td>
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<tr>
<td>• Improvement in the efficiency of market interactions</td>
<td></td>
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<tr>
<td>• Ongoing, at least 2-3 years of initial programme implementation</td>
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<tr>
<td>• Monitoring happens at the same time</td>
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<tr>
<td>• Field programme management, field supervision, co-ordination and monitoring</td>
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<tr>
<td>staff</td>
<td></td>
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<tr>
<td>• Business and market development skills</td>
<td></td>
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<tr>
<td>• Communications planning and implementation skills</td>
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<tr>
<td>• Clear procedures and suite of accompanying tools and templates for</td>
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<tr>
<td>co-ordinated programmatic activities</td>
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<tr>
<td>• Training budget and materials (initial training modules, facilitation guides)</td>
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<tr>
<td>for delivering required training and mentoring support to different actors</td>
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<tr>
<td>• Strong local government engagement and participation</td>
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<tr>
<td>• Consider ways to leverage and enhance women’s roles in purchase decisions</td>
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<tr>
<td>and to share the economic benefits of MBS activities, such as</td>
<td></td>
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<tr>
<td>toilet marketing and sales, production and retail, and business expansion</td>
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<tr>
<td>• Ensure inclusive representation on implementation teams, and in particular</td>
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<tr>
<td>on senior management and advisory groups</td>
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</tbody>
</table>

### What are we trying to achieve?

- Co-ordinated demand and supply-side strategies that result in increased uptake and usage of improved toilets among low-income target households
- Expansion of sustainable private sector businesses and supply chains to reach these low-income target households
- Improvement in the efficiency of market interactions
Overview

Once you have completed the design phase of the MBS process, including the design and testing of new product system offerings, delivery approaches, business models, and demand activation activities to reach your target market, you are ready to bring these together into a large-scale MBS intervention in your target area. Remember, the design phase of the MBS process can take one year or more, but it is much better to spend the time upfront to get these early steps right at the start. At the end of the design phase, you will have a detailed workplan and refined budget and your outcome targets. This chapter looks at how to put these plans, budgets and targets into action – what to do during implementation of your MBS programme.

Take a flexible, but systematic approach

As you move into the implementation phase, it is recommended that you continue to take a systematic approach; focus first on demonstrating proof of concept, piloting at a scale that is large enough to demonstrate how a programme might be delivered with government resources alone. Then, focus on scaling this up to a larger geographical area:

- **Large-scale pilot (12-18 months):** You should first launch in an initial large-scale area with the most favourable conditions. This initial pilot area should be large enough to fully implement the co-ordinated package of MBS interventions at a scale with considerable market size. Depending on your context, this should be 200 or more villages in close proximity to each other and not too far from roads and market centres. Remember, working in ten or twenty villages is not enough. Although you are in ‘demonstration’ or ‘pilot’ mode, you need to be thinking and working at scale. Businesses will be encouraged to reach all communities they can profitably serve, whether or not they are in the target area.

- **Progressive expansion (Year 2 and beyond):** As your MBS programme matures, it will expand to new geographic areas. Successful focal point businesses may further expand to new areas as they build their sanitation business line. At the same time, your implementation strategies will include encouraging more focal point businesses in other areas to take up the new product system offerings and replicate delivery approaches and business models to serve these areas. As the programme progressively expands, the network of suppliers, distributors and focal point businesses will grow and extend beyond rural centres of commerce and along roads to the more challenging areas.

Throughout the implementation phase, your programme must evolve, through trial and error, based on how the market responds to the initial intervention strategies. It is difficult to predict exactly how the market will respond to your package of MBS interventions, so use an adaptive management approach. Be ready to course correct if it becomes clear that something is not working.

Implementing a full-scale MBS programme requires programme managers and operational staff to have a ‘facilitation’ mindset. You cannot and should not control every aspect of the market, how quickly it develops or adapts. Customer purchase decisions will take time, as the new product packages are introduced. A wave of early adopters will likely be the first to decide to purchase, influencing others in their communities over time (this is called the ‘diffusion of innovations’). Businesses will take time to learn how to respond to new demand, to evolve their business models and to strengthen their linkages within the supply chain. Be patient, and plan for modest sales initially, with exponential growth over time: MBS experience shows that sales acceleration starts in the third or fourth year of implementation.

This guide focuses on getting started with implementation, and specifically on the initial activities required to launch the large-scale demonstration, which is often the most difficult part. It involves recruitment, training and support to businesses, government officials and others. This intensive early support will be required less and less as the market matures. Later on, other activities will become more important; for example, addressing
emerging barriers within the upstream supply chain or higher-level policy and financing issues.\textsuperscript{101}

MBS implementation is all about good field co-ordination. At the launch of your large-scale pilot, you will bring together the tested demand- and supply-side activities for the first time so that consumers and businesses in the core sanitation market can link up in new ways. At the same time, you will support local actors – especially local government – to take on new market facilitation roles to address the essential features of the core market business environment.

You will need to bring each of these implementation components together into a cohesive, co-ordinated field operation, requiring the right level of operational guidance, supervision and staff support. These activities will evolve quickly as you learn about what is working and not working on the ground; keep this in mind at all times and take a flexible and adaptive approach.

Enterprise engagement and business development

In the design phase, you identified the product system offerings, the delivery approach, and the best-fit type of focal point business to engage. As you move into large-scale pilot implementation, you should build on these, following an iterative process of market and business development – first working with ‘first-mover’ businesses, and then expanding as the programme evolves.

Working with ‘first-mover’ businesses

MBS gets businesses motivated to sell new products to household consumers that have historically shown little demand or interest in investing in sanitation purchases. At the beginning, some effort may be needed to recruit and engage the initial group of ‘first-mover’ focal point businesses to take a risk and make an investment on this (locally) unproven market. This allows you to illustrate what can be achieved, to generate interest and show incentives.

What to do:

- **Identify and map all potential focal point businesses in the focus area**: Building on your market research, you should geographically map all potential focal point businesses in your target area. Depending on the new product offerings and delivery approach, this could be masons, retailers, distributors, pre-cast concrete manufacturers, or others. Remember, the focal point business is the local customer-facing business that will be the primary contact for toilet purchase by the consumer – not every business in the supply chain. During this mapping, collect data on each business, including contact details, location (ideally with GPS co-ordinates) and existing products and services they offer. Develop a simple database and map with all relevant information. Depending on the size of your target area, it should take about a month or less to collect the basic data you need.

- **Recruit focal point businesses by selling the sanitation opportunity**: Arrange meetings with potential focal point businesses to discuss the sanitation opportunity. During these meetings, show the new product system offerings and present localized market research data: the number of potential new customers in their market area, how much money they will need to invest up-front on initial stock or equipment and rough estimates of potential profit per sale.\textsuperscript{102} Explain what the MBS programme will provide to businesses, and clarify what the programme will not provide (see Box 46 below). An industry consultation is one way of engaging a large number of medium- and large-sized businesses at one time (an outline of how to carry out an industry consultation is at Annex 6). Following the industry consultation, you may choose to follow up with one-on-one meetings with larger businesses. A group meeting is suitable when working with small enterprises, such as masons.

\textsuperscript{101} For a review of mature, large-scale MBS programmes, including some key lessons and best practices at later stages of sanitation market development, see USAID’s 2018 Scaling MBS desk review. Details in Resources and further reading at the end of this section.

\textsuperscript{102} Existing businesses will often need to be convinced of a ‘low margin, high volume’ business strategy, in which making less profit per toilet allows them to sell or build more toilets and thus increase overall profit.
Many businesses in the sanitation supply chain will have experience working on contract to programmes that offer subsidized toilets. At first, they may not understand the MBS concept. You will probably need to explain that the MBS programme is not looking for a contractor. You are offering services and support to help them tap the consumer market. They will need to sell sanitation products systems to individual households as they do for their other commercial business lines. You should come ready with specific, localized market data on the potential market size (i.e. the number of households or potential customers in their area) and details on the new product offerings, delivery approaches and business models.

Businesses will be asking, “what is in it for me?” – so be prepared to explain this clearly. During meetings, discuss benefits of partnering with the programme, including:

- Programme-supported promotional campaigns and links to CATS/CLTS, to generate new demand
- Access to new product know-how, and technical and business training
- Opportunity to reach new villages through programme introductions and referrals
- Reputational benefits and networking opportunities with local government leaders (this can help expand their customer base for other products and services they offer)

During this time, the MBS field team will be learning and adapting enterprise engagement, training tools and tactics. Do not attempt to train all businesses at once. Focus on getting the first-movers up and running, and use that experience to refine your recruitment, training and exposure tactics. Training packages and curricula should evolve and develop, through actual experience with first-mover businesses. Do not finalize a training curriculum for large-scale use until you have spent time working with first-movers.

Box 46: Recruiting businesses by offering a commercial business proposition

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Be prepared to clarify what the programme does not provide. Businesses may ask questions such as:

- Will partner businesses receive bulk orders or contracts for subsidized hardware?
- Will they will have ‘monopoly status’ in the new market?
- Will they receive seed capital?
- Does the programme promise or guarantee sales?
- Will partner businesses (including masons) receive direct payments from the programme?

The programme may want to set out some clear ‘rules of engagement’ for collaborating with businesses. For example, businesses might be required to meet minimum quality standards, or agree to some ‘fair pricing’ rules. These can be set out in a simple agreement or memorandum of understanding. If a business is not interested, thank them for their time and move on.

To streamline the recruitment process, consider the use of standardized templates and tools. For example, in several large-scale programmes across Asia, new recruitment meetings have a template to be customized with local market data, a standard meeting agenda, and a checklist for field staff with actions before, during and after the meetings.
Box 47: Characteristics of high-potential focal point businesses

Finding and convincing the ‘right’ focal point businesses – especially at the beginning – is one of the most challenging parts of sanitation business development. In 3.3 Delivery approach & business model design, favourable and challenging characteristics to consider when choosing a focal point business type were presented. You will already be considering these important characteristics as you begin one-on-one conversations with individual business. The following criteria can help you identify and encourage the businesses that are most likely to succeed:

- **Existing businesses**: Wherever possible, target existing businesses and avoid creating completely new sanitation businesses or retail outlets. Existing businesses are more likely to take the required commercial risk. They are more likely to have the staff, resources, networks, management skills and business acumen needed to succeed.

- **Diversified product or service lines**: It is unlikely that selling toilet products or services in rural areas will be a full-time ‘stand-alone’ business. Toilet sales can complement an overall business but they are very unlikely to sustain it. Ask businesses about what other products and services they sell and when (what time of year). Rural construction demand and toilet sales typically fluctuate seasonally and the annual revenue from toilets typically comprise between 5-20 per cent of an overall business.

- **Willingness to make up-front investment**: Successful businesses are willing to commit their own financial and non-financial resources. Present the results of your business model calculations on the specific costs involved in up-front investment and talk with businesses to understand whether these costs are barriers to programme involvement. Consider facilitating access to credit, providing product guarantees or leasing equipment rather than offering outright grants to individual businesses. Remember, a successful business will be prepared to take risks and get involved.

- **Willingness to try new products and promotional techniques**: Take the time to learn about other products or services the business has launched on their own. Why did they introduce this new product or service? How did they tell consumers about it? Experience with active promotions and willingness to launch new products is a good sign of entrepreneurship.

- **Reasonable cash position and capacity to sustain and grow**: Partner focal point businesses must have the capacity to deliver high quality products and services on time. They will need sufficient financial resources to start up and cash flow to continue operations. Ask about their cash flow situation. Ask if they have taken a loan for their business in the past and what they used the loan for. Entrepreneurial businesses are usually willing to invest profit or take on debt to expand operations.

- **Willingness to reach rural consumers with retail sales**: Ask businesses about their client base and what percentage is from rural villages. Ask them to describe how they currently promote their products and services. If the business is accustomed to sanitation subsidy contracts, explain the long-term benefits of developing a new consumer market, rather than relying on short-term contracts (short term contracts associated with subsidies can be withdrawn at any time, while developing a new, enduring consumer market is more sustainable).
WaterSHED’s MBS programme in Cambodia promotes equal opportunities for women as leaders, customers, and market actors in the rural sanitation market, actively supporting and promoting women as owners/co-owners of toilet supplier businesses, and as toilet sales agents.

WaterSHED tracks and reviews sex-disaggregated data on toilet business performance, as part of identifying potential gender-based barriers to women’s participation in the sanitation market. An initial assessment found that only 16 per cent of toilet supplier businesses were owned by women, but that many women were involved in supporting roles in toilet businesses owned by their husbands and fathers, for example through managing money, operations and helping with construction. WaterSHED conducted a more detailed gender analysis of toilet producer businesses in their programme, to identify gender barriers to greater business participation. The analysis found that gendered perceptions around physical construction work and women’s home and child-care responsibilities discouraged women from starting a toilet business. Women who did find it harder than men to acquire new customers, and harder to influence male employees and customers. Women sales agents also faced barriers due to their limited social and professional networks, lack of confidence in communication and sanitation information, time constraints, and mobility restrictions.

After the assessment, WaterSHED used their monitoring and research on gender to design and implement the ‘WEWork’ Collective, a new programme tailored specifically to support and engage women. The programme focuses on supporting women as they become active in the market, improving their performance, and ensuring they remain in the market for a sustained period of time.

Expand the market and addressing evolving business needs

Once your MBS programme has supported first-mover businesses to profitably sell the new products and services, other businesses may want to enter the new market. MBS programmes can help scale up the number of sanitation businesses by spreading information about the sanitation business opportunity. The programme should encourage competition, providing equal access to information, market intelligence and training opportunities, so that any business can get involved. Businesses should be encouraged to innovate and compete with one another to capture new customers.

MBS market expansion activities include:

Organizing peer-exchanges and exposure to existing partner businesses: During exposure visits to a successful business, the owners can share how they got involved in the programme, how many more toilets they can now produce and sell, their key challenges and future plans. A strong successful business profitably selling toilets is the best way to ‘sell’ the business opportunity. This tactic works best for smaller businesses. Care should be taken to arrange exposure tours with businesses that do not compete (for example, those separated by enough physical distance to not be perceived as a threat).

Providing opportunities for ongoing business exchange and networking: After the initial training or mentoring support, MBS programmes should bring programme partner businesses together periodically, so they can talk directly to each other about common technical and business management issues they face. Regular industry consultations could be a forum for this. Before convening, consider whether businesses are in direct competition with one another and how to manage consultations accordingly.

Providing opportunities for business-government networking: MBS brokers new relationships and builds trust between the private sector and local governments. Arrange forums that bring together businesses and government officials to talk about issues such as quality standards and government sanitation goals. Forums are opportunities to reward businesses with networking opportunities that can help them build their reputation. Do not offer to pay for business partners to attend. But remember, for a business ‘time is money’ so be strategic about where, when and how to ask for their participation.

Considering ways to formalize collaboration and encourage quality: Industry associations and local accreditation schemes have proven to be successful ways to scale the sanitation market, monitor quality and build consumer confidence in several Asian countries, including Indonesia and Vietnam. In Indonesia, for example, the APPSANI sanitation enterprise industry association provides sales aggregation, business credit, training, bulk purchase of inputs, and other benefits to its member network of SMEs. This required grant seed funding for the APPSANI secretariat. Formal accreditation and informal recognition can be strong incentives for partner businesses to offer good quality at fair prices.

Recruitment of new businesses will continue through the large-scale pilot period (and beyond), and existing businesses will require ongoing support. At any given time, there may be some businesses that are just beginning to partner with the MBS programme, and other trained partner businesses that are already confident with the new project offerings and business models you have introduced, but who may need support and advice on next steps.

103 WSP (2015a). See Resources and further reading at the end of this section.
Table 31: Common business development pitfalls and how to avoid them

<table>
<thead>
<tr>
<th>Common pitfall</th>
<th>How to avoid it</th>
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<tbody>
<tr>
<td><strong>Assuming all businesses will have equal success.</strong></td>
<td>Recognize failure as an option.</td>
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<tr>
<td>Many sanitation programmes working with SMEs</td>
<td>• <strong>Don’t focus on inputs.</strong> Don’t measure your success by the number of</td>
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<tr>
<td>expect that these businesses will respond to the</td>
<td>businesses you train or support, but rather the number and type of consumers</td>
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<td>opportunity in a uniform way. A ‘project-based’</td>
<td>they serve.</td>
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<tr>
<td>approach can lead to the assumption that each and</td>
<td>• <strong>Accept some failure.</strong> If a business offers poor quality</td>
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<tr>
<td>every SME you work with will be willing and able</td>
<td>or cannot sustain itself, be prepared to let it fail or move on to other</td>
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<tr>
<td>to successfully engage in sanitation as a business.</td>
<td>activities. Do not artificially prop up poor performers. The market will</td>
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<tr>
<td>In fact, SMEs often struggle to succeed. Even in</td>
<td>pick the winners.</td>
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<tr>
<td>the U.S., over 50% of SMEs will fail within the</td>
<td>• <strong>Be prepared for uneven response.</strong> If you are working with SMEs, it is</td>
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<tr>
<td>first five years of operation. Some businesses</td>
<td>very likely that there will be a small number of very high performers. Most</td>
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<td>will be very strong, while others may move on to</td>
<td>businesses will likely sell at moderate to low levels compared to these</td>
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<td>new activities if sanitation does not prove to be</td>
<td>market leaders.</td>
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<td>profitable for them.</td>
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<td><strong>Attempting to control businesses.</strong></td>
<td>Take a hands-off approach.</td>
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<tr>
<td>The current market for sanitation is dominated by</td>
<td>• <strong>Let prices fluctuate.</strong> Final prices are a function of many factors,</td>
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<tr>
<td>small businesses that often lack capital and</td>
<td>including the costs of inputs, which will change over time. Let the market</td>
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<tr>
<td>management skills, and that typically have limited</td>
<td>determine the price.</td>
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<tr>
<td>geographical reach. When working with SMEs, it can</td>
<td>• <strong>Persuade, don’t force.</strong> A multi-country World Bank study found that</td>
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<td>be tempting for an MBS programme to try to control</td>
<td>businesses’ sanitation margins ranged from 15% to 40%, but that low volumes</td>
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<td>these smaller players, for example, by attempting</td>
<td>of sanitation sales led to modest profits. Help sanitation businesses to</td>
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<td>to set prices or telling them where they can and</td>
<td>understand the benefits of a ‘low margin, high volume’ business model. They</td>
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<td>cannot operate. In Malawi, one programme prescribed</td>
<td>must be convinced that they can attract more customers by taking slightly less</td>
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<td>which villages mason could operate in, designating</td>
<td>margin.</td>
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<td>their sales catchment area for them. This removed</td>
<td>• <strong>Encourage expansion into new markets.</strong> Do not restrict or delineate a</td>
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<tr>
<td>the masons’ incentive to expand and seek out new</td>
<td>business’s sales area – let them go wherever they are willing and able to go</td>
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<td>markets, and demotivated them. Ultimately, most</td>
<td>to find new customers.</td>
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<td>masons decided not to proceed with their sanitation</td>
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<td>businesses.71</td>
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<tr>
<td><strong>Forgetting to consider the wider supply chain.</strong></td>
<td>Understand the entire supply chain.</td>
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<tr>
<td>Sanitation programmes often focus on local (micro)</td>
<td>• <strong>Understand the costs and their drivers.</strong> Understand margins for inputs,</td>
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<tr>
<td>businesses such as masons, without fully</td>
<td>transport and other costs. Transport contributes an estimated 10% to 20% of</td>
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<td>considering how these businesses link to the rest</td>
<td>input prices from wholesale to local businesses. Good supply chain research as</td>
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<td>of the supply chain. It may be tempting to try to</td>
<td>part of your market research will help you to understand where the key barriers</td>
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<tr>
<td>‘cut out the middleman’. However, reducing the</td>
<td>and bottlenecks are.</td>
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<tr>
<td>number of actors may not necessarily address</td>
<td>• <strong>Plan for an exit.</strong> Consider what impact your supply chain interventions</td>
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<td>affordability or accessibility barriers for</td>
<td>will have on the sustainability of the market. For example, if you decide to</td>
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<td>households.</td>
<td>transport materials using programme funds or vehicles as a way to lower prices,</td>
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<td></td>
<td>this may work for the duration of the programme. But when the transport subsidy</td>
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<td>is removed, the prices will rise again to cover these costs or the supply may</td>
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<td></td>
<td>dry up completely. This may demotivate households and result in businesses</td>
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<td>unable to sell after the programme finishes.</td>
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</table>
Setting up entirely new sanitation businesses.

In the past, sanitation programmes have set up new retail businesses or demonstration sites, known as rural sanitary marts (RSMs), SaniCentres, or SaniMarts. In MBS, the ‘market’ refers to the exchange between buyers and sellers, not the creation of a physical ‘market’ place. RSMs and SaniCentres often fail as a supply chain strategy because they take a project-based ‘hardware’ approach that focuses on setting up or constructing new markets or shops, without considering the essential ‘software’ – the market development activities that link supply and demand. Even if these physical locations result in household toilet uptake, spending programme funds on building or buying physical sites is rarely cost-effective, and can result in poorly maintained or abandoned infrastructure when the programme activities cease.

Target high-potential, existing businesses.

- **Encourage a diversified product line.** On-site sanitation facilities are durables that are not purchased repeatedly. Businesses set up to sell only sanitation products and services are not likely to survive. In Bangladesh, businesses that were artificially created to sell only sanitation were less viable than those that also included other products and services.\(^{73}\)
- **Look for strong businesses.** Existing businesses that are willing to invest, willing to try new products and techniques and that are in a reasonable cash position can often offer the best value to consumers. In India, for example, externally-created RSMs became ineffective because households preferred private market providers.\(^{74}\)
- **Avoid building physical sites.** There are numerous ways to demonstrate new products that do not involve costly infrastructure. In Cambodia, enterprises pay for product displays at local health centres. Brochures, banners and other communications can build consumer awareness. ‘Pop-up’ sales events in villages or on market days can bring the products to the households, rather than relying on households to come and visit a demonstration site.

Distorting incentives.

While finance will likely pose a real constraint to SMEs you partner with, your MBS programme will need to take great care when determining how to address this issue, especially in start-up implementation. At the beginning of implementation, it can be very difficult to understand the financing needs and barriers. Later on, in more mature markets, this becomes much clearer. Offering large amounts of seed money, ‘revolving loan’ funds or subsidized inputs can distort incentives and send the wrong market signals. If seed money is too high, businesses may enter the market for the wrong reasons. In Malawi, an NGO MBS programme supplied masons with seed capital in the form of cement and re-bar, as a one-time start up. The project assumed that the business would then be able to re-invest (revolve) the revenue into purchasing more cement on their own. However, the local community was aware that masons received these materials for free, and were therefore unwilling to then pay market prices for the slab.\(^{75}\)

Make sure businesses are invested in success.

- **Consider non-grant alternatives to reduce market barriers.** Rather than grants of money or materials, consider other financing options such as loans, guarantees, and equipment lease arrangements. These options can help reduce risks and financing constraints for SMEs, but still guarantee their commitment and investment.
- **Do not budget uniform per-enterprise seed funding:** Many programmes make the mistake of allocating large amounts of seed funding for each business at the outset. Once it is a budget line item, programmes will feel pressure to disburse these funds. In Pakistan, UNICEF re-allocated seed funding when it became apparent it was distorting the market. Instead, they linked businesses that needed funding with local microfinance institutions.
As you manage the enterprise engagement and business development process, here are some key operational tasks you will need to do:

**Task 1: Budgeting and planning for enterprise engagement and business development**

In developing your implementation budget, consider key line items such as:

- Target area focal point business mapping
- First-mover and ongoing recruitment of focal point businesses (e.g., meetings and events)
- Business mentoring and training curriculum development and delivery
- Business exposure events and networking
- Support for accreditation, association and other business collaboration

Allow for at least six months for recruitment and support for ‘first-mover’ businesses before moving into the second stage of broader exposure and large-scale training activities.

**Task 2: Recruiting operational staff with the right business development skills**

Ensure that you have adequate skills in small business development within the field operations team. You will want at least one business development specialist on the team to engage businesses, deliver business training packages (see Box 50) and refine supply-side activities as the market develops. These key staff should have at least some private sector experience, ideally in the local rural business context in your country. It may be necessary for traditional WASH partner agencies to draw on small business development experience from other sectors (for example, agricultural market development and financial services). If you and your partners do not have the required skills, consider outsourcing business training to external business development service providers or consultants that specialize in these areas.

**Task 3: Right-sizing the business engagement and training approach**

Training design should begin with a clear identification of training needs and learning preferences. Consider hands-on business mentoring and on-the-job training conducted at the place of business, rather than ‘one-off’ classroom-based training. Small businesses usually prefer practical and skills-based training. Ensure that implementing partners do not focus too heavily on theory and consider literacy levels of business owners. Training for MBS focal point businesses should cover some key elements (see Box 49) and have clear and measurable competency-based outcomes.

**Task 4: Monitoring business-level indicators**

Prior to the implementation launch, you should develop and track indicators that measure key sanitation business metrics over time (see 4.2 Monitoring). This includes regular updates on the total number of businesses engaged in the programme, their geographic scope and growth in toilet-related sales, as well as data on enterprise viability and profitability. This type of monitoring data shows how businesses are responding to the new sanitation opportunity, whether they are likely to continue their business and expand, and whether any programme changes are needed.

**Activating demand**

To support a functioning market, you will need to put your demand activation into action (see 3.4 Demand activation for guidance on the design of your demand activation strategy). Much of the groundwork for implementing your demand activation strategy will have been laid in the design phase. When you move into implementation, you will be putting your plans into action. You will now need to co-ordinate the execution of your demand activation activities with your enterprise engagement and business development activities outlined above. Below are the key tasks involved in implementing your demand activation strategy.
MBS business training packages should be tailored to local business needs, but typically include the following:

- **General product system and service information**: Businesses should understand the benefits of good sanitation and hygiene. They should be able to explain key technical features and functions of the product system packages they offer and advise on product use and maintenance.
- **Technical production and installation of new products and services**: Businesses will need technical training on production and installation techniques; curing times (for concrete); handling and transporting components; and maintenance services.
- **Delivery approach**: Business will need training on the new delivery approaches, including the (re-)organizing of key business partnerships; the specifics related to transport, installation and payment services; and how the delivery approach links to demand activation activities.
- **Business management and finances**: Most small businesses in rural areas have very limited business management skills. Areas to focus on include basic business and sales planning, inventory and stock control, record-keeping, calculating a balance sheet and managing cash flow.
- **Sales promotions**: Very few rural businesses actively promote their products and services. Support may be needed to develop basic sales, marketing, and customer service skills, use sales tools such as brochures and banners, and make a simple sales and marketing plan. Businesses will need to understand how they can benefit from broader demand activation activities, and how to engage and manage commissioned sales agents and other frontline promoters.

### Task 1: Budgeting and planning for demand activation

By the end of the design phase, you will have a detailed implementation plan, budget, and outcome targets. You will consider core IPC activities, actors and community-based structures required to motivate household investment. Especially at implementation start-up, demand activation will likely be a major cost centre within your overall implementation budget. Your budget and plan will need to consider:

- Overall input targets in terms of numbers of communities and households to be exposed to communications activities and messages, and number and type of community sales promoters to implement the IPC activities.
- Detailed schedules and locations for different types of community-based IPC activities and other events, including logistical arrangements and budget for transport and other execution costs such as supervision.
- Detailed plan and schedule for training front-line community sales promoters, co-ordinated with enterprise engagement activities.
- Production of all materials and tools, including hiring and supervising relevant suppliers and vendors.
- Placement of any mass media, if utilized. This might include the schedules and stations for radio airings, and the purchase and placement of billboards and other signage.
- Cost-sharing among different tiers of government or among different partners for communications execution. If local government has control of sector budgets, this can include requiring minimum contributions to dedicated personnel for facilitation, as well as budget for IPC promotions, training, material production, media placement and others.

### Task 2: Developing local capacity for demand activation

As the programme begins implementation, you will need to engage with local authorities to ensure that there is proper understanding and support.
Throughout the implementation of your programme, you will need to consider how MBS activities complement CATS/CLTS and other rural sanitation interventions. Based on successful implementation experiences, some key activities for local government and other partners to link MBS and CATS/CLTS include:

- Introduce the final communications concepts and tools;
- Ensure that communications activities are integrated into local sanitation promotion strategies and plans;
- Obtain support and approval for all key activities; and
- Begin to define roles for different actors (see Table 32).

Local capacity development and advocacy strategies will need to consider how the new communications activities will engage local leaders and community-based health and other staff and partners. They will need to link closely with CATS activities. This may include developing mechanisms to inform businesses about which communities have been triggered so they can prioritize them in sales plans. It may also include developing clear roles of CATS facilitators in the sales promotion process (see Case Study 7 from Indonesia). If a ‘toolkit’ or menu of communications tools and options has been developed, local government will need to make decisions about what tools and activities they want to use, and how much budget is available for local execution.

Box 50: Implementation tips for integrating MBS and CATS/CLTS interventions

Throughout the implementation of your programme, you will need to consider how MBS activities complement CATS/CLTS and other rural sanitation interventions. Based on successful implementation experiences, some key activities for local government and other partners to link MBS and CATS/CLTS include:

- Helping focal point businesses to identify and conduct product promotions in triggered and ODF villages: Sanitation businesses can be given a list of triggered and ODF villages, so that they know where and when to go to a village.
- Creating opportunities for communities to take advantage of bulk purchase: One of the key supply-side barriers for poor communities is transport. Organized community bulk purchase may help households share costs. CATS action plan implementation may be the best time to capitalize on this opportunity.
- Using CATS follow-up to encourage immediate installation and use of purchased products: Where CATS programmes are active, CATS facilitators can help encourage the installation and correct and consistent use of purchased products. Natural leaders and other officials can provide additional advice on product options, technical aspects of installation, construction and usage of improved toilets.
- Incorporating business tracking and support for ‘healthy competition’ between businesses into ongoing activities: Sub-national authorities can consider non-monetary rewards and incentives for focal point and related sanitation businesses, including recognition of ‘high performing’ partner businesses and local market development innovations that help to expand rural access to basic sanitation. In Cambodia, district and commune officials include basic sanitation coverage, sales, and business performance in monthly meetings that track ODF status. High-performing businesses are brought to a national forum to celebrate their success. In this framework, businesses selling quality affordable products in previously unserved communities are seen as key partners that can support achievement of ODF status and sustain ODF status over time.
- Incorporating new product sales and installation monitoring into existing CATS monitoring and verification frameworks: CATS follow-up and verification systems can be expanded to include regular monitoring of new product purchases and installations, which can be cross-checked with sales records of businesses.
Task 3: Training front-line demand activators, and links to businesses

During local-level engagement, the programme will also work to identify and train local front-line sales demand activators to carry out IPC activities and product marketing and sales promotion in each community. Whether sales promoters are commissioned or volunteer, they will need to be trained to use each of the communications and product marketing tools. This should include field practice in communities to gain confidence with the new communications techniques and tactics. It should also include practice using any new monitoring tools, such as sales order forms or receipts. Front-line promoters will also need to have clear processes and steps for linking customers ready to purchase to the focal point businesses they will work with to generate sales. In general, front-line promoters may need three or four days of initial hands-on training, followed by periodic supervisory monitoring, and refresher training.

Task 4: Monitoring demand activation activities

By the end of the design phase, and prior to the implementation launch, you will develop a plan to track indicators that measure household exposure and response to key product demand activation and sales marketing messages and activities. This type of monitoring data shows how households are responding to the new sanitation demand activation and sales activities, and whether any programme changes are needed (see 4.2 Monitoring).

Strengthening the business environment

MBS brokers new collaborative relationships between the private sector and local governments, helping to build trust and enabling businesses to serve households that have been traditionally left out of the market. In practice, who takes on what roles in MBS implementation will be highly dependent on the policy and institutional environment as well as the local capacities, interest and political will of government officials and other partners within your target area.

Table 32 highlights typical sanitation market facilitation roles and activities for government and other actors at different levels. As you begin implementation, you will need to define what roles and activities make the most sense for the different actors in your local context.
### Table 32: Common MBS market facilitation roles at national, sub-national, and local levels

<table>
<thead>
<tr>
<th>Actor</th>
<th>Key roles</th>
<th>Indicative functions and activities</th>
</tr>
</thead>
</table>
| **National (lead ministry)** | • Policy and strategy development  
• Regulation  
• Co-ordination  
• Capacity development  
• Knowledge management | • Set sanitation goals and establish priorities  
• Articulate the role of the private sector and markets in national sanitation policies and strategies  
• Co-ordinate engagement of different actors in MBS  
• Develop policies and guidelines on ‘smarter’ use of sanitation subsidies, including social subsidies, to reach poorer households  
• Play an active role in designing demand promotion campaigns  
• Ensure quality standards for sanitation products and services, including regulation and oversight of the private sector  
• Set job duties for sub-national and local officials, and provide training and support to line agencies  
• Allocate budgets to sub-national and local government for demand creation and promotional efforts  
• Advocate and engage with the private sector and sanitation business associations  
• Co-ordinate national-level knowledge exchange on sanitation marketing and linkages to CATS/CLTS |
| **Sub-national actors (e.g. regional government, NGOs)** | • Supervision  
• Monitoring  
• Capacity development  
• Consumer protection | • Supervise and ensure co-ordination between CATS/CLTS and MBS interventions  
• Facilitate and attend forums with sanitation businesses and support the formation of business associations  
• Monitor sanitation businesses to ensure compliance with quality standards, regulations, and fair pricing rules  
• Monitor changes in basic sanitation coverage and other sanitation improvements  
• Offer technical support to consumers on installation and safe and correct usage  
• Provide equal access to information and equal opportunity for businesses to promote their products  
• Set job duties for local level officials and provide training and support  
• Provide consumer protection against predatory businesses  
• Allocate budget to demand creation and promotions  
• Contribute to research and knowledge exchange on sanitation marketing and its links to CATS/CLTS |
Co-ordinating market development activities on the ground

In many ways, the most difficult task of MBS implementation is bringing all the key operational components of a large-scale MBS programme together in communities at the same time.

Because supply- and demand-side efforts require different activities and skill-sets, and because a large number of diverse actors are involved, implementation of MBS interventions require exceptionally strong planning and execution of field operations.

Table 32 (continued): Common MBS market facilitation roles at national, sub-national, and local levels

<table>
<thead>
<tr>
<th>Actor</th>
<th>Key roles</th>
<th>Indicative functions and activities</th>
</tr>
</thead>
</table>
| Community-level actors (e.g. local government, community health workers, community leaders, CBOs) | • Demand promotion  
• Linking new demand with local supply  
• Monitoring | • Help arrange village-level sanitation promotion and product demand activation activities, including introductions to new products and businesses  
• Play intermediary role, informing businesses of households who are interested to purchase, and informing interested households of contact details for local businesses  
• Inform local businesses of CATS-triggered communities  
• Help broker and arrange bulk community purchases  
• Provide equal access to information on potential size of local demand and equal opportunity for local businesses to promote their products  
• Monitor basic sanitation coverage and new toilet installations |
| External resource agencies (e.g. consultants, private firms, NGOs, training institutions) | • Support MBS design phase  
• Capacity development & training | • Help conduct design phase activities, in particular market research and product systems design and testing  
• Design and deliver training and business development services  
• Facilitate business forums and exchanges  
• Support local government in sanitation promotion and demand activation, field-level supervision and linkages to CATS/CLTS activities  
• Co-ordinate village-level demand activation events if needed  
• Monitor toilet sales (of partner businesses and sales promoters), new installations, coverage, usage, equity and other MBS programme metrics |
| UNICEF | • Co-ordination  
• Capacity development  
• Policy advocacy  
• Knowledge management | • Co-ordinate, fund and commission key preparation, design and implementation activities  
• Policy advocacy for market-based approaches, smarter subsidies, and social policies for sanitation  
• Capacity development and support for government at all levels (and other partners if needed) to implement MBS activities  
• Knowledge management, research and exchange on key MBS, CATS and financing issues  
• Monitor results and equity outcomes |
Box 51: ‘Civic Champions’ – Local government leadership development for rural sanitation in Cambodia

The NGO WaterSHED engaged sub-national and local government in Cambodia as active partners in their rural MBS programme from the start. WaterSHED believes that local government must play a critical role in MBS by driving sanitation demand and behaviour change at community level to ensure the new sanitation market thrives. During their MBS pilot in Kampong Speu Province, the WaterSHED team discovered the positive power that a single local government champion could have on the uptake of toilets in their community, and the viability of their small business partners supplying that local market.

These early observations helped them develop and pilot a programme called the Civic Champions Leadership Development programme, targeted at changing the behaviour of elected local government officials at commune level (the lowest level of decentralized government in Cambodia). The programme hopes to foster the emergence of transformational leaders by developing the leadership skills, self-confidence, passion and experience of commune councillors to execute development mandates within their jurisdiction, using sanitation as the development practice vehicle.

In contrast to typical capacity building for the sanitation sector, the Civic Champions programme does not include any technical sanitation or policy training, and participants must apply and pay to participate. It consists of a series of four leadership ‘Discovery’ conferences, built around peer-to-peer learning, each separated by three months. Participants are challenged (and mentored) to ‘Develop’ and apply new skills to achieve a development target with their communities at the first conference. At the next conference, they ‘Deliver’ their results, share their experiences, and ‘Discover’ new lessons, skills, and behaviours to ‘Develop’ during the next cycle. The leadership programme lasts 10–12 months. Competitive, peer-determined awards combined with high-level government recognition serve as powerful incentives for participants to excel.

Since the successful pilot test in 2013, Civic Champions has scaled to every district in all eight provinces in which WaterSHED works. It has been critical in reversing declining toilet sales in established sanitation markets across WaterSHED intervention areas, both during and after the programme period, and has accelerated gains towards total basic sanitation in intervention communes. The Ministry of Interior has become a partner, viewing the Civic Champions programme as one of the most effective capacity building approaches to support the Government’s decentralization and de-concentration reform which puts responsibility for development execution at the commune level.

More details about the programme can be found at: http://watershedasia.org/civic-champions/


To date, there have been two basic implementation models for MBS. In the first model, a lead government agency directly manages implementation, with technical support from agencies such as WSP and UNICEF, NGOs, experts, private marketing firms and others. In this model, governments are directly responsible for developing and executing workplans, participating in research, setting goals, providing training, monitoring, and regulating service provision.

MBS programmes in Benin, Indonesia, the United Republic of Tanzania, India and elsewhere have been executed at scale with respective governments in the lead implementation role.

In the second model, NGOs or other external support agencies act as the lead implementing organization. In this project-based approach, the lead organization manages and executes key roles such as: contracting experts, marketing firms and
A range of large-scale MBS programmes have developed detailed guidance and training packages for enterprise engagement and business development. These include:

- **Indonesia**: The Government of Indonesia’s MBS programme has developed a detailed *Sanitation Entrepreneur Training* manual with accompanying training modules, as well as standard operating procedures for each step of the implementation process, including the business process, business planning, social mapping, receiving orders, construction, and payment.

- **Lao People’s Democratic Republic**: There is implementation guidance available for the MBS programme in the Lao People’s Democratic Republic, which includes facilitator’s guides and trainee handbooks such as *Business Skills Training, Entrepreneur Operating Model, Latrine Production & Installation, Sales Agent Training*, as well as an overall implementation guide that includes templates and implementation tools.


Sources:


For Bhutan, see Bhutan’s *Rural Sanitation Hygiene Programme Supply Chain Strengthening Guidelines*.

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**Box 52: Example implementation guidance from selected countries**

Business development service providers; co-ordinating consumer research and product design; providing training; supervising and co-ordinating field-level execution; and monitoring progress.

This is often done in collaboration with local government and community-level leaders. MBS programmes in Cambodia, Vietnam, Pakistan, Uganda, Malawi, Peru, Nepal, Nigeria, Madagascar, Bihar, and elsewhere have been executed with NGOs or other sector actors in such a lead role.

Even in cases where NGOs or other sector actors are lead implementers, MBS interventions have the highest likelihood of scaling up and sustaining if there is a clear plan for the progressive hand-over of key market facilitation roles to local government.

Regardless of the implementation model, all MBS programmes should consider the following operational guidance:

- **Recruit a very strong overall programme co-ordinator, preferably with private sector experience, who will be responsible for managing all aspects of the programme.**

- **Maintain substantial field presence, including field area co-ordinators at sub-national and local levels – this is especially important at implementation phase start-up.**

- **Invest in substantial monitoring and data collection capacities, including a strong monitoring co-ordinator.**

- **Develop new roles and recruit (or outsource) all the new skills and competencies you will need. WASH sector experience can be optional.**

- **Wherever possible, invest in the development and refinement of standard operating procedures, simple guidance, tools/templates/checklists and other job aides to assist local actors.**

- **Budget and plan for extra meetings to regularly bring field teams together to discuss progress, trouble-shoot challenges and brainstorm solutions.**
To support CATS in more remote largely tribal rural areas of Madhya Pradesh State, India, UNICEF developed and tested a ‘WASH enterprise’ model for rural sanitation marketing, together with development partners and government authorities. The model integrated outcomes from earlier work developing and testing new product designs and low-cost production methods, the ‘Pan in the Van’ marketing approach, and a supply chain expansion strategy centred around linking local toilet component production enterprises with local mason service providers and the Panchayat local government as duty bearer.

The model starts with one ‘hub’ WASH enterprise, designed to cover about 200 surrounding villages in unserved areas with limited access to sanitaryware supply chains and components for building toilets that appealed to customers. Four market facilitation activities were proposed to strengthen the WASH enterprise, promote sales after CLTS triggering, and link household demand with the local toilet enterprise and service providers:

1. Technical training to the local ‘hub’ WASH enterprise. This included quality production methods, business plan development, and sales/inventory projections, for supplying sanitary pans and toilet components to build the new toilet designs. Around 600 masons were trained on different technology options, quality aspects and supply chain management for toilet construction in the remotest locations.

2. Selection, training and support to a woman ‘WASH promoter’ in each village. The promoter was linked to the toilet production enterprise to promote the new toilet designs and sell components, directly after CLTS triggering, and link household demand with the local toilet enterprise and service providers.

3. A government supported free telephone help line and certification process. The help line would provide a single window for knowledge, information, and technical support to households and other stakeholders on the scheme and the location and contact of businesses providing toilet building services and components. A government database of the network of installation service providers and certified suppliers would need to be established and maintained as part of the help line service.

4. On-going mentoring and support to local government and the WASH enterprise. Particularly in the start-up phase, this was needed to build capacity, strengthen the supply chain, build team partnerships, and improve governance including M&E. To strengthen sustainable market access, UNICEF envisions building on the platform and including other WASH consumer goods, such as soap, menstrual hygiene materials, household water treatment products, and related supplies. WASH ‘stores’ at the ‘hub’ location would be developed and linkages brokered to private sector actors in the supply chain, to assure local inventory and timely access to inputs for the WASH enterprise production centres and for village-based direct sales via women WASH promoters.

The WASH enterprise approach was to be standardized and expanded under the state-level ‘MARYADA’ women-centred sanitation strategy.

Resources and further reading


Case studies and country examples – sources and further information

Bhutan


Cambodia


Bangladesh


India


Malawi


Websites


SNV Bhutan. At: https://snv.org/country/bhutan


‘Market Approaches to Development’. At: www.poverty.ch


IFC MSME Toolkit: https://www.infodev.org/articles/ifc-sme-toolkit

Videos

WaterSHED Cambodia. The ‘Hands-off’ Approach to Sanitation Marketing. Available at: http://www.youtube.com/watch?v=QjciPZQMsTk

WSP. Sanitation Marketing/CLTS Intervention Sequence in District. (Indonesia). Available at: http://www.youtube.com/watch?v=LiznFw8EaBm
4.2 Monitoring

Overview

Once your MBS programme is up and running, you will need to be able to track its progress. Monitoring is an essential part of MBS implementation, particularly because MBS programmes expect to evolve and adapt their strategies and tactics based on real-time market feedback.

To measure your success, you will need to monitor outcomes and outputs that help to track customer demand and sales, business supply and profitability, and market enabling environment indicators. As your programme matures, you may also want to track indicators of market growth and sustainability. A robust system for monitoring outcomes and outputs will enable you to make routine course-corrections, modify your interventions and tactics, and set short-term targets. However, such monitoring systems do not replace the need for periodic evaluation of programme outcomes and macro-level systemic changes, including unintended consequences.

This section explores the different areas for MBS monitoring, including different indicators for measuring changes to household demand-side, business supply side and market enabling environments. It is not necessary to track every indicator for each MBS objective: indicators should be selected from the menus below based on your programme and market context, budget, partners...
and other factors. An example of an MBS results framework that brings these elements together is provided in Annex 15.

**Monitoring overall programme outcomes**

To measure household access, usage and behavioural outcome indicators, monitoring efforts should build on existing outcome monitoring metrics and mechanisms, including MICS and demographic and health surveys (DHS), and align with national monitoring efforts to track the sanitation SDG targets. These outcomes may also be periodically measured in UNICEF WASH sustainability checks; they should not be new or specific to MBS programmes, but rather represent sanitation outcomes to which strengthening the sanitation market can contribute.

**Monitoring household and community objectives**

This involves tracking changes in household improved toilet ownership by poverty status or income group and gender-disaggregated usage over time (e.g. SDGs). This does not require new sanitation monitoring frameworks or indicators, so you can use what already exists.

In addition to core household outcome indicators, household surveys and focus groups can be used to track changes in intermediate objectives such as household awareness and access to new products and services, intention to purchase, level of investment and customer satisfaction (see Table 34). Such surveys can be done using a random sample of households, rather than as part of the more detailed CATS baseline survey. Periodic monitoring of some indicators may be appropriate during WASH sustainability checks. Tracking these indicators can:

- Help programmes assess the effectiveness of promotional messages and activities.
- Provide feedback to inform improvements in the product and service offering.
- Track changes in overall market size in terms of new household demand.

Most CATS monitoring mechanisms record both the number of household toilets and the percentage sanitation coverage within a community, as well as overall ODF status. For MBS, it is also important to monitor whether toilets meet the WHO/UNICEF Joint Monitoring Programme’s definition of an improved toilet facility. In Indonesia, for example, the Government’s MBS programme supports sanitation committees and CLTS natural leaders to measure progress towards ODF and also track the type of toilet (‘improved’ or ‘unimproved’).

### Table 33: Outcome indicators for MBS

<table>
<thead>
<tr>
<th>What are we trying to measure?</th>
<th>Outcome indicators</th>
<th>Mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are MBS interventions accelerating access to basic and/or safely managed sanitation services?</td>
<td>• # and % of people in intervention communities that use household toilets / have basic sanitation services, disaggregated by sex, disability and wealth ranking</td>
<td>MICS, DHS Can be incorporated into CATS monitoring and WASH sustainability checks</td>
</tr>
<tr>
<td>Who can access basic and/or safely managed sanitation services? Are interventions increasing access and use for the poor and poorest?</td>
<td>• # and % of identified poor households gaining an improved toilet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # and % increase in improved toilet coverage (moved from OD; moved from unimproved)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # and % of verified ODF communities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # and % of verified ODF communities that maintain their ODF status for at least one year</td>
<td></td>
</tr>
</tbody>
</table>
and whether the poor are gaining access, using a community map. This data is uploaded monthly by district government staff using a phone-based text messaging system, and is made available in real time online.

**Monitoring business and supply chain objectives**

This involves monitoring businesses to explicitly measure changes in private sector supply of household toilet system offerings. Usually, new monitoring frameworks and indicators are needed since government and support agency monitoring typically does not track private sector data. Monitoring businesses involves regular tracking of sales and other indicators of success and sustainability of individual businesses, as well as sales agents’ performance, in order to track expansion and identify evolving supply-side barriers.

MBS intervenes in new ways on the supply side, so additional monitoring tools are needed to track supply-side impacts. Supply-side and business-level indicators can be measured by undertaking two primary tasks: sales monitoring and business profile monitoring. It is also important to understand how effectively the supply chain is meeting the needs of low-income consumers.

### Table 34: Suggested outputs and indicators for household and community objectives

#### HOUSEHOLD/COMMUNITY OBJECTIVES

Programme objective: Increase target low-income household consumer demand for and investment in basic sanitation and safe sanitation services

<table>
<thead>
<tr>
<th>What are we trying to measure?</th>
<th>Indicators</th>
<th>Mechanisms</th>
</tr>
</thead>
</table>
| How are MBS interventions increasing household awareness, intention and motivation to invest in sanitation improvements? | • # and % of households (HHs) having purchased improved product systems, for new toilet construction and/or upgrading existing facilities, including proportion from bottom two quintile(s)  
• % of HHs having fully installed new facilities  
• % of HHs demonstrating proper use of new products/services  
• % of HHs satisfied with new toilet facilities  
• Average total HH investment in new toilet facilities, including products, services, transport (can be expressed as % of average household income/consumption for each segment) | May require baseline and periodic surveying of a sample of households  
Can be incorporated into WASH sustainability checks                                                                                                                                                                                                                         |
| How effective and sustainable are demand-creation and promotional activities? | • % of HHs recalling demand activation messages and materials, and product information such as costs, businesses, or sales points  
• # of villages receiving promotional activities such as interpersonal communication channels  
• # of people reached by promotional activities  
• # of new sales agent/promoters who generate sales of toilet facilities | Requires baseline and periodic surveying of a sample of households                                                                                                                                                                                                                                                                     |
| How are financial barriers to investment being addressed through the market and/or complimentary financing mechanisms? | • # of MFIs offering sanitation consumer loans  
• # of new loans, average loan size and repayment rates for sanitation consumer loans  
• # of poor HHs accessing improved toilets through alternative financing mechanisms | Requires baseline and periodic surveying of a sample of households                                                                                                                                                                                                                                                                     |
Box 53: Building equity tracking into MBS monitoring systems

MBS programmes should plan and budget for collection of data to measure equity. Household surveys will be one of the critical ways to measure how well the poor and poorest can participate in the new sanitation market (this can also be captured through community mapping). As a baseline, household surveys can use reliable poverty classification systems (e.g. national ID systems) where these exist, or develop standard poverty and vulnerability indicators to allow the programme to disaggregate outcomes by wealth/income quintile, gender, and for vulnerable groups. Follow-up assessment two to three years after implementation begins can help your programme learn how well these groups are being reached.

Periodic focus groups with households in the bottom two wealth quintiles can also help your programme’s impact on the poorest, and what can be done to develop more specific strategies to reach this segment and/or address different affordability barriers.

MBS programmes require time for marketing messages and new products to penetrate the market, so be sure to allow sufficient time before collecting evidence on how well poorer households are being reached. Collecting good evidence on which households are unable to afford new toilet products will help determine what financing options might work best for these segments.

Consult with government statistics bureaux, other agencies and UNICEF evaluation officers to ensure you are leveraging existing data and harmonizing with existing national classifications and methods for tracking poverty and vulnerability.
**Business and supply chain**

Programme objective: Improve market supply of affordable, desirable toilet product systems to underserved target low-income households

<table>
<thead>
<tr>
<th>What are we trying to measure?</th>
<th>Indicators</th>
<th>Mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>How well do products and services meet the needs of low-income consumers?</td>
<td>• # of new toilet sales reported by all programme-supported businesses (cumulative)</td>
<td>Typically requires developing new sales tracking mechanisms and databases</td>
</tr>
<tr>
<td>Are focal point and networked businesses increasing availability of products and services to low-income households?</td>
<td>• Average # of new sales per business (and/or total per month)</td>
<td></td>
</tr>
<tr>
<td>How financially sustainable and viable are sanitation business activities? What is the likelihood that activities will continue over time?</td>
<td>• Average # of villages reached by businesses, and geographic area covered (or proportion of geographic area covered)</td>
<td></td>
</tr>
<tr>
<td>What are the characteristics of high-performing businesses? What incentives are there for businesses to enter and expand sanitation service provision?</td>
<td>• Average # of sales per village</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # and type of consumer-driven design improvements to product/service offering</td>
<td>Typically requires developing new business monitoring mechanisms</td>
</tr>
<tr>
<td></td>
<td>• % decrease in costs of new product/service offerings from baseline products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # of businesses offering new products/services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # of businesses receiving training and support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Average % increase in toilet sales revenue per programme-supported business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Toilet-related sales revenue as % of overall business activity (change from baseline)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cash and resource investment by businesses in toilet-related business activities (equipment, tools, vehicles, stock, staff)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # and % of programme-supported businesses generating profit from toilet-related sales, and whether annual income (profit amount) is sufficient to remain in the new toilet market</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• # of new loans, average loan size and repayment rates for sanitation business lines</td>
<td>Supply-side data should feed into WASH-BAT service delivery monitoring and be integrated with outcome and demand data</td>
</tr>
<tr>
<td></td>
<td>• Existence of positive working relationships between focal point business and key network businesses for the delivery model</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Existence of positive working relationship between focal point businesses and community-based sales agents/promoters</td>
<td></td>
</tr>
</tbody>
</table>

*Table 35: Suggested outputs and indicators for supplier and supply chain objectives*
Tracking sales

Sales monitoring tracks the number of new toilet facilities sold or constructed (or other sanitation-related services provided) each month by each partner business. Tracking and mapping sales trends can:

- Provide insights into the effectiveness of demand activation activities and sales promoters, as well as insights into customer purchase preferences.
- Help understand impacts of external factors such as seasonal demand, transport, and labour availability. This can be used in programme planning and budgeting, and to guide businesses on production and/or stock management.
- Identify geographical areas that are being neglected by businesses due to low profitability or other constraints.
- Help the programme identify and assess critical success factors of high-performing businesses that can be used to refine the selection process and business support.
- Motivate and incentivize businesses through healthy competition, e.g. by reporting regularly collected sales data and rewarding high achievers.

For an individual small business, sales monitoring is an important simple first step towards improving business management. Depending on the size and nature of the business, the programme will likely need to develop or adapt user-friendly monitoring tools for each focal point business to use. For smaller businesses such as masons, for whom literacy and numeracy may be an issue, consider picture-based tracking tools with simple tallies, or verbal reporting at a regular (monthly or bi-monthly) meeting. For literate and numerate small businesses, consider paper-based tools, such as a sales record books and purchase orders. Annex 16 gives an examples of a simple receipt for the sale of a toilet, while Annex 17 provides an example of a supplier sales order record book. Several large-scale MBS programmes are beginning to incorporate digital sales monitoring into simple smart phone apps and text messaging services – though this requires additional resources, training and technical assistance. If you are working with larger scale manufacturers, importers or wholesalers, they will likely have their own (electronic) systems. In this case, you will need to work with the firms to get the relevant data you need for programme reporting. The WSP ‘Sanitation Marketing Toolkit’ website ‘Implementation’ page has examples of monitoring tools for tracking toilet sales and other elements of MBS programmes (see Resources and further reading at the end of this section).

Sales data that is collected monthly at business level will need to be collated and entered into an MBS programme sales monitoring database. It is best if sales data can be entered alongside village-level outcome data in a single database to enable cross-checking and more detailed analysis of trends. Simple, easy-to-use databases and software are often the most efficient and effective for sales data monitoring. Business-level sales monitoring can be done by the MBS implementing partner, contracted business development service providers or in-house, depending on roles and capacities within your MBS programme. Ideally, you might want local government to do this; however, keep in mind that small businesses often operate somewhat informally, and it is possible they may be uncomfortable sharing their business details with government.

Business profile monitoring

Business profiles capture key data about partner businesses and how their operations evolve over time. Business profiling should be done at the start of programme engagement, as a part of the business selection process (see 4.1 Programme implementation). Use a simple survey tool to collect basic details of each business, including: owner name(s), gender, location, current product/service offering (including prices), average monthly sanitation sales (i.e. number of toilet product customers/toilet products purchased), average revenue from sanitation (last 12 months, or monthly average), current equipment and tools, number of staff, and other basic details. The profile can also record up-front investments that the business makes (e.g. in new tools and equipment) at the start of MBS programme engagement. Updating business profiles (e.g. annually) can help the programme track changes in revenue and profits, business investments, and geographic
expansion over time. For example, the WaterSHED Cambodia programme uses business profiles to track changes and benchmark individual businesses within the network and provides regular online updates of business performance. In Malawi, Water for People uses business profile monitoring to assess business model viability, and to determine what programmatic strategy changes are needed.  

Monitoring the business environment

This involves monitoring the roles and performance of market facilitators. This may involve government at all levels, with a focus on local government, as well as others such as NGO partners who are helping to facilitate the market. This type of monitoring can help to assess the sustainability of MBS interventions and when external support can be phased out.

Measuring changes to the sanitation business environment is vital – but it is difficult to do in practice, since many of the indicators are qualitative in nature. Measurement will typically involve subjective evaluations, ranking, or scoring the performance of key market facilitation actors against agreed roles and functions. Where possible, monitoring of market facilitation should build on and/or feed into broader enabling environment assessments.

An area where more evidence and experience is needed within MBS programming is on market interactions and performance. Monitoring market health for sanitation is not a well-defined area of work, but it could help to ensure that we understand any unintended consequences of MBS interventions on the market so that we can adapt. To capture changes in market characteristics, MBS monitoring might seek to assess differences in market characteristics: affordability, availability at different levels, assured quality, appropriate design, and awareness. MBS monitoring could also explore how the intervention is addressing bottlenecks.

<table>
<thead>
<tr>
<th>Table 36: Suggested indicators and mechanisms for monitoring the business environment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business environment</strong></td>
</tr>
<tr>
<td>Programme objective: Increase ability to facilitate and regulate the sanitation market to reach low-income households</td>
</tr>
<tr>
<td><strong>What are we trying to measure?</strong></td>
</tr>
<tr>
<td>Are national and sub-national government increasing capacity to monitor, facilitate and regulate new markets?</td>
</tr>
<tr>
<td>How do government and other partners support businesses to expand services to low-income households?</td>
</tr>
<tr>
<td>Is external technical support to government and the private sector demand-driven? Is there an exit strategy?</td>
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</tbody>
</table>

111 For more on Malawi MBS programme monitoring, see Sparkman, 2013. See Resources and further reading section at the end of the chapter.
Table 37: Monitoring market interactions and examples of the desired market situation

<table>
<thead>
<tr>
<th>Definition</th>
<th>Desired situation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AVAILABILITY</strong></td>
<td>Suffi cient volumes of appropriate sanitation product systems are offered and can be easily accessed by households in their respective geographic area.</td>
</tr>
<tr>
<td>Capacity of sanitation product systems supply to meet household demand; and consistency of local access at delivery points.</td>
<td></td>
</tr>
<tr>
<td><strong>AFFORDABILITY</strong></td>
<td>Prices are low enough to meet households’ ability and willingness to pay and to make widespread use of the product system cost effective.</td>
</tr>
<tr>
<td>Extent to which the price point maximizes market efficiency between customers and entrepreneurs to support sanitation outcomes.</td>
<td></td>
</tr>
<tr>
<td>It is not focused on purchase price alone but can include other considerations that make up the total cost of ownership.</td>
<td></td>
</tr>
<tr>
<td><strong>QUALITY</strong></td>
<td>Products meet established quality standards.</td>
</tr>
<tr>
<td>The standard of available sanitation product systems measured against a set of defined quality measures and criteria, including technical specifications; good manufacturing practices; recognised national regulatory authority approval.</td>
<td>The extent to which sub-standard product systems are offered in the market is significantly lowered.</td>
</tr>
<tr>
<td><strong>ACCEPTABILITY</strong></td>
<td>Product system designs are culturally appropriate and well-adapted for low-income settings.</td>
</tr>
<tr>
<td>Degree to which sanitation product systems meet cultural norms, maximize choice and ease of use and meet the constraints of entrepreneurs.</td>
<td>The number of options available in the market has been streamlined for efficiency, and the options are available and do not compromise choice.</td>
</tr>
<tr>
<td><strong>COMPETITION</strong></td>
<td>Product systems offered by a competitive, reliable supply base.</td>
</tr>
<tr>
<td>A competitive market is one in which large numbers of entrepreneurs compete with each other to satisfy the wants and needs of a large number of customers. In a competitive market no single entrepreneur, or group of entrepreneurs, can dictate how the market operates.</td>
<td>The non-existence of a monopoly (single supplier), oligopoly (little competition/collusion), or a supplier dominating or controlling market share.</td>
</tr>
<tr>
<td><strong>DELIVERY</strong></td>
<td>Product systems are delivered cost effectively.</td>
</tr>
<tr>
<td>Delivery refers to logistical/supply-chain characteristics of a product system.</td>
<td>Orders are delivered reliably and on time.</td>
</tr>
<tr>
<td>Characteristics affecting the delivery of a product system to end-users, affecting or limiting an end-user’s access to benefit from the product system (e.g. transport, warehousing, construction).</td>
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</tr>
</tbody>
</table>

Source: Adapted from USAID (2014).
Table 38: Exploring systemic change – examples of potential areas of change

How are MBS interventions changing relationships, power dynamics, norms, and behaviours?

**HOUSEHOLD/COMMUNITY**
- Attitudes and norms around open defecation and safely managed sanitation
- Toilet ownership perceived as an indicator of social mobility
- Greater role of women in decision-making
- Increased trust levels between customers and sanitation businesses

**BUSINESS/SUPPLY CHAIN**
- Businesses share know-how with peers in other geographies
- Businesses partner with locally influential sales promoters, sanitation leaders or loan officers
- Strength of supplier referral networks

**BUSINESS ENABLING ENVIRONMENT**
- Government withdrawal from market as a supplier of toilets
- Ability of women or excluded groups to leverage credit history and access finance
- MFIs treat sanitation loans on par with other consumption loan products

such as high transaction costs, unequal market information, or unbalanced supplier and buyer risks. While there are not yet established indicators or targets in this area, Table 37 outlines definitions for different dimensions of market health that could be considered as markets mature.

**Exploring systemic change**

Potential broader, system-level changes produced by an MBS programme in later phases of implementation is an emerging area of interest. Table 29 considers topics and areas to explore in evaluating systemic changes induced by MBS interventions.112

**Practical tips**

UNICEF is committed to building government capacity at every level to track progress towards sanitation for all. In most countries, the primary way this will be done is by measuring progress towards open defecation-free communities, as well as supporting national level surveys such as MICS and DHS. As you begin to consider MBS as a progression of CATS work, some tips for expanding your monitoring frameworks are outlined below.

**Build on and harmonize with existing national monitoring systems**

Developing and improving national monitoring systems is a core area of UNICEF’s enabling environment support. Some MBS indicators can be incorporated into these systems, and others may be better suited to UNICEF programme-related monitoring systems that exist and are used by implementation partners. Monitoring household access and behavioural outcomes should be part of broader national monitoring system strengthening efforts to improve and systematize community-level monitoring systems, particularly at post-triggering and post-ODF stages of the CATS/CLTS process. Core demand-side indicators should align and harmonize with efforts to track progress against the SDGs. Avoid duplicating efforts; if different agencies are supporting implementation of MBS and CATS, UNICEF can support the development of a common national framework and procedures. Consider how community-level data will be fed into the government’s regional and national databases. This may include exploring the role that technology such as mobile phones or tablets might play in monitoring systems.

112 For a broader discussion of changes to the business environment and context from MBS interventions, see USAID’s Scaling MBS desk review in Resources and further reading at the end of this section.
Focus on equity

Focus on what matters most: the proportion of low-income target populations having and using basic sanitation and safely managed sanitation services. MBS programmes and evaluations of these programmes have tended to overemphasize toilet sales, using this as a measure of programme success and scale. However, toilet sales by themselves are not a measure of successful market penetration, and need to be viewed in context. If your overall market size is small, an MBS programme may have low toilet sales but still result in a high proportion of households gaining access. In Bhutan, a country of under one million people, a pilot MBS programme in one district resulted in a reduction of unimproved toilet coverage from a baseline of 61 per cent unimproved to just 12 per cent unimproved one year later.

Although the total number of toilet systems sold, installed and in use was ‘only’ around 1,400, the pilot was an unequivocal success and was later scaled up nationwide. A toilet sold but not installed offers no value, and a toilet installed but not regularly used, or not safely emptied, is similarly not delivering the intended health benefit. Place your demand-side emphasis on tracking the core sanitation indicators – that is, the SDG targets.

Budget and plan for development of a sales and business database

Since market supply-side and business monitoring may be a fairly new area, consider recruiting technical input from small business development service providers to help design and test sales and business monitoring tools at the start of your MBS programme. This can be done as part of business development and training activities during implementation. Ongoing collection of sales monitoring data can be done by field staff or other field-based partners. However, it is probably best to avoid the use of identified natural leaders or CATS facilitators in this sort of supply-side monitoring, which happens at a much wider geographic scale and requires specific business development skills. Where possible, align geographic identifiers and location information for MBS supply-side data (e.g. on sales) with existing central databases and national systems to enable and align trend and spatial analyses.
Resources and further reading


UNICEF (2013). Enhanced Programming and Results through Monitoring Results for Equity Systems (MoRES). (Briefing note). Available at: https://www.unicef.org/about/employ/files/MoRES_Briefing_Note.pdf


Annexes
Annex 15: Example MBS results framework
Annex 16: Example toilet sales receipt
Annex 17: Example supplier sales order record book

Case studies and country examples – sources and further information

Benin


Cambodia

WaterSHED Cambodia Case Study (FSG 2018)

WaterSHED Cambodia (links to online pubs and research reports at their website)

Indonesia


Vietnam


Websites

STBM (Sanitasi Total Berbasis Masyarakat) Indonesia: ‘Online monitoring database’. At: http://www.stbm.kemkes.go.id/


Annex 1
Adovacy for MBS
Arguments in favour of MBS development

1. Appropriate supply-side approaches are needed to complement demand creation in order to achieve and sustain basic sanitation access and usage at scale. Past top-down supply delivery approaches have failed to achieve scale or sustainability.

   - Government is not usually an effective service provider and public-sector budgets are not sufficient to subsidize basic sanitation for all who still need it, or assure ongoing operation and maintenance.
   - By partnering with businesses and investing in development of the sanitation market, MBS can sustainably address the unmet needs of low-income unserved households and assure public health and protection.

2. Existing domestic markets already supply and sustain much of the existing basic household sanitation. Domestic sanitation markets played a significant role in achieving the MDG sanitation target. MBS invests in building and expanding the capacity of existing market systems to achieve public sector sanitation goals.

   - Basic sanitation is often delivered by small businesses and paid for privately by households via the market. For example, a rural sanitation demand study in Cambodia found over 80% of existing toilets were purchased from local businesses by households themselves. Similarly, market research in Sierra Leone found nearly all toilets across the country were either self-built or purchased and paid for by households (see 3.1 Market research).
   - Consumer research in developing countries consistently finds households invest in improved toilets in large measure for the private benefits it affords them (see Table 8 in the main Guidance on MBS document). Many with unimproved toilets would like something better, but often no good toilet product options are locally available at affordable prices. This represents a large latent market demand for basic sanitation.
   - Sanitation businesses tend to operate with high margins and poor market information, keeping toilets out of reach. They also lack capacity to invest in new product designs, lower cost production, or to expand their reach to serve low income rural areas on their own. Through addressing business and market supply bottlenecks, MBS works to expand and accelerate basic access sustainably.

3. MBS increases levels of financial investment for basic sanitation. By leveraging household and private sector investment in household sanitation facilities, efficiency and impacts of public and donor funding are increased.

   - MBS uses social and commercial marketing techniques to stimulate and increase household desire for and willingness to invest in improved toilets.
   - MBS catalyses and builds the capacity of private sector sanitation businesses to deliver more affordable desirable options to low-income households that are currently unserved.
   - Public sector and donor resources can then be better targeted towards demand creation and social support for those who are truly unable to afford.
4. **MBS can strengthen CATS achievements, and vice versa.** The two approaches are highly complementary and each fills gaps in the other.

- Overlooking consumer preferences can risk losing momentum in CATS programmes if the facilities households build in response to triggering do not meet minimum acceptable levels of consumer satisfaction.
- Demand creation without the right products can lead to households building poor quality or ‘temporary’ toilets that collapse, fill up quickly, or become dangerous to use.
- The long-term sustainability of ODF can be strengthened by the existence of local rural supply chains for sanitation products and services.
- MBS programmes on their own have shown substantial and measurable impact on sanitation uptake and sustained usage in Asia and Africa. But the approach is unlikely to achieve 100% ODF or total sanitation access on its own, without CATS or similar approaches to change defecation social norms.

5. **MBS greatly reduces and may eliminate the problem of inconsistent and unsustained toilet usage.**

MBS offers toilet designs people want at prices they can afford in markets close to home, and lets them decide when, what and how to invest their money in the toilet they want for their family, leading to long-term toilet adoption and usage. This has consistently been documented in contexts as diverse as India, Cambodia, the United Republic of Tanzania, and Malawi, among others.

- Households who purchased their own toilet through the market have high satisfaction rates with their toilet’s quality, location and type and a strong sense of toilet ownership, because they chose and paid for the toilet they want for their family.
- High toilet satisfaction and strong ownership on the part of a household correlates with the highest rates of consistent usage among all family members in the home, and with continued investments in maintaining, rebuilding and upgrading the family’s toilet.

**Countering arguments against MBS**

1. **MBS will not be able to serve the poor who need sanitation the most.**

- MBS invests in lower-cost product designs and new business models specifically aimed at reaching and serving poorer households in unserved areas. These two strategies working together can greatly increase access for poorer households by making basic sanitation more affordable and much easier to purchase, install and maintain.
- Starting by aiming for lower-income households who can afford to purchase ensures the development of a healthy sanitation market; one that is financially viable for local businesses. Properly targeted financing tools can then be added after it becomes clear in a community who has been left out of the new market.
- A range of market-compatible consumer financing options and targeted subsidies for the poorest exist and can be designed and added to an MBS programme after sales have risen and higher-income households in a community have purchased the new toilet product systems. Developing the right financing option and targeting approach will depend on the specific financing needs of those households who have been unable to purchase via the new market (see **3.5 Reaching the poor through consumer financing**).
2. **Hardware subsidies are necessary to accelerate coverage, especially for the rural poor.**

- Wide use of direct hardware subsidy supply approaches crowd out private sector investment. Hardware subsidies, if not limited to the poorest, tend to be captured by wealthier households who are already willing and able to pay. The number of beneficiaries who can be served is limited by the subsidy budget. The top down nature of hardware subsidy implementation has often resulted in unwanted technologies that are not used, sustained, or replicated.
- Using a market-based approach, people choose the type of sanitation they want and that suits them, leading to higher satisfaction and a greater likely for consistent use and ongoing maintenance.

3. **MBS will take too long.**

- MBS is initially slower because new lower-cost products designs, appropriate business models, and market facilitation activities need to be developed for the market conditions in a country. However, once awareness of the new products spreads and households begin to purchase, uptake accelerates rapidly with no need for ongoing external funding. The approach can be rapidly scaled up to accelerate coverage, driven by business and strategy replication.
- By taking the time to build viable local markets for affordable, improved toilets, without ongoing external funding, MBS supports long-term improvements in sanitation coverage to ensure public health.
Annex 2

Example household sanitation demand surveys
Market based approaches to water, sanitation and hygiene project

Questionnaire for individual household survey

[Respondent must be an adult member of the household, ideally the head of the household or their spouse. Interviewers should spend a few minutes building rapport with the respondent.]

My name is ________________ and I am working with an international NGO called Lien Aid. We are gathering information about people's knowledge and experience with household sanitation, water and hygiene. We do not plan to build any toilets or wells but we want people that build and sell latrines and water products to provide better and less expensive products in your area.

You will understand more about our work during our discussion. You can ask me to explain anything you don’t understand at any time during our conversation, and you are free to end the conversation at any time. All information you provide will be kept confidential, that is, your name or other identification will not be reported along with your answers to the questions.

Are you able to answer a few questions for us? It will take about 1 hour.

A. Interview Identification

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Questionnaire number</td>
<td></td>
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<tr>
<td>2</td>
<td>District name</td>
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<tr>
<td>3</td>
<td>Commune name</td>
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<td>4</td>
<td>Village name</td>
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<tr>
<td>5</td>
<td>Date of Interview</td>
<td>5.1 dd ___ ___, mm ___ ___, 2009</td>
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<td>5.2. Start time:.................. End time:...............</td>
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<tr>
<td>6</td>
<td>Interviewer name</td>
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<td>7</td>
<td>Supervisor</td>
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<td>8</td>
<td>Checked by</td>
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</tbody>
</table>
B. Respondent Identification

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<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>2.1</td>
<td>What is your name?</td>
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<tr>
<td>10</td>
<td>2.2</td>
<td>What is your relationship to the head of the household?</td>
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<tr>
<td></td>
<td></td>
<td>1. Self</td>
<td></td>
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<td></td>
<td></td>
<td>2. Spouse</td>
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<td>3. Son/daughter</td>
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<td>4. Other, specify</td>
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<tr>
<td>11</td>
<td>2.3</td>
<td>What is the respondent’s sex?</td>
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<td>[Answer this question by observation only]</td>
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<tr>
<td></td>
<td></td>
<td>1. Male</td>
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<td></td>
<td></td>
<td>2. Female</td>
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<td></td>
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<tr>
<td>12</td>
<td>2.4</td>
<td>What is the sex of the household head?</td>
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<td></td>
<td>[Enter sex even if the respondent is the head of household]</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>1. Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Female</td>
<td></td>
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<tr>
<td>13</td>
<td></td>
<td>What is the occupation of the head of the household?</td>
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<tr>
<td></td>
<td></td>
<td>1. Professional/Technical</td>
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<td></td>
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<td>2. Factory worker</td>
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<td></td>
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<td>3. Day labourer</td>
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<td></td>
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<td>4. Civil service</td>
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<td>5. Service/Sales/Commercial</td>
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<td>6. Agricultural</td>
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<td>7. Student</td>
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<td>8. Other, specify</td>
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<td>14</td>
<td>2.5</td>
<td>How many people usually live in this house?</td>
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<td></td>
<td></td>
<td>1. Male______ people</td>
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<td>2. Female______ people</td>
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<td>15</td>
<td>2.7</td>
<td>How many family members usually live and work in Phnom Penh?</td>
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<td></td>
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<td>1. Male______ people</td>
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<td>2. Female______ people</td>
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<td>16</td>
<td></td>
<td>What level of schooling did the head of household achieve?</td>
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<td></td>
<td>1. None</td>
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<td>2. Pre school/ Kindergarten</td>
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<td>3. Some Primary</td>
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<td>4. Finished Primary</td>
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<td>5. Some Secondary</td>
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<td>6. Finished Secondary</td>
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<td>7. Higher</td>
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C. Socio-economic

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</thead>
</table>
| 17 |       | Does your household own agriculture land? | □ 1. Yes  
□ 2. No  
□ 3. Work other’s land | if No → Q20 |
| 18 |       | If yes, how much agricultural land are you able to cultivate? | ________ acres  
(100 = 1 hectares) |
| 19 |       | Last year, what was the rice crop yield? | |
| 20 |       | What kind of shelter walls does your house have on the main living floor? | □ 1. Concrete/brick  
□ 2. Fibrous cement  
□ 3. Galvanized steel  
□ 4. Wood  
□ 5. Palm/Bamboo/Thatch  
□ 6. Bamboo/straw with mud  
□ 7. Stone with mud/cement  
□ 8. Salvaged material  
□ 9. No walls  
□ 10. Other, specify ___________________ |
| 21 |       | What kind of roof does your house have? | □ 1. Concrete  
□ 2. Fibrous cement  
□ 3. Galvanized steel  
□ 4. Wood  
□ 5. Tiles  
□ 6. Palm/Bamboo/Thatch  
□ 7. Plastic sheet  
□ 8. Salvaged material  
□ 9. No roof  
□ 10. Other, specify ___________________ |
22. Which of the following does your household own?
[Read all options, check all that apply]
- 1. Motorbike
- 2. Bicycle
- 3. Television
- 4. Radio
- 5. Mobile phone
- 6. Cow(s)/buffalo
- 7. Pig(s)
- 8. Ox cart
- 9. Semi tractor
- 10. Rice mill
- 11. Generator
- 12. Battery
- 13. Electric pump for irrigation
- 14. Rainwater tank of sealed concrete
- 15. Rings/jumbo jar
- 16. Other, specify ___________________

23. What were the main sources of your cash income of all your family members in the last 12 months?
[Read all options, check only one]
- 1. Selling rice
- 2. Selling non rice crop
- 3. Selling animal product
- 4. Fishing
- 5. Farm labour
- 6. Business/trading
- 7. Salary
- 8. Gift from others
- 9. Other, specify ___________________

24. How much was the household’s total income for the last 12 months?
________________________ Riel
- 99. Don’t know

25. In what months do you have the highest income?
[Check all that apply]
[Should have Buddhist calendar]
- 1. January
- 2. February
- 3. March
- 4. April
- 5. May
- 6. June
- 7. July
- 8. August
- 9. September
- 10. October
- 11. November
- 12. December
- 13. All months same income
- 14. Don’t know
26 In the household, how often is money put aside for savings?
- 1. Each week
- 2. Each month
- 3. 2-3 times per year
- 4. Once per year
- 5. Rarely
- 6. Never

27 Have you ever had a microfinance loan?
- 1. Yes
- 2. No

If No, Part D

28 If Yes, when was your most recent loan?
- 1. Less than 6 months ago
- 2. 6 months - 1 year ago
- 3. More than 1 year ago

29 What is/was the loan used for?
Specify _____________________________

30 How much is/was the loan?
____________________ R

D. Latrine knowledge and perceptions

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<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
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<tbody>
<tr>
<td>31</td>
<td></td>
<td>Where do adults in your household usually go to defecate?</td>
<td>1. Household latrine&lt;br&gt;2. Other latrine&lt;br&gt;3. Open defecation near house&lt;br&gt;4. Open defecation field/forest&lt;br&gt;5. Other, specify _____________________________</td>
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<td>32</td>
<td></td>
<td>How many meters is this place from your house?</td>
<td>_______m</td>
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<td>34</td>
<td></td>
<td>Where do children in your household usually go to defecate?</td>
<td>1. Household latrine&lt;br&gt;2. Other latrine&lt;br&gt;3. Open defecation near house&lt;br&gt;4. Open defecation field/forest&lt;br&gt;5. No children&lt;br&gt;6. Other, specify _____________________________</td>
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<tr>
<td>Question</td>
<td>Options</td>
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</table>
| In your household, how are babies’ faeces usually disposed of?          | - 1. Put into latrine  
- 2. Put into drain/ditch  
- 3. Thrown in garbage  
- 4. Buried  
- 5. Left in open  
- 6. No baby  
- 7. Other, specify ____________________ |
| What types of latrines do you know about?                               | - 1. Flush/pour flush  
- 2. Ventilated Improved Pit (VIP) latrine  
- 3. Pit latrine with slab  
- 4. Composting toilet  
- 5. Other, specify ____________________ |
| Which of these types of latrines have you learned about for the first time in the past year? | - 1. Flush/pour flush  
- 2. Ventilated Improved Pit (VIP) latrine  
- 3. Pit latrine with slab  
- 4. Composting toilet  
- 5. None  
- 6. Other, specify ____________________ |
| Where/how do you learn about latrines?                                  | - 1. Community meeting  
- 2. Village chief  
- 3. Neighbour  
- 4. Relative  
- 5. Mason  
- 6. Radio  
- 7. Poster/Picture  
- 8. Billboard advertisement  
- 9. Television advertisement  
- 10. NGO/agency worker  
- 11. Government representative  
- 12. Other, specify ____________________ |
| What kind of latrine would you most prefer for your household?          | - 1. Flush/pour flush  
- 2. Dry pit latrine  
- 3. Other, specify ____________________ |
| What particular features do you like the most about your preferred latrine? | - 1. Looks good/Comfortable  
- 2. No smell  
- 3. No flies  
- 4. Don’t see faeces  
- 5. Easy to clean  
- 6. Don’t need water to flush  
- 7. Less expensive  
- 8. Other, specify ____________________ |
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
</table>
| Do you know anyone who can build this type of latrine?                  | 1. Yes  
2. No  
3. Don’t know                                                                 |
| What are the disadvantages of owning a latrine?                         | 1. Bad smell  
2. Attracts flies  
3. Cost to maintain it  
4. Work to maintain it  
5. Other people come to use it  
6. Affects groundwater quality  
7. Overflows  
8. No disadvantages  
9. Don’t know  
10. Other, specify ___________________ |
| What are the advantages of owning a latrine?                            | 1. Improved hygiene/ health/ cleanliness  
2. More privacy  
3. More comfortable  
4. Convenience/save time  
5. Improved safety  
6. Improved status/prestige  
7. Guests can use it  
8. No advantages  
9. Don’t know  
10. Other, specify ___________________ |
| How much would you expect to pay for these latrines?                    | 1. Latrine type A ____________R  
2. Latrine type B ____________R  
3. Latrine type C ____________R  
4. Latrine type D ____________R |
| How important is spending money for a good latrine to your family’s health? | 1. Very important  
2. Quite important  
3. No so important  
4. Not important at all  
5. Don’t know |
### E. Latrine owners

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<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
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<tbody>
<tr>
<td>46</td>
<td>4.1</td>
<td>Do you own a latrine?</td>
<td>☐ 1. Yes</td>
<td>If No</td>
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<td>☐ 2. No</td>
<td>→ Part F</td>
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<td>47</td>
<td></td>
<td>If yes, is the latrine functioning now?</td>
<td>☐ 1. Yes</td>
<td>If Yes</td>
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<td>☐ 2. No</td>
<td>→ Q50</td>
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<td>48</td>
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<td>If no, why not?</td>
<td>☐ 1. Dirty</td>
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<td>☐ 2. Full</td>
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<td>☐ 3. No water to flush</td>
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<td>☐ 4. Slab broken</td>
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<td>☐ 5. Superstructure broken/missing</td>
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<td>☐ 6. Not finished building</td>
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<td>☐ 7. Used as storage</td>
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<td>☐ 8. Smells bad</td>
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<td>☐ 9. Prefer the field/forest</td>
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<td>☐ 10. Other, specify</td>
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<td>49</td>
<td></td>
<td>If no, why did you build this latrine in the first place?</td>
<td>☐ 1. Program was offering subsidy</td>
<td>If No</td>
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<td>☐ 2. Someone told me I had to</td>
<td>→ Part F</td>
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<td>☐ 3. Had enough money to buy</td>
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<td>☐ 4. Sick/old relative</td>
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<td>☐ 5. Construction of new house</td>
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<td>☐ 6. Neighbour got one</td>
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<td>☐ 7. Event (wedding/funeral/New Year)</td>
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<td>☐ 8. Had visitors from outside village coming</td>
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<td>☐ 9. Don’t know</td>
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<td>☐ 10. Other, specify</td>
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<td>50</td>
<td>4.2</td>
<td>Do adults in your household use the latrine for defecation?</td>
<td>☐ 1. Always</td>
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<td>51</td>
<td></td>
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<td>☐ 2. Sometimes</td>
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<td>☐ 3. Never</td>
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<td>☐ 4. Don’t know</td>
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<td>52</td>
<td>4.2</td>
<td>Do children in your household use the latrine for defecation?</td>
<td>☐ 1. Always</td>
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<td>53</td>
<td></td>
<td></td>
<td>☐ 2. Sometimes</td>
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<td>☐ 3. Never</td>
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<td>☐ 4. Don’t know</td>
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<td>54</td>
<td></td>
<td>Does anybody from neighboring household use your latrine?</td>
<td>☐ 1. Yes</td>
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<td></td>
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<td>☐ 2. No</td>
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<td>Question</td>
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<td>55</td>
<td>If you didn’t have this latrine to use, where would you go to defecate? &lt;br&gt; [Don’t read options, check all that apply]</td>
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<td></td>
<td>1. Public latrine</td>
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<td>2. Neighbour’s latrine</td>
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<td>3. Relative’s latrine</td>
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<td>4. Field/forest</td>
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<td>5. Other, specify __________________</td>
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<td>56</td>
<td>What kind of latrine do you have?</td>
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<td>Pour flush latrine to</td>
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<td></td>
<td>1. Piped sewer system</td>
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<td>2. Septic tank</td>
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<td>3. Pit latrine</td>
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<td>4. Elsewhere</td>
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<td>5. Don’t know</td>
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<td>6. Ventilated Improved Pit (VIP) latrine</td>
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<td>7. Pit latrine with slab</td>
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<td>8. Pit latrine without slab/open pit</td>
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<td>9. Composting toilet</td>
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<td>10. Other, specify __________________</td>
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<td>57</td>
<td>What kind of below ground structure does your latrine have? &lt;br&gt; [Check one]</td>
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<td>1. Unlined pit</td>
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<td>2. Lined pit - beneath latrine</td>
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<td>3. Lined pit - offset</td>
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<td>4. Piped sewerage</td>
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<td>5. Other, specify __________________</td>
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<tr>
<td></td>
<td>6. Don’t know</td>
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<tr>
<td>58</td>
<td>What kind of slab does your latrine have? &lt;br&gt; [Observe] &lt;br&gt; [Check one]</td>
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<tr>
<td></td>
<td>1. Wooden slab</td>
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<td>2. Concrete slab</td>
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<td>3. Pour flush</td>
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<td>4. Western toilet bowl</td>
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<td>5. Other, specify __________________</td>
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<td>59</td>
<td>What kind of shelter walls does your latrine have? &lt;br&gt; [Observe if possible] &lt;br&gt; [Check one. If more than one wall material is used, choose material that covers the largest area]</td>
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<td>1. Concrete/brick</td>
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<td>2. Fibrous cement</td>
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<td>3. Galvanized steel</td>
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<td>4. Wood</td>
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<td>5. Thatch</td>
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<td>6. Plastic sheet</td>
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<td>7. Salvaged material</td>
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<td>8. No walls</td>
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<td>9. Other, specify __________________</td>
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<td>Question</td>
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<tr>
<td>60</td>
<td><strong>What kind of shelter roof does your latrine have?</strong>&lt;br&gt;<em>(Observe if possible)</em>&lt;br&gt;<em>(Check one. If more than one roof material is used, choose material that covers the largest area)</em>&lt;br&gt;1. Concrete&lt;br&gt;2. Fibrous cement&lt;br&gt;3. Galvanized steel&lt;br&gt;4. Tiles&lt;br&gt;5. Thatch&lt;br&gt;6. Plastic sheet&lt;br&gt;7. Salvaged material&lt;br&gt;8. No roof&lt;br&gt;9. Other, specify____________________</td>
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<tr>
<td>61</td>
<td><strong>Do you use your latrine for bathing?</strong>&lt;br&gt;1. Yes&lt;br&gt;2. No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td><strong>Do you use water to flush your latrine?</strong>&lt;br&gt;1. Yes&lt;br&gt;2. No&lt;br&gt;If No&lt;br&gt;<strong>Q65</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td><strong>How much water per day does your household usually need to flush the latrine?</strong>&lt;br&gt;1. Less than 5 litres&lt;br&gt;2. 6 to 15 litres&lt;br&gt;3. 16 to 25 litres&lt;br&gt;4. More than 26 litres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td><strong>Do you have enough water to flush the latrine in the dry season?</strong>&lt;br&gt;1. Yes&lt;br&gt;2. No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td><strong>Is the latrine you are using now your first latrine?</strong>&lt;br&gt;1. Yes&lt;br&gt;2. No&lt;br&gt;3. Don’t know&lt;br&gt;If Yes&lt;br&gt;<strong>Q68</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td><strong>If No, how many other latrines before this one have you built?</strong>&lt;br&gt;____________________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td><strong>In what ways is your current latrine different from your old latrine?</strong>&lt;br&gt;<em>(Check all that apply)</em>&lt;br&gt;1. Pit is now lined&lt;br&gt;2. Walls are improved&lt;br&gt;3. Roof is improved&lt;br&gt;4. Slab is improved&lt;br&gt;5. Has a pan&lt;br&gt;6. Pan is now pour flush&lt;br&gt;7. Has ventilation&lt;br&gt;8. Has bathing area&lt;br&gt;9. Has hand washing area&lt;br&gt;10. Has door&lt;br&gt;11. Other, specify____________________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td><strong>What year was your first latrine built?</strong> <em>(best estimate)</em>&lt;br&gt;Year: ________</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td><strong>Who made the final decision to build your first latrine?</strong>&lt;br&gt;<em>(Check only one)</em>&lt;br&gt;1. Head of household&lt;br&gt;2. Head of household and spouse jointly&lt;br&gt;3. Spouse&lt;br&gt;4. Family together&lt;br&gt;5. Other, specify____________________</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What made you decide to build your first latrine at the time that you did?

[probe; check all that apply]

- 1. Program was offering subsidy
- 2. Someone told me I had to
- 3. Had enough money to buy
- 4. Sick/old relative
- 5. Children become physically mature
- 6. Social pressure
- 7. Construction of new house
- 8. Neighbour got one
- 9. Event (wedding/funeral/New Year)
- 10. Had visitors from outside village coming
- 11. Other, specify_____________________
- 12. Don’t know

Did you receive assistance from any organization to build your latrine?

- 1. Yes
- 2. No
- 3. Don’t know

What assistance did you receive from the organization?

[Read options and check all that apply]

- 1. Free/subsidized materials
- 2. Free/subsidized labour
- 3. Loan
- 4. Technical advice
- 5. Design provided
- 6. Encouragement
- 7. Other, specify_____________________

How much did you pay for your latrine?

[If possible, enter material and labour costs separately]

- 1. Total __________ Riel / 99. don’t know
- 2. Materials _________ Riel / 99. don’t know
- 3. Labour ________ Riel / 99. don’t know
- 4. In kind contribution, value unknown

Did you build your latrine all at one time or in stages?

- 1. All at once
- 2. In stages
- 3. Don’t know

How long did it take to complete your latrine?

- 1. Less than 2 weeks
- 2. 3 - 4 weeks
- 3. 1 - 6 months
- 4. 7 - 12 months
- 5. More than 13 months
- 6. Not yet completed

In the future, do you plan to make changes/improvements to your latrine?

- 1. Yes
- 2. No
- 3. Don’t know

If No  

Q78
77 What changes/improvements do you plan to make?  
*Read options, check all that apply*

- 1. Line the pit
- 2. Improve the walls
- 3. Improve the Roof
- 4. Improve the Slab
- 5. Get pan
- 6. Get pour flush pan
- 7. Add ventilation pipe to pit
- 8. Build water storage tank(s)
- 9. Build bathing area
- 10. Build handwashing area
- 11. Build door
- 12. Move to inside the house
- 13. Other, specify____________________

78 Has your latrine pit ever been emptied?  

- 1. Yes
- 2. No
- 3. Don’t know

If No/Don’t know

79 If yes, what do you do with the contents?  
*Read options, check all that apply*

- 1. Spread on field as fertilizer
- 2. Dumped in the forest
- 3. Dumped in the river/pond/canal
- 4. Empty pit contents into new hole
- 5. Other, specify____________________

80 When the pit fills up, how long do you wait before emptying it?  
*Check only one option*

- 1. None(emptied right away)
- 2. Less than one month
- 3. 1 - 6 months
- 4. 7 - 12 months
- 5. More than 12 months
- 6. Don’t know

81 Have you ever hired someone to empty your pit?  

- 1. Yes
- 2. No
- 3. Don’t know

82 Did you hire anybody to build or help build your latrine?  

- 1. Yes
- 2. No

If No

83 If yes, were they from your village or from outside your village?  

- 1. From village
- 2. From outside village
- 3. Don’t know

84 Why did you pick this person?  
*Don’t read the options, check all that apply*

- 1. Relative/friend
- 2. Had hired before
- 3. Has good reputation
- 4. Saw and liked a latrine they had built
- 5. Least expensive
- 6. Other, specify____________________
85 How did you learn about this person?
[Don’t read options, check all that apply]
- 1. Community meeting
- 2. Recommended by family
- 3. Relative/friend
- 4. Recommended by latrine owner
- 5. Recommended by village chief
- 6. Recommended by someone in village
- 7. Recommended by material supplier
- 8. Recommended by ring producer
- 9. Recommended by NGO/agency
- 10. Poster/Advertisement
- 11. Radio
- 12. Other, specify___________________

86 Who arranged the purchase of the materials: the hired person, the household, or both?
- 1. Hired person
- 2. Household
- 3. Both

87 Where did you buy the materials for building your latrine?
[Read choices; select one choice]
- 1. In your village
- 2. In your commune
- 3. In your district
- 4. In the province
- 5. In another province
- 6. In Phnom Penh
- 7. Other, specify ________________
- 8. Don’t know

88 What are the name and location of the market where you purchased the materials?
- 1. Name:___________________________
- 2. Location: ________________________
- 3. Don’t know

[For respondents that own a latrine, go to Part G] → Q103
F. Non-latrine owners

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>5.11</td>
<td>Has your household ever thought about or discussed building a latrine for your family?</td>
<td>1. Yes</td>
<td>If No. Q91</td>
</tr>
<tr>
<td>90</td>
<td></td>
<td>If yes, when was the last time you discussed this?</td>
<td>1. Less than 1 month ago</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td></td>
<td>Who in your household would make the final decision to build a latrine?</td>
<td>1. Head</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td></td>
<td>If you are interested in having a person/mason build your latrine, have you identified the mason for the job?</td>
<td>1. Yes</td>
<td>If Not the answer yes. Q96</td>
</tr>
<tr>
<td>93</td>
<td></td>
<td>If yes, are they from your village or from outside your village?</td>
<td>1. From village</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td></td>
<td>Why did you pick this person?</td>
<td>1. Had hired before</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td></td>
<td>How did you learn about this person?</td>
<td>1. Community meeting</td>
<td></td>
</tr>
</tbody>
</table>

[Read options, check all that apply]
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
| 96 If you built a latrine, where would you buy the materials from?      | ☐ 1. In my village  
☐ 2. In my commune  
☐ 3. In my district  
☐ 4. In my province  
☐ 5. In other provinces  
☐ 6. In Phnom Penh  
☐ 7. Other, specify ____________________  
☐ 8. Don’t know                                                                 |
| 97 What are the name and location of the market where you would purchase the materials? | ☐ 1. Name:___________________________  
☐ 2. Location: ________________________  
☐ 3. Don’t know                                                                 |
| 98 Have you chosen a site for the latrine?                               | ☐ 1. Yes  
☐ 2. No  
☐ 3. Don’t know                                                                 |
| 99 For example, If I return to your house one year from today, how likely is it that you will have built a latrine at your house? | ☐ 1. No chance  
☐ 2. Low likelihood  
☐ 3. Medium likelihood  
☐ 4. High likelihood                                                                 |
| 100 What is the lowest amount that you would need to spend to build an acceptable latrine for your family? | __________________ Riel                                                                 |
| 101 Do you currently have any money saved towards buying a latrine?      | ☐ 1. Yes  
☐ 2. No                                                                 |
| 102 Would you consider taking a microfinance loan to purchase a latrine? | ☐ 1. Yes  
☐ 2. No  
☐ 3. Don’t know                                                                 |
### I. Hygiene

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>151</td>
<td>1. More than three times per day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Once per day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Less than once per week</td>
<td></td>
</tr>
</tbody>
</table>

**Question:** How often do you wash your hands with soap?  
*Check only one option*

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>152</td>
<td>1. To remove dirt/make clean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. To make them smell good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. To remove microbes/bacteria</td>
<td></td>
</tr>
</tbody>
</table>

**Question:** Why do you wash your hands with soap?  
*DO NOT read options; check all that apply*

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>153</td>
<td>1. When they are dirty</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Before eating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. After defecation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. After waking up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Before washing baby</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Other, specify____________________</td>
<td></td>
</tr>
</tbody>
</table>

**Question:** When do you usually wash your hands with soap?  
*DO NOT read options; check all that apply*

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
</tr>
</thead>
</table>
| 154 | 1. Yes | If Yes
|     | 2. No |  |  

**Question:** Do you wash your hands with soap in a designated hand washing place?  

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>155</td>
<td>1. At the water source</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Near the latrine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Other, specify____________________</td>
<td></td>
</tr>
</tbody>
</table>

**Question:** If no, where do you usually wash your hands with soap?
What do you do in your household to prevent children from getting diarrhoea? [Do NOT read options; check all that apply]

- Pray to spirits/ancestors
- Cook food properly/eat soon after cooking
- Be careful about what kinds of food you eat
- Boil drinking water
- Wash vegetables with clean water
- Make formula with clean water
- Wash hands with soap after defecation
- Wash hands with soap before preparing food/eating
- Wash hands with soap after cleaning a child’s anus
- Clean cooking and eating utensils
- Don’t know
- Other, specify _______________

What hygiene advice have you heard before? [DO NOT read options; check all that apply]

- None
- Use a latrine
- Drink safe water
- Store water safely
- Wash hands
- Wash hands with soap
- Good food hygiene
- Wastewater/stagnant water management
- Safe disposal of babies’ faeces
- Other, specify _______________

From which of the following sources have you heard hygiene advice in the past year? [DO NOT read options; check all that apply]

- Community meeting
- Village chief
- Neighbour
- Relative
- Radio
- Poster/Picture
- Billboard advertisement
- Television advertisement
- NGO/agency worker
- Government representative
- Health Center
- Health Worker
- Schools/teachers
- Wat/religious leaders
- Don’t know
- Other, specify _______________
### J. Communication

<table>
<thead>
<tr>
<th>No</th>
<th>IDE #</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>159</td>
<td></td>
<td>How many people in the household are member of a community group?</td>
<td>1. 0</td>
<td>2. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. 2</td>
<td>4. 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Other, specify ______________________________</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td></td>
<td>How often do you travel outside the village?</td>
<td>1. More than once per week</td>
<td>2. Once per week</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. 1 2 times per month</td>
<td>4. Less than once per month</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Less than once per year</td>
<td>6. Rarely</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7. Never</td>
<td></td>
</tr>
<tr>
<td>5.16</td>
<td></td>
<td>In your opinion, which of the following would be able to give trustworthy information about building or purchasing sanitation and water products?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>161</td>
<td></td>
<td>Mason</td>
<td>1. Very good information source</td>
<td>2. Acceptable/Average information source</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Read options; select one]</td>
<td>3. Not a good information source</td>
<td>4. Don’t know</td>
</tr>
<tr>
<td>162</td>
<td></td>
<td>Concrete ring producer</td>
<td>1. Very good information source</td>
<td>2. Acceptable/Average information source</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Read options; select one]</td>
<td>3. Not a good information source</td>
<td>4. Don’t know</td>
</tr>
<tr>
<td>163</td>
<td></td>
<td>Shop/seller</td>
<td>1. Very good information source</td>
<td>2. Acceptable/Average information source</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Read options; select one]</td>
<td>3. Not a good information source</td>
<td>4. Don’t know</td>
</tr>
<tr>
<td>164</td>
<td></td>
<td>Government officer</td>
<td>1. Very good information source</td>
<td>2. Acceptable/Average information source</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Read options; select one]</td>
<td>3. Not a good information source</td>
<td>4. Don’t know</td>
</tr>
<tr>
<td>165</td>
<td></td>
<td>NGO worker</td>
<td>1. Very good information source</td>
<td>2. Acceptable/Average information source</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Read options; select one]</td>
<td>3. Not a good information source</td>
<td>4. Don’t know</td>
</tr>
</tbody>
</table>
Appendix 6: Sample latrine models

Annex A
Village Level Questionnaire (English)
# Sanitation Demand Survey

## Village Information Questionnaire

<table>
<thead>
<tr>
<th>Questionnaire number</th>
<th>Village Name</th>
<th>Commune Name</th>
<th>District Name</th>
<th>Province Name</th>
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<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

1. Interview Team
2. 
3. 

<table>
<thead>
<tr>
<th>Person(s) interviewed to fill in this questionnaire</th>
<th>Date of Village Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arrive ( d ) ( m ) ( y )</td>
</tr>
<tr>
<td></td>
<td>Departure ( d ) ( m ) ( y )</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Number of households in village</td>
<td>_______ Households</td>
<td></td>
</tr>
<tr>
<td>Q2a</td>
<td>Number of people in village</td>
<td>_______ Women</td>
<td></td>
</tr>
<tr>
<td>Q2b</td>
<td>Number of people in village</td>
<td>_______ Men</td>
<td></td>
</tr>
<tr>
<td>Q2c</td>
<td>Number of people in village</td>
<td>_______ Total</td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>Number of latrines in the village</td>
<td>_______ Latrines</td>
<td></td>
</tr>
<tr>
<td>Q4a</td>
<td>Number of latrine owners interviewed</td>
<td>_______ Latrine owners</td>
<td></td>
</tr>
<tr>
<td>Q4b</td>
<td>Number of non latrine owners interviewed</td>
<td>_______ Non-latrine owners</td>
<td></td>
</tr>
<tr>
<td>Q5a</td>
<td>Distance to nearest commune level market</td>
<td>_______ km</td>
<td></td>
</tr>
<tr>
<td>Q5b</td>
<td>Distance to nearest district level market</td>
<td>_______ km</td>
<td></td>
</tr>
<tr>
<td>Q5c</td>
<td>Distance to nearest province level market</td>
<td>_______ km</td>
<td></td>
</tr>
<tr>
<td>Q6a</td>
<td>Has there ever been an NGO project active in this village?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Q6b</td>
<td>Which NGO (or NGOs?)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6c</td>
<td>What type of development activities did the project(s) include?</td>
<td>□ Drinking water supply</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Check all that apply]</td>
<td>□ Sanitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Agriculture</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Community organization</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Human rights</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Enterprise development</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Disaster relief</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Other, specify _______________</td>
<td></td>
</tr>
<tr>
<td>Q6d</td>
<td>Year NGO activities started</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6e</td>
<td>Are NGO activities still ongoing?</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Q6f</td>
<td>Year NGO activities ended</td>
<td></td>
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Other Comments:
Annex B
Household level Questionnaire
(English)
Sanitation Demand Survey

Household Questionnaire

<table>
<thead>
<tr>
<th>No</th>
<th>Relation to household head</th>
<th>Age</th>
<th>Sex</th>
<th>Years of education</th>
<th>How many times has this person had diarrhea in the past 2 weeks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Household head</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>M/F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>M/F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>M/F</td>
<td></td>
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<td>5</td>
<td>M/F</td>
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<td>6</td>
<td>M/F</td>
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<td>M/F</td>
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<td>M/F</td>
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<td>9</td>
<td>M/F</td>
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<td>10</td>
<td>M/F</td>
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</tbody>
</table>
Socio-economic

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2a</td>
<td>Do you own agricultural land?</td>
<td>□ Yes</td>
<td>If No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ No</td>
<td>→ Q3a</td>
</tr>
<tr>
<td>Q2b</td>
<td>How much agricultural land area did your household own in the last 12 months?</td>
<td>_______ hectares</td>
<td></td>
</tr>
<tr>
<td>Q3a</td>
<td>Do you own your residential land?</td>
<td>□ Yes</td>
<td>If No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ No</td>
<td>→ Q3c</td>
</tr>
<tr>
<td>Q3b</td>
<td>Do you have official title for your residential land?</td>
<td>□ Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ No</td>
<td></td>
</tr>
<tr>
<td>Q3c</td>
<td>Is your residential land flooded regularly</td>
<td>□ Never</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Sometimes</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Every year</td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>Roof construction material</td>
<td>□ Concrete</td>
<td></td>
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<tr>
<td></td>
<td>[Check one. If more than one roof material is used, choose material that covers the largest area]</td>
<td>□ Fibrous cement</td>
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<td></td>
<td></td>
<td>□ Galvanized steel</td>
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<td>□ Tiles</td>
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<td>□ Thatch</td>
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<td>□ Plastic sheet</td>
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<td></td>
<td></td>
<td>□ Salvaged material</td>
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<td></td>
<td>□ Other, specify ___________</td>
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</tbody>
</table>
Q5
Does your household own any of the following items?
[Check all that apply]
- Plough
- Harrow/rake
- Ox-cart
- Semi tractor (ko yun)
- Tractor
- Manual water pump
- Engine-powered water pump
- Rice mill
- Threshing machine
- Cattle/oxen/buffalo
- Pigs
- Car
- Motorcycle
- Bicycle
- Row boat
- Motor boat
- Telephone/cell phone
- Video/DVD player
- Television
- Radio/stereo
- Sofa set
- Dining set
- Air conditioner
- Sewing machine
- Generator
- Refrigerator
- Electric fan

Q6
What items did you spend money on in the last 12 months?
[Rank all items from 9 to 1. The largest annual expense is 9, the second largest is 8, and so on. If there was no expenditure enter zero.]
- Food 
- Health care 
- Education 
- Housing 
- Clothing 
- Agricultural inputs 
- Productive assets 
- Consumer goods 
- Ceremonies/gifts
<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
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</thead>
<tbody>
<tr>
<td>Q7</td>
<td>What was your cash income from all household members and from all sources in the past 12 months? [Fill in net annual income (riel) from each source]</td>
<td>Selling rice _______R</td>
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<td></td>
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<td>Selling non-rice crops _______R</td>
<td></td>
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<td></td>
<td></td>
<td>Selling animal products _______R</td>
<td></td>
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<td></td>
<td></td>
<td>Farm labour _______R</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-farm labour _______R</td>
<td></td>
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<td></td>
<td></td>
<td>Business/trading _______R</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Salary _______R</td>
<td></td>
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<td></td>
<td></td>
<td>Gifts from non-household members _______R</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other _______R</td>
<td></td>
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<tr>
<td>Q8</td>
<td>In what month(s) do you have the highest income? [Check all that apply]</td>
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<td></td>
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<td>January</td>
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<td>February</td>
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<td>March</td>
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<td>April</td>
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<td>May</td>
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<td>June</td>
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<td>July</td>
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<td>August</td>
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<td></td>
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<td>September</td>
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<td></td>
<td></td>
<td>November</td>
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<td></td>
<td></td>
<td>December</td>
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<tr>
<td></td>
<td></td>
<td>None, income is constant throughout the year</td>
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</tbody>
</table>
### Water supply

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding</th>
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</thead>
</table>
|    | **What is your main source of domestic water in the wet season?**  
**[Domestic water includes water for drinking, washing and other household uses]**  
**[Check one main source only]** | Rainwater  
River/stream (tonle/o)  
Pond (srah)  
Lake (boeung)  
Tube well  
Unlined open well  
Lined open well with no cover  
Lined open well with cover  
Water vendor  
Bottled water  
Piped water | |
| Q9a | **What is your main source of domestic water in the dry season?**  
**[Check one main source only]** | Rainwater  
River/stream (tonle/o)  
Pond (srah)  
Lake (boeung)  
Tube well  
Unlined open well  
Lined open well with no cover  
Lined open well with cover  
Water vendor  
Bottled water  
Piped water | |
| Q9b | **Do you treat your drinking water?** | Always  
Sometimes  
Never | If Never → Q11 |
| Q10a | **What method do you use to treat your drinking water?** | Boil  
Filter  
Chemical  
Other |
### Latrine use

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q11</td>
<td>Do you own a latrine?</td>
<td>☐ Yes</td>
<td>If No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ No</td>
<td></td>
</tr>
<tr>
<td>Q12a</td>
<td>What kind of <strong>below ground</strong> structure does your latrine have?</td>
<td>☐ Unlined pit</td>
<td>Q14a</td>
</tr>
<tr>
<td></td>
<td>[Check one]</td>
<td>☐ Concrete rings</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ Offset tank</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Piped sewerage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Don’t know</td>
<td></td>
</tr>
<tr>
<td>Q12b</td>
<td>What kind of <strong>slab</strong> does your latrine have?</td>
<td>☐ Open hole – wooden slab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Check one]</td>
<td>☐ Open hole – concrete slab</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ Pour flush</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ “Western” toilet bowl</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ Other</td>
<td></td>
</tr>
<tr>
<td>Q12c</td>
<td>What kind of <strong>shelter walls</strong> does your latrine have?</td>
<td>☐ Concrete/brick</td>
<td></td>
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<tr>
<td></td>
<td>[Check one. If more than one wall material is used, choose material that covers the largest area]</td>
<td>☐ Fibrous cement</td>
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<td></td>
<td></td>
<td>☐ Galvanized steel</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ Wood</td>
<td></td>
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<td></td>
<td></td>
<td>☐ Thatch</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ Plastic sheet</td>
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<td></td>
<td></td>
<td>☐ Salvaged material</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ No walls</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>☐ Other, specify ____________</td>
<td></td>
</tr>
<tr>
<td>Q12d</td>
<td>What kind of <strong>shelter roof</strong> does your latrine have?</td>
<td>☐ Concrete</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Check one. If more than one roof material is used, choose material that covers the largest area]</td>
<td>☐ Fibrous cement</td>
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<td></td>
<td></td>
<td>☐ Galvanized steel</td>
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<td>☐ Tiles</td>
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<td>☐ Thatch</td>
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<td></td>
<td></td>
<td>☐ Plastic sheet</td>
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<tr>
<td></td>
<td></td>
<td>☐ Salvaged material</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ No roof</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Other, specify ____________</td>
<td></td>
</tr>
<tr>
<td>Q13</td>
<td>How far is the latrine from your house?</td>
<td>____________________ meters</td>
<td></td>
</tr>
<tr>
<td>Q14a</td>
<td>Where do <strong>adult</strong> members of this household usually go to defecate when <strong>at home</strong>?</td>
<td>☐ On the ground</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ In a water body</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ In your own latrine</td>
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<tr>
<td></td>
<td></td>
<td>☐ In a neighbour’s latrine</td>
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<td></td>
<td></td>
<td>☐ In a public latrine</td>
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<td></td>
<td></td>
<td>☐ Other, specify ____________</td>
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<tr>
<td>No</td>
<td>Question</td>
<td>Coding</td>
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</tbody>
</table>
| Q14b | Where do **adult** members of this household usually go to defecate when **away from home**? | □ On the ground  
□ In a water body  
□ In a public latrine  
□ Other, specify _______________ |      |
| Q14c | Where do **children** in this household usually go to defecate when **at home**? | □ On the ground  
□ In a water body  
□ In your own latrine  
□ In a neighbour's latrine  
□ In a public latrine  
□ Other, specify _______________ |      |
| Q14d | Where do **children** in this household usually go to defecate when **away from home**? | □ On the ground  
□ In a water body  
□ In a public latrine  
□ Other, specify _______________ |      |
| Q14e | [If children defecate in a different place than adults]  
Why do children use a different place than adults? |                                                                 |      |
| Q14f | [If there is an infant in the household]  
Where do you dispose of infant feces? | □ On the ground  
□ In a water body  
□ In your own latrine  
□ In a neighbour's latrine  
□ In a public latrine  
□ Other, specify _______________ |      |
| Q14g | What do members of this household normally use to clean their anus after defecating? | □ Water  
□ Leaves  
□ Paper  
□ Other, specify _______________ |      |
Latrine perceptions

<table>
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<th>Question</th>
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<tbody>
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</tbody>
</table>
| Q15 | *(If respondent owns a latrine)*  
What are the advantages of owning your own latrine?  
*(If respondent does not own a latrine)*  
What do you think would be the advantages of owning your own latrine?  
*[Do not read options; check all that apply]* | ☐ Improved hygiene/cleanliness  
☐ Improved health  
☐ More privacy  
☐ More comfortable  
☐ Convenience/save time  
☐ Improved safety  
☐ Improved status/prestige  
☐ No advantages  
☐ Don’t know  
☐ Other (specify) _______________ |
| Q16 | *(If respondent owns a latrine)*  
What are the disadvantages of owning your own latrine?  
*(If respondent does not own a latrine)*  
What do you think would be the disadvantages of owning your own latrine?  
*[Do not read options; check all that apply]* | ☐ Bad smell  
☐ Attracts flies  
☐ Cost to maintain it  
☐ Work to maintain it  
☐ Other people come to use it  
☐ Affects groundwater quality  
☐ No disadvantages  
☐ Don’t know  
☐ Other (specify) _______________ |

Can you afford to buy a latrine at the following prices?  *[Check one box for each price]*

<table>
<thead>
<tr>
<th>Price</th>
<th>Can afford anytime</th>
<th>Can afford at time of peak income (e.g., after harvest)</th>
<th>Can afford by saving for 2 months or less</th>
<th>Can afford by saving for more than 2 months</th>
<th>Can never afford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q17</td>
<td></td>
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<tr>
<td>$100</td>
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<td>$80</td>
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<td>$60</td>
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<td>$40</td>
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<tr>
<td>$20</td>
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</tbody>
</table>

Q18 | *(Show respondent picture of four types of latrines)*  
How much would you expect to pay for these latrines?  
Latrine type A _________R  
Latrine type B _________R  
Latrine type C _________R

*See Annex D*
# Latrine Purchase

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Coding</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>[Does the respondent have a latrine?]</td>
<td>□ Yes</td>
<td>→ Q19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ No</td>
<td>→ Q25</td>
</tr>
<tr>
<td>Q19</td>
<td>What made you decide to purchase a latrine? [Do not read options; check all that apply]</td>
<td>□ Improved hygiene/cleanliness</td>
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<tr>
<td></td>
<td></td>
<td>□ Improved health</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ More privacy</td>
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<tr>
<td></td>
<td></td>
<td>□ More comfortable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Convenience/save time</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Improved safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Improved status/prestige</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Don’t know</td>
<td></td>
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<td></td>
<td></td>
<td>□ Other, specify ________________</td>
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<tr>
<td>Q20</td>
<td>Where did you purchase/receive your latrine? [Do not read options; check all that apply]</td>
<td>□ NGO</td>
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<tr>
<td></td>
<td></td>
<td>□ Health Center</td>
<td></td>
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<td></td>
<td></td>
<td>□ Commune Council</td>
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<td></td>
<td></td>
<td>□ Village Development Committee</td>
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<td></td>
<td>□ Village Health Worker</td>
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<td></td>
<td>□ Local craftsman</td>
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<td></td>
<td></td>
<td>□ Local market dealers</td>
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<tr>
<td></td>
<td></td>
<td>□ Other villagers</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Built it yourself</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Don’t know</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Other (specify) ________________</td>
<td></td>
</tr>
<tr>
<td>Q21</td>
<td>When did you purchase your latrine?</td>
<td>_______ year</td>
<td></td>
</tr>
<tr>
<td>Q22</td>
<td>How much did you pay for your latrine? [Enter value in Riel or US$]</td>
<td>Riel_______R</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>US Dollars ._______$</td>
<td></td>
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<td></td>
<td></td>
<td>□ Don’t know</td>
<td></td>
</tr>
<tr>
<td>Q23</td>
<td>Who participated in the decision to purchase your latrine? [Check all that apply]</td>
<td>□ Adult male in household</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Adult female in household</td>
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<td></td>
<td></td>
<td>□ Children in household</td>
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<td></td>
<td>□ Person(s) outside of household</td>
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<td></td>
<td></td>
<td>□ Don’t know</td>
<td></td>
</tr>
<tr>
<td>Q24</td>
<td>Who arranged the latrine purchase? (e.g. contacted builder, negotiated price, purchased materials, checked quality, etc.) [Check all that apply]</td>
<td>□ Adult male in household</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Adult female in household</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>□ Children in household</td>
<td></td>
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<td></td>
<td></td>
<td>□ Person(s) outside of household</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Don’t know</td>
<td></td>
</tr>
</tbody>
</table>

[Go to next section] → Q30
### No | Question | Coding | Skip
--- | --- | --- | ---
Q25 | Have you ever thought about or discussed purchasing a latrine? | Yes | No
Q26 | If you decided to purchase a latrine, where would you go to purchase it?  
*[Do not read options; check all that apply]* | NGO  
Health Center  
Commune Council  
Village Development Committee  
Village Health Worker  
Local craftsman  
Local market dealers  
Other villagers  
Build it yourself  
Don’t know  
Other, specify _______________ |  
  
Q27 | If you decided to purchase a latrine, who would participate in the decision?  
*[Check all that apply]* | Adult male in household  
Adult female in household  
Children in household  
Person(s) outside of household  
Don’t know  
  
Q28 | If you decided to purchase a latrine, who would arrange the purchase? (e.g. contact builder, negotiate price, purchase materials, check quality, etc.)  
*[Check all that apply]* | Adult male in household  
Adult female in household  
Children in household  
Person(s) outside of household  
Don’t know  
  
Q29 | Why don’t you own a latrine?  
*[Do not read options; check all that apply]* | Too expensive/don’t have enough money  
Have access to someone else’s latrine already  
Satisfied with current practice/don’t see a need  
Lack information on where to purchase a latrine  
Other priorities come first  
Don’t know  
Other (specify) _______________ |
## Information channels

<table>
<thead>
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<th>No</th>
<th>Question</th>
<th>Coding</th>
<th>Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q30</td>
<td>What sanitation advice have you heard before?</td>
<td>[Do not read options; check all that apply]</td>
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</tr>
<tr>
<td></td>
<td>Drink safe water</td>
<td>[ ]</td>
<td></td>
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<tr>
<td></td>
<td>Use a latrine</td>
<td>[ ]</td>
<td></td>
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<tr>
<td></td>
<td>Wash hands/face/body</td>
<td>[ ]</td>
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<tr>
<td></td>
<td>Food hygiene</td>
<td>[ ]</td>
<td></td>
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<tr>
<td></td>
<td>Other, specify _____________________________________</td>
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<td></td>
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<tr>
<td></td>
<td>None</td>
<td>If None</td>
<td>Q25</td>
</tr>
<tr>
<td>Q31</td>
<td>What was the source of the sanitation advice?</td>
<td>[Do not read options; check all that apply]</td>
<td></td>
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<tr>
<td></td>
<td>Own family</td>
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<td></td>
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<tr>
<td></td>
<td>Other villagers</td>
<td>[ ]</td>
<td></td>
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<tr>
<td></td>
<td>NGO worker</td>
<td>[ ]</td>
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<tr>
<td></td>
<td>Health Center</td>
<td>[ ]</td>
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<td></td>
<td>Commune Council</td>
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<tr>
<td></td>
<td>Village Development Committee</td>
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<td></td>
<td>Village Health Worker</td>
<td>[ ]</td>
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<tr>
<td></td>
<td>Physician/nurse/pharmacist</td>
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<tr>
<td></td>
<td>Schools/teachers</td>
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<td></td>
<td>Wat/religious leaders</td>
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<td></td>
<td>TV</td>
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<td></td>
<td>Radio</td>
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<td>Newspaper/magazine</td>
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<td></td>
<td>Billboard</td>
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<tr>
<td></td>
<td>Don’t know</td>
<td>[ ]</td>
<td></td>
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<tr>
<td></td>
<td>Other, specify _____________________________________</td>
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<td></td>
</tr>
</tbody>
</table>
### In your opinion, which of the following would be able to give trustworthy/useful information about sanitation and latrines? [Check one box for each source]

<table>
<thead>
<tr>
<th>Source</th>
<th>Very good source of sanitation information</th>
<th>Somewhat good source of sanitation information</th>
<th>Not a good source of sanitation information</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own family</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Other villagers</td>
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<tr>
<td>NGO</td>
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<td>Health Center</td>
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<td>Physician</td>
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<tr>
<td>Nurse</td>
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</tr>
<tr>
<td>Pharmacist</td>
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<td></td>
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<tr>
<td>Village Health Worker</td>
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<td>Commune Council</td>
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<td>Village Development Committee</td>
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<tr>
<td>Schools/teachers</td>
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<tr>
<td>Wat/religious leaders</td>
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<tr>
<td>Local craftsman</td>
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<td></td>
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<tr>
<td>Local market dealers</td>
<td></td>
<td></td>
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</tbody>
</table>

**Q32**

**Q33a** How often do you listen to the radio?  
- **Daily**  
- **Weekly**  
- **Less than once a week**  
- **Rarely/Never**

**Q33b** What radio station do you usually listen to?  

**Q34a** How often do you watch TV?  
- **Daily**  
- **Weekly**  
- **Less than once a week**  
- **Rarely/Never**

**Q34b** What TV station do you usually watch?  

---

284
No | Question | Coding | Skip |
--- | --- | --- | --- |
Q35a | How often do you read newspapers? | Daily, Weekly, Less than once a week, Rarely/Never |
Q35b | What newspaper do you usually read? | |

Disability

| No | Question | Coding | Skip |
--- | --- | --- | --- |
Q36 | Are there any disabled people in this household? | □ Yes, □ No | → Q37, → End |
Q37 | Which household member? | | → End |
[Enter person’s number from the Household Member table on the first page of this questionnaire] | Household member number |
Q38 | Describe the disability | | |
Q39 | How is this person able to defecate? | □ Assisted, □ Unassisted |
Q40 | Does this person use any device to assist them to defecate? | □ Yes, □ No | → Q41, → End |
Q41 | Describe the device | | |

Other Comments:
Annex D
Sample Latrine Diagrams
Diagrams used in Household-level Questionnaire (Q18) and Focus Group Discussions

A

B

C
Annex E

Focus Group Discussion Guidelines (English)
**Sanitation Demand Survey**

**Focus Group Discussion Guideline**

Introduction of moderator; purpose; discussion is non-political and confidential; participants self-introductions (name, age, marital status, number of children, village, etc.).

**Socio-Economic**

- What is your main occupation? What is your secondary occupation? How many people are there in your family? What is your main source of income in your household? How many people can make money to support your family?
- In what month(s) do you have the highest income? What items did you spend money to buy recently? Do you intend to buy or do you plan to buy anything in the near future?

**Health Care Awareness**

- Do you understand the word: Health? What does HEALTH mean to you?
- Do you understand the word: Sanitation or Hygiene? What do these words mean to you? Do you know any that relate to our human health?
- What should you do to maintain Good health?

**Water Source**

- What is your main source of domestic water? Domestic water includes water for drinking, washing and other household uses. Wet season and Dry season
- Do you treat your drinking water? What method do you use to treat your drinking water?

**Latrine ownership and use**

- Do you own a latrine? What kind latrine? (below ground, slab, shelter)
- Why don’t you have latrine in your household? Do you plan to buy one soon?
- Where do adult members of your household usually go to defecate? When at home? When away from home?
- Where do children in this household usually go to defecate? When at home? When away from home?

**Latrine Perceptions**

- What type of latrine do you wish to have? What kind of latrine do you imagine to have? (below-ground, slab, walls, roofs, below-ground structure)
- How much do you think your ideal latrine (Dream-latrine) would cost?
- What are the advantages of owning your own latrine? What are the disadvantages of owning your own latrine?
- For people who does not own a latrine, what do you think would be the disadvantages of owning your own latrine?
- Can you afford to buy a latrine at the following prices? $100, $50, $25. Why or why not?
- Show image of Latrine to respondents to select the most preferred one, then, ask few questions.
Latrine Purchase

- What made you decide to purchase a latrine?
- Where did you purchase/receive your latrine? When did you purchase your latrine? How much did you pay for your latrine?
- Who participated in the decision to purchase your latrine? Who arranged the latrine purchase?

Ask any respondents who have not yet owned a latrine

- Have you ever thought about or discussed purchasing a latrine?
- If you decided to purchase a latrine, where would you go to purchase it?
- If you decided to purchase a latrine, who participated in the decision?
- Why don’t you own a latrine?

Health Education

- Have you ever got any education on health and sanitation previously? What have you got? How have you got those educations?
- In your opinion what source of information on Health and Sanitation is most reliable? (Person who train, institution which provide training?)

Media

- Which radios do you listen most? At what time? Which program?
- Which television do you watch most often? At what time? Which program? Which newspaper or magazine do they read?

Final Question

- Are there any family members having diarrhea or other diseases in the last two week?
- Do you know what the causes to those diseases are? How do you cure those diseases? Where do you go?

Any suggestions for our organization?
Annex 3
Example supply chain and supplier market research tools
This annex is based on tools developed by Mimi Jenkins and Adam Biran in 2015 for market research in Vietnam.

**Example 1: Sanitation supply market research tools**

**Interviews with province-, district- and commune-level staff involved in sanitation**

Prepare sketch map showing:

- Provincial town
- District town
- Commune cluster town(s)
- Commune centre
- Villages
- Connecting roads
- Other major roads

Note the distances between villages, commune cluster town and district town.

**Province meeting**

Check sketch map and add details.

1. What % of villages can be reached by road?
2. What % of households would have to walk more than an hour to reach a main road or commune town?
3. PPM staff: Do you collaborate with VBSP on HH sanitation loans?
4. Please can you give us your list of the selected villages and households in each commune.

**Sources of latrine construction materials for the province**

1. Where are the manufacturers/main sources of cement for the province? (names and location)
2. Where are the manufacturers/main sources of ceramic pans for the province (names and location)
3. What are the main types and sources of sand for the province (names and location)
4. Where are the manufacturers/main sources of iron bar for the province (names and location)
5. Where are the producers/main sources of redbrick for the province (names and location)
6. Where are the producers/main sources of cement brick for the province (names and location)
7. Are there any cement casters (rings if possible) in the province town? (names and location)
8. Where are the main wholesalers of construction materials (cement, iron bar, fibro-cement sheets) located in province (names and location)
9. What are the biggest challenges for latrine construction at household level in the province?
10. Is there any sanitation subsidy on going in the province?
11. Are there any microfinance credit programs/agencies besides VBSP who provide household loans for sanitation? (how it works?)
District meeting

Instructions for the interview team:

- Explain that you will need to talk to businesses in the commune cluster town(s) that serve the communes where we will have the interviews. Arrange permission for this. It might mean working outside of the commune.
- Get paper copies of all of the commune sanitation reports from DPM, including village-level data.
- Get the list of the selected villages and households in each commune.

Check and add detail to the sketch map.

1. Where are the Commune cluster towns? (get names, add to map)
2. What % of villages in the district are accessible by truck?
3. What % of villages in the district is accessible by motorbike only? Any foot/horse only villages?
4. Is there any sanitation subsidy on going in the district?
5. CPM: Do you collaborate with VBSP for HH sanitation loans? How many sanitation loans given out in last 12 months?
6. Are there any other microfinance loan programs for latrines in the district?
7. Where can ceramic pans be purchased in the district (town or communes) (names and location)
8. What are the main types / main sources of sand used for building in the district (names and location)
9. What is the main type/ main source of brick (red or cement) for the district (names and location)
10. What is the name and location of the largest cement brick maker in the district?
11. What is the name and location of the largest red brick maker in the district?
12. Who are the largest wholesalers of construction materials that supply to the rural retailer shopes? (names and location)
13. Are there any cement casters (rings if possible) in the district (town or smaller towns)? (names and location)
14. Who are the largest wholesalers / retailers of ceramic pans in the district (town or smaller town)? (names and location)
Commune meeting

Instructions for the interview team:

• Get or make a list of all of the villages and note the central commune village.
• Ask for copy of village level commune sanitation coverage data report, if not provided by district.
• For each village note the distance from the commune centre, time to travel from the commune centre, dirt or paved road, accessible by truck (what size) or not, approximate % of households who are off the road and impossible to reach by truck.
• Talk about the household selection criteria. Be clear we are only talking to hygienic and unhygienic latrine owners. Not talking to open defecating households.

Information to gather from meeting with commune officials:

1. Number of transporters in the commune
2. Number of general masons in the commune
3. How many of the general masons are able to build septic tanks and pour flush water seal latrines
4. Number of cement retailers in the commune
5. Number of stone powder or sand producers in the commune
6. Number of brick makers in the commune
7. Number of cement casters in the commune
8. For remote villages in medium commune, and all villages in remote commune – in each village – how may general goods stores? Which are the largest? Get the names and arrange 1 interview per remote village you visit.
9. Where do people get construction materials from – ask separately about sand, cement, brick (cement/red)?
10. What are the most common types of latrines?
11. Do most people build themselves or use a mason?
12. Which villages have a Women’ Union’s savings group (get number in commune)?
13. What is the largest loan that the savings group gives?
Households: latrine owners (do not conduct interviews with open defecating households)

The following is the information to collect from households:

- Name
- Telephone number
- Age
- Gender
- Household size
- Gender of Head of Household
- Ethnic group
- Main and Other Income Sources

Sanitation

Record the latrine type and details on observation sheet and draw – including pit lining, type of slab

1. When did you construct this latrine?
2. Who built it – self or mason? (name, tel# and location of mason)
3. What was the total cost? (for materials, for labor, with details)
4. Where did the materials come from, what did they cost and how did you transport them (FC sheets, cement brick, red brick, cement, sand, ceramic pan, tiles etc. Names and location of suppliers if possible)
5. How did you know how to construct the latrine? Did anyone advise you? Who?
6. Did you know the quantities of materials to buy for construction? How?
7. Why did you choose this type of latrine?
8. Are you satisfied with your current latrine? Why / why not?
9. Do you know of any other types of latrine?
10. How much would a latrine like that cost?
11. In your opinion is your latrine hygienic - why / why not?
12. What would make a hygienic latrine why?

Purchasing

1. What is the most recent expensive purchase that your household made?
2. How much did it cost?
3. How did you pay for it – savings / loans? – from where etc.
4. If saving – how long did it take to save this money?

Reaction to Easy latrine

1. Show the pre-cast wet Easy Latrine pictures – ask if they can explain what they see and how they think it works - get reaction. Explain if necessary. Ask about their interest for themselves (why and why not), how about for other HHs in the village (why and why not).
2. What would be a good price for this latrine? (what would HH be able to pay if they wanted something like this)
Questions for masons who build with ceramic pans wet latrines (at lowest level possible, i.e., study commune, other commune, or may be a commune cluster town)

1. How long have you been in this business?
2. Do you have other sources of income beside this business (rice farming, other businesses)?
3. Who are your main customers?
4. What kinds of things do you build?
5. What do you build most of?

Sanitation services

1. Do you often build latrines?
2. What types of latrines do you build?
3. What is the most common type?
4. How many latrines of each type would you usually build in a year?
5. How much does each type of latrine cost [separate: labour cost, material cost]
6. What parts of the latrine do you usually build? - What parts do the customers build?
7. What is your daily labour rate?

Materials and sources

1. Who usually buys the materials to build the latrine?
2. Who decides what materials needed to be purchased – you or the customer?
3. Do you calculate the quantities needed or do your customers do that themselves?
4. Where/what businesses do you get your sanitation-related products and materials from? [probe: pans, sand, cement, wire, etc - specific locations and suppliers for each product/material type]?
5. How are these transported from the business to the customer’s home? [probe: transport arrangements, costs and distances]
6. Do you ever do cement casting with iron? What?

Reactions to Easy Latrine

1. Show the pre-cast wet Easy Latrine pictures – ask if they can explain what they see and how they think it works - get reaction. Explain if necessary. Ask about their interest, and for household customers in this area.
2. What would be a good price for this latrine? (what do they think customers would be able, or willing to pay for this or something like it)
Example 2: Sanitation market research business interview guide

Suppliers / Producers

Date
Time
Location (Province district, cluster town, village)
Name of business
Name of owner
Age of owner
Name of interviewee (if different)

1. Type of business
2. Other lines of business
3. What sanitation related products do they sell (record source, supplier details and retail price for each – note whether this includes delivery)?
   (Cement, Sand / stone powder, F Cement sheets, Cement brick, Red brick, Iron bar, Ceramic pans, Tiles, Pipes and fittings)
4. Are there ever any problems with supply of cement or sand?
5. For each of the specific products (services) they sell what is the average volume of sales per month?
6. For each of these what % of this volume is for latrine construction?
7. Who are their customers? (including locations and names of any retail businesses they supply; locations of communes from where individual households come from to buy/order)
   (Households, Contractors, Government, Wholesalers, Retailers, Others)
   (For RV General Store, what is main gender and ethnic group of their rural customers and main purpose of visit to store)
8. What percent of their total business is serving each different type of their customer?
9. Who are their customers for latrine building (or construction) products / services?
10. For latrine / construction products, what percent of their total business is serving each of type of customer?
11. Do they provide transport?
12. Do they own a vehicle - what size of vehicle?
13. How far do they deliver / where to?
14. Do they buy on credit from their suppliers – on what terms?
15. Do they offer credit to their customers – on what terms? (how much customer debt do they carry)
16. What assets do they have – vehicles / equipment / yards / warehouses / stores
17. How many regular employees do they have?
18. What kinds of records do they keep?
19. What is their average gross revenue? (per day, per month or per year)
20. What percentage of this is for latrine / construction related lines of business?
21. Is the latrine building (or individual household construction-related) part of their business growing, staying the same, or decreasing?
22. Do they have any plans to expand business activities? what about any sanitation-related business activities (latrines and/or construction related)?
23. How do new customers find them? (any kind of advertising, marketing or promotions?)
24. What are the key challenges to expanding sanitation-related business?
25. Who are their main competitors? (name and location)
26. What do they offer that makes them different from their competitors?
Additional questions for remote village general store retailers:

1. Do they ever order or supply construction materials for households in the village?
2. Show the EZ latrine and get their reaction
3. Would they have any interest in getting involved in private sector sanitation construction business?
4. Would they be able / willing to have a display model at their store?
5. In exchange for a share of the profit would they be able / willing to take orders for latrines from households, pass orders to producer business in main cluster town, and manage payment?
6. What do they think of this as way to help local households get easy access to lower cost higher quality latrine without leaving their community?

Additional questions for sanitation-related businesses (as appropriate and time permits)

1. Do they ever order or supply construction materials for households in the village?
2. Show the EZ latrine and get their reactions.
3. Do you know of any businesses or producers who make concrete parts like this in this area?
4. Would they have any interest in getting involved (more involved) in private sector sanitation construction business activity?
5. Would they be able / willing to have a display model at their store?
6. Would they be interested in private sector production, selling, or supplying inputs to producers in private sector for a product like this?
7. In exchange for a share of the profit would they be able / willing to take orders for latrines from their household customers, pass orders on to private sector producers of something like this in the main town, and manage payment and delivery?
8. What do they think of this approach as way to help households in their customer areas get easy access to buy lower cost higher quality latrine w/o leaving their community?

Additional questions for concrete ring casters

1. Types and dimensions of rings
2. Types and dimensions of slabs / ring covers
3. Suppliers of moulds – where and how much
4. Do they ever sell rings or other items for latrine construction or wells or water tanks?
5. How many rings can they get out of one mold in 1 day?
6. How many sacs of cement do they use to make one ring (preferably for septic tank ring diameters, but if no septic tank rings, then other type ring diameters)?
7. Do they caste with iron? (if so what items?)
8. Reactions to the EZ box latrine – do you understand what the different parts are? could you make the things (rings, covers, box, slab poured with pan, adding tiles)? ever made things like this before?
Annex 4

Business Model Canvas tool
Annex 5
Example TOR for market research
World Bank
Terms of Reference

Summary

Title of Project: Haiti water and sanitation sector reform consolidation support
Assignment title: Sanitation value chain study in rural areas and small towns in Haiti
Location: Haiti
Duration of the contract: 6 months
Assignment type: Firm
Contract type listed: New activity
Mention made of any unique circumstances or conditions: none

1. PROJECT BACKGROUND AND OBJECTIVES

The Water and Sanitation Program

The Water and Sanitation Program (WSP) is a multi-donor partnership administered by the World Bank Group’s Water Global Practice to support poor people in obtaining affordable, safe, and sustainable access to water supply and sanitation (WSS) services, improved hygiene practices and support countries in scaling up WSS services for the poor.

WSP provides technical assistance (TA), facilitates knowledge exchange, and promotes evidence-based advancements in sector dialogue. It has offices in more than 30 countries across Africa, East Asia and the Pacific, Latin America and the Caribbean, and South Asia. WSP is led by a Senior Manager within the World Bank’s Global Water Practice leadership team. In Latin America and the Caribbean, WSP currently has offices in Bolivia, Ecuador, Haiti, Honduras, Nicaragua, Panama and Peru. For more information, please visit www.wsp.org and www.worldbankgroup.org/water.

WBG Sanitation Support in Haiti

Compared with the average in the region, access to sanitation in Haiti is particularly low - only 31 percent overall and 16 percent in rural areas.1 The lack of improved sanitation facilities makes open defecation a frequent practice, affecting 21 percent of the country’s population as a whole and 38 percent in rural areas.2

DINEPA, Haiti’s leading agency for drinking water and sanitation, has recently developed a National Sanitation Strategy (NSS) which, in the case of rural household sanitation, proposes moving away from traditional top-down, subsidy-driven approaches, in favor of a more market and demand-driven approach that builds more directly on household preferences and private supply mechanisms as a way to improve sanitary conditions.

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1 UNICEF/World Health Organization (WHO), Joint Monitoring Program (JMP), 2012. According to this source, access to improved drinking water sources and sanitation facilities in the Latin America and the Caribbean Region average 94 and 82 percent respectively.
In rural areas, this approach involves a combination of three intervention techniques - community-led total sanitation\(^3\) (CLTS), behavior change communication (BCC), and sanitation marketing (SM)\(^4\) – to identify and trigger demand for marketable sanitation products, on the one hand, and strengthen the capacity of private supply chains to meet this demand.

Two recently approved World Bank Group projects have as one of their objectives to strengthen DINEPA’s capacity to implement, coordinate and monitor this new approach to rural sanitation. The first is a lending operation, “Sustainable Rural and Small Towns Water and Sanitation Project” (EPARD project; P148970) and the second one, “Haiti Water and Sanitation Sector Reform Consolidation Support” (P143604) is a TA program to be delivered through WSP.

This demand-driven approach, however, has not yet been finalized and operationalized in Haiti. Applications of the three intervention techniques (CLTS, BCC, and SM) to Haiti’s rural sanitation environment have so far been limited to a number of small, disjointed and more localized projects. No nationwide study has yet been carried out to determine to what extent affordable sanitation products and services are readily available, particularly in rural areas and small towns. There is a risk that households may not be able to readily find and afford products at local supply outlets as CLTS gets rolled out in their localities and demand becomes stimulated.

With this in mind, DINEPA has requested the assistance of WSP in undertaking a national study of the value chain of sanitation products and services available in small towns and rural areas. Findings from this study will inform DINEPA and partners on how best to strengthen the value chains to ensure that household demands are readily met through functional and effective market mechanisms.

2. THE ASSIGNMENT AND OBJECTIVES

WSP is seeking to hire a consulting firm to design and carry out a value chain analysis on sanitation products and services available in small towns and rural areas. The study will be conducted at national level; however a special focus will be placed on the Centre, Sud, Grande Anse and Nippes departments where more intensive supply-chain strengthening activities will take place through World Bank operations. The border area with the Dominican Republic will also receive special attention.

The overall objective of the study is to analyze the issues, constraints (including market and non-market impediments) and potential risks within the current value chain, as well as its potential opportunities and capabilities, particularly in reaching low-income consumers. Specifically the study will:

1. Profile the current situation of the sanitation goods and services market by reporting on:
   a. Available sanitation technologies and services in small towns and rural areas
   b. The cost breakdown of sanitation technologies and services along the value chain (i.e. component costs, labor costs, costs to consumers – as well as any subsidized costs)
   c. Gaps and opportunities in price/feature/benefits ranges to develop new to meet the needs of specific segments or challenging environments.

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\(^3\) For more information on community-led total sanitation, see [www.communityledtotalsanitation.org](http://www.communityledtotalsanitation.org).

\(^4\) For more information on BCC and SM methodologies and their application to WSP [www.wsp.org/sanmarketingtoolkit](http://www.wsp.org/sanmarketingtoolkit).
2. Map existing actors and stakeholders involved in the sanitation market, including but not limited to the private sector, public sector and development partners (e.g. consumers, government agencies, and bulk material suppliers) describing:
   a. Relationship between actors
   b. Market role played by actors (e.g. research and development, material supply, finance (formal or informal), producer, marketer/promoter, etc.) and their capacity to fulfill that role
   c. Actors’ level of involvement / investment in the market
3. Identify and investigate policies (government and non-government) that support or restrict the development and growth of a sanitation market
4. Identify features (benefits) and price range of new products to be developed and possible business models and support services, which have potential to scale up the availability of aspirational and affordable sanitation products and services to low-income consumers in rural areas and small towns. These business models will be tested through the World Bank operations and potentially by other sector partners as well.

3. SCOPE OF WORK

The selected firm will perform the following tasks:

1. Participate in a kick-off meeting with the WSP task team and DINEPA to review the terms of reference and fully understand the study objectives and deliverables.
2. Conduct a desk review by collecting and synthesizing previous localized supply/value chain research studies in order to sharpen or deepen areas of enquiry. Review formative research studies to understand the demand side.
3. With the support of the World Bank task team and DINEPA, conduct an introductory field visit to two locations (to be determined) to gain field-based understanding of the context of the research.
4. Prepare an inception report and oral presentation (see Section 6: Deliverables). The inception report will include a sound research protocol and specify the analytical framework to guide the study and sampling strategy.
5. Draft research instruments and revise these according to client feedback.
6. Pre-test the instruments on a small sample of the target market actors to ensure that the participants understand the questions, that the skip patterns work, and that the interview(s) is not too long. Share pre-test findings with project team and document findings.
7. Implement and supervise data collection activities in relevant areas to ensure timing is respected and quality control standards are met. Tablet computers should be used for data collection if possible.
8. Analyze qualitative data and present top-line findings and recommendations to client and relevant partners and stakeholders.
9. Draft final report and finalize based on client’s comments, meeting international quality standards to enable extensive distribution.
4. METHODS

The methodology (protocol) for the study will be developed by the selected firm at the outset of the work and will be presented in detail in the inception report (see annex for a detailed list of research questions/areas). The study will likely employ mostly qualitative data collection methodologies, including focus group discussions (FGDs) and in-depth interviews. The chosen methodologies should be appropriate for supply/value chain analysis of rural sanitation products and services in small towns and rural areas. Results from the methodology employed should exhibit differences in the perspective of market actors, and include quotes taken verbatim from participants. Though fecal sludge management and pit emptying services are assumed to be limited in rural areas and small towns, the study will include this part of the value chain, in addition to the capture of sludge.

For the purposes of costing, a total of 10 FGDs and 40 in-depth interviews should be assumed.

5. DELIVERABLES

All deliverables submitted to the World Bank task team shall be submitted in French, in both electronic form where feasible, and in hard copy as required. Deliverables will be considered drafts upon initial receipt. Drafts will be reviewed and comments will be provided within 2 weeks of receipt, unless otherwise specified. The selected contractor shall appropriately address the client’s concerns and provide final deliverables within one week of receiving feedback from the Bank task team. All reports and datasets will be shared with relevant stakeholders.

Deliverables include:

1. **Inception report (including research protocol) and presentation.** An inception report with oral presentation to client including:
   - Key insights from previous market research and consumer/household studies in Haiti
   - Research objectives and associated research questions
   - Methods for data collection and justification
   - Analytical framework
   - Sampling strategy
   - Key implementation challenges and risks
   - Additional program design considerations
   - Implementation work plan and time table
   - Final Report Outline (annotated)

   Note that research protocol and survey instruments will need to be approved by the World Bank task team before going to the pre-testing and fieldwork stage.

2. **Research instruments** (including focus group discussion guides, in-depth interview guides) – draft and finalized based on pre-testing results. French and Creole versions will be expected.

3. **Oral presentations of findings.** Preliminary findings must be presented to the World Bank task team for quality assurance purposes, and subsequently to the partners and stakeholders (in French). Findings and recommendations to be included in presentation will be agreed upon ahead of time with the World Bank task team.
4. **Final report (in French):** The final report will include detailed results from data analysis and key recommendations to strengthen the supply chain. The final report will include the following chapters:
   - Executive Summary
   - Background
   - Research Objectives and Questions
   - Methods
   - Possible Limitation to Interpretation of Data
   - Main Results/Findings
   - Recommendations for possible business models
   - Conclusions
   - References
   - Appendices and/or Annexes and Public Use Data File

The report will be professionally edited in French to enable wide distribution (cost of copy editor(s) to be included in firm’s budget).

In addition, the final report will be made available in 10 copies and will include:

   - Clean and fully referenced electronic data sets for the quantitative position in an agreed format with copies of the original data collection forms in both English and French
   - Electronic copies of all recordings (with informed consent)
   - Basic transcripts of all interviews and focus group discussions in an electronic format translated into French (assuming discussion was in Creole)
   - All outputs will be presented in both electronic form and paper copies

6. **ACCEPTANCE CRITERIA / PERFORMANCE REQUIREMENT**

The deliverables will be evaluated according to the following criteria:

- Thoroughness and timeliness of all the elements identified in the scope of work and tasks (and annexes), per the documented final agreement between the selected firm and the World Bank task team. A detailed timeline for task completion and deliverables will be established when the contractor begins the work.
- Quality and clarity of the analysis and work produced. More specifically, quality and clarity will be assessed against the following:
  - ability of client and stakeholders to understand and apply the work produced,
  - extent to which deliverables conform to the instructions and standards outlined in the scope of work and the relevant annexes,
  - depth and quality of analysis and effort,
  - quality and extent of communication between the World Bank task team and the selected contractor while the work was undertaken,
  - any other criteria agreed upon between the two parties at the start of the work period.
7. SPECIFIC RESPONSIBILITIES FOR THE SELECTED FIRM

The selected firm will be responsible for the following:

- Designing, implementing, and managing the study
- Obtaining ethical clearances from the appropriate agencies to conduct the study
- Developing and pre-testing survey instruments before the fieldwork
- Logistics arrangements and expenses, i.e., transportation, accommodation, allowances, communications, tablets, and stationery
- Recruiting, training and supervising a suitable team of field workers, including interviewers and field supervisors
- Developing an appropriate database for data entry
- Ensuring quality of field work/data collection and data entry
- Analyzing the data.

The World Bank task team will be closely involved in reviewing, advising, and providing technical recommendations to the firm at the following key stages of the assignment:

- Developing and finalizing study designs;
- Monitoring training of field workers during piloting of instruments;
- Fine tuning and finalizing of proposal;
- Monitoring the quality control system to evaluate progress;
- Reviewing and commenting on final report drafts.

The following conditions will be imposed as part of this contract:

1. The World Bank Task Team expects to be deeply involved in the research protocol and instrument development, discussions of potential implications of findings, and other key elements of this study. Therefore, the selected consulting firm will be required to work closely with the World Bank Task Team and the client in Haiti to ensure the researcher(s) understand the survey goals before starting the research outlined in this scope of work. Throughout the project, the selected firm will maintain close communication with the designated technical advisor and client on a regular basis to discuss process and findings, including those of the pre-test.

2. WSP requests that the consulting firm develop an analytical framework of the study prior to finalizing the survey instruments. This will clearly help the World Bank Task Team identify the type of data the firm will be responsible for collecting and providing.

8. MANAGEMENT AND LOGISTICAL SUPPORT

The selected firm will report to the WSP-Haiti Country Task Team Leader. On a day-to-day basis, the firm will report to the WSP Senior Social Marketing Specialist (based in Washington) who will confer with other technical specialists as needed.

The consulting firm is expected to have, or arrange, all logistical means required to carry out the survey.

Upon award of the contract, a detailed timeline and reporting schedule will be determined between the consulting firm and WSP.
9. FIRM QUALIFICATIONS

The selected firm will be a professional consulting/research firm or other professional institution with significant experience in supply chain assessments in sanitation or other relevant sector and experience within Haiti or comparable environments. Possible areas of expertise include value chain analysis, business advisory services, including financial services for households and/or businesses, particularly in the area of market transformation and base-of-the-pyramid research.

The ability to work and facilitate data collection in French and Creole is a necessity.

World Bank requests that special attention be given to:

- The design of research and analysis methodologies for supply chain analysis of rural sanitation products and services
- The development of a detailed work plan including quick mobilization and transportation into the field of field staff
- The definition of a system for the management and quality assurance of the study
- The submission of complete CVs of the proposed staffing for key personnel and qualitative field staff

10. STAFFING

The study team composition and qualifications should be as follows:

- Key personnel may only be replaced over the life of the contract with written permission of World Bank. Each of the key personnel should have a graduate degree in a relevant discipline of study including but not exclusive to business administration, economics, management, survey analytics or equivalent. At least one member of the team must be fluent in in Creole to review the translation of relevant documents, or alternatively the firm must show sufficient budgeting for translation services within their proposal. Fluency in French is also expected. Please provide CVs for the proposed key personnel.
  - 1 - Principal investigator/project coordinator/team leader who will be responsible for managing the entire design and implementation process ensuring timelines and deliverables are met with agreed upon quality standards. Serves as main focal point with client.
  - 1 – Head of field services who oversees fieldwork and ensures quality assurance methods (including training of enumerators) are respected.
  - 1 – Private sector specialist with experience in base of the pyramid business models.
  - 1 – Sanitation specialist to provide advice to the research team on sanitation matters.

- Qualitative field staff should have at least two years of fieldwork experience and be fluent in relevant language(s). All qualitative field staff should have at least a college degree and have significant experience with in-depth interviews and FGDs.
  NOTE: WSP’s experience with research firms in other countries suggests that assignment of high quality, experienced interviewers to this field staff position (not just to the senior posts that analyze the transcripts) results in the best qualitative data. Please provide CVs for the proposed qualitative field staff.

- Additional staffing requirements will be left to the contractor to determine based on the methodology and approach proposed.

11. TYPE OF CONTRACT

This will be a lump sum contract payable as will be mentioned in the negotiation minutes with the awarded firm.
Bidders are strongly urged to consult WSP’s sanitation marketing tool kit and other publications http://wsp.org/toolkit/what-is-sanitation-marketing.

Indicative Research Areas

Key illustrative research areas of interest for this particular study are as follows (this list will be finalized once the selected contractor commences work):

**Service Delivery Actors:** enterprises, social entrepreneurs, importers, manufacturers, wholesalers, retailers, masons, financial service providers, end users (consumers) of sanitation products and services and other market actors (including informal), plus any other relevant government and non-government stakeholders in the value chain of rural sanitation products and services.

**Service Delivery Roles:**

*Market Enabling Activities*

- Creating and enforcing policy – Creation and enforcement of laws and legal guidance that have an impact on the market (ex. health laws, technology specifications/standards, certifications, subsidies, vouchers, tariffs, taxes etc.)
- Developing Infrastructure – Development and maintenance of transportation, utility and information conduits (ex. roads, railways, power lines, and information and communication networks)
- Social normalizing – Influencing the knowledge, practices and experience of a population with respect to sanitation behaviors.

*Market Facilitating Activities*

- Financing – Creating the availability of funds to market actors (i.e. via micro-finance loans, extended payment periods, revolving funds etc.).
- Coordinating Stakeholder – Organizing collaboration between market actors.
- Capacity Building – Increasing market actors’ abilities to perform core functions, solve problems, define and achieve objectives.
- Brokering Knowledge – Developing relationships and networks among producers and users of information.
- Generating Demand – Targeted marketing programs/campaigns to drive general awareness and interest in sanitation products and/or services.
- Monitoring and Evaluating – Tracking and measuring performance, including quality control.
Market Engaging Activities

- Conducting Customer Research – Investigating the needs, preferences, opinions, and behaviors of consumers. Note: This area of enquiry is expected to have been covered sufficiently in previous studies.
- Planning – Determining and balancing aggregate demand and supply to develop a course of action which best addresses market gaps.
- Innovating – Researching and developing new or modified sanitation products/services.
- Developing products – Piloting, evaluating and commercializing (including developing market strategies) for sanitation product/service.
- Sourcing and aligning suppliers – Identifying and coordinating material suppliers
- Supplying materials – Supply of component goods (i.e. concrete, reinforcement bars, toilet pan/bowls, etc.).
- Coordinating Logistics – Transportation of materials from suppliers to producers, and finally to customers.
- Producing – Assembly of materials into sanitation products.
- Sales & Marketing – Implementation of the marketing strategy, including collection of orders and payments.
- Aftersales services and feedback – Range of after sale services provided to assist customers including: siting, installing, training, maintenance, upgrading and removal and disposal of waste. It also includes the collection of customer information, such as satisfaction and product use.

Macro-environment factors, related to rural sanitation (based on secondary research)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political factors</td>
<td>Specifically, government interventions and political factors in rural sanitation include areas such as tax policy, labor law, environmental law, trade restrictions, tariffs, subsidies, incentives and political stability.</td>
</tr>
<tr>
<td>Economic factors</td>
<td>Include economic growth, interest rates, exchange rates and the inflation rate</td>
</tr>
<tr>
<td>Physical/Environmental</td>
<td>Include terrain features (mountainous, flat, river bank, swampy areas) and environmental aspects such as weather and related challenges (flooding, high groundwater, etc.); relevant for sampling.</td>
</tr>
<tr>
<td>Socio-Cultural</td>
<td>Include poverty levels, prevalence of ethnic diversity; other aspects relevant for sampling.</td>
</tr>
<tr>
<td>Technological</td>
<td>Include research and development, automation, technology incentives and the rate of technological change.</td>
</tr>
<tr>
<td>Legal</td>
<td>Include laws, regulations, registration, inspections that affect how the sector operates (non-market impediments).</td>
</tr>
</tbody>
</table>
### Micro-environment factors, specific to supply/value chain (primary and secondary data collection)

<table>
<thead>
<tr>
<th>Knowledge (supplier/consumer perspective)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: consumer perspective is expected to have been sufficiently covered in previous formative Research studies.</td>
</tr>
<tr>
<td>What are the kinds of products and services available? What are the origins of the materials (U.S., Dominican Republic etc.) and comparative costs? What are good and hygienic options? (Cost Info) What superstructures are built? (Cost Info)</td>
</tr>
<tr>
<td>What are the problems faced?</td>
</tr>
<tr>
<td>How did they learn to build latrine?</td>
</tr>
<tr>
<td>What are the difficulties they face in building the latrine(s)?</td>
</tr>
<tr>
<td>Who are the customers?</td>
</tr>
<tr>
<td>Are elderly/disabled considered?</td>
</tr>
<tr>
<td>What are perceived user preferences?</td>
</tr>
<tr>
<td>What are suppliers’ preferences?</td>
</tr>
<tr>
<td>What repairs and maintenance work are required and who does it?</td>
</tr>
<tr>
<td>Is the business profitable?</td>
</tr>
<tr>
<td>What are business constraints to expansion?</td>
</tr>
<tr>
<td>What support services are accessible/desired?</td>
</tr>
<tr>
<td>How do they access finance?</td>
</tr>
<tr>
<td>What marketing/sales strategies do they employ/see?</td>
</tr>
<tr>
<td>What marketing and/or outreach strategies do they employ?</td>
</tr>
<tr>
<td>What are the capacity needs?</td>
</tr>
<tr>
<td>What business</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge and product and services ranges (user/consumer perspective)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: consumer perspective is expected to have been sufficiently covered in previous formative Research studies.</td>
</tr>
<tr>
<td>What are the product ranges and preferences (including superstructure)</td>
</tr>
<tr>
<td>What is the willingness to pay and/or borrow for product and services?</td>
</tr>
<tr>
<td>What are existing purchasing modalities?</td>
</tr>
<tr>
<td>What are preferred delivery/installation and payment options?</td>
</tr>
<tr>
<td>How are informed choices made on (appropriate) technologies?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market size, Information and Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prices, trends, buyers, suppliers, sales volume, income, expenses, profit, means of communication, speed of response, sales promotion, bulk purchase discounts, competition, distribution/network, information asymmetries?</td>
</tr>
</tbody>
</table>
### Quality Assurance
- Quality standards, monitoring, certification, accreditation, guarantee/liability; who determines the quality requirements and how is quality identified? Which customer buys what?

### Technology/Product Development/Diversification
- How is the product range improved? How are skills improved? What technology options are available? What options have been tried and tested (and failed or succeeded); What diversification in products and services could take place? How to design technological innovations (appropriate technologies in specific contexts).

### Transport Services
- How do the products reach wholesalers, retailers and consumers? Means of transport/delivery of products? What are the costs?

### Input supplies
- Input cost, origin of inputs, quality and availability

### Financial Services
- Access to credit, loans, savings or insurance. Ability to grant installment payments and/or purchase of inputs on credit. Availability of micro-finance services for non-income generating loans

### Infrastructure
- What are the most important infrastructure constraints affecting business’ growth and profitability (road, transport conditions, communication, electric supply, storage, etc.)?

### Policy and regulations
- What government policies / regulations benefit or hamper business (registrations, inspections, subsidies, incentives, etc.)? Is exempting VAT an option to advocate to government?

### Innovations
- What innovations have taken place in sanitation products; what triggered these innovations?
Annex 6
Carrying out an industry consultation
What is an industry consultation?

An industry consultation is a key private sector engagement tool that aims to give businesses a seat at the table, together with governments and UNICEF’s other partners, so they can participate both in the MBS planning process and throughout the programme lifecycle. Industry consultations are designed to provide a platform for communicating market information, identification of barriers and opportunities, establishing partnerships and strategic planning. UNICEF regional and country offices can use their convening power to facilitate industry consultations.

Industry consultations can be done as a one-time event or as a process of regularly engaging with private and public sector partners. This document focuses on a one-time industry consultation event rather than the regular process, and provides information on the planning, co-ordination and resources needed to make it successful.

What is the purpose of an industry consultation?

Industry consultations can be used during both the planning and the implementation phase of the MBS process. At each stage, the purpose may be slightly different.

Planning phase

During the planning phase, industry consultations can be specifically designed to:

- Share, discuss and validate the findings of market assessments;
- Provide an opportunity for government representatives to present their priorities, commitments, challenges and perspectives;
- Provide an opportunity for development partners involved in MBS programmes to share their experiences in terms of strategies, successes, failures, lessons learned and vision;
- Provide an opportunity for market players (including financing institutions) to showcase their products/services, present their business models, and share their experiences, needs, barriers and perspectives;
- Showcase the attractiveness of the sanitation business and other favourable aspects of the market to private sector participants, including financing institutions;
- Communicate market opportunities (including technology gaps and innovation needs), potential demand for sanitation products/services, user preferences in terms of sanitation technologies and willingness to pay;
- Identify common goals and objectives to strengthen sanitation markets; and
- Inform programme design, identify strategic steps and help develop action plans to influence sanitation markets.

Implementation phase

Industry consultation can continue throughout programme implementation, providing opportunities to:

- Share updated market information;
- Serve as a networking and positioning opportunity for market players;
- Identify and develop new business partnerships;
- Launch and support mechanisms for innovation; and
- Present new products/services
Consultation and engagement with industry can take different formats, from more informal one-to-one meetings to sector-wide review events. The intention is to take advantage of various methods to enable industry to have opportunities to share their experiences, thoughts, knowledge, unique ideas, and other useful information to enhance skill, capacity, capability, reach and scale of their businesses. Country offices should also explore other appropriate channels to disseminate market information to businesses on a regular basis, for example through local or social media, chambers of commerce, trade associations, or trade fair exhibitions.

**Holding an industry consultation event**

The success of an industry consultation is influenced by:

- The quality of market information from your market research. This is the main input for an industry consultation. As such, your market research should be designed to obtain quality insights into sanitation market to ensure a useful consultation. Market research findings are the main inputs for a successful industry consultation.
- The participants in the room. As part of the market research, you will have already identified key market players that could be invited to attend an industry consultation event. The TOR of your market research should include a deliverable related to the mapping of stakeholders including a detailed list/database of organizations with names, contact details and their position or potential in the market.

Below are tips for before, during, and after the industry consultation.

**Before the industry consultation**

Planning is key; it is recommended that the planning and facilitation of an industry consultation event should be part of any TOR for your MBS market research.

Key steps for planning an event are:

- **Set up an organizing committee** in charge of planning and managing the event. The committee should be headed by the organizing country or regional office and should comprise staff from both WASH and supply divisions, as well as whoever is leading your market research. The committee should be in place at least two months before the event and should meet at least on a weekly basis.
- **Draft a clear summary of your market research findings** as a slide presentation. This should be structured as key market dynamics including demand, supply, business environment, and financing. The presentation should act as the skeleton agenda for the event itself, so the first draft should be ready at least six weeks before the event date.
- **Develop a draft agenda** of appropriate duration for the event – the event should cover three days maximum. Keep in mind the wide range of backgrounds of participants, from government representatives to rural sanitation businesses.
- **Develop a more detailed agenda** setting out the duration, objective, and the most appropriate speakers for each session. Private sector expectations, time constraints and needs should be taken into consideration when developing the agenda; ensure sufficient time is allocated to discussions around market opportunities and for suppliers to showcase their products. Consider drafting briefs or ‘outline templates’, to guide speakers on the key elements to be covered in their sessions.
- **Define the event’s ideal target audience.** Use your market research as a starting point. Find the right balance between private sector companies, development partners and governments, and social enterprises, as well as local, regional and global financial institutions. Focus on players who you believe could contribute the most in shaping the local sanitation markets. It is recommended that at least 60 per cent of the participants should come from the private sector.
Targeted market players should include established and start-up businesses, ranging from micro, small and medium enterprises (MSMEs) to multi-national corporations.

**Draw up your invite list.** You should ensure that industry consultations are open to all relevant and interested private sector entities – as highlighted in your market research. UNICEF should be clear at all times that they are convening and facilitating the event, rather than supporting, sponsoring or affiliating themselves with any business or group of businesses. The original invite list for sanitation businesses should be drawn up based directly on your market research, though it is likely the list of invited businesses will grow as you engage the private sector and promote the event. The event should be presented as a networking and positioning opportunity for them. Your invite list should also include government representatives from relevant ministries (such as those with responsibility for WASH, health, social welfare, trade, the economy, and finance), as well as NGOs and donors engaged in market-based interventions, and representatives from local, regional and global finance institutions. It is also recommended to have at least one MBS expert for each country represented at the event, so they can help facilitate country-specific discussions.

**Engage the private sector.** UNICEF regional and country offices should engage with businesses early in the process, to ensure optimal participation from private sector actors. Engagement could include direct meetings or using communication channels such as the local or regional UNICEF webpage, local newspapers, or posters placed in relevant locations (such as the chamber of commerce). Consider developing a one-page ‘talk sheet’ for regional and country offices to use, designed to provoke interest – for example by setting out sanitation market opportunities that your market research has found, and by highlighting the networking opportunities of the event. Ensure you keep interest and attendance logged accurately and continuously, especially during the last month, to track the attendance confirmation rate. It is recommended that the TOR for your market research should include some specific time and budget to engage the private sector for the industry consultation event; your market research partner will already be familiar and have interacted with most of the market players during their research and assessment.

**Identify and book the event venue**, which should include ‘breakout’ rooms for smaller sessions (such as country-specific discussions, where multiple countries are attending).

**Develop a concept note of the event for attendees** that defines the background of the event, the objectives (overall and specific), expected outputs and outcomes, target audience, agenda outline, as well as the format of sessions and workshops.

**Develop a broader ‘event package’ for attendees,** including the invitation letter, concept note, administrative note that outlines logistical information and an outline agenda. This should be sent (electronically wherever possible) to all participants at least 30 days prior to the event.

**Carry out close follow-up liaison** with key invitees to confirm their attendance, and to prepare those who will be showcasing their products or businesses (especially if you have attendees coming from abroad to showcase products, as they may need customs clearance).

**Identify and print any documents required during the event** (for example, copies of the event package, event flyers, event posters illustrating the sanitation value chain and sanitation ladder, or presentation handouts).

**Prepare presentation templates and outlines** that speakers will be using for their sessions (including templates for country breakout sessions, to ensure consistency of messages and discussions).

**Identify who will be taking notes,** which will inform the event report. More than one person should take notes in each session. The taking of notes and production of the event report could be another deliverable to include in your market research TOR.

**Consider translation and interpretation needs,** if the industry consultation will be regional and multiple official languages will be in use.
During the industry consultation

The event itself is your opportunity to get the most out of participants – the responsibility for it running smoothly rests with you as well as the event organizers. Below is a list of things you need to make sure you plan for and manage during the event.

- **Distribute the event package** to each participant on the first day of the event, including a finalized, detailed agenda.
- **Manage expectations of different stakeholders.** This needs to be addressed early during the first day by sharing the objectives and the expected outcomes, preferably in the opening speeches.
- **Co-ordinate breakout sessions smoothly** to manage time and similar quality of outcomes.
- **Ensure there is enough time to allow participants to network**, meet suppliers and view products (e.g. breaks, lunches, and dedicated sessions).
- **Aim to reach a ‘clear way forward’**, in terms of market-shaping actions.
- **Allow for adequate space for the private sector to showcase.** Ensure that the private sector is informed of the opportunity and is prepared to showcase their products and services at the event.
- **Ensure there is an administrative ‘back office’**, to allow facilitators to have short meetings during breaks. It is good to have printers available there, in case of last-minute changes to documents.
- **Provide supporting documents and stationery** – sticky notes, pens, paper, flipcharts, etc.
- **Store all presentations on a USB drive**, to share with all attendees.
- **Gather feedback**, for example by distributing evaluation forms at the end of each day. Consider using an online survey application for ease of compiling feedback.

After the industry consultation

- **Hold ‘wrap up’ meetings** immediately after the event, while the event is still fresh in everyone’s minds. These could be internal and/or with your market research partners, and should include an initial review of outputs, as well as discussions on how the event may shape your MBS programme, recommendations and next steps, etc.
- **Review and disseminate the final report** for the event (as mentioned above, this could be another deliverable in the TOR for your market research partners).
- **Capture lessons learned for future events**, including reviewing and discussing results from your feedback responses.
- **Keep up the momentum with the private sector** for continuous industry engagement. Consider developing a one-page flyer/talk sheet summarizing key market opportunities.
Annex 7
Example guide for focus group discussions
This annex outlines example guidance and questions for focus group discussions to explore emerging product system and service design ideas as part of MBS market research. It is based on real guidance used in MBS market research in Haiti in 2017.1

FGD guide to explore toilet design ideas with latrine non-owners:

Introduction/warm-up

- [INTRODUCTORY TEXT ABOUT PRIVACY, RULES OF THE GAME ETC.]
- Can everyone quickly introduce themselves and what their occupation is?
- In your opinion, what would you say the problems in this community are?

Emotional drivers

- How far in the decision process are they?
- What are the drivers to having a toilet?
- What are the barriers to having a toilet? [although this is not the main purpose of the FGD, and will likely only get “money”/“cost”]
- Have you ever considered building a toilet at your house?
- Why? What first prompted you to think about doing this?
- [What made you change your mind?] If desired, use the following questions to review or validate In-depth Individual interview findings:
  - What kinds of toilets do you know?
  - How did you learn about these toilets?
  - What kind of toilet would you like to have? [probe for what features for: pit, floor, place/way to defecate, room, other: shower?] and why?
  - How much do you think this latrine would cost you to build?
  - How would you build it? [probe where they would go to buy, who hire, how transport, how pay, need to save how long? hire labor, get tech advice how?] If desired, use the following questions to review or validate In-depth Individual interview findings:
  - How long would it take to get it built? Why? [safe money, labor, other?]

Latrine products and attributes

- Squatting versus sitting?
  - Is squatting acceptable in any condition?
- Seat: what kind of standardized seat would work?
  - Pedestal
    » What materials for the seat (concrete, wood, plastic, ceramic)?
    » What shape for the seat (square versus round)?
    » Height?
    » Cleanable?

USE POWER POINT / PICTURES, GO THROUGH EACH ‘SACRIFICIAL’ PRODUCT IDEA/CONSTRUCTION METHOD. Limit to 5-6 photos of different product system design elements/components/idea to explore for feedback and input to the product system design work.

- What do you see that you like/don’t like?
- Why?
- If these models were all the same price, which one would you choose?
- Why?
- How much would you be willing to pay?

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1 More detail on MBS programme market research in Haiti can be found in 3.1 Market research, in the main Guidance on MBS document.
GUIDANCE ON MARKET-BASED SANITATION

- Rim
  » Thick or thin rim?
  » Material of the rim (concrete, wood, plastic, ceramic)?
  » Hot or cold?
  » Cleanable?
- Lid or no-lid?
- Number of seats?

• Water versus non-water?
  » Do they value flushing?
  » And if so, why? (flies, smells, status)

• Slab
  » Material (concrete, wood, plastic)
  » Size
  » Shape
  » Thickness
  » Precast
  » Movability
  » Cleanability

• Lining/foundations:
  » Is it needed and why? What depth?
  » Materials (drums, tires, block, rocks)
  » Permeable vs. impermeable
  » Precast

• Internal space:
  » Space
  » Ventilation
  » Light
  » Possibility to shower?
  » Cleanability

• Superstructure:
  » Materials
  » Door
  » Reusability

• Handwashing
  » Would it be interesting to have next to the toilet?
  » Where should it be? Inside/outside? Next/far from the toilet?
### Information

- **How do they get information now?**
  - Mason: how to find him, how do they determine the skill level?
  - Products and prices
- **How would they like to get information on products, prices, and masons?**
  - From whom? [Explore the full range possible locally-based institutional actors from any sector, who might be engaged to do this. In Haiti: TEPACS / ASCP / Officiers Sanitaires / CASECS / Notables / NGOs]
  - Where? How far would they travel?
  - When? Seasonal purchasing?
  - How (i.e. what type of media?)
    - Would they want to see a demo and try it? At a ‘house of sanitation’? At a neighbour’s house?
    - How would they like to get price information? (total price, or by bit; materials/digging/mason/transport, with price range?)
- **How would they feel about masons doing their own marketing?**
- **Currently, where can you find information on toilet types, construction steps/how to build them, and prices?**
- **If there were new less costly latrine designs available on the market in XXX [nearest community market], who would you trust most for providing information like this about these new latrine designs?**
- **If there was a catalogue with toilet options, where (and with whom) should it be available for you to be able to see it easily? What would be the most convenient? Why?**
  - If not mentioned, ask “what about […] about different possibilities, like:?”
  - If in village – with whom?
  - Hardware stores?
  - Churches?
  - Schools? Which ones
  - OREPA [government sanitation] office?
  - If there were a meeting in your village to present the catalogue and information about new designs would you attend? When should it be held? i.e. time of year [for when people can dig/build?], day of week, time of day?
- **In the catalogue, what information would you like to know?**
  - Bill of quantities?
  - Estimated price range?
  - Technical information on steps for construction?
- **If there was an exhibition of toilet options for people to see and learn about, where should it be held?**
- **How easy is it to find a skilled mason who can build good quality toilet? [What qualities and information would you look for in a good mason to hire for a toilet?]**
- **If a mason advertised his services and different types of latrines he can build, what would you think?**

### Purchase process

- **Where would they like to buy it?**
- **How far would they go to buy it?**
- **How would they like to pay for it?** (installments, cash, credit, etc)
- **Is negotiation important for them?**
- **Is there a season to make big purchases?**
- **What are the steps involved in building a latrine in this community, starting from when someone decides they want a toilet?** [Explore this first, then ask what is difficult about this for you, and how could this be made easier?]
- **Where would you like to purchase toilet products?**
- **How would you like to pay? (credit? installments? other mode?)**
- **In what periods of the year do households in your community have more cash to spend on purchasing durable things like [find out what people spend savings on…]? What periods do they have less or little cash to spend on durable purchases? What time of year would be preferable to build a toilet?**
FGD guide to explore pit emptying interest and options with latrine owners:

Introduction/warm-up

- [INTRODUCTORY BLURB ABOUT PRIVACY, RULES OF THE GAME ETC.]
- Can everyone quickly introduce themselves and what their occupation is?
- In your opinion, what would you say the problems in this community are?

Emptying services

- What do they currently know about emptying?
  - Vacuum tankers, other methods of emptying?
  - Prices and how they are determined
  - Disposal of sludge
- What do they think about it? Would it be more attractive if it was done differently? Pos/Neg perceptions? Good things about emptying? Bad things about emptying?
- What is their opinion about emptying technologies? [Show PHOTOS of Different methods, e.g. in Haiti, gulper and vacutug]
- What would be their preference in terms of disposal of sludge?
- How much could they pay?
- If they could pay in instalments (over several months) would they be able to pay more?
- If they could sign-up for regular emptying of their pit, for example emptying every 3 years, by paying a small monthly amount each month in advance, would they be interested in such a service? What about if this means they can build a latrine with a smaller (cheaper) pit? Why? Why not? [probe about trust of service provider, confidence etc.]
- What happens when the pits are full?
- Have you considered emptying? Why? Why not?
  - Advantages of emptying? Disadvantages of emptying?
- How is emptying usually done? (by whom? what process?)
- How could it be done differently? Why?
  - Use of pumps?
- Where does the sludge go? Are there other places it could go? +/- of each place?
- Should it be done differently? Why?
- How much does it cost/do you think it would cost/ to empty a latrine like yours? How is the price/cost determined?
- If a service was available to empty your latrine when it became full, would you consider using it? What would you want to know about it?
- What might make you decide to use it? To not use it?

Information

- How can they get information now on pit emptying?
- How would they like to get information on services and prices?
  - From whom? [Explore all possible channels. For Haiti: TEPACS / ASCP / Officiers Sanitaires / CASECS / Notables / NGOs]
  - How (i.e. what type of media?)
- How would they feel about ‘bayakous’ [manual emptiers] doing their own marketing?
- How easy is it to find a ‘bayakou’ [manual emptier]?
- Currently, where can you find information on emptying?
- If information on services and prices could be made available, where should it be presented? What would be the most appropriate?
- If a ‘bayakou’ advertised his services, what would you think?
## Price

- With how much transparency do they think the price should be determined?
  - e.g. per foot? or total price with negotiation?
  - should it be different for pit latrines and flush toilet tanks?
- How do you think the price should be determined?

## Empty-able toilet designs

- Do people have toilet designs that are empty-able?
- What do they think about empty-able models? [SHOW PICTURES]
  - movable slab
  - pit lining
- Would they build differently if emptying service was accessible?
- If you wanted to empty your pit, what would have to be done?
- How could we build toilets so that it is easier to empty them?
- If emptying was more available, would it change the type of toilet you would build?

## Alternatives to emptying

- Would the arbor-loo be a good option? (i.e. where the entire latrine is movable?) [SHOW PICTURES]
- What do you think about this toilet option? Why?

## Waste reuse

- What are the perceptions about self-reuse of compost?
- What are the perceptions about sludge valorization by an external institution?
- Could sludge be used for agricultural purposes? Why?
- In some places, sludge is brought to a treatment site and sold as compost. What would be your opinion about this system? Why?
Annex 8
Product design brief template
Background and problem statement

[Briefly provide any relevant background details – this section should be a very short overview.]

Primary target market

[Provide an overview of the key market segment(s) you want the design team to focus on.]

Being clear about your target market is absolutely critical. This should include brief highlights and key findings from your market research, such as:

- Socio-demographic details: What are the livelihood sources, housing conditions, family size, income levels and seasonality, etc. (from secondary and/or primary data)
- Sanitation conditions: What does your target group(s) have and use now for defecation? How do they feel about their current situation?
- Motivations for investing in improved sanitation: What key functional and/or emotional benefits does your target group associate with improved sanitation?
- You can briefly highlight general points related to design preferences and ability/willingness to pay, but leave the main substance to sections below
- Etc.

Again, keep this section quite brief, but refer the design team to the detailed market research reports and findings.]

The design challenge

[Clearly state the specific design challenge you want to focus on. Try to frame this in a simple one or two sentence statement that concisely summarizes your design objectives. Some examples include:]

- You will develop a range of two to four latrine product/service packages at different price points that offer the target market the benefits they want and offer good value for money. The designs must be technically feasible and financially viable to produce by existing businesses.
- You will refine the existing available designs to further lower costs and increase desirability. You will focus on improving product features and aesthetics and driving down costs so they are affordable for consumers (but still profitable for producers).
- You will focus on lowering costs, reducing construction complexity, and improving desirability of (specific latrine component – e.g. slab, pit, shelter) to complement existing latrine components.

The clearer the challenge and design parameters, the more focused the design effort will be, so try to be as specific as possible. If you already have components or environments that you want the team to focus on, you can specify these.]
Product features and benefits

Primary operational requirements/components

[State the minimum operational requirements. For example, all of the latrine packages must:

- Safely separate human excreta from the human environment (including safe discharge of effluent)
- Have an impervious floor that can be washed with water and soap
- Prevent flies from contacting human excreta
- Consider how pit contents will be further treated/decompose
- Etc.

If your country has specific definitions of ‘improved’ sanitation, include this definition here. Take care not to be too strict with minimum requirements, as this will limit the design possibilities. Try not frame this in terms of specific technologies unless a very strong preference among low-income households for a specific technology has emerged from the market research.

It may also be helpful to set out the key components (substructure, slab/user interface, shelter) and the relative priority for design focus. Remember, shelter can often be a relatively low priority, if households can be encouraged to use existing materials and techniques.]

Geographic zones

[Specify the geographic zones the design effort will focus on. Are there any key features related to soil types and geophysical conditions?

Remember, if this is your first design effort, it makes sense to focus on designs that can reach the greatest number of potential target low-income households. Subsequent design work can focus on areas with more challenging conditions (coastal/flood zones, extreme seasonal rises in groundwater levels, etc.) which may necessitate more sophisticated/costly technical features.]

Functional features

Current technical preferences

<table>
<thead>
<tr>
<th>Component</th>
<th>Current estimated cost (including labour)</th>
<th>Preferred materials/designs</th>
<th>Design directions/ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-structure</td>
<td>Cost in local currency, and cost as a % of total latrine facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User-interface</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shelter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (including shelter)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (no shelter)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
State the minimum product feature set that is desirable to your target group(s) from the market research. For example, durable, easy to clean, free of odour and flies, etc. All designs should deliver this minimum feature set. Each product in the portfolio should offer progressively more value/benefit at increasing cost (see below).

If possible, consider breaking down current data on costs and materials, and any design ideas and directions you may already be considering. These can be summarized in a table as follows:

**Design language/aesthetics**

Include here any specific consumer preferences related to the aesthetic features of the designs from the market research, for example, surface finish, colors, lid/defecation hole styles, toilet position, etc. Remember, a facility with emotional benefits such as ‘looks good’, offers status, is modern, etc. will often be very important to the target market.

**Ease of purchase and installation**

Briefly describe or show the current ‘pathway to purchase’ including the steps and costs for the target group to get all the materials and services they need to construct desired latrine facilities. It is often useful to show this in a diagram. Include any criteria for simplifying this process, for example: purchase and transport options, household participation in construction, etc.

**Target price points**

If you have collected enough reliable information on product preferences, cost perceptions, willingness to pay, and actual market prices, you can include here indicative price points for the design team to aim for. Specify the three to four price points that you want to achieve. The benefit of providing target price points is that it gives the design team an indicative design goal. Of course, if they can achieve lower price points and still maintain desirability and business viability, this is ideal. If your country has good secondary data on income, you can also include the price points as a percentage of monthly household income.

The design team will need to estimate final indicative price points that include acceptable margins for production and distribution, based on their discussions with the businesses that will be involved. This includes material inputs, labour, transport and margins.

**Indicative price points**

<table>
<thead>
<tr>
<th>Indicative retail price points (including labour)</th>
<th>Product package</th>
<th>Cost as % of monthly household income (Q1 poorest)</th>
<th>Cost as % of monthly household income (Q2 poorest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1 target price</td>
<td>Minimum feature set + maximum additional benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 2 target price</td>
<td>Minimum feature set + additional benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 3 target price</td>
<td>Base model (minimum feature set)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scale and type of production

[Include here any details from the market research on current actors involved in production and construction. You may want to emphasize that the product packages should aim to achieve maximum standardization in production, such that the same product component can be produced to the same specifications and with consistent quality. Design efforts for all products should also seek to optimize efficiencies (time, labour) and reduce wastage/breakage in production and/or transport. The design team should be responsible for identifying any new or refined moulds, equipment, production processes or construction techniques needed to produce the new offerings. Final designs will need to include the details of all material inputs required.]

Key deliverables

[The final design deliverables might include:

- Product specification packages (including CAD drawings, bill of quantity, etc.)
- Final tested product samples
- Final report on all key product features
- Manufacturing guidelines/instructions for production of all components
- Specifications and costings for any new equipment, moulds, tools
- Indicative product pricing and costing information
- Recommendations and details on identified businesses for production and distribution, and any preliminary insights on associated business models (to be developed in more detail as part of designing your delivery approach and business model.)]

To note: please also see the example design TOR at Annex 10 for detailed assignment deliverables.

Success criteria

[Success criteria for a final portfolio of products might include:

- Clearly address identified target low-income market segment(s)
- Meet all operational requirements
- Address functional and aesthetic product feature sets
- Reach desired price points
- Simplify the consumer purchase process
- Be manufacturable by local businesses (must include designs and details for any additional equipment, moulds, tools, etc. and how these would be sourced locally).]
Milestones and process

[Specify here the overall timeframe and key milestones, including an overview of the design review process to gather key stakeholder input along the way and final approvals at completion. See the example TOR in Annex 9 for more details.]

References and inspiration

[Include here any details or examples from your own or other countries that might help inspire the process. If you have gathered photos and details of existing products and facilities as part of your product scan during your market research, include these as key reference materials.]
Annex 9
Example product and service model design brief
Problem Statement

In Ghana, about 85% of the rural population do not have access to improved sanitation. Over 33% of the rural population practices open defecation. Open defecation rates vary dramatically by region, with 57% of people in the 5 most deprived regions (mainly in the North) practicing open defecation. Access to improved sanitation is a major concern in rural Ghana. The poorest and most deprived regions are lagging behind, bearing the brunt of the economic and health burden of poor sanitation.

Recent market assessments have revealed that a major barrier for the poor is the fact that there are very few latrine options that meet their needs and are affordable and available to them. By designing more affordable products catering to the needs of low-income households, we hope to encourage these households to consider investing in an improved latrine. At the same time, we’ll be working on other efforts to encourage communities to change their social norms to stop open defecation and create more consumer demand for improved latrines.

Primary Target Market

Kofi and Ama live in a rural village. They belong to the bottom 40% of Ghanaian households in terms of wealth and income. Kofi and Ama own the small plot of land and the house where they live. Their 2-room house is made of mud brick and some cement, but is poorly constructed and badly in need of repair. Under their roof, they support a large family, including 4 adults and 2 small children. Two of their children are living and working outside of the village, and they sometimes send small amounts of money home. The household earns most of their livelihood from agricultural activities and petty trading. Their income is seasonal and is usually highest during the post-harvest months of October to January. Their annual household expenditure is around GH¢ 2,500 (US$ 833)\(^1\). They own a mobile phone and a radio, and a good dirt road connects their village to the market town. They are saving for their son to finish secondary school. They mainly get their water from the communal well, but water is scarce in the area.

Kofi and Ama and their family are open defecators – they have no household latrine and use the grass or bushes far from their house to defecate. In their community, open defecation is the norm: if they are caught others would generally just ignore it, and there is little social stigma attached to not having a latrine.

Kofi and Ama are dissatisfied with their open defecation situation, but also resigned to it. The things they like least about open defecation (OD) are the inconvenience, lack of privacy (especially for women), lack of safety (e.g. they can be bitten by a snake or other insect), distance/wasted time (to find a private place), bad odours, and heat from the pit. OD is associated with many daily hassles, inconveniences, and annoyances, but Kofi and Ama accept these as just part of life. Still, they feel embarrassment about not having a latrine, and believe that if they did have a toilet, it would raise their status among their neighbours and would be a possession to be proud of.

Kofi and Ama see the need for installing a latrine, and they know about different latrine types, such as the water closet and the improved pit latrine. For their family, the best latrine would be a water closet, but they would be happy an ‘improved pit’ design, with a cement-block lined pit, a reinforced concrete slab, and a shelter made of cement blocks and aluminium roofing sheet. Kofi and Ama are sure that they will need a mason to construct this type of latrine. This is the latrine type that their wealthier neighbours have. They like this latrine because it is neat/clean, safe, durable, comfortable, convenient and reasonably priced. In fact, this is one of the few latrine types that Kofi and Ama know about. Having this type of latrine would raise their status. It is also more convenient, comfortable, clean and private compared to basic sanitation or open sanitation.

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\(^1\) Note: At time of Market Assessment (May 2014), exchange rate was GH¢ 3.00 = USD 1.00.
defecation. Kofi and Ama are familiar with the basic open trench pit latrine. They feel that open defecation is better than using such a poor quality, dangerous and unclean latrine. They know these neighbours are very dissatisfied with this and other basic latrine types. They feel that these basic latrines are smelly, dangerous (prone to collapse) and not clean. They are not willing to accept this low-cost dry pit option, and would prefer to continue open defecating than use a basic dry pit.

Kofi and Ama know the artisans that can make this type of latrine, and they know that they can find the construction materials in the nearby town, based on quotations provided by the artisans, and arrange for public transport to take the materials back to their house. Kofi estimates that constructing this ‘ideal’ latrine would cost about GH¢ 500 (167 USD). They feel this toilet is well beyond the family’s means, and therefore Kofi and Ama believe they cannot afford to have a latrine at all – latrines are for ‘the rich’, but are just a dream for a family like theirs. They are convinced that a toilet is much less a priority, compared to investing in small business, providing for school fees or saving for medical or other emergency. In any case, they are hoping that the government or a donor organization will come to give them the toilet construction materials, and they would rather wait for this to happen than consider investing their own money.

The Design Challenge

Kofi and Ama are dissatisfied with open defecation and want to install a latrine facility, but they have not been offered any options between the basic dry latrine (which they do not accept) and the ‘high-end’ concrete-based water closet and VIP designs. How can we fill this market niche so they have desirable, affordable options?

You will develop a range of two to four latrine product/service packages at different price points that offer Kofi and Ama the benefits they want and offer good value for money. These products must be produced and distributed by local businesses, and therefore the designs must be technically feasible to produce by existing businesses (not NGOs), using materials and equipment that can be procured through local markets. Final estimated retail prices must include sufficient profit margins such that producing and distributing the products represent a financially viable business opportunity.

There will be a broader communications campaign to change practices and social norms in Kofi and Ama’s community, and to make them aware of the new product options. Your job is to focus on the products and services that are on offer: improving product features so they are desirable, and driving down costs so they are affordable for consumers (but still profitable for producers). Other elements of the sanitation program will do the rest.

Product Features and Benefits

Primary Operational Requirements/Components

At a minimum, all of the latrine packages must:

- Safely separate human excreta from the human environment (including safe discharge of effluent)
- Have an impervious floor that can be washed with water and soap
- Have a way of prevent flies from contacting human excreta
- Consider how pit contents will be further treated/decompose/safely emptied

Keep operational feature requirements to the bare minimum, and focusing on measurable public health aspects (rather than technical standards).
To achieve operational requirements, the product design work should consider the following components of the latrine:

### Table 1: Key operational components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Priority for design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substructure</td>
<td>All of the ‘below-ground’ elements of the latrine: pits, lining, tanks, covers, pipes, etc.</td>
<td>High</td>
</tr>
<tr>
<td>User interface</td>
<td>All of the parts of the latrine that a user comes into contact with: latrine slab floor, defecation hole/squatting pan, lid, etc.</td>
<td>Very High</td>
</tr>
<tr>
<td>Shelter</td>
<td>The surrounding walls, door and roof of the latrine house</td>
<td>Low (not essential for meeting operational requirements)</td>
</tr>
</tbody>
</table>

The design team should make recommendations for affordable shelter options, but these need not be ‘purchased’ items, and can focus instead on simplifying construction processes or standardizing locally available natural shelter options. For each component, there may be one or more design solutions, which may be grouped together in different sets of product packages.

**Geographic Zone**

This design assignment will focus on products that are suitable for a variety of soil types and geophysical conditions, including regular (not extreme) seasonal rises and falls in groundwater levels, regular seasonal rains, etc. It will not include coastal zones and areas highly affected by flooding, which require more sophisticated/costly technical features (e.g. elevated platforms, etc.).

**Functional Features**

The Market Assessment reveals a minimum product features set that is highly desirable to Kofi and Ama. Any product they would be willing to invest in must be durable, safe, easy to clean, neat, free of odour and flies, comfortable and not shared (for their own household use). Design work should focus on ensuring that all **products** deliver this minimum feature set.

Design work should focus on differentiating product packages in the portfolio by offering progressively more features that households desire, at different price points. Based on costing and income data in the Market Assessment, we estimate that ‘entry level’ options should be priced at about GHC 150 or less (See Figure 1). More details on price points are given below.
Market research also reveals some clear consumer preferences in terms of materials and technical features of desired latrines. Note that these are current preferences only: new materials and designs that have the desired features above may be acceptable to consumers, but have just never been tried. Table 2 presents key preferences, and also offers some design directions and areas to explore.
Table 2: Current technical preferences

<table>
<thead>
<tr>
<th>Component</th>
<th>Current Est. cost (inc labour)</th>
<th>Preferred Materials/Designs</th>
<th>Design Directions/Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-structure</td>
<td>600-1300 GHC</td>
<td>Preference for rectangular concrete-block lined</td>
<td><strong>Reduce costs and improve durability of pit lining</strong>&lt;br&gt;Potential areas to focus on:&lt;br&gt;• Concrete mix, size and shape of blocks&lt;br&gt;• Placement of blocks/pit shape (corbelling?)&lt;br&gt;• Alternative pit lining materials: clay, plastic, wire mesh, etc.)&lt;br&gt;• Re-engineer concrete blocks and/or concrete rings&lt;ref&gt;&lt;br&gt;<strong>Standardize pit dimensions and components</strong>&lt;br&gt;• Pre-cast, pre-fabricated options (concrete, other)&lt;br&gt;• Reduce pit dimensions to lower cost?&lt;ref&gt;&lt;br&gt;<strong>Standardize dimensions, prefabricate/pre-cast latrine slab</strong>&lt;br&gt;• Find optimal slab size and thickness (go as small as possible - 1m x 1m acceptable?)&lt;br&gt;• Explore pre-cast concrete options&lt;br&gt;<strong>Explore low-cost wet design (pour-flush off-set?), allow for modular upgrading</strong>&lt;br&gt;• Explore user acceptability of simple pour-flush pans&lt;br&gt;• Explore options for modularized dry-to-wet slab upgrade&lt;ref&gt;&lt;br&gt;<strong>Choose-your-own-shelter</strong>&lt;br&gt;• Offer simple tips and steps for better quality low/no-cost natural shelter constructions&lt;br&gt;• Explore option for lower-cost shelter ‘sold separately’, allowing for self-assembly (e.g. pre-cut sheets and rods), made of permanent materials (see WaterSHED Cambodia)&lt;ref&gt;&lt;br&gt;<strong>Consolidate products into packaged sets</strong>&lt;br&gt;• Package components into a single retail purchase&lt;br&gt;• Offer one price for each sub-structure/user-interface set (do not include shelter in price)&lt;br&gt;• Include home delivery and/or cast-on-site home construction service in the price&lt;br&gt;<strong>Reduce overall costs by 30-40% (or more).</strong>&lt;br&gt;• Focus on most expensive material components (below-ground and slab) – reduce material inputs, make components smaller, use different materials&lt;br&gt;• Reduce labour costs through pre-fabrication, offer instructions for DIY self-assembly&lt;ref&gt;</td>
</tr>
<tr>
<td>User-interface</td>
<td>90-100 GHC</td>
<td>Strong preference for reinforced cement floor slab</td>
<td><strong>Choose-your-own-shelter</strong>&lt;br&gt;• Offer simple tips and steps for better quality low/no-cost natural shelter constructions&lt;br&gt;• Explore option for lower-cost shelter ‘sold separately’, allowing for self-assembly (e.g. pre-cut sheets and rods), made of permanent materials (see WaterSHED Cambodia)&lt;ref&gt;</td>
</tr>
<tr>
<td>Shelter</td>
<td>N/A</td>
<td>Preference for permanent/semi-permanent materials (e.g. cement, blocks, aluminium sheet)</td>
<td><strong>Choose-your-own-shelter</strong>&lt;br&gt;• Offer simple tips and steps for better quality low/no-cost natural shelter constructions&lt;br&gt;• Explore option for lower-cost shelter ‘sold separately’, allowing for self-assembly (e.g. pre-cut sheets and rods), made of permanent materials (see WaterSHED Cambodia)&lt;ref&gt;</td>
</tr>
<tr>
<td>Total (inc shelter)</td>
<td>N/A</td>
<td>Reliant on mason labour for latrine construction</td>
<td><strong>Consolidate products into packaged sets</strong>&lt;br&gt;• Package components into a single retail purchase&lt;br&gt;• Offer one price for each sub-structure/user-interface set (do not include shelter in price)&lt;br&gt;• Include home delivery and/or cast-on-site home construction service in the price&lt;br&gt;<strong>Reduce overall costs by 30-40% (or more).</strong>&lt;ref&gt;</td>
</tr>
</tbody>
</table>
| Total (no shelter) | 600-1500 GHC                | Prefer ...
Design Language/Aesthetics

Kofi and Ama want a toilet that looks good, gives them status, and is something they can be proud of. The products must be aspirational and must not look like they are fashioned out of salvaged materials. Our target market is not concerned with the below-ground components of the latrine, so where possible designs should try to lower costs of these components. For the components of the latrine that the user sees, consider options for a ‘clean’ and modern aesthetic (Table 3).

<table>
<thead>
<tr>
<th>Feature</th>
<th>Consumer preference/design directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface finish</td>
<td>• Must be ‘clean’ and easy to clean, wash</td>
</tr>
<tr>
<td></td>
<td>• Must minimize opportunity for dirt and feces to collect – smooth surfaces, few ‘nooks and crannies’</td>
</tr>
<tr>
<td></td>
<td>• For slab, test desirability and costs of polish, paint, tiles, coatings, etc.</td>
</tr>
<tr>
<td>Colors and lids</td>
<td>• For dry options, consider defecation hole lid – size, shape, material – or vent pipe</td>
</tr>
<tr>
<td></td>
<td>• For wet designs, check preference and availability of different (non-WC) pour-flush pans-colored vs. white bowls; with lid or without, etc.</td>
</tr>
<tr>
<td>Comfortable toilet position</td>
<td>• Consider location of defecation hole on the slab, in relation to the door</td>
</tr>
<tr>
<td></td>
<td>• For dry options, consider size and dimensions of defecation hole</td>
</tr>
</tbody>
</table>

East of purchase and installation

At present, Kofi and Ama must go to three or four different businesses to get all the products and services they need to make their preferred latrine. They must first consult with an artisan to find out what they need, and then arrange transport to the necessary shops to pick out the materials, then arrange and pay for transport to get the materials back to their house. Once they have all the items assembled, they hire the artisan, agree on a design, and participate in the construction. To the extent possible, the product packages should make it easier and more predictable for households to:

• **Purchase and transport everything they need to their house.** This could be by having one business offer everything in a complete set, by having set product/service options, by offering home delivery or on-site casting, etc.

• **Understand pricing information.** It is much easier for households to understand and remember a single prices for a whole packaged product (e.g. substructure, user-interface) rather than different prices and quantities for individual materials like cement, sand, and metal bars. Having set prices also reduces risk of being over-charged for materials.

• **Participate in construction (or do it themselves).** Reducing the complexity of the designs, offering self-installation instructions, etc. will help reduce labor costs and empower households with the construction information they need.

Figure 2: Current consumer purchase process

[Consider including one of the ‘consumer pathway to purchase’ images]
Scale and type of production

The design team will need to identify which types of businesses will be involved in production, and be sure to consult and work with them directly through the design process. The product packages should achieve maximum standardization in production, such that the same product component can be produced to the same specifications and with the same quality over and over again. Design efforts for all products should also seek to optimize efficiencies (time, labour) and reduce wastage/breakage in production. To achieve this, design efforts should consider:

- **Developing new molds and other equipment**: If any new parts will be prefabricated or pre-cast (for example, a standardized slab), the design team must develop designs for the new equipment, including specifications, materials, producers, and costs of the new equipment. The design team must work within existing supply chains and with existing businesses for sourcing equipment.

- **Standardizing across the product portfolio**: Having standard features (e.g. slab dimensions, hole sizes) can help lower up-front investment costs, maximize production efficiency, and create a design signature across all products. Where possible, the design team should seek to limit the number of molds and new pieces of equipment needed. For example, it may be possible to use the same mold for a dry and a pour-flush slab.

- **Streamlining production process steps**: The design team should test and finalize a set of process steps for producing each component of the product packages. If products will be mass-produced (e.g. using molds), the design team should estimate the maximum number of parts that can be produced with one mold per day.

- **Sourcing material inputs and labor**: The design team will need to provide details of all material inputs and their quantities. You’ll need to consider how these items are sold to limit wastage. Where possible, the design team should estimate, e.g. how many standard lengths of bars are needed per slab, etc.

Scale and type of distribution

The design team should build on CDC Consult work to consider how products will be transported and distributed. For example, if you are working with masons, how will they get all the materials to the house? Will the products be cast on-site? If transporting pre-cast products, how will they be stacked and packed on a truck to limit breakage? How many latrine packages can fit on one truck? Are there set transport fees per kilometre? While you will not be responsible for fully testing different distribution model options, we want to see your recommendations for some workable options for product distribution.

Target price points

Based on actual latrine costs, and household incomes, we want your team to try to achieve price points of around 150, 300, and 500 GHC. Of course, if the design team can achieve lower price points and still maintain desirability and business viability, even better!

Final indicative price points must include acceptable margins for production and distribution, based on your discussions with the businesses that will be involved. You will need to consider and discuss margins that allow for good profit and can cope with any fluctuations in material costs, fuel, exchange rates, etc. Pricing data should be presented with breakdowns of:

- Material inputs and quantities
- Labour and production costs
- Estimated margins at all steps
- Installation labour costs
- Estimated transport costs
Cost estimates

The design team will need to outline costs to a business involved in production, including:

- Up-front capital costs such as moulds and equipment
- Costs of initial stock investment
- Transport or other distribution costs

If possible, the design team should estimate 'break-even' points, e.g. how many latrines would an artisan or business need to sell to pay back initial up-front investment?

Key Deliverables

Final designs must include:

- Product specification packages (inc. drawings, etc.)
- Final tested product samples
- Final report on all key product features
- Manufacturing guidelines/step-by-step instructions for production of all components
- Specifications and costings for any new equipment, tools
- Detailed product pricing and costing information
- Recommendations and details on identified businesses for production and distribution, and associated business model costs (e.g. up-front investment requirements, break-even points, etc.)

See Terms of Reference for detailed assignment deliverables.
Success Criteria

Final portfolio of products must:

- Meet all operational requirements
- Address functional and aesthetic product feature sets
- Reach desired price points (final retail price points must include all margins)
- Simplify the consumer purchase process
- Be manufacturable by local businesses (must include designs and details for any additional equipment, moulds, tools, etc and how these would be sourced locally)

Milestones and Process

The overall duration of the assignment should be about 4 months

The design team must use an iterative approach, including at least two rounds of prototyping and user testing. The process must begin with a rapid assessment of current available latrine facilities, including details on component costs, production techniques and process, and user preferences (with an emphasis on filling gaps in the market research around the process and technique for fabricating and installing below-ground and user interface components.) The design team must demonstrate a clear approach to identifying and consulting villages and households that meet the target market profile – designs must explicitly address their needs. The design team must identify, consult and work with identified local businesses that they propose to be involved in the production and/or installation of product packages. The design team must outline a design review process that includes key stakeholder input and final approval.

See Terms of Reference for detailed assignment scope of work.

Design Tips and Inspiration

[Include here any details or examples from Ghana or other countries that might help inspire the process. If you have gathered photos and details of existing products and facilities as part of the Technology Assessment, include these as key reference materials. Include all outputs from the Market Assessment and other work.]
Annex 10

Example TOR for product design
Assignment objectives

The overall goal of the assignment is to develop a portfolio of user-tested latrine product/service packages that meet target consumer needs and preferences. The specific objectives are to:

1. Use an iterative design process that works with target consumers and businesses to develop, prototype, test and finalize a set of two to four latrine product/service packages at different price points.
2. Develop and test production and distribution models for identified businesses to profitably produce and sell the new product/service packages.
3. Develop sector-wide support for finalized latrine packages by conducting regular design reviews and documenting outcomes and decisions at each step in the design process.

Scope of work

The product design process will involve target users and businesses in an iterative process of developing, prototyping, testing, and refining design options. The process will focus on testing of commercially marketable household sanitation product packages. The design team will develop a range of two to four latrine product/service packages at different price points. The designs must be technically feasible to produce by existing businesses, using materials and equipment that can be procured through local markets. Final estimated retail prices must include sufficient profit margins such that producing and distributing the products represent a financially viable business opportunity. Successful candidates will receive a full product design brief outlining the parameters of the design challenge in more detail.

Specific tasks and activities under this assignment will include:

- Initial consultations and review of market research and initial product design directions in the product design brief.
- Rapid field assessment and product scan to assess current available latrine options, including details on component costs, production techniques and process, and user preferences (with an emphasis on filling any gaps in the market research).
- Presentation of market research insights, field assessment results and design directions at a ‘Kick-off Design’ workshop.
- Iterative process of product design, including developing, prototyping, user testing and refinement of design options. This process must include feedback from users and businesses in each iteration (approximately three rounds of user research after initial field assessment).
- Regular/ongoing feedback to client and partners on key outcomes and decisions at each stage of the design process. This should include a ‘Mid-Term Design Review’ workshop as an opportunity for formal stakeholder feedback on design directions.
- Develop finalized prototype(s), work closely with participating businesses to understand their manufacturing capabilities. This will include technical guidance on manufacturing steps and production efficiencies and advice on quality standards, as well as business modelling to understand cost and revenue models.
**Methodology**

Successful proposals will outline an iterative design process with consumers and business that clearly identifies the steps, approaches and methods to be used. The design team must demonstrate a clear approach to identifying and consulting villages and households that meet the target market profile – designs must explicitly address their needs. The design team must identify, consult and work with identified local businesses that they propose to be involved in the production and/or installation of product packages. The design team must outline a design review process that includes key stakeholder input and final approval.

**Deliverables**

The assignment will be conducted over six months, and will result in the following deliverables:

- **Detailed workplan**, setting out a methodology and accompanying set of tools for research, prototyping and user testing.
- **Results of rapid field assessment and product scan** to understand technical features of current improved latrine technologies.
- ‘**Kick-off Design’ workshop**, outlining key insights from previous market research and field assessment, and proposed design directions.
- **Rounds of iterative user research and prototyping** with households and businesses, including all necessary research and testing (e.g. into materials, sizes/shapes, production techniques, etc.) and concise summaries of user testing visits.
- ‘**Mid-term Design Review’ workshop**, and regular presentation(s)/reports on design process.
- **Final user-tested product design(s)**, including:
  - Product specification packages (including drawings, etc.)
  - Final tested product samples
  - Manufacturing guidelines/step-by-step instructions for production of all components
  - Specifications and costings for any new equipment, tools
- ‘**Final Design’ workshop**, presenting outcomes of research and final tested designs.
- **Final report**, summarizing:
  - Design research process
  - Key features of all new product packages
  - Detailed product pricing and costing information
  - Recommendations on identified businesses models

**Inputs to be provided by the client**

The design team will be provided with a designated space and budget for prototyping activities, and logistical support to facilitate community entry.
Core design team

The design team should include a mix of individuals from relevant disciplines and experience. They should have:

- Strong background in qualitative research and semi-structured interview techniques;
- Well-developed critical thinking skills; able to participate in brainstorming and ideation activities; able to analyse, synthesise and draw key insights from what they hear;
- Strong communication skills, particularly with rural villagers and those with limited literacy/formal education, and good at listening;
- Experience working within the private sector, preferably in the rural context;
- Understanding of technical specifications and engineering design (one person with these skills is often enough);
- Fluency in local languages;
- Female and male design team members.

Key qualifications for the design lead

- Master’s degree in product design, engineering, consumer research or related field
- At least five years’ demonstrated experience in product design, consumer-driven design research
- Demonstrated understanding and experience working with private sector rural markets and businesses
- Extensive experience prototyping and designing with and for rural households
- Proven experience leading and managing design teams
- Track-record in designing sanitation products and services
- Field experience in rural context
- Ability to work independently and proactively and to deliver on own work
- Experience in sanitation sector is an advantage
Annex 11
UNICEF
‘Target Product Profile’ template
Purpose of the UNICEF ‘Target Product Profile’ (TPP):

UNICEF creates ‘Target Product Profiles’ (TPPs) to communicate requirements for products which are currently not available on the market but which fulfil a priority. TPPs include information on how the new product will be used, by or for whom, and the minimum and ideal performance criteria. The purpose of TPPs is to guide industry to develop products that meet programmatic needs. However, they do not act as the final procurement specifications – but rather as a list of desired requirements that, combined, describe the ideal product considering the context. This recognizes that innovation is an iterative process, and that suppliers must balance sometimes competing requirements against product development progress. To allow for creativity, and the innovation process to take its course, TPPs are less prescriptive than procurement specifications, and can therefore be challenged by the industry.

Problem statement/need for the product

A brief, concise description of the need for a new or improved product or product system.

Programmatic relevance for UNICEF

Describe who is or could be involved in the procurement of relevant products or product systems.

Current products and product systems

Describe how partners currently respond to the need, what products and product systems are currently available and their shortcomings.

Volume and potential impact

Use of product/product system

Describe the ‘who, what, where and why’ of each situation where the ideal product would be used. Include information such as the typical user, level of training/education needed, user environment, geographic location if feasible. Products may have multiple such ‘use cases’.

‘Use case’ A:

‘Use case’ B:

Requirements

Fill out the table below. The attributes listed are suggestions, and may not apply to every product, so can be included, disregarded or added to as needed. It is recommended to use the suggested requirements table for each specific use case, if necessary.

The table outlines the key performance requirements of the desired solution, with the needs of the users and the context in mind. Solutions that do not meet the minimum performance criteria will be scored very low/not considered. Products that meet your ideal performance criteria will be scored highest. Please note, attributes may be added or deleted as appropriate to the specific product or product system.
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Minimum performance</th>
<th>Ideal performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational/functional requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key function(s)</td>
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<tr>
<td>Application</td>
<td></td>
<td></td>
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<tr>
<td>Outputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of installation/construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Performance requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of users</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume disposed of/treated</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product requirements</strong></td>
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<tr>
<td>Operational life</td>
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<tr>
<td>Durability</td>
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<tr>
<td>Physical characteristics</td>
<td></td>
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<tr>
<td>Material requirements</td>
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<tr>
<td>Maintenance</td>
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<td></td>
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<tr>
<td><strong>User requirements</strong></td>
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<tr>
<td>Accessibility</td>
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<td>Assembly/set up</td>
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<tr>
<td>Safety</td>
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<tr>
<td>Operational by</td>
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<tr>
<td>Cultural acceptability</td>
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<tr>
<td>Training requirements</td>
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<tr>
<td><strong>Supply chain requirements</strong></td>
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<tr>
<td>Ease of transportation</td>
<td></td>
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<tr>
<td>Environmental footprint</td>
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<tr>
<td><strong>Commercialization requirements</strong></td>
<td></td>
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<tr>
<td>Certificates/standards</td>
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<tr>
<td>Safety requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children’s rights and business principles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Useful information

*Include information which may be useful for suppliers including any related funding opportunities currently available, partnerships, knowledge sharing platforms, etc.*

References

*Include sources which you have referenced in the TPP.*
Annex 12
Template for a demand activation creative brief
Background

[Briefly provide any relevant background details – this section should be a very short overview.]

Target audience

[Provide an overview of the key market segment(s) you want the design team to focus on.

Being clear about your target market is absolutely critical. This should include brief highlights and key findings from your market research, such as:

- Socio-demographic details: What are the livelihood sources, housing conditions, family size, income levels and seasonality, etc. (from secondary and/or primary data)
- Sanitation conditions: What does your target group(s) have and use now for defecation? How do they feel about their current situation?
- Motivations for investing in improved sanitation: What key functional and/or emotional benefits does your target group associate with improved sanitation?
- You can briefly highlight general points related to design preferences and ability/willingness to pay, but leave the main substance to sections below
- Etc.

Keep this section quite brief and refer the design team to the detailed market research reports and findings.]

The creative campaign

[Provide a clear overview of the specific communications objectives for the campaign. Recall the three possible communications objectives:

1. Reinforce CATS messages to stop open defecation
2. Motivate household investment in a durable hygienic toilet
3. Raise consumer awareness of new sanitation offerings and support sanitation businesses to promote and sell them

Choose those are suited to your specific context (e.g., high open defecation, high unimproved services, affordability challenges).]

Communications objectives

[State the overall objective of the campaign and elaborate on the objectives that you selected in the above section. Be clear about whether the campaign will be expected to create a recognizable brand, and how the objectives will be achieved within the target audience. For example:

1. To create a need to stop open defecation: customers must be motivated to end open defecation in their community and to stop their current OD practice. By using messages that reinforce the disgust and shame associated with community-wide OD, the campaign will complement and support CLTS activities.
2. To stimulate household desire for an improved latrine: customers must be motivated to improve their personal sanitation situation, by emotionally connecting to the private benefits associated with investing in a good latrine, and the personal inconveniences and disadvantages of open defecation and unimproved latrines.
3. To create consumer awareness about locally available sanitation products and services, customers must be informed about available latrine products, including their costs; key features and benefits; where, from whom and how to purchase; and how they are installed and operated.

Modify these objectives and goals based on the targeted audience that you described in the above section.

**Campaign Requirements**

**Approach**

Using your market research, identify the drivers of improved toilet usage, being clear that a good creative campaign will avoid traditional IEC/health belief approaches that emphasize disease transmission and health information and instead focus on behavioural drivers.

Elaborate on the behavioural drivers that emerged as strong in your market research. An example might be toilets as aspirational, therefore calling for a campaign that will tap into the hopes, dreams and aspirations of the target audience. If there are certain types of messages – such as fun, humorous, or entertaining – that will resonate with your audience, specify it here.

Be clear on whether the creative campaign will require a ‘brand’ or single, overarching concept or theme that is carried through and reinforced by all communications. It is strongly recommended that these creative campaigns keep things simple so that they can be actionable for people who want toilets. Specify the core indicator of campaign success – such as the number and percentage of households that actually adopt improved sanitation.

**Tone and Imagery**

Drawing from your market research, explain the desires and motivations of your target customers. Are they concerned about how they are perceived by others? Include examples or profiles of target customers from your market research that illustrate this. Describe their desired characteristics of a toilet, for example, looking ‘modern’ or giving them status. Explain that the campaign must tap into these customer aspirations and emotions and emphasize the emotional benefits of a toilet rather than just the functional benefits.

Based on the emotions and aspirations identified, provide guidance on whether the overarching tone of the campaign should be positive, negative, humorous, or something else. What type of imagery should be used? Describe all of this here.

**Characters/Visuals**

Clearly state the characteristics of the target audience. Where do they live – cities, small towns, or rural villages? Are most people literate, and if so, which language? Should the campaign use text and print materials, or should it rely more heavily on radio, skits, village events or dramas? Do the customers own and watch television? Should visual materials use cartoons/drawings or photographs? Are there certain styles of dress or facial features that could be linked to any particular population group that should be used more frequently, or alternatively, avoided? Which markers of wealth should be used or avoided?
Communications Channels and Tools

Experience has shown that rural households are most influenced to invest in a latrine by talking to trusted sources of information such as neighbors, relatives and friends, and learn most about latrine designs from direct exposure to the products. In this section, you will identify the channels to be used, with suggestion to rely heavily on interpersonal communication (IPC) that uses two-way dialogue rather than one-way ‘messaging’. Note that for rural communities, channels that make use of verbal dialogue, drama, music and call-and-response may be more suitable to printed materials or advertisements on television, for example. Types of IPC activities to consider specifying include community meetings, door-to-door, community drama, and larger market-day events.

It is recommended that for each IPC tool, the TOR states that the agency must create a Tool Brief. An example Tool Brief is provided in Annex 1. Examples of potential tools and activities are provided in Table 1 below. Wherever possible, any IPC tools developed for participating businesses should be cheap and easy to reproduce by businesses themselves (e.g. black-and-white product flyer, low-cost 4-color banner).

<table>
<thead>
<tr>
<th>Campaign Objective</th>
<th>Example Activities and Tools</th>
</tr>
</thead>
</table>
| 1. To create need to stop open defecation | • Creative visuals (poster, flier, video) to reinforce fecal disgust, new social norms against OD, and pride in total sanitation during an IPC session  
• Activity to remind villagers of commitment to being ODF during IPC session |
| 2. To stimulate household desire for an improved latrine | • Agenda, steps and messages for a village session, or house visit, highlighting disadvantages of OD, dissatisfactions with unimproved latrines, private advantages of improved latrines  
• Tools and job aides (e.g. flip chart, games, drama script) for use during these sessions  
• Invitation flyer distributed before a village session to each family to achieve high attendance  
• Simple training tools for promoters to make learning how to conduct village sessions and house visits easy  
• Simple visuals for use by promoters to introduce latrine design options, construction planning, and/or installation steps |
| 3. To create consumer awareness about locally available sanitation products and services. | • Steps and materials for a village sales event to introduce new latrine products, highlight desirable features, good prices, steps to purchase, contact details of local business, etc.  
• Leave-behind flyer with Do-It-Yourself latrine installation steps or tips  
• Invitation to businesses to a village session or sales event to introduce themselves, their products and services.  
• House-to-house product education, promotion/sales pitch visits  
• Simple training tools for local businesses and promoters to learn sales techniques, overcome objections, etc  
• Visual steps on how to order a latrine  
• Simple tools for registering new orders, including an ordering receipt to reduce error for sales agents |

Source: Adapted from UNICEF Guidance Note 7: Demand Promotion and Marketing
Geographic Segmentation

[Specify the geographic areas the campaign will focus on. Will there be one campaign for all geographic areas, or will it be segmented into slightly different campaigns for different geographic areas? Will the campaign need to take into account any local variations, such as differences in clothing, housing style, family relationships, language, physical environmental factors, or product models in different areas?]

Evaluation Criteria

[Specify the criteria by which the campaign concepts and tools will be evaluated. For example, this might include that:

- Messages and channels are ‘on-brief’ and address all three communications objectives
- Communications are integrated under a single, overarching campaign platform or brand
- Messages are easily understood by the target audience
- Messages are compelling enough for the target audience to change their behaviour
- Communications are strong enough to drive actual purchase and use of new sanitation products and services]

IPC Tool Brief template and example

[For each IPC tool, the following template should be filled in. This example answers the template questions to outline the purpose and use of a generic advertising flier] at your house.

<table>
<thead>
<tr>
<th>1. What is the IPC tool?</th>
<th>We want to create a generic advertising flier with contact information for the local toilet business.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Why is this IPC tool important? What problem do you want it to solve?</td>
<td>Many villagers do not know the toilet producers exists, their phone number, the cost of his/her latrine, or that they offer a delivery service.</td>
</tr>
<tr>
<td>3. Who will be facilitating the use the IPC tool(s)?</td>
<td>Community health volunteers with limited literacy.</td>
</tr>
<tr>
<td>4. Who will be the participant(s)/ target audience?</td>
<td>50 – 100 villagers</td>
</tr>
<tr>
<td>5. When will the IPC tool be used? What happens before the IPC tool is used? What do you want to happen after?</td>
<td>This tool will be used at the end of a 1-hour IPC session and during house sales visits.</td>
</tr>
<tr>
<td>6. Where will it be used?</td>
<td>At the end of a 1-hour IPC session in a rural village in the province.</td>
</tr>
</tbody>
</table>
**Summary of key consumer insights from market research**

[Provide a summary of key consumer insights in this table with reference to full information in the market research report]

<table>
<thead>
<tr>
<th>Table 1: Summary of key consumer insights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotional benefits</strong></td>
</tr>
<tr>
<td>Benefits of good latrine ownership</td>
</tr>
<tr>
<td>Funcional benefits</td>
</tr>
<tr>
<td>Hassles of open defecation/</td>
</tr>
<tr>
<td>unimproved latrines</td>
</tr>
<tr>
<td>Key features of desired latrines</td>
</tr>
<tr>
<td>Barriers to improved latrine adoption</td>
</tr>
</tbody>
</table>
Annex 13

Example TOR for a creative agency
Objectives

The overall goal of the assignment is to develop a communications and consumer awareness campaign that will inspire the target audience to stop open defecation and to invest in an improved latrine. The campaign will be an integrated platform with a recognizable brand that achieves the following objectives among the target audience:

1. Create a need to stop open defecation
2. Stimulate household desire for an improved latrine.
3. Create consumer awareness about locally available sanitation products and services.

The communications and consumer awareness campaign will clearly address the detailed creative brief (to be provided) and the identified communications objectives. Specific outputs of the assignment are to:

1. Use an iterative, rapid prototyping process to design, test and finalize the communications campaign including all creative concepts, messages and tools
2. Package finalized tools into a menu of communications tools that outlines how to use each tool and other practical details on campaign execution
3. Develop a 1-year campaign execution plan, including schedule, budget and resourcing needs, for executing the plan in the target states.
4. Support the development of sector-wide support for finalized communications campaign by conducting regular reviews and documenting outcomes and decisions at each step in the process.

Scope of Work

Specific tasks and activities under each output will include:

Output 1: Design, test and finalize the communications campaign including all creative concepts, messages and tools

- Initial consultations and review of market research and Creative Brief to understand the programme context and linkages.
- Rapid review of current CLTS communications materials and approaches (this could include a field visit to watch a triggering event) and other examples of sanitation marketing communications campaigns in different countries to gather inspiration
- Develop initial creative concepts and identify specific tools (each to be outlined in a Tool Brief and approved for further testing)
- Iterative, rapid process for testing prototype concepts and tools (this must include at least two rounds of field testing with target audiences, including households, promoters, and businesses)
- Finalize a set of campaign messages and production-ready campaign materials and tools (all final artwork, photography, etc. must be completed for final materials)

Output 2: Package a menu of communications tools

- Collate final production-ready tools into a menu that outlines how, when and where to use each tool, how much they cost, and other details (e.g. all Tools should be packages together with final Tool Briefs)
Output 3: Develop a campaign execution plan for the target states

- Develop a 1-year plan including, schedule and locations of activities, budget, monitoring plan, training and resource allocation for campaign execution
- The campaign plan should articulate how the different elements of the communications campaign are linked together, and how different activities are practically integrated with other STS Programme activities (such as support to small businesses)

Output 4: Support the contracting agency to garner sector-wide support for finalized communications campaign

- Present during regular meetings of a national stakeholder committee to advise and contribute to plan and campaign development.
- Document outcomes and key decisions through the review and approvals process

Methodology and Process

The campaign design process must involve the target audience, users and businesses in an iterative process of developing, prototyping, testing, and refining campaign concepts and tools. The process must focus on pre-testing and refining a set of message and tools using a rapid prototyping approach. Successful candidates will receive a Creative Brief that provides more details on the target audience, types of tools required, and the overall approach, tone and channels to be used.

Successful proposals will outline an iterative creative process that clearly identifies the steps, approaches and methods to be used. The consultant must demonstrate a clear approach for consulting with target households, potential promoters, local businesses and others who may interact with the campaign tools. The consultant must outline a review process that includes key stakeholder input and final approval.

Deliverables

The consultant(s) will be expected to produce the following deliverables:

- Assignment workplan, setting out methodology and timeframe for activities.
- Brief reports on results of rapid field testing of campaign messages and tools
- Final creative concept and campaign brand
- Final production-ready communications materials and fully developed campaign tools
- Draft and final menu of communication tools and tool briefs
- Draft and final campaign execution plan
- Participation in review and approval meetings with advisory group

Management Process

The consultant(s) will report to the WASH Specialist on all processes and deliverables. The WASH Specialist will facilitate final sign off and approval of the outputs, based on feedback from the review committee. All deliverables will be approved or rejected with comments within 2 weeks of the submission of outputs, with a standard revision period of an additional 2 weeks by the consultant(s).
Inputs to be provided by the client

The client will provide a detailed Creative Brief, market research and other reports, example campaign tools, and available CLTS materials and tools. The client will facilitate community entry for field testing, and accompany the consultant(s) on field trips as needed. The client will facilitate the meetings of the national advisory committee.

Timeframe

The assignment will be completed over a five-month period.

Proposal and Key Qualifications

Interested candidates should provide a brief proposal including:

- Expertise and previous experience in marketing to rural consumers in Country;
- Examples/portfolio of past creative campaigns that are relevant to the assignment, marketing
- Brief narrative of proposed approach for carrying out tasks indicated above, including particular methods and techniques to be utilized;
- Specific roles and responsibilities of key consultancy staff;
- Assignment implementation plan and timeline, including a schedule of activities with outputs and budget (budget should detail staff time and expenses related to deliverables)

The consultant(s) will have the following skills and experience:

- At least 3 years demonstrated marketing experience in rural markets of Country
- Experience in commercial marketing, social marketing, behaviour change communication or related fields
- Demonstrated skills in brand development, creative concept design and execution
- Proven expertise working with local enterprises in rural communities in Country
- Strong understanding of local government and community contexts in Country
- Fluency in English and local languages in Country.
- Experience with sanitation and hygiene sector is beneficial but not required.
Annex 14
Example MBS communications materials
**Objective 1: Reinforce CATS messages to stop open defecation**

Below are some examples of WaterSHED’s social marketing materials for their ‘Stop the Diarrhea’ campaign, developed in 2011 for the ‘Hands-off’ rural MBS programme in Cambodia.

![Social marketing materials examples](image)


**Objective 2: Motivate household investment in a durable hygienic toilet**

Below are some examples showing ‘non-health’ benefits of having a latrine, from Benin’s PHA Programme (2002-2004 and 2005-2009).

![Social marketing materials examples](image)

And below, more from Cambodia’s ‘Hands-off’ programme on why a latrine is desirable. Reasons depicted, inspired by the programme’s market research, are: (left to right, top to bottom) ‘poop fills our land and smells bad’, ‘my daughters have no privacy or safe place to poop’, ‘sometimes we get rained on’, ‘neighbours may yell at us’, ‘snakes could bite us’, and ‘our relatives from the city come to visit’.

Objective 3: Supporting sanitation businesses to market and sell their products/services, educating households on construction, installation

This is another from WaterSHED’s ‘Hands-off’ programme in Cambodia. It shows a generic ‘fill-in’ advertising banner, for small sanitation business partners to personalize and hang at their retail location.
These are from Timor Leste’s MBS programme. It is a generic ‘fill-the-blank’ sanitation business product ‘brochure’ and advertising flyer. Business name/contact details and prices left blank to fill in by hand by one of the programme’s focal point businesses. The first image shows the front of the flyer and the second image shows the back, with DIY installation instructions.

Source: Timor L’Este MBS Programme
And here is a similar ‘fill-the-blank’ flyer for WaterSHED’s Cambodia programme (above image is the front of the flyer and the below image is the back, showing installation steps).

Source: WaterSHED’s ‘Hands-off’ programme, Cambodia.
Here is an example from another MBS programme in Cambodia, by iDE. This shows product purchase instructions to ensure correct DIY or mason installation of the MBS latrine product package.

Below is from Benin’s PHA MBS programme, from 2002-2009. This sequence shows, ‘How to manage the construction process’ picture cards, for community-based sales promoters to use to explain to households about the buying and installation process.

Source: IDE Cambodia MBS programme (2014).

Source: WSP (2011). Field Note. Available at:
http://documents.worldbank.org/curated/en/666041468208734910/pdf/637930BRI0Rura00Box0361527B0PUBLIC0.pdf
Annex 15
Example MBS results framework (WaterSHED)
The below results framework is an example from a USAID-funded programme implemented by WaterSHED Cambodia.

**Watershed Results Framework**

**Strategic Objective:** Sustained Uptake an Proper Use of Commercially-Delivered WSH Products and Services Increased Among Lower-Income Populations

**Intermediate Result 1**
Consumer Demand Increased

- **Indicator 1.1**
  # of consumer awareness and marketing campaigns launched

- **Indicator 1.2**
  % of HH in target markets aware of WaterSHED-introduced products/services

- **Indicator 1.3**
  % of HH in target markets aware of local sales points for WaterSHED-introduced products/services

- **Indicator 1.4**
  % of HH in target markets having purchased WSH products/services

**Intermediate Result 2**
Supply Chain Strengthened

- **Indicator 2.1**
  % change in unit sales volume of WaterSHED-introduced products/services

- **Indicator 2.2**
  % of change in revenue from sales of WaterSHED-introduced WSH products/services

- **Indicator 2.3**
  # of supply chain actors identified and enlisted

- **Indicator 2.4**
  # of consumer-driven WSH product/service design improvements made

**Intermediate Result 3**
Enabling Environment Improved

- **Indicator 3.1**
  # of coordinating meetings held and activities conducted amongst GDA partners

- **Indicator 3.2**
  # of coordination meetings and communications & outreach activities conducted with external WSH stakeholders

- **Indicator 3.3**
  # of sustainable WSH-facilitating mechanisms established, strengthened or facilitated

- **Indicator 3.4**
  # of proper-use campaigns for WaterSHED-introduced products/services

**Intermediate Result 4**
Consumers Correctly Using Purchased Products

- **Indicator 4.1**
  # of product attribute or consumer preference assessment conducted

- **Indicator 4.2**
  % of WaterSHED-introduced products packaged to instruct consumers on correct and proper usage

- **Indicator 4.3**
  % of proper-use campaigns for WaterSHED-introduced products/services

- **Indicator 4.4**
  % of consumers demonstrating proper use of WaterSHED-introduced products
Annex 16

Example toilet sales receipt
## RECEIPT

**Seller’s name:** ........................................
**Village:** ...........................................
**Commune:** ........................................
**District:** ...........................................
**Contact:** ..........................................

**SELL TO**

**Buyer’s name:** ........................................
**Village:** ...........................................
**Commune:** ........................................
**District:** ...........................................
**Contact:** ..........................................

**Latrine materials:** ☐

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Sub total</th>
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<tr>
<td>1</td>
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</tbody>
</table>

**Grand total**
**Deposit**
**Balance**

**Note:**
1. Please check the products before accepting
2. The received products cannot be changed or refunded
3. The payment must be on the due to date
4. The buyer cannot cancel the purchase order

**Date:** .............................................

**Buyer’s signature**

**Seller’s signature**

**Name:** .............................................
Annex 17
Example supplier
sales order
record book
Sales order Record Book

<table>
<thead>
<tr>
<th>Customer Name</th>
<th>Village</th>
<th>District</th>
<th>Sales Agent Name</th>
<th>Date of Order</th>
<th>Slab Type</th>
<th>Rings</th>
<th>Total Cost</th>
<th>Delivery/Pick Up Date</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Purpose of this template

The purpose of this document is to provide guidance to regional and country offices as part of UNICEF’s efforts to foster effectively functioning sanitation markets by increasing market information. This document can also serve as a generic template for offices to develop market-specific information.

Sanitation market information

The provision of sanitation market information is a market-shaping intervention designed to increase linkages between supply and demand by generating new data, aligning existing analysis or improving the visibility of existing data to reduce asymmetries of information. Country offices should use this lever in markets where insufficient information is a significant root cause of market shortcomings facing suppliers, hampering their participation in the market.

Purpose of sanitation market information briefs

A sanitation market information brief is a market-shaping tool that aims to:

• Increase access to information to address supply-side shortcomings;
• Support private sector actors to understand market opportunities and identify viable market entry and expansion strategies;
• Showcase the attractiveness of the sanitation market to private sector suppliers; and
• Incentivize and encourage current suppliers to contribute more actively in the market and new suppliers to enter it.

As this tool mainly targets the private sector, country offices should ensure that the documents use the same language and terminology as national private sector players by avoiding sector-specific language and terminology that businesses are not familiar with. Particular attention should be paid to translate JMP data into market information.

In addition, when developing a market-specific information brief, it is imperative to have a clear objective and expected results by answering this question: what do you want the businesses to do after reading the brief? For example, launching a new product or technology that better meets consumers’ needs? Stocking more sanitation products? Investing in sales and marketing? Expanding their geographical coverage?

Scope

To maximize impact, and for optimal resource allocation, the scope of the market information brief should be defined. The first step is to decide which segment of the sanitation value chain to target:

• **The containment segment** focuses on sanitation hardware products that consumers can purchase to construct their sanitation facilities, with the focus on the user interface (e.g., ceramic pans, slabs), containment systems (e.g., septic tanks) and superstructure (e.g., walls, doors, roofs).
• **The emptying and transport segment** deals mainly with vacuum tanker services.
• **The reuse segment** focuses mainly on faecal-derived products.

You should develop a separate market information brief for each market segment as each has its own market dynamics, challenges, suppliers and operating models.
The final step is to define the target audience for the market information (e.g., manufacturers, importers, large distributors, wholesalers, retailers, small enterprises, pit latrine emptiers). Each category of actor has their own characteristics, needs, trade motivations and habits, business practices and market barriers, and, as such, will require different information. Answering the following questions will help identify the audience:

- How many people are estimated to be in this group?
- Is the market information brief an effective and efficient way to reach them?
- Does this group require specially-prepared communication materials such as a market information brief, or can they be reached through other channels?
- How important is reaching this group to achieve the market-shaping intervention goal?

**Content**

The content is intrinsically linked to the target audience and should include critical market-related information, such as market size, the segment that will witness the fastest growth, revenue forecasts, market entry strategies and market challenges. It should also include major market players and highlight the essential factors influencing market growth.

For each country market, the content of the brief will depend on what information the target audience currently lacks as well as the available data from the market research. It is primarily informed by the findings from the sanitation market assessment and ideally, should be part of its key deliverables.

**Outline**

**Market overview**

This section provides an overview of the market segment suitable for suppliers within the targeted value chain. It identifies the sanitation market niches that are not being properly addressed by competitors. A niche market is a narrowly defined group of potential customers that have specific needs. The definition of a niche market is mainly based on criteria, such as geography (e.g., rural, urban, peri-urban), customer category (e.g., first-time buyers, upgraders, repairs, access to water, types of toilets, income level), relative attractiveness of the segments and ease of converting them. In brief, this section outlines market segments that are currently being overlooked that the targeted companies could enter. To the extent possible, the market overview section should use data visualization.

**Estimated potential market size**

This is estimated in terms of:

- **Volume**: Number of households within the target market (market niche). For a more accurate estimate, country offices might want to multiply this volume with the uptake rates from CLTS or other MBS interventions.
- **Value**: Volume multiplied by the average cost of a fully improved sanitation facility/upgrading a sanitation facility/emptying service. Country offices should be careful to not present this market value as the real ROI or level of existing demand for businesses but rather as the total potential worth of the market when all conditions are met.
In case country offices are unable to estimate the target market, they might want to use JMP data to estimate the total unmet need or the total addressable market (TAM), which shows the potential scale of the sanitation market. Estimating TAM is the first step for entrepreneurs when starting their business. It is important to estimate TAM objectively instead of exaggerating or underestimating this value with subjective attitudes, as it is vital to allocate a suitable market with potential growth capacity. Businesses often tend to look for markets with high TAM values, showing confidence in such markets with great potential to increase demand for their products and services. On the other hand, TAM does not necessarily mean that there is high demand. Other factors, such as competition in the market and accessibility of resources also affect performance of the business.

TAM estimates should be made using JMP data, comparing current service levels with national targets. In addition, country offices might want to breakdown the market size by highlighting regions that will drive growth. This can be presented using maps that show the geographical distribution of product/service penetration.

Market growth

One way to showcase the attractiveness of the sanitation business to private sector actors is to present the growth of the sanitation market as this reflects the market performance (e.g., the increase in the demand for a sanitation product or service over time). As such, market growth is an essential factor for suppliers when evaluating the viability of a new or existing sanitation business venture. Country offices should present market growth using charts that show the uptake of sanitation products and services over a given period (e.g., estimated annual growth in market, based on average annual change in access to improved sanitation for the last five to ten years) and the projected forecast based on government commitments/targets, or based on population growth, or in comparison with growth of adjacent sectors, such as the construction industry. You could also try to get information related to annual sales (past two to three years) from private sector suppliers. This is very relevant to showcase to businesses that the sanitation market is worth investing in.

Marketplace mapping and landscape

This section helps businesses to understand the broader market context, decide where to invest in the market, and design their strategy accordingly to maximize profits. It allows businesses to identify which sub-markets are currently well-served and which are under-served. This section also allows suppliers to better understand important trends, helping them identify competitors and potential joint venture partnerships. Market mapping is also useful for businesses considering expansion or a shift in focus. As such, this section should include the following:

- Type of market based on the JMP sanitation ladder (e.g., a market dominated by first-time buyers of sanitation solutions that currently practise open defecation versus a market in which most customers are upgrade buyers, with an established behaviour of single-point defecation).
- Maturity of the supply chain (e.g., fragmented, non-existent, few specialized actors, streamlined, efficient).
- Current major players/competitors (and gaps or missing players), including their strengths and weaknesses.
- Range and price of sanitation products and services currently available in the market.
- Technological gaps that might require introduction of new solutions in the market.
- Level of product/service availability and accessibility (e.g., distance to retailer), affordability and customer awareness.
- Product turnover rate.
- Market shares (e.g., the portion of the market controlled by particular sanitation companies or products). This information provides a general idea of the size of a company/product in relation to its market and competitors.
- Mapping of ongoing demand activation activities, including CLTS interventions.
Market drivers

This section highlights the underlying forces that compel consumers to purchase products and services. The most common sanitation market drivers include:

- Consumer needs, intentions, desires and motivations in relation to particular sanitation products, services or behaviours (e.g., convenience, privacy, hygiene factors, health, social status, product functionality and features, price, time and convenience, quality, reliability and durability).
- Consumer willingness to pay (e.g., the price ranges customers are willing to pay for sanitation goods and services). This information is critical for businesses when pricing their products and services.
- Purchasing power (e.g., household median monthly or annual income), which helps businesses measure consumers’ ability to pay.
- Product/service cost breakdowns, which involves identifying the individual elements that comprise the total cost of a sanitation product or service, and assigns a specific value to each element. Knowing how the total price breaks down is a benefit for businesses in comparing prices and negotiating better rates. Sellers and providers also can use cost breakdowns to verify that they charged the client for everything. Cost breakdowns also allow companies to identify specific reasons for fluctuations in price. This is especially relevant for products such as toilets, which are comprised of a variety of components.
- Product/service cost drivers, which are elements that impact the final cost of a sanitation product or service. The idea behind cost drivers is to be aware of what expenses/factors that exert influence on the final cost of a product or service. That awareness helps companies manage costs and become more profitable.
- Policy and regulatory framework, which can encourage (e.g., large-scale sanitation promotion and demand generation programmes, key government commitments, tax considerations) or inhibit (e.g., prohibitive taxes and duties, market-distorting subsidies) business growth.

Finance landscape

As access to affordable financing is a crucial constraint for sanitation entrepreneurs, this section provides an overview of market players, and financial products and opportunities. This section should focus on elements such as:

- Access to financing (e.g., penetration rates of financial services, financial inclusion rates, growth in loan disbursement and increased ability to pay for households as they have more access to loans).
- Opportunities to access financing (available financial products relevant to the sanitation industry, options on the market for financing SMEs, interest rates).
- Finance-related regulatory framework.
Socio-economic environment

This section provides an overview of crucial socio-economic statistics that could support the growth of the sanitation market, such as:

- Economic growth trends (e.g., GDP).
- Inflation trends.
- Poverty reduction rates.
- Projected population growth.
- Ranking in World Bank ‘ease of doing business index’.
- Growth trends of industries adjacent to sanitation (i.e., growing house construction activity increases demand); and
- Urbanization rates.

Customer insights

This section provides critical insights into different categories of consumers of the targeted markets. These insights allow companies to understand how customers behave, prioritize investment, align sales and marketing activities around leverage points in the buying process, conduct more targeted and efficient activation. The section should cover:

- Key quantitative information regarding the segment, including segment size, demographics, incomes, and sanitation-related attitudes and behaviours.
- Overview of the customers’ environment, needs, preferences and beliefs.
- Description of the path to purchase the sanitation product/service. The focus is to identify critical reasons for sanitation product/service desire, primary information sources, favoured product/service options and barriers to purchase.

Products/services

This section provides an overview of products that might need the targeted markets, including images of the products and services.
For every child
Whoever she is.
Wherever he lives.
Every child deserves a childhood.
A future.
A fair chance.
That’s why UNICEF is there.
For each and every child.
Working day in and day out.
In more than 190 countries and territories.
Reaching the hardest to reach.
The furthest from help.
The most excluded.
It’s why we stay to the end.
And never give up.