

Learning Brief

FINANCIAL HEALTH OF PRIVATE SECTOR SANITATION BUSINESSES IN RURAL VIETNAM

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1. FINANCIAL RISKS IN SANITATION BUSINESSES

There is a wide range of literature on financial risks relating to private sector sanitation suppliers including technical journals, reports, event summaries, and magazines authored by academics, government ministries, multilateral organizations, and industry experts¹.

Unlike the rural Water Supply Chain with almost a single supplier/operator, Rural Sanitation in different regions and districts have different supply chains, with different participants and sources of products. There are different supply chains between Sanitation Products and for Sanitation Services.

Supply chain for Sanitation Products

The supply chain for *sanitation products* is influenced by the location of nearest neighboring economic centers or even provinces/countries. Many construction material suppliers act as importers, wholesalers, and retailers (some are just importer and retailer). The rural sanitation product Supply Chain Map (conceptual) (EMC

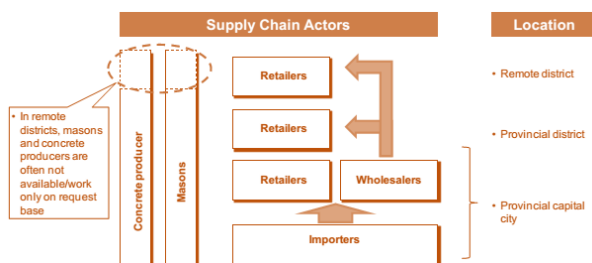


Figure 1: EMC Supply Chain for Sanitation Products

2014, p2) is illustrated below:

The key actors in the rural sanitation product value chain (ISF 2015, p24) include:

- Materials supply shops – retailers at provincial, district and local levels.
- Masons – available in all villages. Masons usually work in teams consisting of a Chief Mason, a Skilled Mason and Assistant Masons. They build any type

of construction, from houses, roads, fences, pig sties and latrines.

- Transport providers – available in district center and some commune locations, often as a combined business with materials supply shops.
- Local producers – cement blocks, bricks, sand and stones.

The rural sanitation product value chain faces the following common obstacles to the construction and use of hygienic latrines (WB 2016, p36):

- Limited awareness of low-cost technology options among masons and sanitation businesses. Most masons had not received any formal training.
- The need to buy materials and services for building latrines from different places, adding to the cost and inconvenience for rural households. All-inclusive services were not generally available.
- A lack of clear and accessible information on the cost of installing different latrine types, since hardware suppliers and masons rarely carried out any marketing activities. Most households with a toilet had built it themselves, neighbors and relatives being the main source of information on options and costs. There was a widely held, but mistaken, view that hygienic latrines are not affordable.
- Private hardware suppliers and masons believed that latrine construction offered little potential for profit due to the current low volumes of sales and small margins on products. Most providers were retailers selling a variety of construction materials, sanitation being only a small part of their businesses.
- Limited availability of sanitation hardware in remote and mountainous areas, adding to the cost and inconvenience of latrine construction.

¹ Some examples include: ADB Southeast Asia Department Working Paper, ADB Review of Opportunities for the Pacific WASH Sector, WSP Water Supply and Sanitation in Viet Nam - Turning Finance into Services for the Future,

UNICEF Policy Brief - Water, Sanitation and Hygiene In Viet Nam, Sanitation value chains in low density settings in Viet Nam, and others.

The business model developed to address these challenges is Sanitation Convenience Shop or SANCON. Originally, these are very small businesses (in many cases even the business license is not necessary) of wastewater concrete ring producers, or brick producers, or retailers; and they have few employees. Based on selection criteria for both SANCON and sales agents, commune health staff screened and proposed potential candidates. Follow up trainings were then organized by district Center for Preventive Medicine for SANCON and sale agents (WB 2016, p29).

The SANCON model allows integrated all-inclusive latrine installation service, can provide standardized products and services, and affordable latrines. It is well illustrated in the schemes below

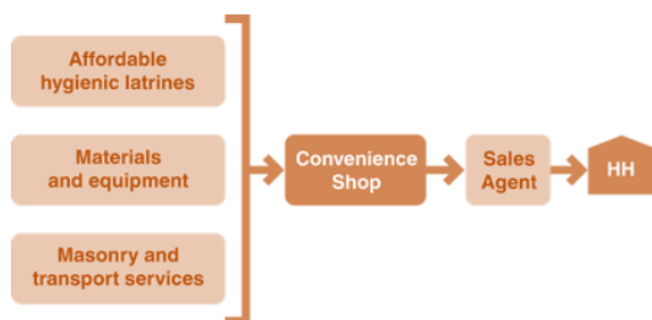


Figure 2: Value Chain in Sanitation Products - The SACOM model

The service offers a range of benefits to customers:

- Suppliers' sale agents provide information and advice on technology and design options and associated operation and maintenance requirements, to help customers choose an appropriate model.
- All materials required for latrine construction are included in the price paid, both sub-structure and superstructure.
- The package also includes the services of a mason to build the latrine, one of networks of specially trained and certified artisans. (Certification was another pilot initiative, the intention being to scale it up nationwide in due course).

- The supplier delivers all construction materials and components to the household.
- Some suppliers offered their customers payment by instalment, with terms typically three to six months.

Financial risks associated with Sanitation Products

Price - Key finance risk in the rural sanitation is the price. In regard to cement the key construction materials, while cement was often available in the commune centers, costs were higher, particularly for the more remote communes. Profit margins for cement were typically very low for retailers, the more remote commune centers. Low profit margins were accepted for the sale of cement and as such, there was limited opportunity to reduce its costs in the supply chain (ISF 2015, p69). To numerous households the costs were well out of their reach, so they settled for either no latrine or an unimproved pit latrine. One reason for these aspirations was the lack of examples of low cost, desirable hygienic latrines at the commune and village level (Enterprise in WASH WP2b, Anna Gero & Juliet Willetts, 2007, p21).

Access to finance - A2F is reported as a problem by some actors in the supply chain (EMC 2014, p82). Customer's access to finance for sanitation, in terms of loans and credit, affected their ability to draw on the products and services of private enterprises; and Customer access to loans from the social policy bank was generally difficult; Additional sources of funding for sanitation include Program 135 , although in practice the reach of this program appeared to be limited and commune expenditure was not guided by any central policy. Several households noted that for sanitation they borrowed not from banks, but from family and neighbors (Enterprise in WASH WP2b, Anna Gero & Juliet Willetts, 2007, pp25-26).

Low demand for sanitation products and services - Household demand for the services and products of sanitation enterprises was limited in most of the locations covered in the study and this was due to a number of reasons. Local government and mass organizations (e.g. the Women's Union and Village Health Worker) create demand for sanitation services through household education and awareness raising,

however this role did not usually extend to the promotion of mason's services or sanitation suppliers, nor did they receive any benefits for persuading households to build latrines (Enterprise in WASH WP2b, Anna Gero & Juliet Willetts, 2007, p20). Marketing of sanitation products was extremely limited and this is another reason household demand was low (Enterprise in WASH WP2b, Anna Gero & Juliet Willetts, 2007, p20).

Finance risks to material supply shops

- Demand and affordability: while a trend of increasing demand for construction materials was apparent, the demand for latrines was not noted to have changed, with the vast majority of construction materials purchased for houses and other projects, households in the area tended not to build latrines (ISF 2015, p61).
- Loan and Credit: Despite offering credit to their customers, most shop owners were required to pay their own suppliers and agents in cash. Managing their debts was therefore a challenge for some businesses. (ISF 2015, p62). This restriction of cash flow proved to be a barrier for businesses taking loans and expanding their business. As a result, some shop owners were becoming reluctant to offer credit to their customers (ISF 2015, p38).
- It was common for shop owners to borrow from banks for shop needs. Rates were around 13% p.a, often the land ownership certificate was used as collateral for the loan (ISF 2015, p64).

Finance risks to masons - Masons acted as laborer only, not playing any role in the purchasing of materials. The services of masons were not always engaged by households in building latrines, with many households opting for simply models (e.g. VIP latrine) and building it themselves, not aware that the skills and experience of masons can assist in ensuring the latrine is hygienic and functional (ISF 2015, p51).

Finance risks to transport providers:

- The capital required to purchase the vehicles, and associated risks with taking loans for procuring vehicles (ISF 2015, p65).

- It was common for transporters to borrow from banks for transport business needs. Rates were around 13% p.a, and often the land ownership certificate was used as collateral for the loan (ISF 2015, p64).

Finance risks to Local producers:

- Bricks – Cement bricks were mostly used for building latrines (as well as fences, pig pens and parts of houses), and they were cheaper and easier to produce compared to red bricks (made from clay). Finance risk therefore may come from the price and availability, and their ability to access loans.
- Cement Rings – cement ring producers were in several of the communes. Cement ring producers buy the molds for the rings and sell most rings to households. Gravel is also produced locally (ISF 2015, p51). Finance risk therefore may come from the price and availability of input materials and molds, and their ability in accessing loans.

Risk of subsidy - Subsidies create distortions, for both consumers and also private sector suppliers (EMC 2014, p80). For the demand side, "the incubation of village dependency on outside organizations to assist them with a task that most villagers can do themselves." (Plan International 2011). WSP (2013) found that the "main reason for households having a toilet was that they were provided or supported by projects" . WSP (WSP 2012 p3) noted that a program with a subsidy is expensive to scale up, creates community expectations of external support, reducing the motivation of householders to build latrines at their own expense, and makes it very difficult for private masons and suppliers to generate business since their products are not subsidized. (WSP 2012a).

Supply chain for Sanitation Service Provision

In the sanitation subsector (OECD iLibrary 2019), the current market structure is predominated by small, often nascent and financially unsustainable business models. Typically, social businesses provide sanitation services across the supply chain with a variety of different approaches resulting in a different revenue stream source.

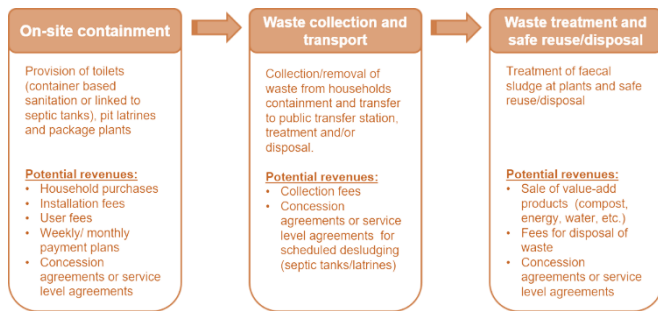


Figure 3: Potential revenues along the sanitation value chain

These include the sale of products like toilets, holding or septic tanks, vacuum trucks and faecal sludge treatment or reuse facilities, as well as revenue from products sold after processing of waste (compost, fertilizer etc.). Other revenue streams involve the provision of services and include user fees for toilets, the collection fees generated from waste treatment and waste treatment disposal or reuse.

The pricing of the provision of sanitation services is limited by affordability. As a result, revenue streams are often insufficient to support private sector sanitation service provision, and business models are not financially sustainable. For these businesses, break-even is often limited to OPEX. On the other hand, the complementary faecal sludge collection and treatment service (“waste-to-energy”) constitutes a more profitable business opportunity that can become financially sustainable if a sufficient scale is reached, though this may be unachievable in smaller settlements where the number of end users is limited. In general, an observed pathway to sustainable revenues is to collaborate with local and national governments and water utilities.

As to the business models (SNV 2012, p3), there are

- The one-stop-shop model (providing all services).
- The micro-franchising model (where the business concept of one larger enterprise engages several people or small business to implement the idea at scale).
- The network model (where different SMEs coordinate and collaborate closely to provide the service).

These models proved a valuable conceptual framework for analysis and discussion about market structure. Of course, reality is more complex with many variations of the models observed.

Financial risks associated with Sanitation Service Provision

- For sanitation utilities (OECD iLibrary 2019, p7), lack of creditworthiness constrains their ability to obtain commercial financing and they are often perceived as high-risk borrowers. In addition, commercial financiers have limited experience with and understanding of the sector.
- Sanitation businesses face challenges to generate demand for services, which is often also a reason for a lack of revenues at scale, in combination with affordability issues.
- The absence of a track record and knowledge base constitutes additional risks for the commercial investor.
- Commercial investors are typically interested in large-scale investments to offset transaction costs. Social sanitation entrepreneurs, however, have a limited capital absorption capacity and hence require investment at smaller scale (World Bank, 2019).

2. THE STUDY

A survey was conducted with private sector sanitation businesses involved in the Women Led Output Based Aid project to gather information about their assessment of the financial risks and risk factors in terms of impact on their business financial viability. The survey elicited information about: (1) the participant supplier’s legal structure, financial capacities, years of expertise and experience (2) his/her evaluation of the risk types and risk factors and impact level using Likert scale.

The survey aims to address three research questions:

- 1) What are financial health risk factors for WOBA's private sector sanitation businesses in accordance with the nature of WOBA project, and generally in Vietnam's sanitation markets?
- 2) How severe and frequent are these risk factors in relation to the financial viability of WOBA private sector sanitation businesses?
- 3) Where are the financial risk factors allocated between parties in the WOBA project, and generally in other sanitation projects?

This learning note describes and discusses the findings of the survey to provide private sector sanitation suppliers and government partners with a map that assists them to know their responsibilities, their assigned risk factors, and thereby, the strategies that they should set out to execute more public-private subsidy-based projects for the public sector with a profitable satisfactory level for the private one. In addition, the learning note provides insights for international and domestic investors and donors about prevalent financial risk factors for WASH businesses in rural Vietnam and offers recommendations for effective solutions to deal with these risks in pursuing inclusive WASH opportunities.

3. DEMOGRAPHIC BACKGROUND OF SANITATION SUPPLIER PARTICIPANTS

The survey was sent to 85 private sector sanitation businesses involved in WOBA. There was a very low response rate with 13 respondents completing the survey.

These respondents run businesses in rural and regions meeting with difficulties in water sources in four provinces of Nghe An, Hoa Binh, Ha Tinh, and Ben Tre. They were mostly male (9/13) and few females (2/13), their level of education is lower than that of water sector (most of them are in upper and lower secondary school and technical college, only 2/13 with university level), and their positions are mixed (owner, manager, builder). These respondents have been in sanitation business length of time (spreading from under 3 years

to over 10 years). They maintain relatively compact employment (1 to 10), many of them (7/13) have family members being employees. The majority of respondents run masonry business (10/13) and gain monthly revenue of USD200 to USD500 (with the exception of USD3,500). Most of respondents run business model of Specific service (6/13 providing one main product/service), fewer run business of Network model (4/13 with different enterprises coordinate and collaborate closely to provide the service) and One-stop-shop model (2/13 providing all services relating to sanitation) and Franchising model (1/13 with one larger enterprise engages several people or small business to implement the idea at scale). Sanitation businesses tend to change product/service price in according to the price-demand mechanism.

4. FINANCIAL RISKS AND IMPACT

The risks that the private sector sanitation businesses encounter most include: Lack of capital to start-up and business expansion (5/13 respondents), Low demand for sanitation products/services (5/13 respondents), Price of sanitation products/services (3/13 respondents), Household (user) affordability (2/13 respondents), Subsidies (household and businesses) (1/13 respondents), High operation costs (1/13 respondents), Lack of financial management capacity (1/13 respondents).

The financial risks that have negatively impacted business' cashflow are different from that impacted profitability, i.e. the "Lack of capital to start-up and business expansion" had the highest level of negative impact to cashflow, followed by "Low demand for sanitation products/services" r. Low demand was also the second most scored risk in terms of negative impact to profitability. The top risk to profitability was "High operation costs" "Subsidies (household and business)" was least negative impact to both cashflow (21-summed) and profitability (35- summed), while the r negative impact to profitability.

The evaluations of respondents in WOBA project, who are more product suppliers than service providers, are generally consistent with the rural sanitation sector, which is characterized by small business size (builder,

masonry, retailer shops) and limited market demand (due to low need of improved hygiene latrines from poor population). The small business size poses the business in weak position against commercial banks and credit institutions in applying for a 'good' loan (that requires no collaterals, imposes low interest rate, offers longer terms, etc.) to expand business and service to new area and new customer especially the poor and vulnerable HHs, and the limited market demand offers little chance for sanitation service to focus on servicing this kind of market (for poor and vulnerable HHs), in other words, it take the poor and vulnerable HHs away from the service scope of the sanitation businesses.

The fact the "subsidy" is least encountered and seen as making less negative impact to both cashflow and profitability can be explained that while it supports poor and vulnerable HHs in accessing improved hygiene latrines and sanitation service, it makes little effect in business activity of the sanitation suppliers, and in addition, it may distort the market.

5. RISKS FACTORS

There are various factors that respondents in sanitation service posed as having high impact on the business to achieve full cost recovery the respondents encounter, and some certain risk types or risk factors affect financial viability more than others.

- To the risk type of 'pricing issues' – the most prevalent factors is price variability of materials (e.g., bricks, rings, gravel) affect profit margin.
- To the risk type of 'low demand and affordability of households (users) – the most prevalent factors are: lack of household (user) education and awareness raising to promote benefits of latrine results in low demand for hygienic latrine; then at a lower level, lack of household (user) affordability affects their demand for latrine and sanitation products; there isn't sufficient household (user) education and awareness raising about masonry services resulting in low demand for the business; lack of models of low cost, desirable hygienic latrines at the commune and village level results in low demand for low cost hygienic latrines; lack of

households' (user) access to loans and credit from banks or government programs leads to low demand for sanitation products and services.

- To the risk type of 'subsidies (household and businesses)' – all the four factors are equally evaluated to have medium impact on business to achieve full cost recovery to include HH subsidies affect willingness of households to pay for latrines, as beneficiaries wait for a subsidy-based intervention; Latrine subsidy program tends to have high costs which makes it difficult for the business to scale up; the products or services of their business is not subsidized, which leads to reduced demand for their business.

Among all risk types the respondents encounter, some risk factors affect business' ability to achieve full cost recovery more than others. The top risks are:

- 'Price variability of materials (e.g., bricks, rings, gravel) affect profit margin is evaluated with 'Medium impact' by all with three respondents (100%).
- Lack of models of low cost, desirable hygienic latrines at the commune and village level results in low demand for low-cost hygienic latrines is evaluated with 'Medium impact' by 4/6 respondents (67%).
- Insufficient household (user) education and awareness raising about masonry services resulting in low demand for the business is evaluated with 'Medium impact' by 4/6 respondents (67%).

These prevalent risk types and their risk factors which the respondents indicated to be affecting financial viability are typical for small-sized sanitation supplier service in rural and dis-advantaged areas, such as the context of WOBA program, and generally as discussed in Section 1.

6. WAYS TO MITIGATE FINANCIAL RISKS – BUSINESS LEVEL AND GOVERNMENT LEVEL

At the business level, some measures that help suppliers to lessen impact of financial risk on viability were suggested by respondents as follows:

- Government support encouraged households to engage.
- Higher need and better ability to pay of the households.
- 100% up-front payment prior to good delivery.
- Trust and support from customers (thanks to good services)

Those suggestions by respondents are very practical as it come directly from problems they face in the field, e.g., the engagement of HHs in accessing enhanced hygiene latrines that without Government or Donor support would have not been possible, and the financial affordability of poor and vulnerable HHs that prevent them from accessing enhanced hygiene latrines and services. From the supplier side, the practice of negotiation on up-front payment from buyers of sanitation products and services and art of building trust and gaining support from customers by good service quality worth throughout study for scaling-up to other rural and remote areas, the area of WOBA interventions.

At the government level, some ways that the government can do to help improve financial viability of these suppliers were recommended by respondents as follows:

- Financial support that could be done at the government level to help sanitation business improve its financial viability include depress the inflation and to regulate the price; loan with reasonable interests; tax reduction; support in capital; price stabilization

- Market creation support by Government is to invest more to projects in areas with economic difficulties

Unlike businesses in water supply sector, who are target of several specific business support and water sector-wide Government support policy and incentives, the business in sanitation sector, especially those in rural areas, see very little specific sector-wide statutory support. That explains the nature of ways at government level to mitigate their financial risks recommended by rural sanitation supplier respondents that cover general business support policy in relation to market creation and stabilization, and improvement of capacity to participate in the market.

7. FINANCIAL VIABILITY AND POOR AND VULNERABLE HOUSEHOLDS

Of the 13 respondents, 7 indicated “not sure” when asked about their financial viability, 2 said they were financially viable for the next 1-5 years, and 4 said they were financially viable for the next 6-10 years. 11 said they would continue to deliver sanitation services to the poor and socially disadvantaged. Of the 2 who said they would not, one was ‘not sure’ of their financial viability status, and the other was financially viable for 1-5 years.

Respondents referred to some finance-related support they expect from the governments such as depressing inflation, regulating the material price, support in interest rate to loan, tax reduction, etc. From the sanitation supplier businesses perspective, it could be that the poor and vulnerable HHs are just a fraction of their clientele and the business goes with the market economy mechanism and follow its principles. From the local Government perspective, the poor and vulnerable HHs are their objects of care, and politically the poor and vulnerable HHs are entitled to take priority in all local socio-economic development program and planning.

This dilemma would suggest an improvement of Government regulatory implementation that support the poor (and poor and vulnerable HHs) in general and in WASH in particular, support sanitation supplier businesses in servicing poor and vulnerable HHs (as a

small portion market) as well as enhancement of Government role in harmonizing the intervention to support poor and vulnerable HHs and the way of support that do not distort the market.

8. CONCLUSIONS AND IMPLICATIONS

The common financial health risk factors that similarly negatively impact the profitability and financial viability of WASH businesses are:

- Low consumption and low demand
- Low user's affordability
- Low user's willingness to pay

These similar risk factors all come from the nature of the market they serve – rural and dis-advantaged areas where the population is small, their demand is low due to their poor perception of using WASH services (of clean water and hygiene latrines) and no access to loan and credit (they are poor, they have no asset for collateral). To assist the poor, various supports have come from Government and Donors programs, on one hand allow the poor HH to have access to WASH services, however on the other hand, this intervention distorted the market and deeper the finance risks private sector WASH businesses.

The specific financial health risk factors that have high impact on cash flow/profitability and financial viability of private sector sanitation suppliers, beyond the common financial health risk factors to WASH businesses mentioned above, are:

- Price variability of materials (e.g., bricks, rings, gravel) affects profit margin.
- Lack of capital to start-up and business expansion.

These sanitation suppliers' specific risk factors all come from the nature of the sanitation supplier business, where the market (supply and demand) and the need for business expansion is a constant concern of these businesses. Unlike in the water service sector, the

market mechanism works in full force in the sanitation supplier business, there is very little, or no intervention or support come from Governments to this kind of players, except for subsidy to HH that distorts the market as mentioned above.

Implications for policy and practices of WASH financing

To support WASH businesses in general, it suggests several policy/practices as follow:

- Focus of resources, efforts and interventions on the awareness raising, promotion of using WASH services to the community, poor and vulnerable HHs), and improvement of Government regulatory implementation that support the poor (and poor and vulnerable HHs) in general and in WASH to create a better market for the sector.
- Provision of knowledge and ability to access commercial loans for WASH businesses.
- Avoidance of direct Government intervention in price of service and cost of products, let the principles of market mechanism work; and application of support schemes that let market mechanism work.
- Application of integrated WASH sector-wide business support intervention to achieve long-lasting effect improvement.
- Application of support policy and practice that support HHs in improving their access to finance (micro-finance, fintech, commercial loan and credit), but not by direct subsidy that distorts the market.

To particularly support Water Service businesses, it suggests the following policy/practices:

- Development of alternative financing mechanisms to private sector rural sanitation suppliers such as micro-finance or fintech schemes to support small-sized business (builder, masonry, retailer shops), who are in weak position against commercial banks and credit institutions in applying for a 'good' loan

(that requires no collaterals, imposes low interest rate, offers longer terms, etc.) to expand business and service to new area and new customer especially the poor and vulnerable HHs.

- Enhancement of IEC campaigns to poor population to expand market demand, which in its turn offers more chance for sanitation service to focus on servicing this kind of market (for poor and vulnerable HHs) and include poor and vulnerable HHs into the service scope of the sanitation businesses, and improve engagement of HHs in accessing enhanced hygiene latrines that without Government or Donor support would have not been possible.
- Application of integrated measure to improve the financial affordability (but not the 'subsidy') of poor and vulnerable HHs that facilitate them in accessing enhanced hygiene latrines and services.
- Reduction of "subsidy" policy as it is proved to make little effect in business activity of the sanitation suppliers and distort the market; enhancement of Government role in harmonizing the intervention to support poor and vulnerable HHs and the way of support that do not distort the market.
- Improvement of business support Government regulatory implementation that support rural business in general and businesses in sanitation sector in particular, and enhancement of voice and power of private sector sanitation businesses in claiming the statutory business supports.
- Application of support policy and practice in those remote and disadvantaged areas that provide financial support (in form of interest rate subsidy), or other incentives such loan guarantee or micro-finance schemes, and to regulate the strategic material (cement, fuel, electricity) price.
- Building of capacity in business management and access to finance, that allow sanitation supplier businesses to have better access to finance to start and expand their business and to improve their profitability and financial viability.

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