



USAID/WEST AFRICA SANITATION SERVICE DELIVERY PROJECT

Improving urban sanitation in Benin

User research on portable tenant toilets

BACKGROUND/PROJECT DESCRIPTION

The Sanitation Service Delivery (SSD) program is a United States Agency for International Development (USAID)/West Africa urban sanitation project being implemented in Benin, Côte d'Ivoire, and Ghana by Population Services International (PSI) in collaboration with PATH and Water and Sanitation for the Urban Poor (WSUP).

The goal of the SSD project is to improve urban sanitation outcomes through developing scalable, market-based models that contribute to structural change within the region's sanitation sector with an initial focus on the cities of Cotonou (Benin), Abidjan (CDI), and Accra (Ghana), and Kumasi (Ghana).



Household visited during user research on portable tenant toilets in Cotonou, Benin. Photo: PATH/Houard Lakougna.

GOAL/OBJECTIVE

Access to improved sanitation is a challenge for Benin. Only 25% of the urban population uses improved sanitation

facilities, 37% use shared facilities, and 27% of the urban population practices open defecation.¹ Fecal sludge management is also a challenge. Cotonou does not currently have a functional global sewerage network (However, there are two abandoned communal sludge treatment systems) and the FSM treatment center operated by SIBEAU, mandated by the government, capacity is insufficient.

Formative market and product landscapes conducted by PSI and PATH highlighted the following challenges related to sanitation facilities in Cotonou: (a) facilities are not clean or hygienic; (b) there is a lack of affordable product options; (c) latrines do not meet the aspirational needs of end users; and (d) although shared toilets are common, they are often dirty, and there are complaints about odors, flies, and other insects.

Based on the findings from the formative research, the Benin team prioritized the introduction of new and/or improved latrine models and fecal sludge containment products to respond to consumer needs—price, space, and environmental constraints (e.g., high-water table).

MEETING USER NEEDS—THE PORTABLE TENANT TOILET

Because of the prevalence of compounds and rental housing, tenants without improved sanitation and whose landlords are not providing improved latrines were identified as an important use case. In addition, renters inherently lack a strong incentive to invest in building latrines on property that they do not own.

For these users, portable toilets provide an opportunity for safe, hygienic sanitation without the investment in permanent facilities. Portable toilets could be either owned or rented, installed inside or outside homes, and could be used in both high- and low-water table areas. Following a discussion of these different product options and a review of

¹ World Health Organization (WHO / United Nations Children's Fund Joint Monitoring Programme (UNICEF JMP). Benin: estimates on the use of water sources and sanitation facilities. Geneva; WHO/UNICEF JMP: 2015. Available at:

http://www.wssinfo.org/documents/?tx_displaycontroller%5Btype%5D=country_files&tx_displaycontroller%5Bsearch_word%5D=Benin.

technology options, container-based sanitation (CBS) systems—which provide both improved sanitation and proper fecal sludge management—were identified as a technology of interest for an initial round of user research (rough prototype).

ACTIVITY DESCRIPTION

In April and May 2016, PATH, in collaboration with the local SSD team, designed and implemented user research on a toilet plus service model (CBS) solution for Benin. The objectives included technical, environmental, and market-related components:

- Obtain user feedback on acceptability of the toilet and service model (including preferred features, materials, and emptying frequency).
- Better understand potential user needs and their environment.
- Understand landlord perspectives and potential barriers to portable toilets.

PATH and PSI/ABMS (Association Béninoise pour le Marketing Social et la Communication pour la Santé) conducted qualitative interviews with tenants (n = 12) and landlords (n = 4) in four communes in Cotonou: Agbato, Enagnon, Irede, and Tokpa-zongo.



Example of a portable toilet. Photo: CleanTeam/ideo.org.

All of the tenants indicated that a CBS toilet would meet their sanitation needs and said that they would be interested in the portable toilet plus service model. Landlords were also supportive of their tenants using portable toilets, although a concern about tenants maintaining them properly was expressed.

Product and service models

- *Positive feedback on portable toilet concept*—access, odor control, easy to use.
- Preference for *weekly servicing* at a minimum.
- *Bundled toilet plus service model*—tenants wanted to pay for service up front.

Materials and costs

- *Ceramic or laminated wood* preferred.
- *Reliability of emptying service* a concern.
- *Large container* desired (would require less frequent servicing).

Environment

- *Lack of space* in compounds for outdoor facilities.
- Common *household configuration includes a “bathroom”* (shower area).
- Waste collection services *irregular/not reliable*.

NEXT STEPS

The user and landlord feedback on a CBS toilet plus service model was positive and suggested a CBS model would be acceptable among end users in Cotonou.

Additional user research can provide further data around user acceptability, affordability, and business viability and should focus specifically on: (1) potential consumer base for CBS (demand/market size), (2) commercial viability of the business model, (3) links to existing conveyance and disposal options (both fecal sludge and solid waste), and (4) technology selection and potential for local manufacturing.

Once this is completed, a rough prototype would need to be developed to show proof of concept followed by the selection of a technology for feasibility testing and piloting to assess actual demand, acceptability, and the appropriate service model for Benin.



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