STeP and our local partners collected data on the costs of existing shared toilets in India and China through reviewing public information and interviewing consumers and suppliers. We wanted to understand what existing prices buyers currently face in these markets. The findings presented here reflect these data. Download the full dataset at www.stepsforsanitation.org/resource-center/

This research comprised a sample of 40 shared toilets from India (31 toilets) and China (9 toilets). These data represent a convenience sample, which draws on a sample of subjects that represent easy-to-collect data. Consequently, the findings may not represent typical or average market costs. Each datapoint represents an installed or planned toilet in a different location that serves different users and provides different amenities. These factors can affect variance in these estimates. Although these data are useful for high-level market insights, they should be complemented with targeted market intelligence to support market entry decision-making.

Installation Costs
Installation costs include initial permits and fees, and construction and materials for the user enclosure, toilet interface, and backend system (either an on-site sanitation system or a connection to a sewer system).

Disaggregated cost data are available for each use case in the full dataset, as shown in Figure 1.

Operating Costs
Annual operating costs include operation and maintenance labor (including routine cleaning), consumables, energy, water, and the removal of fecal sludge (through emptying of an on-site sanitation system or through sewer connection fees).

Disaggregated cost data are available for each use case in the full data set, as shown in Figure 2.
Lifecycle Costs
Projected lifecycle costs based on the installation and operating costs reported at the surveyed toilet sites are shown in Figure 3.
These data compare the average lifecycle cost for all datapoints in each country, with the average for the “high-tech use case” in that country. STeP defines the high-tech use case as toilets with multiple technologically advanced amenities, such as automatic door, sink, or flush; self-cleansing mechanisms; or combustion features for menstrual hygiene management.
In India, several sites include self-cleansing technologies that reduce operating expenses, as compared with the Indian average. Further comparisons across use cases—including public and community toilets, schools, and tourist toilets—are achievable through the use of the complete dataset.

Disaggregated Data for Installation and Annual Operating Costs
When possible, STeP recorded disaggregated costs to provide insight into the relative cost drivers for each use case. An example is shown in Table 1 where “All” use cases encapsulate all datapoints from the graphs cited in this brief and the “High-tech” datapoints are defined in the project lifecycle costs section. These disaggregated data are available for other use cases—including community and public toilets, school toilets, and tourist toilets—in the full dataset. “NR” indicates categories not reported during data collection.

Study Background and Key Assumptions
These data were collected to detail disaggregated installation and operating costs to understand the relative cost drivers and lifecycle costs for comparison with Multi-Unit Reinvented Toilet (MURT) systems. In some cases, data availability limited disaggregation; consequently, cost categories are represented as best as possible. Specifically, site-preparation costs in India, such as siting and permitting, were challenging to disaggregate for all systems and thus reflect a low level of confidence. Toilet use cases were determined by data collection partners, with the exception of the “high-tech” use case, which was defined by STeP (see above). Backend system costs include septic tank or sewer connection, whereas waste removal costs include sewer or septic maintenance, pit emptying, and regular sewer fees. Where data outliers existed (2+ standard deviations from the mean), they were removed from the sample, with the exception of “high-tech” systems. Datapoints were collected from use cases across urban and rural geographies. If two or more datapoints were available for the use case, they are represented in Table 1.

Table 1. Disaggregated Costs for Installation and Annual Operating Costs

<table>
<thead>
<tr>
<th>Dataset Characterization</th>
<th>Average Installation Costs</th>
<th>Average Annual Operating Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Case</td>
<td>Number of Seats</td>
<td>Sample Size</td>
</tr>
<tr>
<td>India</td>
<td>All</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>High Tech</td>
<td>3</td>
</tr>
<tr>
<td>China</td>
<td>All</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>High Tech</td>
<td>12</td>
</tr>
</tbody>
</table>