

Innovation in toilets: GARV

Summary:

GARV Toilets is a Faridabad-based start-up, founded in 2015 (N Madhvan, 2019). GARV Toilets are providing smart sanitation services for the public toilets (PTs) and community toilets (CTs) in the urban and peri-urban areas, specifically catering to the low-income and under-served communities (Garv Toilets, 2020). These toilets are portable, toilet structures made of stainless steel which ensures high durability and makes them rust-proof. GARV Toilets are a self-sustainable toilet design and business model, which can be scaled rapidly, while addressing the issues related to toilet maintenance—operational costs and efficient, decentralized waste treatment (Idle, 2019).

Objectives:

- To provide smart sanitation services for the PTs and CTs in the urban peri-urban areas.
- To cater to the sanitation needs of low-income and under-served communities, women, children and disabled.
- To provide self-sustainable toilet design and business model.
- To implement universal design guidelines in Toilet construction.

Key Stakeholders:

- Low income and under-served communities in urban and peri urban areas
- Children, women, elderly and physically disabled people
- Ministries responsible for sanitation Regulators
- City governments/ Municipal Authorities
- Development finance institutions

Implementation Strategy:

- Toilet Models: These toilets come in four different models- Peek-a-Poo: Toilets for Schools (kid-friendly toilets), Garv Swabhiman: Toilets for Her (toilets with sanitary napkins and incinerator), Garv Galva: CT/PT (galvanised steel toilets for communities and public) and Garv Stainless Sparkle: CT/PT (stainless steel toilets for communities and public) (Garv Toilets, 2020).
- Technology Innovations: Each toilet comes integrated with LED lights, dustbins, and an exhaust fan for ventilation. Other optional features like automated flush and floor cleaning system, sanitary pad vending machine, Radio Frequency Identification System (RFID) and IoT technology can be added based on the customer needs. Additionally, all toilet units are solar powered which always ensures electricity to keep the light and other automatic features operational. An option for an attached bio-digester unit, to treat the generated sludge, is also available (Garv Toilets, 2020).

Resource Utilisation:

- Using the GARV toilet is free and the organisation prefers to set up partnerships with municipal corporations for both installation, and operation & maintenance of the toilets. The organisation seeks to generate revenue from advertising and business partnerships like partnering with mobile phone operators, who lease out Wi-Fi hotspots and provide mobile phone recharging services (Dietvorst, 2016).

Impact/ Outcomes:

- GARV Toilets have partnered with CSR wings of major organisations with the support of NGOs to deliver safe sanitation facilities to low-income communities, reaching over 45,000 school children in India.
- Apart from various ULBs, Delhi Metro Rail Corporation has signed a PPP agreement with GARV Toilets to provide smart sanitation centres in the metro stations. After a successful endeavour in India, GARV Toilets have now started operating in Bhutan, Ghana and Nigeria (Garv Toilets, 2020).

Challenges/Lessons Learnt:

- Smart technology enabled prefabricated modular design toilets which can be easily assembled on site in a few hours can improve access to toilets.



Source: (Garv Toilets, 2020)

Fact Sheet:

Thematic area	Use of IT in improving efficiency
First-year of the program	2015
Responsible institution	GARV Toilets
Target audience	Low income and under-served communities
Coverage	Bengaluru, Mumbai, Pune, Hazaribagh, Bhubaneswar