

Role of Science- Technology- Innovation to provide safe sanitation

Case study: SARA PLAST'S Ti bus and
other innovations

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INDIA

Video T-BUS



India – A Country of Many Countries



- India is the 2nd Largest country in the world in terms of population.
- Larger in population compared to USA, UK, Russia & EU combined.
- 7th Largest country in terms of area.
- And the 2nd fastest growing economy in the world.

Translating STI to real world Impact for SDG 6

Ti- Bus INDIA an example for the world

Entrepreneurship – opportunities for women considering workable and Trans-disciplinarity as well

Technology – Automated cleaning, sensors for data, water saving tech, digital payment and entry exit, pathology testing (in process) and reaches out to all the A's of technology access

Solar (Renewable) energy – all units have solar and are off grid

Gender Equality – giving access of sanitation to women which is very skewed at the moment

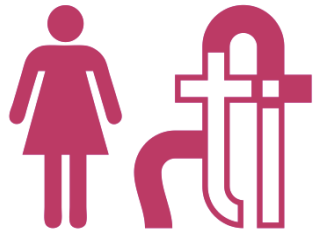
Safe sanitation and hygiene for women- safety sensors, menstrual hygiene systems, IEC mechanisms in unit

Recycling and upcycling of products- old buses over 20 years are upcycled to making these unique pink toilets to get over the stigma or perception of dirty fixed toilets

Upliftment of society – creating a revolution and profitable business model for small entrepreneurs and bringing dignity to people in the sanitation business

Circular Sanitation Economy- the model is building the Circular Sanitation Economy model with nexus approaches

Finance and Scalability- Have achieved success to get finance from an asset leasing impact company to grow and scale



toilet
integration

Toilets for “Her”



While she has evolved, the ecosystem around her remains unchanged

No private spaces

Few spaces that offer the privacy, safety or conducive experience to linger and refresh

Only available options are poorly maintained public loos or expensive malls/ restaurants

No rest stops

Few options to pause and 'fuel up' on snacks or beverages as a woman commuting on one's own

Most stalls and kiosks tend to be in crowded areas, run by men or with a lot of men 'hanging out' nearby



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Solution

- We propose a comprehensive “Mobile Female Hygiene Centre” branded as **Toilet Integration Centres (TiCs)** to address the sanitation and hygiene needs of women from low income communities. It also aims at creating jobs and giving them a source to generate revenue. Leveraging our demonstrated success in manufacturing and distributing portable toilets made of recycled plastic, we have developed these *toilets on wheels for women* by refurbishing old transport buses and cross subsidizing costs through diverse revenue models. **TiCs are placed at selected high impact locations in to provide centralized access to women.** Owing to its mobility, the TiC has a competitive advantage over stationery public toilets that require huge capital and allocation of permanent land, which is a scarce resource in high density urban areas and puts an additional burden on already constrained public resources.



Ti operations model

- **The key objective** : of the Toilet Integration Centres (TiCs) is to *increase access to quality & affordable sanitation and hygiene services*. Use of hygienic and safe sanitation services will influence behaviours of women towards healthy sanitation practices and hence contribute to positive health outcomes.
- **Business objectives**: Currently, there are 12 TiCs in Pune ***strategically placed in locations that target low income women*** and through your support, we will ***be able to introduce this maintenance model in Orissa*** . This will help us explore other revenue models like advertising and selling of sanitary napkins and bottled water to break even to reach economic sustainability. In terms of operationalising the model, ***Saraplast already has basic understanding on profitable locations and revenue bundles***.
- **Social Objectives**: Our proposed solution complements the efforts of the Indian government's ***Open Defecation Free (ODF) initiative (Swacch Bharat Abhiyaan)*** and women empowerment, especially across three target segments: ***women in slum clusters, women among floating populations, women vendors/ workers in public places like market yards and small informal business centres***. We propose a dedicated monitoring and evaluation team to capture intended impact in a consistent, but lean manner. We will develop a relevant M&E framework and data collection plan to capture key data elements like number of users, user profile, ***and behaviour change factors like handwashing, use of sanitary pads, etc***. Also, specific assessments will be undertaken from time to time to strengthen service effectiveness.



The need for an oasis in the middle of a demanding day



Providing dignity to her and
dignity to the job



Features

- TiCs are integrated sanitation hubs created through refurbishing old buses and are operated by trained female attendants. They operate entirely on solar energy and can be connected to a drainage system, eliminating the need for sewage evacuation. The facilities also provide clean water supply for flushing and hand washing. They can comprise of the following features;
- Western-style and Indian toilets
- Water-efficient taps
- Panic buttons
- Digital feedback systems
- Solar operated lights
- Points for the sale and disposal of female hygiene products
- Breastfeeding spasShopping kiosk
- Café, consulting rooms or other revenue models.
- Apps to locate toilets, google mapping and toilet rating for other toilets too.





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Summary

- A unique opportunity to participate in a project which addresses a key need in sanitation while also addressing the issue of women empowerment.
- **In association with:**
 - Municipal Corporation (ULB)
 - A corporate sponsor
 - An effective implementation partner
 - The grateful beneficiary.

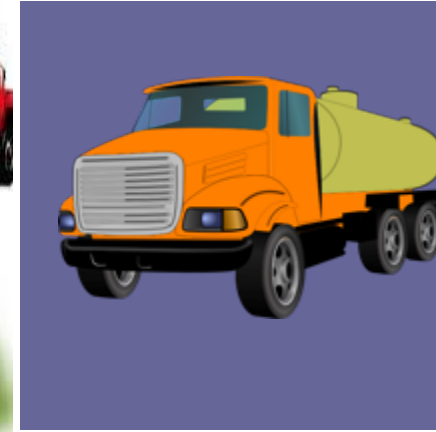
We also maintain the record of

- **Footfall**, Ti has a footfall counter which tracks the number of users on daily basis.
- **Feedback Tab** help the users to rate the service.
- **Behaviour change : place nudges to encourage people to wash hands**
- **Display hygiene methods used to keep the toilets clean and display other information on health.**
- By maintaining the records of above data we can study the user behavior and the performance of Ti. They can also be examples of how maintain hygiene standards at home





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OUR VISION

To make the basic human right of health and sanitation a reality in today's world. The company strives to supply and service portable restrooms from the most visited to the remotest areas of the globe.

SANITATION SOLUTIONS SIMPLIFIED

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THANK YOU

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