

SANITATION AND HEALTH RIGHTS IN INDIA (SHRI)

- **Background**

In 2013 more than 340,000 children under the age of five died from diseases caused by a lack of safe water, sanitation and basic hygiene, according to a report by the United Nations International Children's Emergency Fund.

In India, the problem is especially acute, with roughly 600 million citizens lacking access to basic sanitation services, and 100 million without clean water.

Sanitation and Health Rights in India (SHRI) believes that all men, women, and children deserve to live a life dignified by access to improved sanitation. SHRI builds community blocks of toilets that are easily accessible to the 650 million Indians who currently live without a toilet. SHRI fights alongside communities to eliminate open defecation as a key step in the ongoing struggle for health equity and social and economic justice. SHRI is uniquely working to bring toilets to last mile communities in rural India because 90% of India's population that defecates outside does so in rural areas.

SHRI was founded in 2011 to alleviate India's sanitation crisis. As an organization, SHRI believes that all humans deserve to live a life dignified by improved access to toilets.

- **Location, Date**

Bihar, 2011

- **Areas**

Rural

- **Stage/Scale**

Full scale, ongoing

- **Objective of the assignment**

Eliminate outdoor defecation in rural Bihar, India by building toilet blocks, training local sanitation workers, and leveraging methane waste as affordable household electricity through rechargeable battery rental.

- **What was done**

- **Construction of toilets:** SHRI constructs toilet facilities on government land for \$30,000. This includes 8 toilets for men, 8 for women, plumbing, hand washing stations, and the biogas digester. The toilet facilities are always free to use in order to encourage consistent use by community members. The human waste is hygienically disposed of in the biogas digester. Anaerobic digestion produces methane gas which is used as energy by powering a generator. SHRI's toilets are free to use to motivate consistent use by community members.
- **Water filtration:** SHRI's water filtration system is installed through a partnership with DrinkWell Systems. It is WHO certified and removes arsenic, fluoride, iron, and bacteria from water, making it safe to drink. Water is sold to customers for \$0.008 per liter. ATM

technology allows customers to pre-pay for their water and simply swipe their card to dispense it. SHRI registers water customers from the same catchment area as the toilet facility. The water filtration and distribution system also has the capacity to provide hundreds of families beyond this immediate community with safe drinking water.



• Innovation

- SHRI constructs toilet facilities which include 8 toilets for men, 8 for women, plumbing, hand washing stations, and the biogas digester.
- Human waste is hygienically disposed of in the biogas digester. Anaerobic digestion produces methane gas.
- Methane gas is used as energy by powering a generator
- SHRI's water filtration system purifies water and makes it safe to drink. Water is sold to customers for \$0.008 per liter.
- SHRI offsets the operation and maintenance costs of each facility through the sale of this water. 250 water customers generate the costs at each site.

• Lessons learnt

Partnership with local leaders and community members is essential to our success. Namely, these citizens petition their local government to hand over government land for SHRI to use for construction. This early investment in the project ensures that community members have agency in the process from the beginning stages and have an investment in working with us to ensure that the facility is utilized and maintained.

• Financials

SHRI constructs toilet facilities on government land for \$30,000. \$900 per month is the cost of maintaining each toilet site. This includes salaries for 6 staff, who track toilet attendance and ensure the facility is kept clean at all times. It also includes all cleaning supplies and extra diesel for the generator to supplement energy demands not met by the methane gas.

• Economic sustainability/Revenue Model

- By utilizing the revenue from water sales to offset this monthly cost, SHRI's community sanitation facilities are self-sustaining.

- Another way of sustaining work is by harnessing methane gas found in human waste to generate electricity that charges portable batteries, which power LEDs and other small electronics. These batteries are rented out to the 400 million Indians who live without electricity, creating a sustainable and environmental business model that can be scaled throughout India.

- **Implementer Contact Persons**

- **Anoop Jain, Founder**
Sanitation and Health Rights in India
anoop@sanrights.org

- **Sources and References**

- Sanitation and Health Rights in India website – www.sanrights.org