## 40km northeast of Bangalore, a water-stressed town of 34k has something to prove

Across India, urbanizing towns with modest budgets struggle with severe public health and environmental problems due to a lack of sanitation. This costs lives, reduces GDP, and limits human potential. The answer combines bio-based technical solutions with smart DEWATS management approaches that address the entire sanitation cycle as one holistic system.

The key question: How to deliver low-cost, localized faecal sludge and wastewatermanagement services that workand keep working-for an entire town? In Devanahalli, the local municipality joined forces with experts from BORDA and our partner CDD Society to design and build a successful, first-of-its-kind faecal sludge treatment plant (FSTP).



## No sewer systems for the next 10 years.

# Rapid growth with no piped water supply.

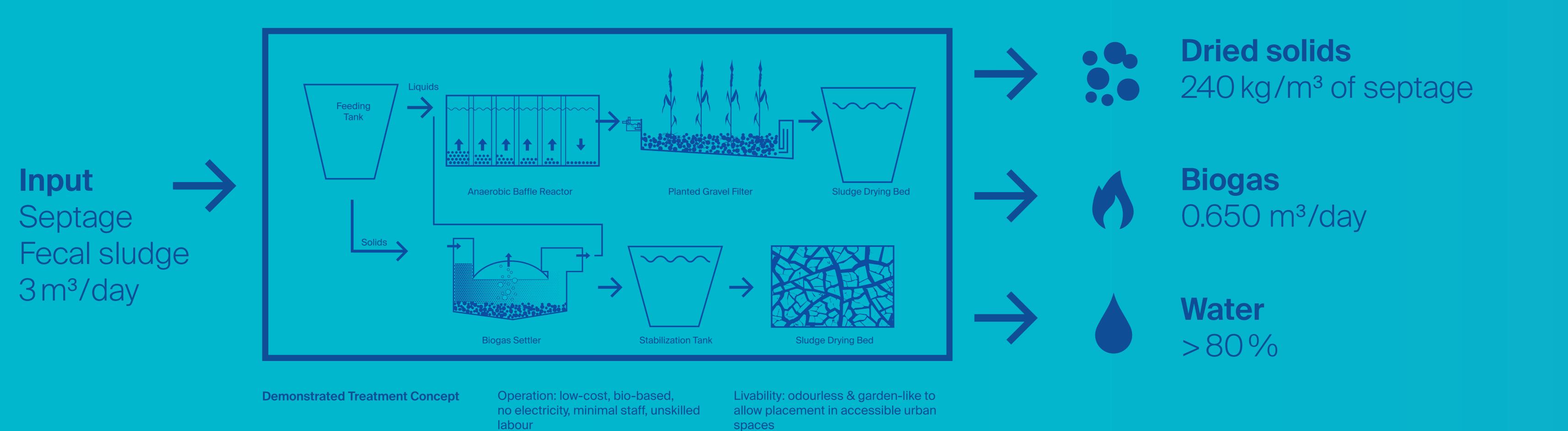
Against this stark reality, the need for faecal sludge management (FSM) in Devanahalli was critical. The town faced an urgent need to deal with:

- Lack of treatment capacity for faecal sludge collected in tanks and pits (10x more toxic than sewage)
- Open defecation
- Faecal sludge dumped into fields and water bodies
- Night soil washed out into open drains and ditches

These challenges are typical of countless municipalities around the world. With its FSTP, Devanahalli has become a proving ground for innovation in FSM. In India alone, where water-borne faecal contamination kills 500,000 people every year, FSM can serve 7,000 small towns and cities that will be home to 300 million people by 2030.

#### #Sanitation #Multistakeholder #ClosingTheLoop

## A new approach to technology and management



An intensive collaboration in Devanahalli between locals and experts has produced a holistic, scalable FSM solution that meets local needs and works within local conditions along the entire FSM value chain from initial capture to final reuse. The project demonstrates implementations in two key areas:

- 1. Treatment of faecal sludge for towns of 20–30k people: (FSTP design, construction & operation)
- 2. Management approaches for sustainable operations and financing, including a fee system that ensures long-term viability

A Second Act for Faecal Sludge: Reusable By-Products sludge  $\rightarrow$  soil conditioner biogas  $\rightarrow$  fuel for cooking leachate  $\rightarrow$  composting of solid waste treated effluent  $\rightarrow$  irrigation

# An international project attracting attention worldwide

Launched in 2016 and financed by the Bill & Melinda Gates Foundation, the success of the Devanahalli FSTP has led to:

- 2017 Best Innovation in Sanitation Award (FICCI - Federation of Indian Chambers of Commerce and Industry)
- Adoption of the Devanahalli model for 30 new FSM projects currently commissioned in towns across India, with over 100 expected by 2019 as part of the Clean India Mission
- FSM system designs for Nepal, Bangladesh and Bhutan

