

THE SANITATION ECONOMY OPPORTUNITY FOR SOUTH AFRICA

SUSTAINABLE SOLUTIONS FOR
WATER SECURITY & SANITATION

A Business Perspective



TOILET
BOARD COALITION

TOILET

BOARD COALITION

SINCE 2015

Catalysing and supporting private sector engagement, innovation and business solutions to deliver smart, sustainable & resilient sanitation for all.



IN 2019 TBC MEMBERS & PROJECT PARTNERS



RISK MANAGEMENT: SANITATION & RESOURCE SECURITY

**WATER
SECURITY**

**ENERGY
SECURITY**

**FOOD
SECURITY**

**HEALTH
SECURITY**

WATER



SANITATION



HEALTH



WASTE



FMCG



ENERGY



FOOD/
AGRICULTURE



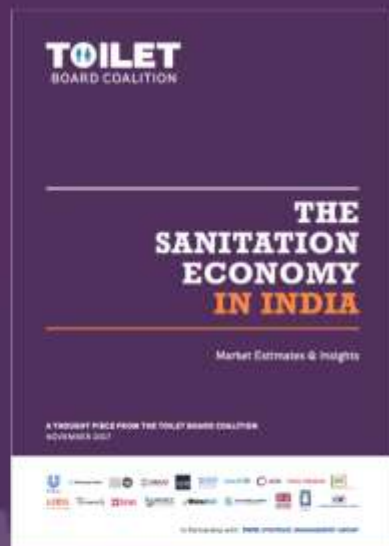
BUSINESS OPPORTUNITY: NEW RESOURCES, NEW DATA & INFO, NEW MARKETS



THE SANITATION ECONOMY IN INDIA

MARKET ESTIMATE:

The SANITATION ECONOMY is a **US \$32 BILLION** per year market in India today and set to double to an estimated **US \$62 BILLION** by 2021.

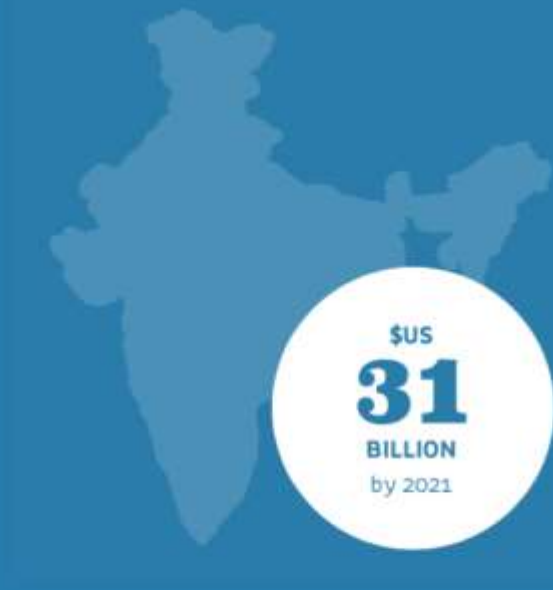


THE TOILET ECONOMY

TOILET PRODUCTS AND SERVICES

MARKET ESTIMATE:

The total market for construction of individual & community toilets, deployment of portable toilets, maintenance, repair & cleaning is estimated to be worth **\$14 BILLION** in 2017 and could more than double to **\$31 BILLION** by 2021.*



GLOBAL MARKET

TOILET ECONOMY

A MARKETPLACE OF BUSINESS SOLUTIONS



THE CIRCULAR SANITATION ECONOMY

PRODUCTS DERIVED FROM TOILET RESOURCES

MARKET ESTIMATE:

Products derived from Toilet Resources, and organic / biological waste such as water, fuel, electricity, proteins, and organic fertilisers or compost offer tremendous scope for growth. Considering both the supply side¹ and demand side scenarios in India², the overall market for these products is estimated to be \$14 BILLION in 2017 and is expected to grow to \$25 BILLION by 2021.*



GLOBAL MARKET

CIRCULAR SANITATION ECONOMY

A MARKETPLACE OF BUSINESS SOLUTIONS



THE SMART SANITATION ECONOMY

DIGITAL TECHNOLOGY APPLICATIONS FOR SANITATION

MARKET ESTIMATE:

The Smart Sanitation market could get started with an estimated value of **\$4 BILLION** in 2017 and could grow to an estimated **\$6 BILLION** by 2021 considering available data comparisons to some **digital healthcare and smart cities applications**.*

Health prevention data through the capture of data from sanitation systems is not yet being monitored today, but could be worth **\$3 BILLION** in 2021 as part of the **healthcare Internet of Things (IoT) market**.



\$US
6
BILLION
by 2021

GLOBAL MARKET

SMART SANITATION ECONOMY

A MARKETPLACE OF BUSINESS SOLUTIONS



UNLOCKING VALUE THROUGH ENTREPRENEURSHIP



Big Business partnering with innovators and entrepreneurs to build the Sanitation Economy



Bespoke Mentorship & Business to Business



Accelerating

supporting **sanitation business needs for scale & accessing business experts**



Co-innovating

partnerships between large & small businesses with mutual business interest **to create new value**



Bundling

cross sector partnerships for **access & distribution** between businesses targeting the same customers in the BoP

TOILET ACCELERATOR

Our Portfolio



A Growing Pipeline across the Sanitation Economy

BUSINESSES ACROSS ECONOMIES



INNOVATIVE SANITATION PRODUCTS & SERVICES

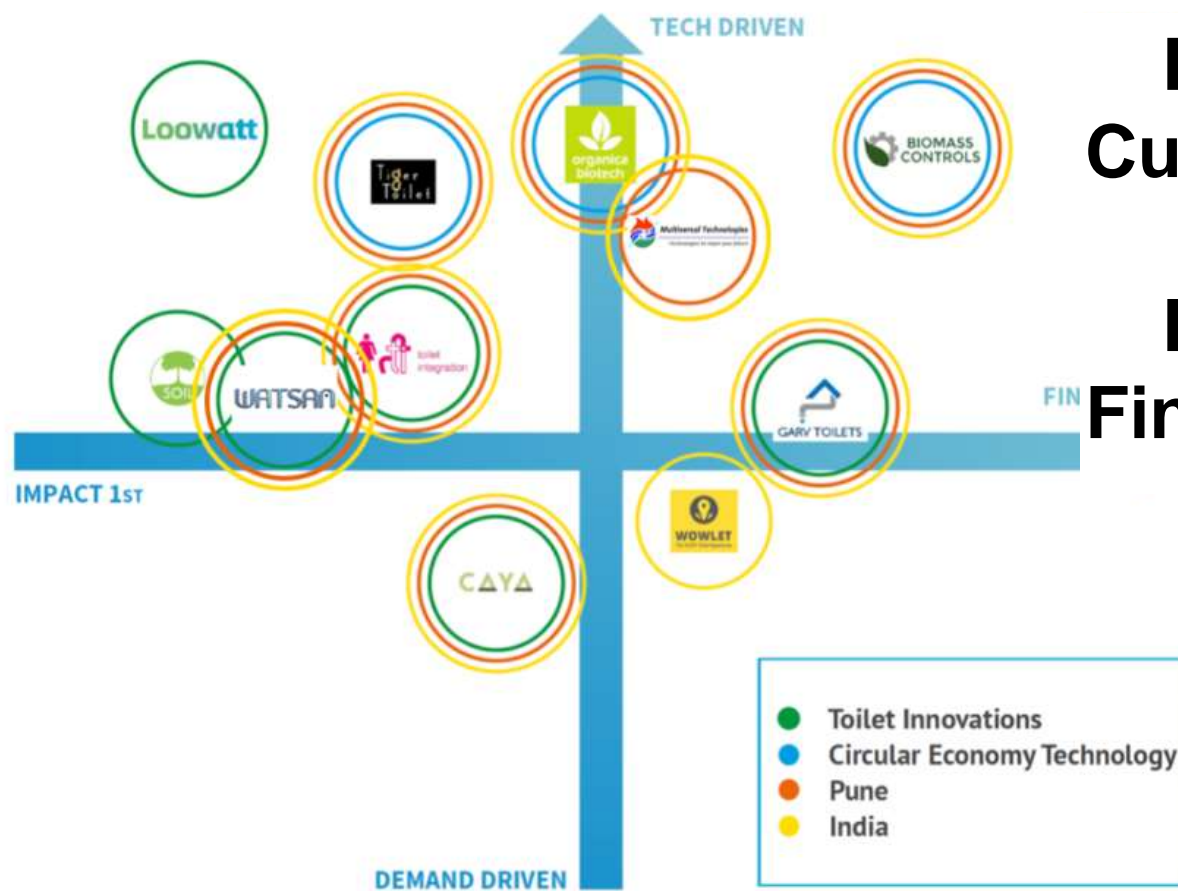
Logos included: CSATS BHUMIJO, PEE-BUDDY, ARREBOL, polipop, PadCare Labs, EDWIN INDUSTRIAL COMPANY, PITVIDURA

CIRCULAR SANITATION ECONOMY

Logos included: ihlala, HOME BIOGAS, GRASSROOTS ENERGY, akyas, GOLD, WASE, Compost Baladi

DIGITAL & MOBILE APPLICATIONS FOR SANITATION

Logos included: Eram Scientific, Plataforma Verde, PeeHub, WOWLET, TECHNOLOGICAL PLUMBING SOLUTION



From Tech-driven to Customer-driven

From Impact 1st to Finance 1st

TOILET
BOARD COALITION

SMART SANITATION CITY

The Sanitation Economy at City Scale

A THOUGHT PIECE FROM THE TOILET BOARD COALITION
IN PARTNERSHIP WITH THE PUNE MUNICIPAL CORPORATION & PUNE SMART CITY, INDIA
NOVEMBER 2018



Unilever

Rohit Pathak

Global Brand Director, Domestos, Unilever

As the Toilet Board Coalition's work has progressed, more and more evidence has emerged that the Sanitation Economy can transform sanitation and at the same time create business opportunity. This goes beyond CSR projects, and beyond businesses directly providing sanitation products and services, valuable as those are. We're seeing sanitation open up as a new consumer space, a part of consumers' lives where they spend time, and have needs and preferences for a wide range of products and services, and where we can gather data to develop much better consumer understanding. The sweetspot is to meet a fundamental human need for sanitation, especially for the poorest people, to do that in a way

IBM.

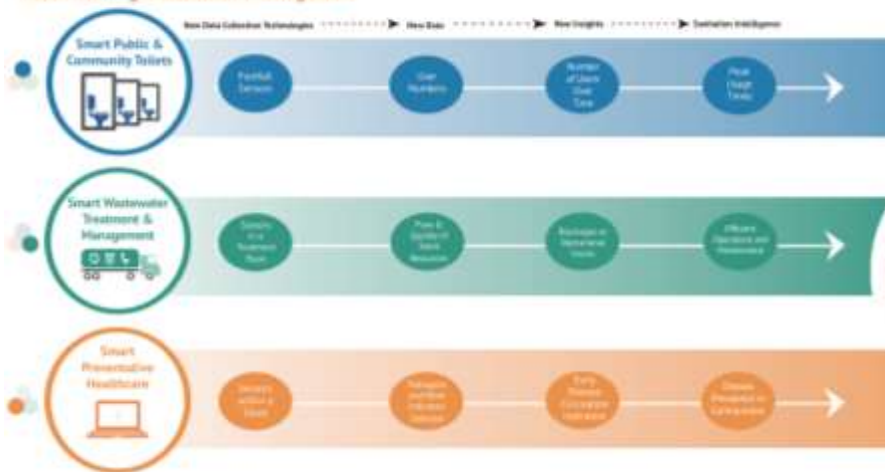
Partha Dey

Healthcare Leader for India and South Asia

India's healthcare system has seen significant progress in recent years. A strong economy, expanding medical options and longer lifespans are contributing to greater demand for high-quality healthcare services. But to fulfil this demand, the major stakeholders in India's healthcare system must address shortcomings in areas such as infrastructure, insurance coverage and availability of skilled medical professionals. New ecosystems are beginning to redefine the way healthcare is organised and delivered in India where participants can collaborate in new ways to promote better outcomes and improve the patient experience¹⁰.

HOW DOES SANITATION GET SMART

New technologies enabling the collection of new data, feeding new insights, and creating Sanitation Intelligence



SANITATION INTELLIGENCE

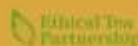
The Smart Sanitation City produces new intelligence for individuals, businesses and city authorities



THE SANITATION ECONOMY IN AGRICULTURE

Sector Level Opportunities, New Toolbox, and Case Study

A THOUGHT PIECE FROM THE TOILET BOARD COALITION
IN COLLABORATION WITH THE ETHICAL TEA PARTNERSHIP
NOVEMBER 2018



CASE STUDY: Hathikuli Plantation, Assam, India

Social, environmental and economic factors studied to produce recommendations for tendering and investment in a demonstrator Circular Sanitation installation

Tata Global Beverages and Amalgamated Plantation, in association with the TBC and ETP, have completed a feasibility study in July 2018 to understand the benefits of implementing a Circular Sanitation Economy system in a tea plantation. This study addressed the social, environmental and economic components of implementing new sanitation infrastructure and technology that would collect Toilet Resources and convert them into new valuable resources for the plantation.

Located in North India in the state of Assam, Hathikuli is an organic tea plantation operated by 4330 workers. The estate provides residential houses for its permanent workers and their families, each provided with a toilet shelter and pit latrine. The plantation management are committed to improving the sustainability of the plantation and quality of life for its workers.

The study methodology is detailed later in this report, as a step by step toolbox. This was created to collect and analyse the information needed to implement a Circular Sanitation Economy approach. This assessed the feasibility and potential for resource recovery, and evaluated a range of toilet, collection, and treatment options. The toolbox is adaptable to quantifying the broad benefits to agriculture described previously. However this initial study was focused on the specific needs of Hathikuli.

SOCIAL

Community response to collection, and to re-use products at home and at work



ECONOMIC

Capital and operational costs, value of re-use products



ENVIRONMENTAL

Carbon emissions



NEW TOOLS TOILET RESOURCE CALCULATOR

1

Assess the possible amount of Toilet Resources produced: Toilet Resource Calculator

2

Compare and select re-use product(s):
Quantification of Resource Streams

3

Determine the type of toilet and Toilet Resource transportation needed for selected re-use product(s): Feasibility Choice Matrix

4

Include social and environmental factors: Feasibility Choice Matrix

5

Final synthesis:
Comparison Chart



Satellite
Navigation



Satellite
Communication



Earth
Observation



business
applications

SPACE FOR SANITATION

GLOBAL SANITATION ECONOMY SUMMIT

19-21 NOVEMBER 2019

An exclusive convening of Sanitation Economy businesses, investors and policy leaders coming together in Pune India to showcase working Sanitation Economy systems ready for scale and applicable globally.

Request an invitation and join us to share best practice, build new partnerships for scale and un-lock the multi-billion dollar Sanitation Economy improving billions of lives.

[SUMMIT OVERVIEW](#)

[REQUEST AN INVITATION](#)

YOU'RE INVITED!

THE SANITATION ECONOMY OPPORTUNITY FOR SOUTH AFRICA

SUSTAINABLE SOLUTIONS FOR
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A Business Perspective



TOILET
BOARD COALITION

CALL TO ACTION: A 5 POINT ACTION PLAN

Launching a National effort to build the Sanitation Economy in South Africa 2020-2025

Inspired by the success factors of the SBM program, of the 'Waste to Resource' paradigm and of Citywide Inclusive Sanitation, we propose stimulating a global effort to help scale up the Sanitation Economy in countries around the world by, among other things:

01

Disrupting the status quo - and creating demand for Sanitation Economy solutions;

02

Rethinking approaches to the provision of urban sanitation services, encouraging private sector companies and their public sector counterparts to raise the bar on providing safely managed sanitation at scale;

03

Considering wastewater and faecal sludge as a valued resource to be recovered and reused;

04

Identifying quick wins in the scaling of business solutions in the sector.

05

Unleashing the influencers who can help in the financing of sustainable and resilient sanitation systems,

BUILDING THE SANITATION ECONOMY IN SOUTH AFRICA

01

**Disrupting the Status Quo:
Creating Demand for the Sanitation Economy in SA**

02

Rethinking sanitation approaches: Toilet as a Delivery System of Value

03

Circular Economy & Smart Digital approaches to Sanitation - New Resources & Data

04

Identifying Quick Wins - Business solutions to scale

05

Unleashing the influencers: Financing the Sanitation Economy