



Online **ADB Sanitation Dialogue 2021**

ACCELERATING INCLUSIVE SANITATION

12–22 April 2021

How to: **The Business of the Sanitation Economy**

with **TOILET**
BOARD COALITION

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Plenary Hosts



Alexandra Knezovich
Dir. of Operations



Venu Gupta
Dir. of Accelerator &
Investor Relations

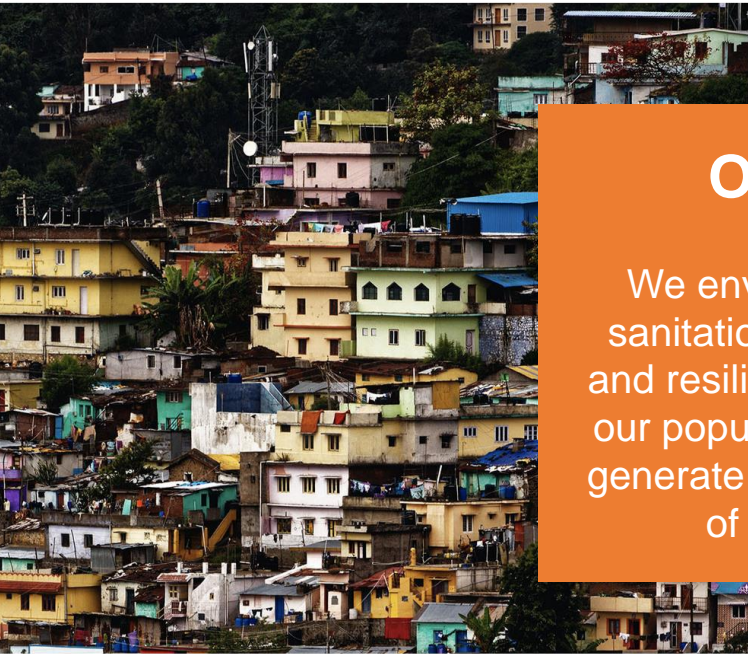
Breakout Room Hosts



B H U M I J O



ABOUT TOILET BOARD COALITION



OUR VISION

We envision a global marketplace – a sanitation economy – for self-sustaining and resilient sanitation systems that serve our population, strengthen our planet and generate economic returns for businesses of all sizes and geographies.

OUR MISSION

Drive private sector engagement towards universal access to sustainable safely managed sanitation.



HOW WE WORK

Catalyse Sanitation Economy ecosystems through strategic projects and thought leadership to build opportunities and environments for the private sector to grow the Sanitation Economy and contribute to SDG 6.2.

Focused private sector engagement to drive and demonstrate scale

ENTREPRENEURS

ECOSYSTEMS

Ensure there are **scale-ready sanitation economy businesses** to take advantage of investment and business opportunities via the Accelerator Programme

WHAT WE'VE DONE



ENTREPRENEURS COMPLETING THE ACCELERATOR PROGRAMME GRADUATING WITH INVESTMENT OR PARTNERSHIP WITH A MULTINATIONAL.

10M \$

INVESTED IN THEM IN THE PAST 5 YEARS

5M \$

IN 2020



45 SANIPRENEURS IN OUR PORTFOLIO



12 COUNTRIES

5 CONTINENTS



3MT TREATED TOILET RESOURCES



22KT EMISSIONS MITIGATED IN 2020



1.5M PEOPLE IMPACTED DAILY

22M \$

FACILITATED INTO PRIVATE SECTOR SOLUTIONS TO SDG6.2

22



REPORTS REACHING 10K PEOPLE

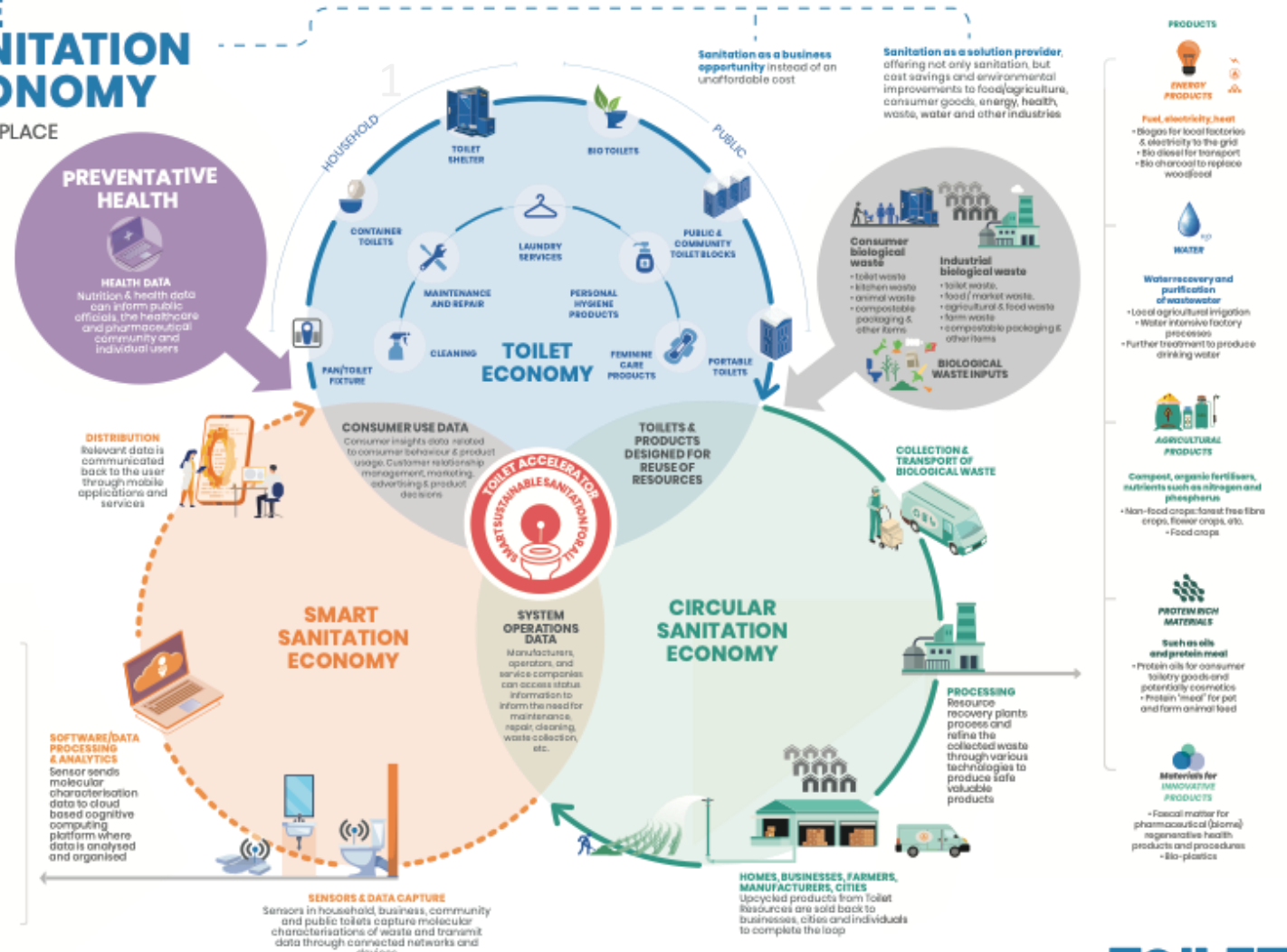
100+



EVENTS ATTENDED 22B IMPRESSIONS THROUGH MEDIA & COMMUNICATIONS

THE SANITATION ECONOMY

MARKETPLACE



PREVENTATIVE HEALTH

HEALTH DATA
Nutrition & health data can inform public officials, the healthcare and pharmaceutical community and individual users

DISTRIBUTION
Relevant data is communicated back to the user through mobile applications and services

CONSUMER USE DATA
Consumer insights data related to consumer behaviour & product usage, Customer relationship management, marketing, advertising & product decisions



SYSTEM OPERATIONS DATA
Manufacturers, operators, and service companies can access status information to inform the need for maintenance, repair, cleaning, waste collection, etc.

SMART SANITATION ECONOMY

SOFTWARE/DATA PROCESSING & ANALYTICS
Sensor sends molecular characterisation data to cloud based cognitive computing platform where data is analysed and organised

SENSORS & DATA CAPTURE
Sensors in household, business, community and public toilets capture molecular characterisations of waste and transmit data through connected networks and devices

SENSORS



INFRASTRUCTURE

Sanitation as a business opportunity instead of an unaffordable cost

Sanitation as a solution provider, offering not only sanitation, but cost savings and environmental improvements to food/agriculture, consumer goods, energy, health, waste, water and other industries

Consumer biological waste

- Toilet waste
- Kitchen waste
- Animal waste
- Compostable packaging & other items

Industrial biological waste

- Toilet waste
- Food / market waste
- Agricultural & food waste
- Farm waste
- Compostable packaging & other items

COLLECTION & TRANSPORT OF BIOLOGICAL WASTE



PROCESSING

Resource recovery plants process and refine the collected waste through various technologies to produce safe valuable products

HOMES, BUSINESSES, FARMERS, MANUFACTURERS, CITIES
Upcycled products from Toilet Resources are sold back to businesses, cities and individuals to complete the loop

PRODUCTS



- Fuel, electricity, heat**
- Biogas for local factories & electricity to the grid
 - Bio diesel for transport
 - Bio charcoal to replace woodfuel



- Water recovery and purification of wastewater**
- Local agricultural irrigation
 - Water for textile factory processes
 - Further treatment to produce drinking water



- Compost, organic fertilisers, nutrients such as nitrogen and phosphorus**
- Non-food crop-based: tree fibre crops, flower crops, etc.
 - Food crops



- Such as oils and protein meal**
- Protein oils for consumer toiletry goods and potentially cosmetics
 - Protein 'meat' for pet and farm animal feed



- Materials for innovative products**
- Faecal matter for pharmaceutical (biome) regeneratives health products and procedures
 - Bio-plastics

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TOILET BOARD COALITION

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THE TOILET ECONOMY

Products and services that provide safe toilet access for everyone, everywhere. This spans centralised and decentralised, sewerred and non-sewerred, high and low water tables, low-income to high, rural, urban and peri-urban. Toilet designs apply circular sanitation economy principals to minimise waste and greenhouse gases and capture data to feed the smart sanitation economy.



CIRCULAR SANITATION ECONOMY

Toilet resources (The TBC's preferred term for human waste) feed into a system which replaces traditional waste management with a circular economy approach. It connects the biocycle, using multiple forms of biological waste, recovering nutrients and water, creating value-adding products such as renewable energy, organic fertilisers, proteins and more.



SMART SANITATION ECONOMY

Digitised sanitation systems that optimise data for operating efficiencies, maintenance, plus consumer use and health information insights. Sanitation is included in smart cities' architecture, monitoring public toilet usage, sewage treatment and health indicators, and detects needs for maintenance and repair throughout the system.

THE SANITATION ECONOMY

MARKETPLACE



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PRODUCTS



ENERGY PRODUCTS

- Fast, electricity, heat
- Biogas for local factories & electricity to the grid
- Bio diesel for transport
- Bio charcoal to replace woodfuel



WATER

- Water recovery and purification of wastewater
- Local agricultural irrigation
- Water re-use in factory processes
- Further treatment to produce drinking water



AGRICULTURAL PRODUCTS

- Compost, organic fertilizers, nutrients such as nitrogen and phosphorus
- Non-food crop based: tree latex, orange, flower crops, etc.
- Food crops



PROTEIN RICH MATERIALS

- Such as oils and protein meal
- Protein oils for consumer safety goods and potentially cosmetics
- Protein 'meal' for pet and farm animal feed

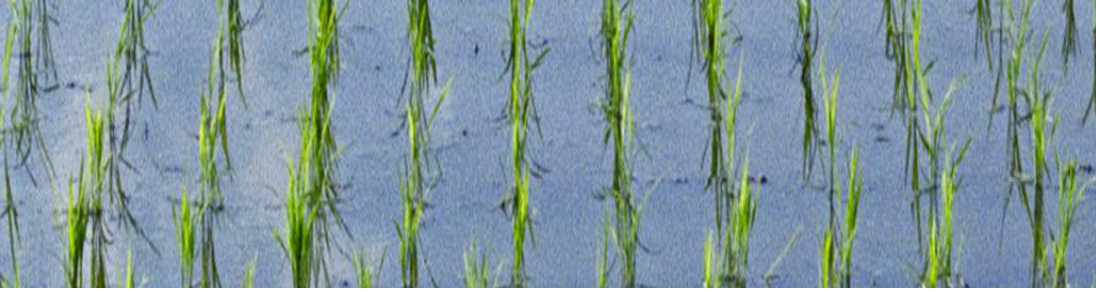


Materials for pharmaceutical products

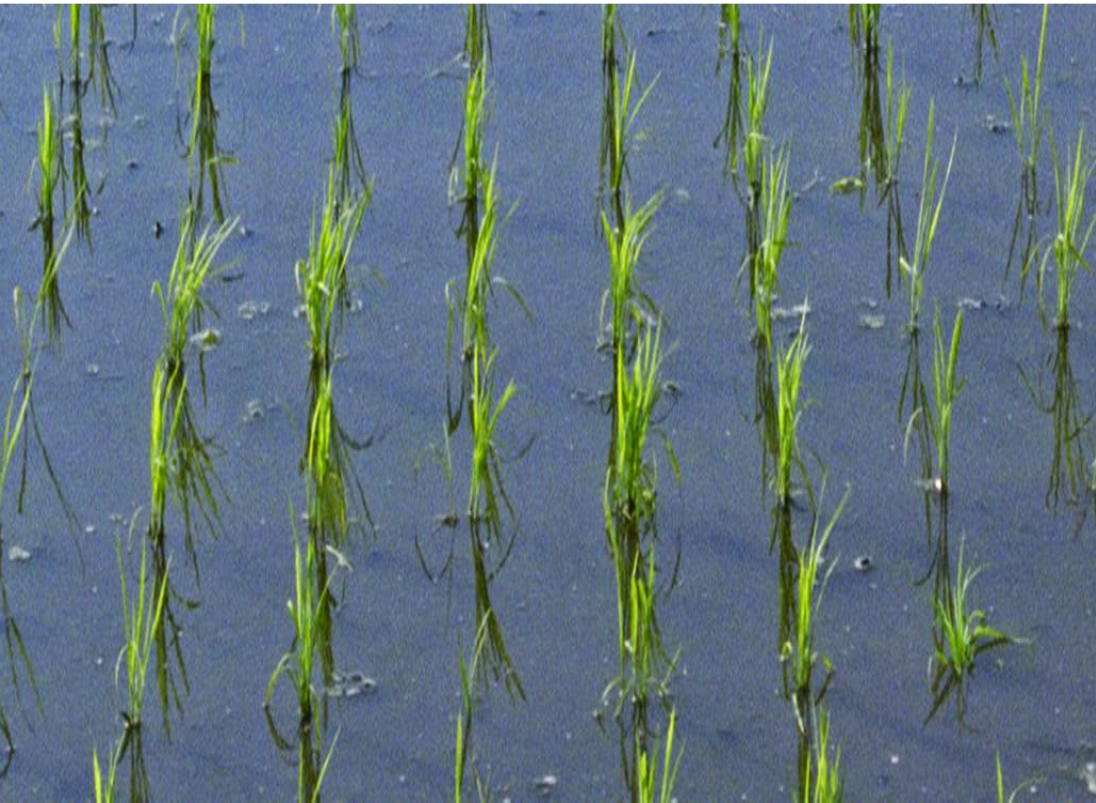
- Faecal matter for pharmaceutical (biome) derivatives, health products and procedures
- Bio-plastics

TOILET

BOARD COALITION



BREAKOUT ROOMS



Room 1 / Aerosan & PadCare Labs
(Nepal & India)

Room 2 / Bhumijo, Biomass
Controls, & Trashcon (Bangladesh &
India)

Room 3 / Loowatt, Tiger Toilet &
Ecodew (Philippines & India)

MIRO BOARD

[Link & directions](#)

AVAILABLE TOOLS



MARKET ESTIMATES

The Toilet Board Coalition has developed with



CITY SANITATION PLAYBOOK

For municipalities looking to provide sustainable urban sanitation services, the Toilet Board Coalition has developed a City Sanitation Playbook & Toolkit to power data backed decision making.



RESOURCE CALCULATOR

This tool is designed for cities, governments, plantations and factories to assess the benefits of implementing circular sanitation by calculating the potential amount of fuel, fertiliser, feed or water produced from the Toilet Resources of a community.



ROUNDTABLES

We assemble Roundtables from across our membership to oversee and guide projects throughout their lifecycle.

ENGAGEMENT OPPORTUNITIES



INNOVATION LABS

Co-design an Innovation Lab with the Toilet Board Coalition to engage with entrepreneurs and fill a technological, business model, geographic or demographic gap in the Sanitation Economy.



SCALE PROJECTS

Design and implement bespoke collaborative projects with multinational corporations (or local governments) to advance sustainable sanitation economy systems in a specific context.



KNOWLEDGE & INSIGHTS

Partner with the Toilet Board Coalition to highlight the business insights and new perspectives of the Sanitation Economy in a sector or geography through media, publications or the development of a standard.



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THANK YOU!

Reach us at anytime at:
secretariat@toiletboard.org