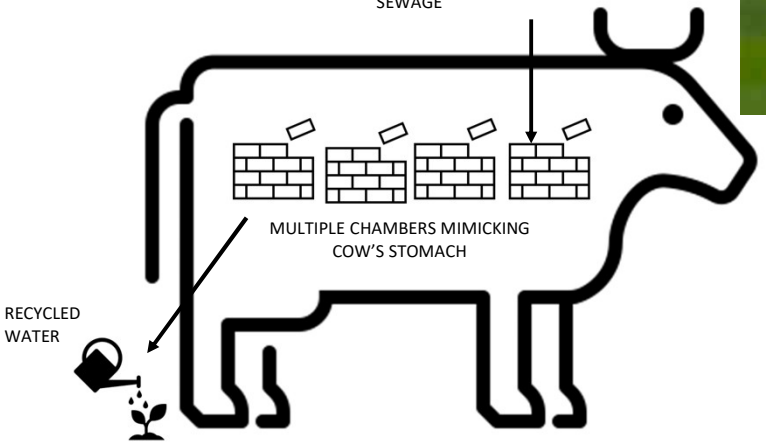
ECOSTP®
sewage to gold™

ECOSTP Technologies ℗ Ltd



Biomimicry based Net Zero Sewage Treatment Technology

1

INDIA HAS A SERIOUS WATER PROBLEM

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Ranked 120 out of 122 in the global water quality index.

Nearly 80 percent of India's freshwater is used in agriculture

At the current consumption rate India will have only half the water it needs by 2030

The ECONOMIC COST-

Severe water scarcity will eventually lead to a 6 percent loss in the country's GDP.

"Decreases in water supply can **disrupt agricultural production and industrial operations**, resulting in **inflation** in food prices and **declines in income** for affected businesses and communities, while sparking social unrest,"

2

INDIA HAS A SERIOUS WASTE-WATER PROBLEM

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India- 1.38 billion Population.	Rural- 65% (900 million)	Urban 35% (483 million)
Wastewater Generation	Rural- 35% (39604 MLD)	Urban **65%** (72368 MLD)

Urban Wastewater Treatment

Urban population is expected to increase by 40% by 2050

Current Capacity	28% (20,236 MLD)	**72% of untreated wastewater**
+ Planned	51%	**49% of untreated wastewater**

73% of Wastewater for Class I cities and Class II towns will remain untreated.

Urban population is expected to increase by 40% by 2050

3

THE PROBLEM COULD BE A SOLUTION

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Wastewater is a viable water resource for building a water-secure future.

- **80%** of untreated wastewater from 110 top cities can meet **75% of the industrial water demand**.
- Sludge from treated wastewater can serve 3 mn hectares of land, reducing usage of **fertilizers by 40%.**

Benefits of Safe Reuse of Treated Wastewater (SRTW) over untreated water-

- Better groundwater quality- It curbs soil degradation and groundwater contamination.
- Reduces human health hazards from contaminated water & consuming food grown from untreated water.
- It can replace or supplement the groundwater and curb its over-extraction for irrigation.
- Reuse include industries, agriculture, toilet flushing, aquifer recharge, construction etc.

Wastewater remains an "untapped" and "undervalued" resource.

Much of the wastewater currently re-used is inadequately treated or even untreated due to multiple issues.

4

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WASTE-WATER TREATMENT PROBLEM

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THE ECONOMIC TIMES SECTIONS ET APPS ENGLISH E-PAPER ET PRIME

70 per cent of Indian sewage treatment plants dysfunctional: Prakash Javadekar

Through his recorded video message at 'Wastech', Javadekar called for better solutions to tackle problems related to waste management in India.

PTI | Updated: Nov 21, 2014, 05.04 PM IST

Save

0 Comments

GANDHINAGAR: Union Minister Prakash Javadekar today said that 70 per cent of all sewage treatment plants in India do not work due to high running cost.

Through his recorded video message at 'Wastech', an international summit on waste management organised at Mahatma Mandir here today, Javadekar called for better solutions to tackle problems related to waste management in India.

Through his recorded video message at 'Wastech',

70 per cent of all sewage treatment

- **36% STPs do not comply** with the PCB norms (CPCB assessment of 1093 STPs).
- Plant efficiency utilized **66%**

Key factors affecting efficiency of treatment

- Improper plant design.
- Dependence on Skilled Operators.
- High Treatment Costs.
- Lack of maintenance.
- Limited Life.

6

Sustainable Solutions for STPs

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Nature-based Solutions

- Living solutions inspired by and using nature.
- Designed to operate in a resource-efficient and adaptable manner., with low inputs of energy and chemicals. **(Resource Efficiency)**
- Mimic natural processes in urban landscapes -use plants, soil, bacteria, and other natural elements and processes to treat wastewater.
- Cost-effective, energy efficient, low impact, simple and environmentally friendly.
- They preserve energy, labour, and materials. And are Designed for durability, reuse, remanufacturing, and recycling. **(Circular Economy)**

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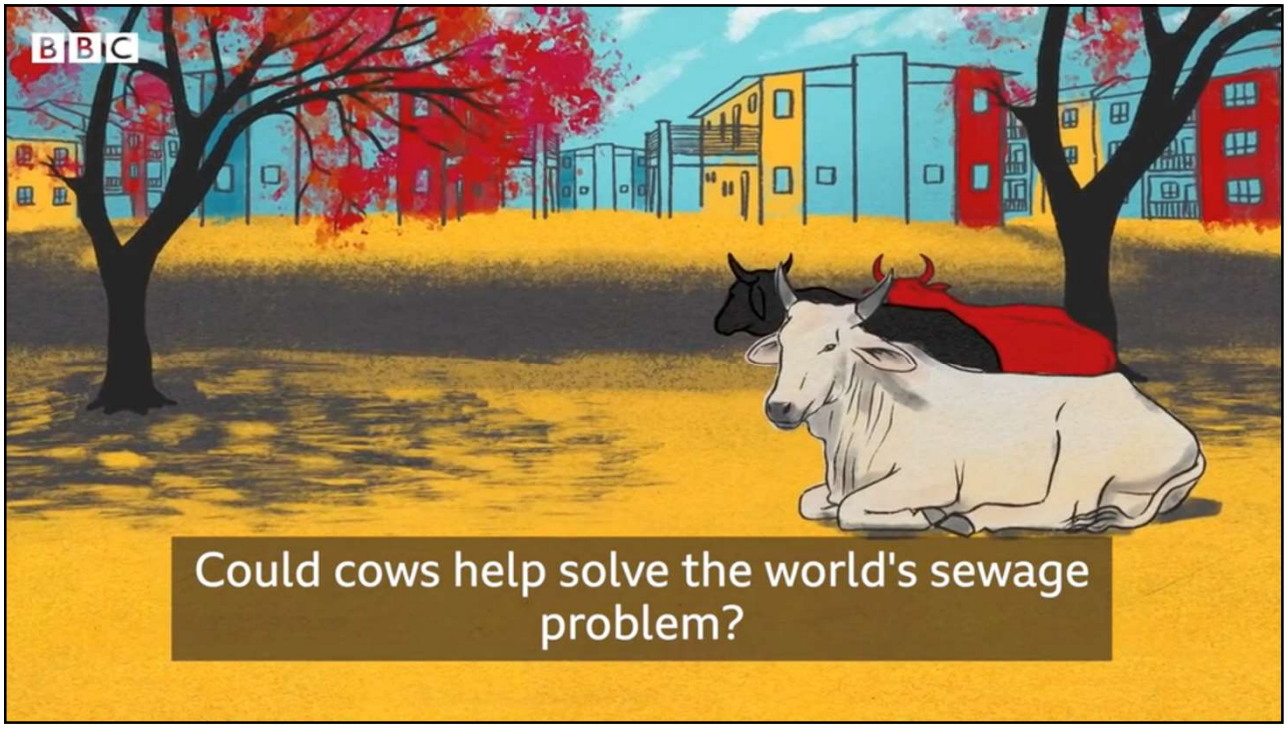

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ECOSTP -Biomimicry based Net Zero Sewage Treatment Technology

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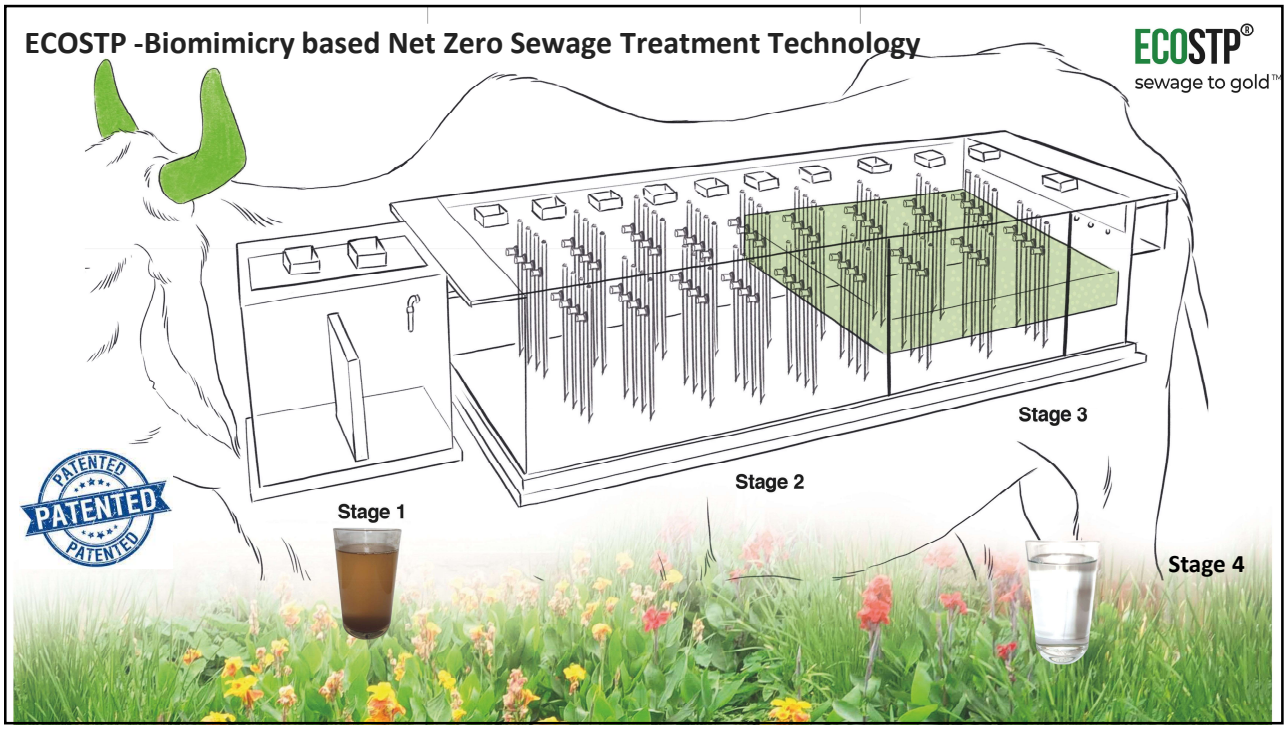

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A Sustainability start-up treating sewage without using any power, operators or chemicals. **ECOSTP** has no moving parts.

ECOSTP® sewage to gold™

Problem

- 70% of Indian sewage is untreated !!!
- Treating Sewage is expensive (Rs 16 to 32 Rs per KL) as the conventional STPs use lots of power and chemicals

Solution

- ECOSTP sewage treatment technology treats sewage at Rs 2 per KL.
- The product is a replica of a cows stomach based on bioengineering concept.

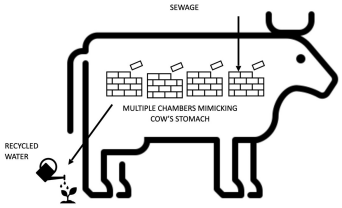
Impact

- 3 Billion litres of sewage reclaimed to good water
- 5500 MWH power saved
- 4500 tonnes of coal saved

Achievements

- Selected by United Nations as a Best Practice
- Featured by BBC
- **3 Patents Granted**
- **265 plus clients across 25 States**

Customer profile: DECATHLON, TATA STEEL, BRIGADE, adani Realty, EMBASSY, TITAN, Berger, ADARSH DEVELOPERS



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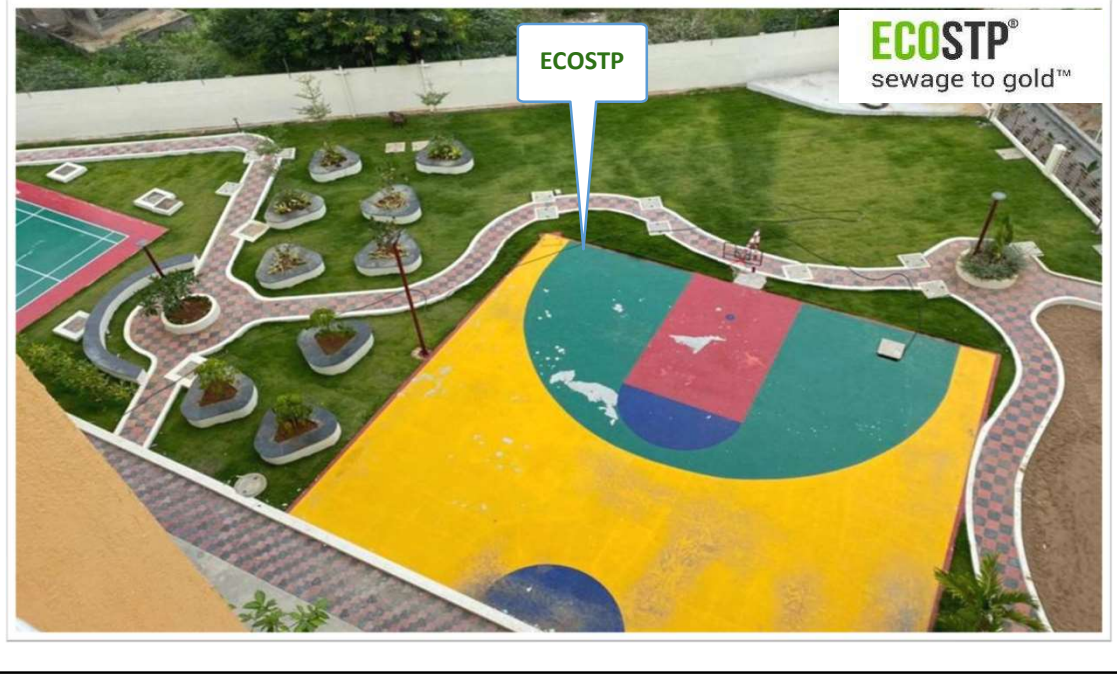

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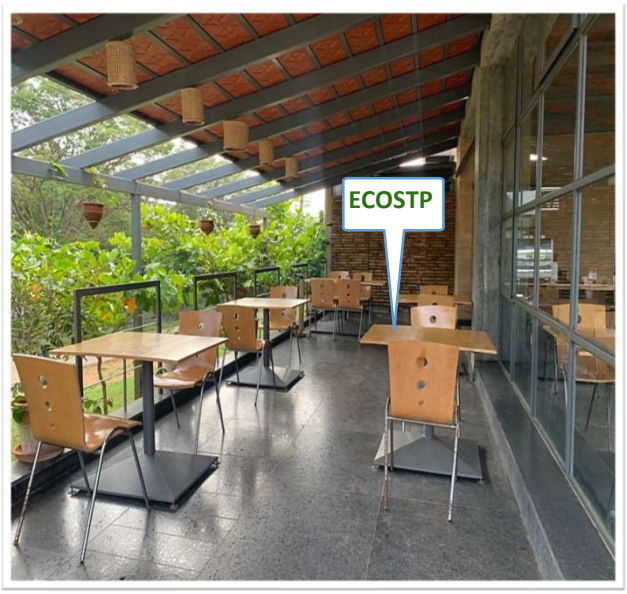

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ECOSTP PROCESS

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ECOSTP PROCESS

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INDIAN ANALYTICAL TESTING LABORATORY (IATLab)
NABL &ISO 9001:2015 Certified Laboratory
No.3, 3rd Floor, A Main Road, North Layout, Nayandanahalli, Near Indian Oil Petrol Bunk, Bangalore: 560039, Karnataka.
Mob No: 7899440170 E-Mail:support@iatlab.com Web site: www.iatlab.com

Test Report

Name of the Location	STP Final Treated Water
Name of the Project	Bharat Heavy Electricals Limited (BHEL) Science Institute Post, Malleshwaram, Ctr Rao Circle, Pb-1245, Bengaluru, Karnataka 560012
Sample Collected By	Customer
Date of Collection	13.10.2020
Particulars of Sample Collected	STP Final Treated Water
Date of sample receipt	13.10.2020
Sample Number	IATL/10/SCW/017
Date of analysis started	13.10.2020
Date of analysis completion	16.10.2020
Date of Report	16.10.2020

ANALYSIS REPORT OF WATER QUALITY

Sl.No	Parameters	Protocol	Unit	Limit	Result
01	pH Value	IS 3025 (Part 11)	---	6.5-9.0	7.50
02	BOD for 3 days @20°C	IS 3025 (Part 44)	mg/l	<10	4.50
03	Total suspended solids	IS-3025-(Part-17)	mg/l	---	32
04	Chemical Oxygen Demand	IS 3025 (Part 58)	mg/l	<50.0	28.50
05*	Amonical nitrogen*	IS-3025-(Part-34)	mg/l	<50.0	22.00
06*	Total Nitrogen*	IS-3025-(Part-34)	mg/l	<10.0	4.60
07*	Fecal Coliform (MPN/100ml)*	IS1622-1993	--	--	<1

Analyzed By | Verified By | Authorised Signatory

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TÜVRheinland®
Precisely Right.

Industry Services

Prüfbericht - Nr.: IND/BLR/CH/2020/4157
Test Report No.:
ULR No.: TC568820500002196P
Seite 2 von 4 / Page 2 of 4

TEST RESULTS

Discipline: Chemical.
Product Group: Pollution and Environment

Sample Description	STP Treated	Test Started on	27.06.2020
Sample Received on	24.06.2020	Test Ended on	10.07.2020

Sl. No.	Parameters	Results	Test Method
1	pH Value	7.23	IS:3025 (P-11)
2	TSS , mg/l	<1	IS:3025 (P-17)1984
3	Ammonical nitrogen , mg/l	15.86	IS:3025 (P-34) 1988
4	Total Nitrogen	15.86	IS:3025 (P-34)
5	BOD , mg/l	9.0	ISO 3025 (P-44) 1993
6	COD , mg/l	32	ISO 3025 (P-58) 2006
7	Coliform, ufu/100ml	ND	IS:15185

Remarks:
ND: Non Detected

Auftraggeber: MAMTHA ELITE
Client: 2150, Layout Rd, Carmelaram, Janatha Colony, Doddakannelli, Bengaluru, Karnataka 560035

Gegenstand der Prüfung: STP Treated
Test item:

Bezeichnung: -
Identification:

Serien-Nr.: -
Serial No./ Document Submitted: Email date 24.06.2020

Wareneingangs-Nr.: 240620
Receipt No.:

Eingangsdatum: 24.06.2020
Date of receipt:

Order No.: 16640663

Testing Period: 27.06.2020 to 03.07.2020

Prüfort: TÜV Rheinland India Pvt Ltd, Plot No.27B, 2nd cross Electronic City Phase I Industrial Area, Hosur Road, Bangaluru - 560 100, Karnataka, India
Testing location:

Prüfgrundlage: Customer's requirement
Test specification: Testing for specified Chemical Parameters.

Prüfergebnis: Refer Page 2 to 2

TÜV Rheinland (India) Pvt. Ltd., No.27B,2nd cross, Electronics City Phase I Industrial Area, Hosur Road, Bangalore – 560 100

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PRODUCT BENEFITS

ECOSTP®
sewage to gold™

NO MINIMUM LOAD

NO 30% MINIMUM LOAD REQUIREMENT

NO POWER

NO OPERATORS

PCB - CFE & CFO APPROVED

NO ODOUR

ROI LESS THAN 2 YEARS

19

SUSTAINABLE SEWAGE TREATMENT

ECOSTP®
sewage to gold™

30 KLD Savings Annually
(Industry with 650 persons daily)

Power Saved = 19710 KWH

Coal Saved = 15.77 Tonnes

Money Saved= INR 7.8 lakhs

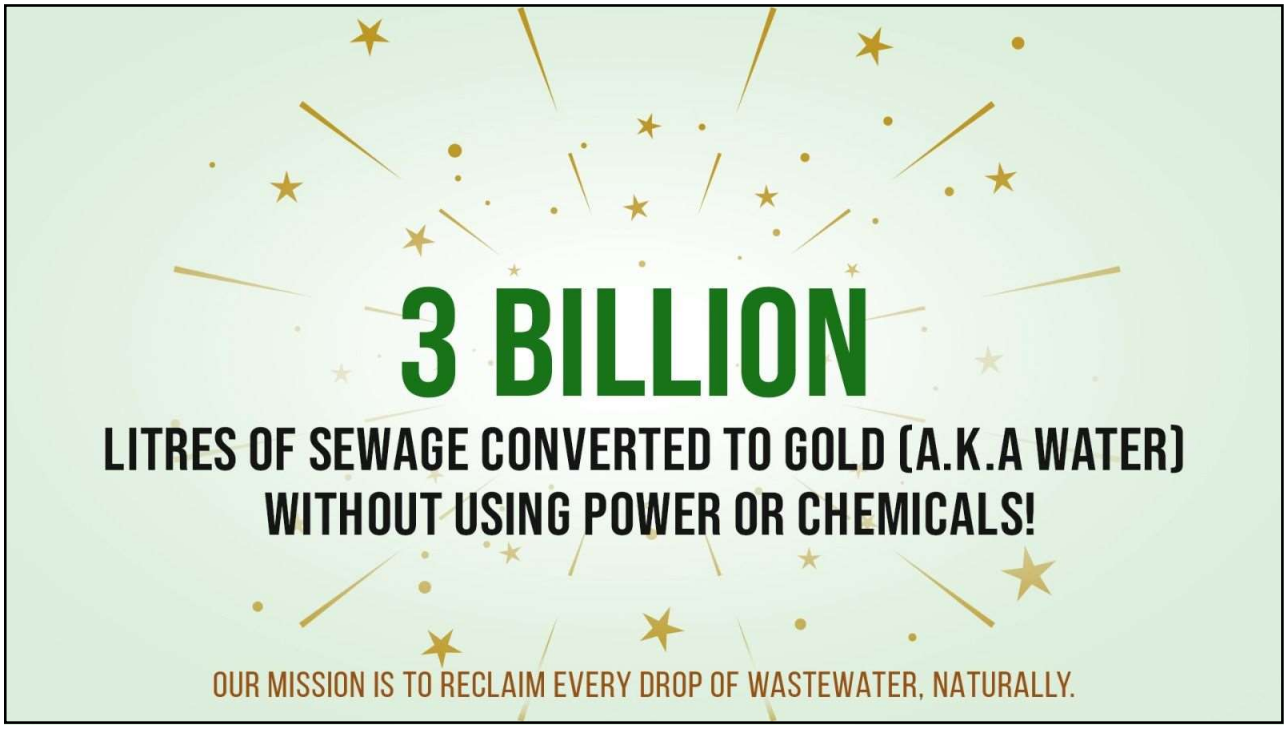
ECOSTP IMPACTS 6 SDG'S.

180DEGREES CONSULTING, IIT - MADRAS
DID THE ANALYSIS OF OUR SDG COMPLIANCE
AND SUSTAINABILITY METRICS

20


adani Realty
DECATHLON
ESSAR
TITAN
ADARSH DEVELOPERS
BRIGADE
DS MAX
TATA STEEL
APARNA
Lead the future
POLLUTION CONTROL BOARD
KARNATAKA
EMBASSY
विद्याधनं सर्वधन प्रधानम्
IIT JAMMU
Janaadhar
CHINMAYA VIDYALAYA
KEEP SMILING
CHINMAYA MISSION
Since 1760
Berger
Paint your imagination
METHODE ELECTRONICS
ECOSTP®
sewage to gold™
24
STATES
250+
CLIENTS
THANK YOU CHANGEMAKERS
OUR MISSION IS TO RECLAIM EVERY DROP OF WASTEWATER, NATURALLY.

21


3 BILLION
LITRES OF SEWAGE CONVERTED TO GOLD (A.K.A WATER)
WITHOUT USING POWER OR CHEMICALS!
OUR MISSION IS TO RECLAIM EVERY DROP OF WASTEWATER, NATURALLY.

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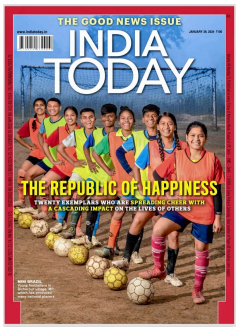
RECOGNITIONS

Economic Times : Startup Entrepreneur of the year



Great Place To Work. Certified JAN 2024–JAN 2025 INDIA

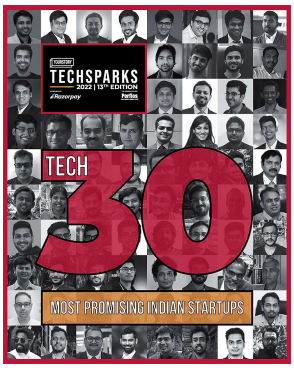
FICCI

Water Innovation Award

ACS Chemistry for Life®

BBC NEWS MUNDO

TiE BANGALORE ACCELERATING GROWTH TOGETHER | MATRIX FORUM



United Nations Best Practice

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Thank You. Amar@ecostp.com Mob 7774014311

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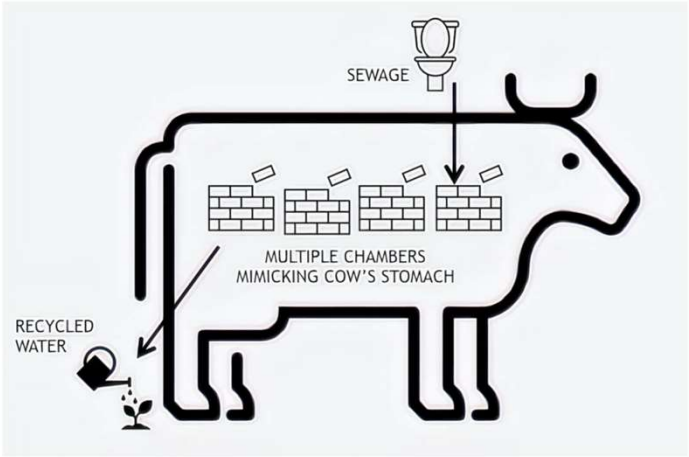
ECOSTP Technologies

Most Sustainable Sewage Treatment Technology Developer 2022



Questions?

ECOSTP Technologies Private Limited

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Malleswaram - Rajajinagar,
Bangalore 560 055, India

team@ecostp.com

https://www.instagram.com/ecostp/

https://twitter.com/_ecostp_

www.facebook.com/ecostp

www.ecostp.com

Our mission is to reclaim every drop of wastewater, naturally.

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