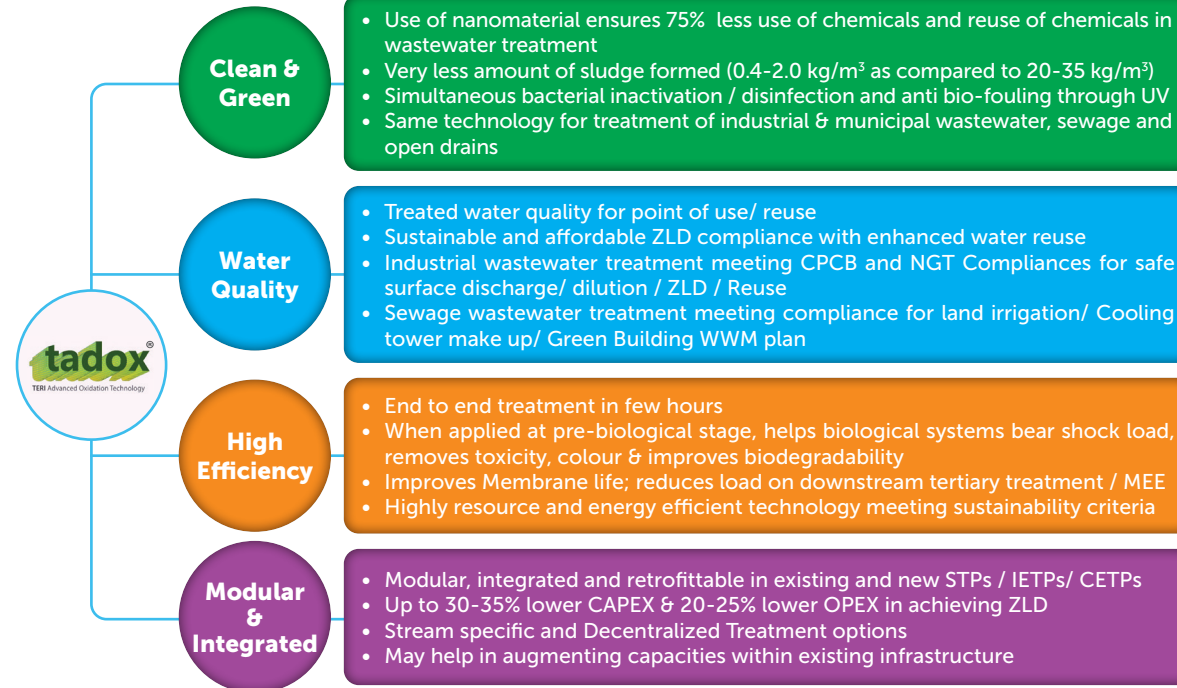


OVERALL BENEFITS



Design & Manufacturing Technologies for 'Make in India'
7th Dec 2015
Ministry of Science & Technology, Govt. of India



STE Water Award Technology Innovation
22nd Oct 2019
STE-Save the Environment, Society for Research & Awareness, Kolkata



Aqua Foundation Excellence Technology Development
30th Oct 2019
Aqua Foundation, New Delhi & Ministry of Jal Shakti, Govt. of India



FICCI Water Award Innovation in Water Technology
23rd Nov 2022
Federation of Indian Chambers of Commerce & Industry Water Mission

About Us

The TADOX® Technology Centre for Water Reuse in Water Resources Division of TERI work towards R&D and commercialization of TADOX® (TERI Advanced Oxidation) Technology for treatment of wastewater and water reuse. TADOX® involves Nanotechnology in combination with Advanced Oxidation Processes (AOPs), which in-situ generates hydroxyl radicals, leading to oxidative degradation and mineralization of targeted pollutants. TADOX® Technology is under TERI's patents and registered TM and has been developed through the funding support of DST-WTI, Water Mission, Ministry of Science & Technology, Govt. of India. TADOX® is at TRL-8 and 10 KLD TADOX® WWTP is successfully running in TERI Gurugram campus since 2020.

Implementation Sectors INDUSTRIAL

- Textile
- Dye & Dye Intermediate
- Tannery
- Slaughterhouse
- Chemical & Fertilizer
- Oil & Gas
- Food & Beverage
- Paper & Pulp
- Pharmaceutical & AMR
- Distillery & Sugar
- Soap & Detergent Manufacturing
- Construction & Housing
- MEE & Low boiler Condensates
- Others

Implementation Sectors SURFACE WATER

- Grey Water
- Black Water
- Sewage
- Municipal
- Open Drains

Target Parameters

- Color
- COD
- BOD
- TOC
- POPs
- Micropollutants
- Pathogens

Application Areas

- Zero Liquid Discharge (ZLD)
- Water-Reuse
- Decentralized Wastewater Treatment (DWTT)
- Lake rejuvenation
- River Cleaning Programs
- Jal Jeevan Mission (Urban)



THE ENERGY AND RESOURCES INSTITUTE
Creating Innovative Solutions for a Sustainable Future

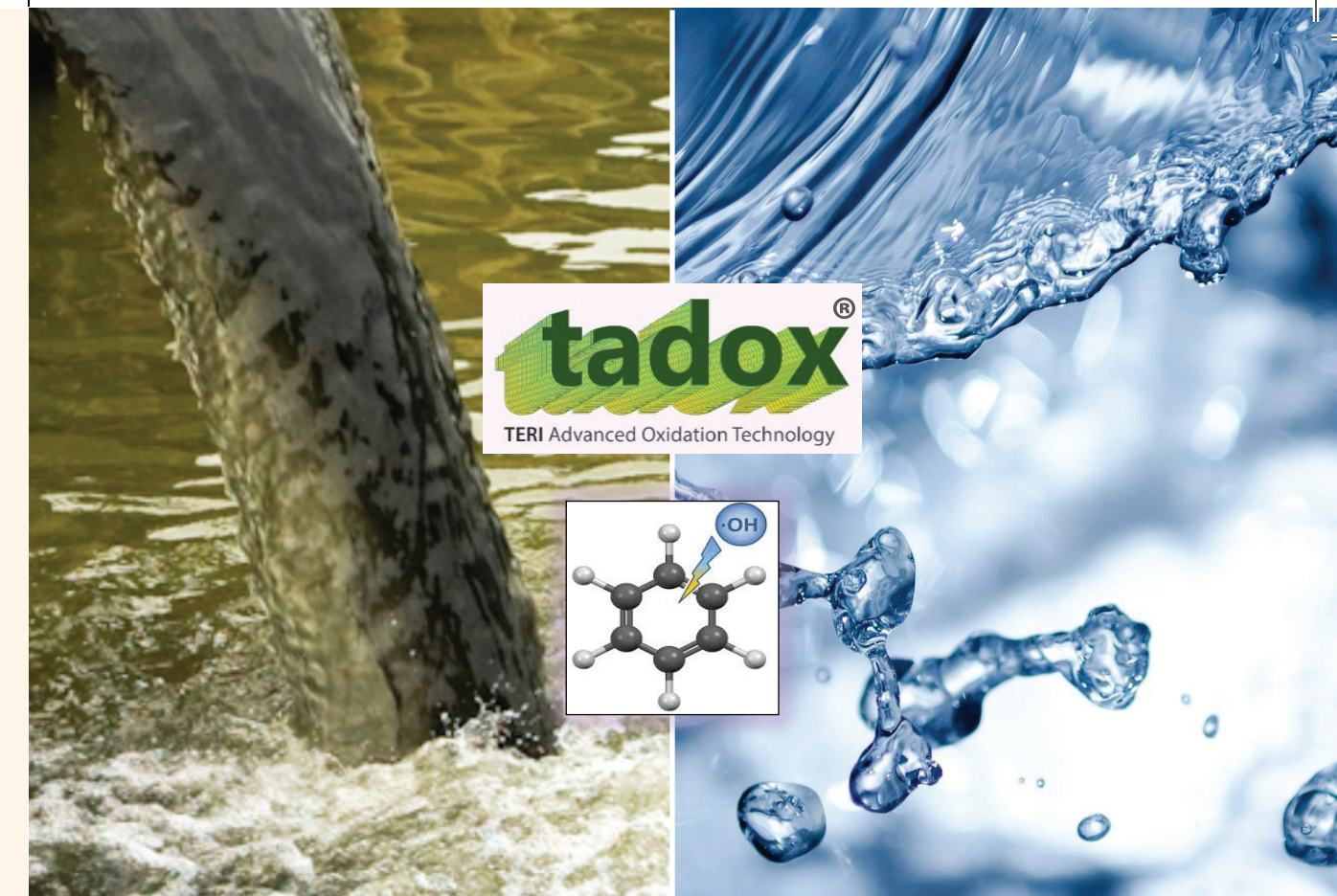
FOR FURTHER DETAILS PLEASE CONTACT

Dr. Nupur Bahadur

Senior Fellow & Head, NMCG-TERI Centre of Excellence on Water Reuse & Area Convenor, TADOX® Technology Centre for Water Reuse Water Resources Division, The Energy and Resources Institute (TERI), New Delhi

Email: nupur.bahadur@teri.res.in

Tel: +91-11-2468 2100 or +91-11-2468 2111 • Fax: +91-11-2468 2144 or +91-11-2468 2145



TADOX® TECHNOLOGY CENTRE FOR WATER REUSE



ENERGY



AGRICULTURE



ENVIRONMENT



HABITAT



RESOURCE
SECURITY



CLIMATE



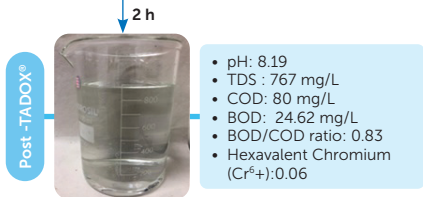
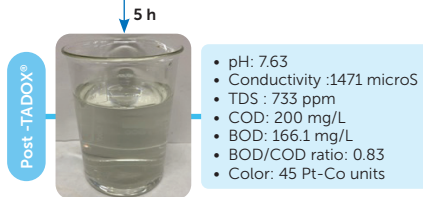
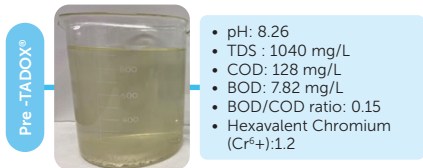
HEALTH
& NUTRITION

Industrial Wastewater Treatment

(Uttar Pradesh & Uttarakhand)

Textile CETP, Kanpur

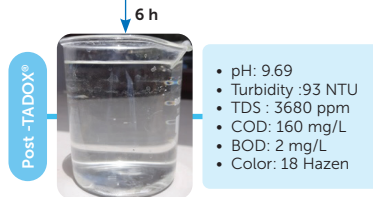
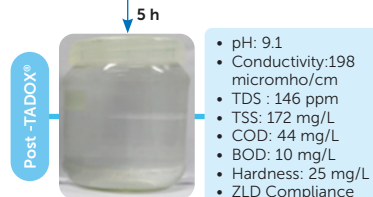
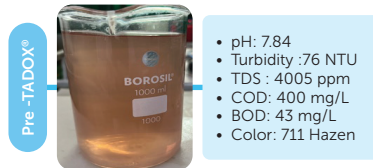
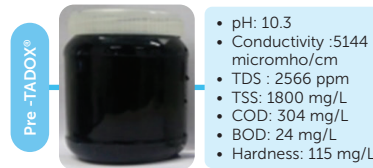
Tannery Units, Kanpur



Haryana & Kerala

Textile ETP, Sonipat

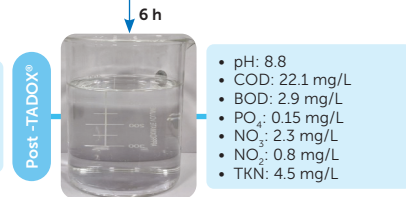
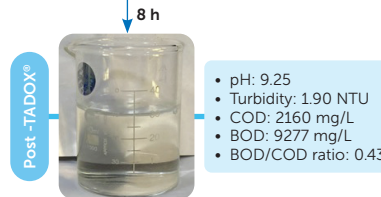
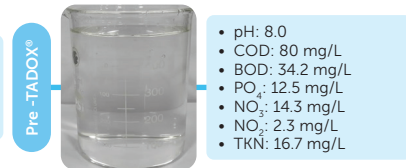
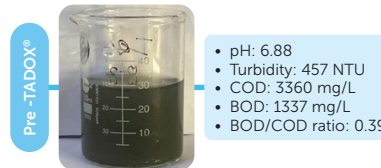
Petrochemical Industry, Panipat



Maharashtra, Tamil Nadu & Gujarat

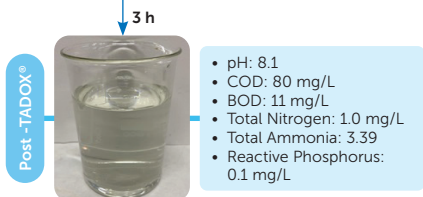
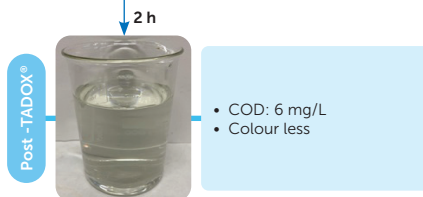
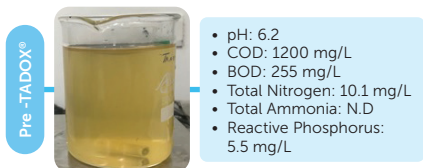
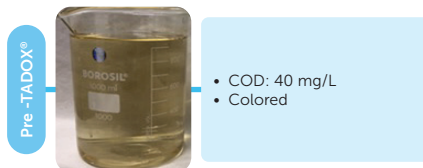
Chemical Manufacturing, Raigad

Electronics manufacturing, Hosur



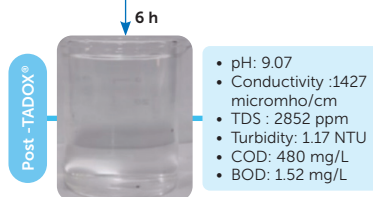
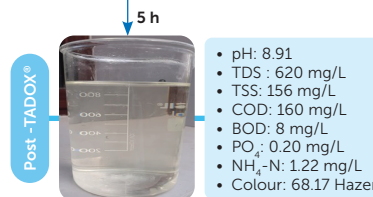
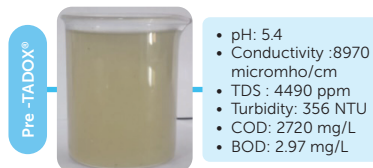
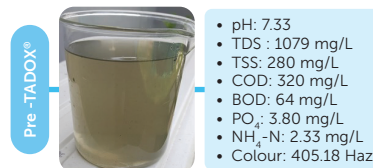
Slaughter house, Agra

Pharmaceutical Industry, Rishikesh



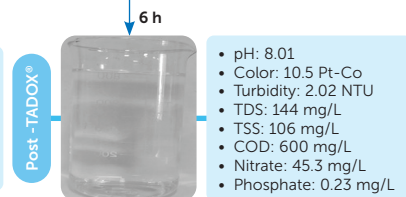
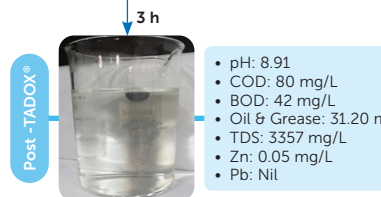
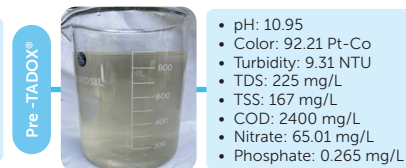
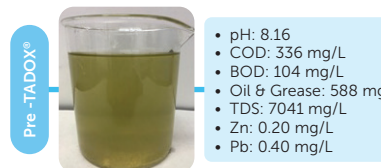
Gochi drain, Faridabad

Chemical manufacturing ETP, Kochi



Oil & Gas Industry, Ahmedabad

MEE Condensate, Bharuch



Municipal Sewage Treatment

Delhi

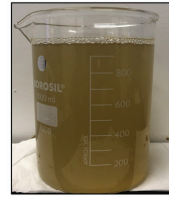
Current Conventional Treatment

STP INLET	
pH	7.9
Colour, (Pt- Co) (CU)	185
COD, mg/L	650
BOD, mg/L	261
TSS, mg/L	380
Total N, mg/L	32.0
Total P, mg/L	81.2
E. coli, MPN/100 ml	1.02 x 10 ⁵
Total Coliform bacteria, MPN/100 ml	6.12 x 10 ⁶
Total count, CFU/100 ml	5.24 x 10 ⁵

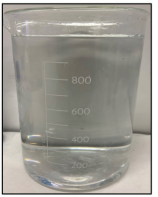
TADOX® Treatment

DIRECT END-TO-END TADOX®	
pH	8.0
Colour, (Pt- Co) (CU)	8
COD, mg/L	64
BOD, mg/L	7
TSS, mg/L	<5
Total N, mg/L	1.9
Total P, mg/L	<1
E. coli, MPN/100 ml	16
Total Coliform bacteria, MPN/100 ml	1.16 x 10 ²
Total count, CFU/100 ml	28

STP Inlet



Direct TADOX®



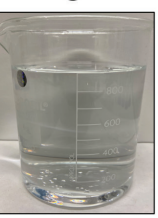
5 h

24 h



STP Outlet

TADOX® @ Polishing



3 h

TADOX® AT POLISHING STAGE	
pH	8.1
Colour, (Pt- Co) (CU)	5
COD, mg/L	46
BOD, mg/L	<3
TSS, mg/L	<5
Total N, mg/L	1.7
Total P, mg/L	<1
E. coli, MPN/100 ml	<8
Total Coliform bacteria, MPN/100 ml	3.13x 10 ²
Total count, CFU/100 ml	11

*Wastewater quality parameters analyzed at a National Accreditation Board for Testing and Calibration Laboratory (NABL), Delhi as per ISO/ IEC 17025:2005.



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