

About the CoE

Considering the need for optimizing the water usage and reuse of treated wastewater, National Mission for Clean Ganga (NMCG) has taken many initiatives including development of a National Framework on Treated Wastewater Reuse, in association with India-European Union Water Partnership (IEWP).

TERI is actively working in the domain of water reuse and has developed a wastewater treatment technology called TERI Advanced Oxidation Technology (TADOX®) which could be integrated in current systems to achieve adequate treatment of municipal and industrial wastewater, help achieve ZLD in a much affordable and sustainable manner and enhance treated wastewater reuse. (<https://youtu.be/tCt5rxC7eik>).

NMCG thus sanctioned for setting up a NMCG-TERI Centre of Excellence on Water Reuse (NTCOE) in collaboration with TERI. NTCOE is a quadripartite association between NMCG, TERI, Industry and Knowledge partners, which envisages to design and foster research and innovation, including identification of knowledge gaps for research and need for new ideas, supporting targeted research and spurring and nurturing needed innovation to develop clean, green, cost and resource effective wastewater treatment technologies for reuse of treated water. Hence together with the government, academia and industry support, this CoE is the first of its kind in the Country on treated wastewater reuse, which also meets the objectives under Clause 5.3 & 4.2 of the Ganga Knowledge Centre (GKC) for creating knowledge partnerships.

Vision

NMCG-TERI Centre of Excellence on Water Reuse (NTCOE) envisions to become a Globally recognized Centre in Technology domain for wastewater treatment, water reuse and circular economy. It aims to achieve various UN SDG Goals and contribute in Nation building through flagship programs of the Government of India like the 'Namami Gange', 'Swachh Bharat Mission', 'Smart City Mission', 'Water Vision@2047', 'Make in India', 'Self-Reliant India' and others.

Mission

The Mission of the Centre is to provide a common platform to various stakeholders like the policy makers, regulatory authorities, funding & financial Institutions, Philanthropic Organizations, Investors, R&D, academia, knowledge partners, organizations engaged in training and capacity building, Consultants & Consultancy firms, Companies dealing in wastewater treatment and water reuse business, Urban Local Bodies (ULBs), Municipal Corporations/ Jal Boards and various Governments and Ministries involved in water, sanitation, urban infrastructure, Smart Cities, wastewater treatment, water reuse and circular economy.



Contributions in National Missions



“ When treated water is reused, fresh water is conserved, it benefits the entire ecosystem. That's why water treatment, water recycling is essential. ”

- **Shri. Narendra Modi, Prime Minister of India**
(Water Vision@2047, January 2023)



National Mission for Clean Ganga
Developing integrated technological solutions to achieve "Nirmal Dhara" (Unpolluted Flow) objective through point source pollution abatement strategies.



Swachh Bharat Mission-Urban 2.0
To work on water reuse policies with States, Organize training and capacity building programs for ULBs on solid and liquid waste management.



Atal Mission For Rejuvenation And Urban Transformation
To contribute in Technology Sub-Mission to encourage newer technology options to augment capacities and enhance recycle/ reuse of treated water.



Smart City Missions
Encourage decentralized wastewater treatment and reuse using micro-STPs across Construction and Housing sectors.



Water Vision @ 2047
Industries to be encouraged to adopt integrated, sustainable and affordable technological solutions to achieve Zero Liquid Discharge (ZLD).



ARTH Ganga
To encourage Circular Economy through reuse of sludge and wastewater for irrigation, industries and work with ULBs to explore revenue generation.



Self Reliant India
To encourage 'Make In India' technologies for achieving Water Security and UN SDG 6.

Key Messages from Steering Committee Members



Mr. Rajeev Kumar Mital,
DG, NMCG

NMCG is committed to support 'Made in India' technologies like TADOX for wastewater treatment, our vision to make "Atmanirbhar Bharat" and to meet the objectives of 'Nirmal Dhara' of the Namami Gange Programme. We are also committed to promote the concept of 'Circular Economy' through "Arth Ganga" Program, in which efforts are being made to promote monetization and reuse of treated water and sludge. This CoE is expected to work efficiently in these areas



Dr. M. Dhinadhayan,
Adviser CPHEEO, MoHUA

Ministry of Housing & Urban Affairs mandated all the cities to undertake recycling and reuse of used water under AMRUT 2 and SBM.2 to make them water secure & resilient. NMCG is coming with the National Policy on Safe reuse of Treated Water and now funding a dedicated Centre of Excellence to promote circularity in wastewater is a timely action. I hope that this CoE will disseminate knowledge among various stakeholders and promote cost-effective technologies for the recycling & reuse of wastewater.



Dr. Vibha Dhawan,
DG, TERI

Water connects all Sustainable Development Goals (SDGs) and all sectors need to improve the way water resources are managed and utilized. TERI has been actively working in this domain and is committed to provide all possible support to Members and realize the Vision & Mission of this CoE, which is 1st of its kind in the Country, set up by NMCG, where various stakeholders will work closely and ensure the vision of Water security for all.



Mr. A K Srivastava,
ED (Technical) NMCG

The Centre of Excellence is anticipated to become a hub for research and innovation in the fields of wastewater treatment and reuse. It will also foster partnerships between stakeholders, such as research institutions and industries involved in the sector, in order to effectively address the issue of wastewater and encourage its reuse.



Mr. Avinash Mishra,
Adviser (Water Resources), NITI Aayog

Technology such as TADOX (TERI Advanced Oxidation Technology) is a breakthrough in the sector of wastewater reuse. Many more such interventions are required for addressing the issue of reuse of wastewater for meeting the demand of raw water, industries and also drinking purposes. NMCG-TERI Centre of Excellence may continue to develop such technologies in the future as well.



Dr. Nupur Bahadur,
Associate Director, TERI

Its an opportune moment for all stakeholders to come together, share ideas and implement solutions and contribute in Nation Building and achieve UN SDG 6 Goals as 'water' has gained so much importance amongst the national missions, policies and planning of the Government, together with industry coming along to achieve sustainability & business interest and academia is offering innovative technological solutions to bridge the knowledge gap. This CoE on Water Reuse is an earnest effort in this direction.

For Further Details Please Contact

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NMCG-TERI CENTRE OF EXCELLENCE ON WATER REUSE



Funded by
National Mission for Clean Ganga (NMCG)
Department of Water Resources River Development and Ganga Rejuvenation
Ministry of Jal Shakti, Govt. of India

Membership Categories

Membership Categories	Government	Industry & Industrial Associations
Government	Central and State Govt. Organizations; MoEFCC, CPCB, SPCBs, NITI Aayog, ULBs, Jal Boards etc. and International Government Organizations; Embassies	<ul style="list-style-type: none"> Meeting objectives of National Missions and Programs. CoE support in providing training & capacity building initiatives, stake holder discussions for the preparation of knowledge documents such as Water Reuse Policies for various States from time to time. Help Embassies in facilitating collaborations amongst various stakeholders in India e.g. exploring Indian market for Companies in technology domains, joint R&D Projects with prestigious Universities and Organizations etc.
Industry & Industrial Associations	Private or Public listed company in India, PSUs, Industrial associations like FICCI, CII, ASSOCHAM, BDMAI, Textile Associations, Tannery Associations etc.	<ul style="list-style-type: none"> Companies/ Start Ups / Innovation Challenge Winners gets CoE Platform to showcase newer products/ services/ catalogues etc. Complimentary technologies gets a chance for pilot and successfully piloted technologies may be commercialized. Member companies of Industrial Associations may showcase best practices & be part of the Compendium of Best-Case Studies in the priority areas.
Funding, Philanthropic & Civil Society Organizations	Bilateral & Multilateral Funding Organizations, Philanthropic Organizations/ Trusts/ Foundations, CSOs, NGOs, etc.	<ul style="list-style-type: none"> Best utilization of funds through CSR and CER initiatives with Consultancy and Technology demonstration Projects. Foster collaboration & partnership at the National & International level for collective attainment of SDG 6 Goals.
Knowledge Partners	University, R&D Organization(s), Water Associations, Retired Professionals, Consultants etc.	<ul style="list-style-type: none"> Suitable opportunities for Industrial visits, site visits, Internships/ Dissertations/ Joint Ph. D. to Research Scholars of registered organizations. Institutional support to consultants/retired professionals in their projects and participation as experts/ consultants in CoE projects.

Membership Engagement

STANDARD	PREMIUM	ELITE
Benefits <ul style="list-style-type: none"> Organization's logo on NTCoE website, events, newsletters etc. for better brand outreach Subscription to NTCoE Newsletter Access to publication & reports from CoE Institutional support to consultants/retired professionals in their projects 	Benefits + <ul style="list-style-type: none"> Member's Directory (both online & hard bound) displaying products, services & catalogue to generate business leads Platform to interact with other Members, Institutions, Government & International Organizations for exploring collaborations Participation as Experts/ Consultants in CoE projects Suitable opportunities for Industrial & Site visits, paid Internships/ Dissertations/ Joint Ph. D. to research scholars of members of R&D Organizations and Universities 	Benefits ++ <ul style="list-style-type: none"> Membership in the Steering Committee of the NTCoE Membership in the Executive cum Technical Committee of the NTCoE Membership in Research & Advisory Committees of the NTCoE Complimentary Participation & Speaking opportunities for the top management in the events like the Seminars/ Webinars, Training Programs, Conferences, and Meetings of the CoE Complimentary invitation for the top management in TERI's annual flagship programs like the World Sustainable Development Summit (WSDS)

For more information on membership engagement and fee structure, please contact us.



Work done from NTCoE

Technology Development & Implementation	<ul style="list-style-type: none"> TADOX® technology developed from NTCoE was demonstrated at 20 KLD capacity in a Textile CETP, Kanpur under Namami Gange National Mission with funding support from NMCG, Ministry of Jal Shakti, Govt. of India
Technology Commercialization	<ul style="list-style-type: none"> TADOX® technology licensed for commercialization to M/s Dew Projects and Chemicals Pvt Ltd., Noida in March 2023 TADOX® technology licensed for commercialization to Ion Exchange (India) Ltd., Mumbai in February 2024
Sponsored Projects	<ul style="list-style-type: none"> World Bank funded Project for Bangalore Water Supply & Sewerage Board (BWSSB) on Advanced Technology Options to achieve Decarbonization and Circular Economy in Wastewater sector Tetra Tech funded USEPA Project for GHG Emission Inventorization in Wastewater Sector in India
Consultancy Projects	<ul style="list-style-type: none"> Open Drain treatment Plan for Haryana State Pollution Control Board (HSPCB) Bandhwari Landfill Leachate Treatment Plan for HSPCB/Municipal Corporation of Gurgaon (MCG)
Industrial Research	<ul style="list-style-type: none"> Industry Sponsored Projects for TADOX® technology assessment for wastewater treatment Adequacy study of CETP/ETP/ZLD plants
Policy & Research Publication	<ul style="list-style-type: none"> Policy Brief On "Integration of TADOX® technology to achieve Net Zero in Textile Wastewater treatment: Policy Recommendations based on Pilot study in a CETP" Policy Brief on "TADOX® Technology to treat Textile and Dyeing Wastewater, achieve ZLD and enhance water reuse: R&D - Based Policy Recommendations" Peer reviewed International Publications