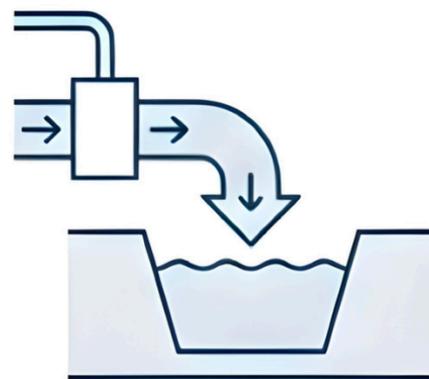




**PROPOSAL FOR SAFE,
SUSTAINABLE
DRINKING WATER SOLUTIONS**

THE CRITICAL JUNCTURE IN INDIA'S WATER JOURNEY

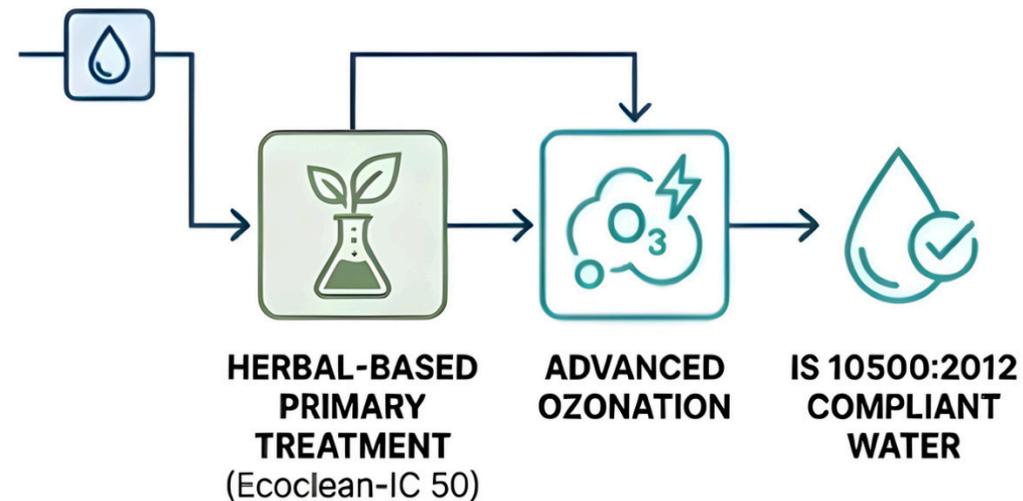
THE CHALLENGE



UNTREATED WASTEWATER

India has expanded piped water access, yet **70%** of surface water remains unfit for consumption. With **60,000 MLD** of untreated wastewater entering reservoirs daily, the health and economic burden is immense.

THE SOLUTION



EcoHealth proposes the 'Eco-Smart WTP'—a hybrid technology combining herbal-based primary treatment (Ecoclean-IC 50) with advanced ozonation to deliver IS 10500:2012 compliant water.

KEY VALUE DRIVERS



COMPLIANCE: Meets all national safety standards.



EFFICIENCY: Reduced chemical usage, non-toxic sludge, and lower power consumption.



VIABILITY: A robust framework aligned with National and State drinking water missions.

The Access vs. Quality Paradox



Household Access. India has successfully expanded physical infrastructure to nearly 80% of households.



Surface Water Quality. Sources like rivers and lakes are increasingly polluted by heavy metals, phenols, and nitrates.

The Chemical Trap of Conventional Treatment



Infrastructure delivers water, but technology must ensure its safety.

Current methods solve one problem but create others: residual toxicity, high operational complexity, and difficult waste disposal.

The Hidden Cost of Contamination



Public Health Crisis
High morbidity and mortality among children due to diarrheal diseases.

Productivity Loss
Increased healthcare expenditure and loss of working hours.

₹47,000 - ₹61,000 Crore

Annual health-related economic losses in India.



Contamination Sources

Untreated domestic sewage, industrial effluents (dyes, solvents), and agricultural runoff.

Water Everywhere, Yet Unfit to Drink



From the Gomti river to high-rise apartments in Kochi, contamination is pervasive. Untreated sewage, industrial effluents, and agricultural runoff are compromising India's primary water sources.

Introducing the Eco-Smart WTP

A paradigm shift toward greener, decentralized, and resilient water technology.

Herbal Primary Treatment:

Ecoclean-IC 50 for rapid coagulation and flocculation.



Advanced Ozonation:

Powerful oxidation and disinfection without residue.

Filtration & Polishing:

Multimedia and activated carbon filters for crystal clarity.

Core Tech 1: Ecoclean-IC 50 – The Power of Nature

Description:

A proprietary, herbal-based flocculant-disinfectant.

Key Specs:

- Dosing: 25–30 ppm (25–30 ml per KL).
- Safety: Non-toxic, biodegradable, eco-friendly. No residual toxicity.

Functions:

- Rapid coagulation and floc formation.
- Significant reduction in turbidity, color, and organic load.
- Primary disinfection without creating chlorinated by-products.



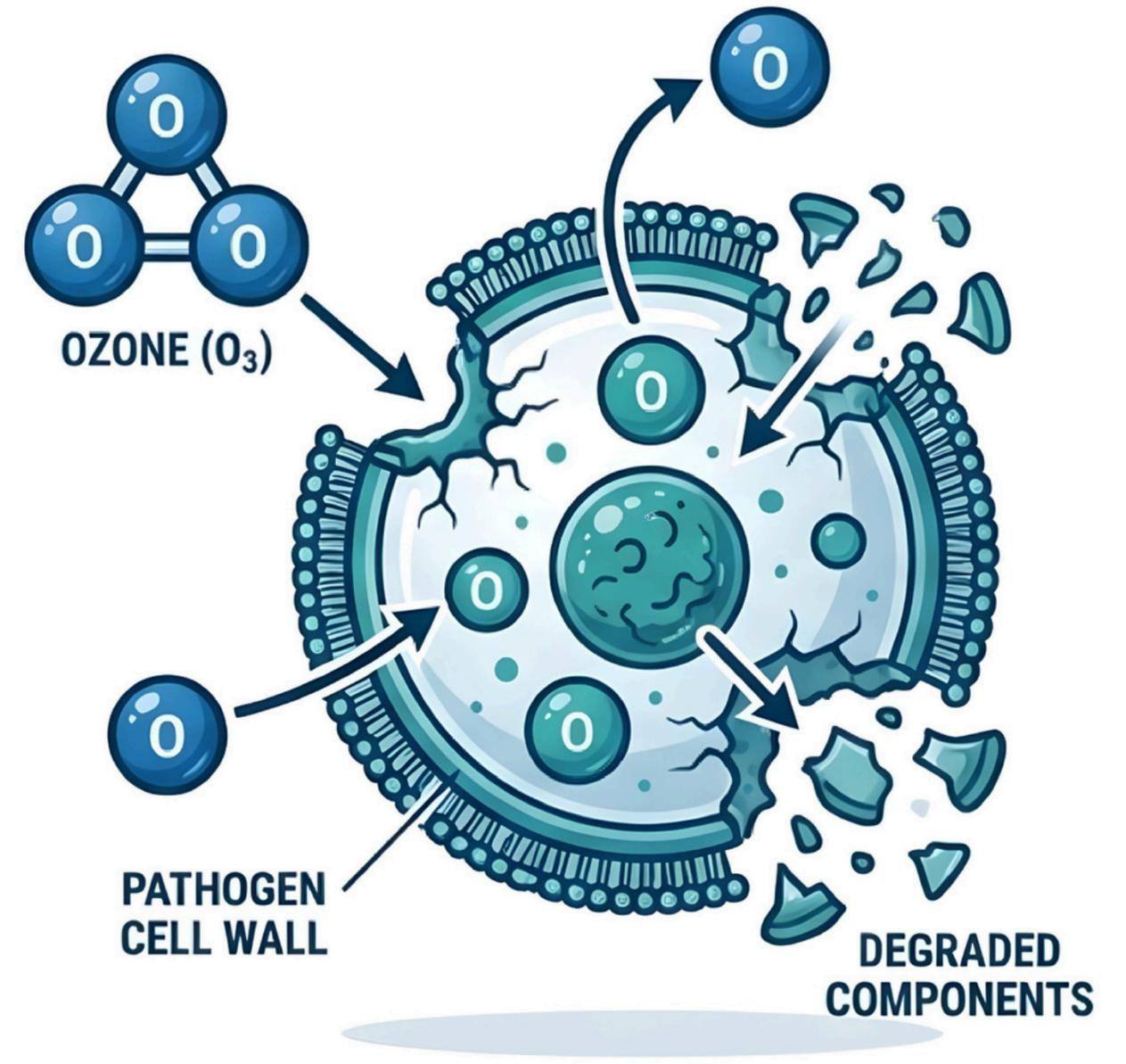
Core Tech 2: Advanced Ozonation

Why Ozone?

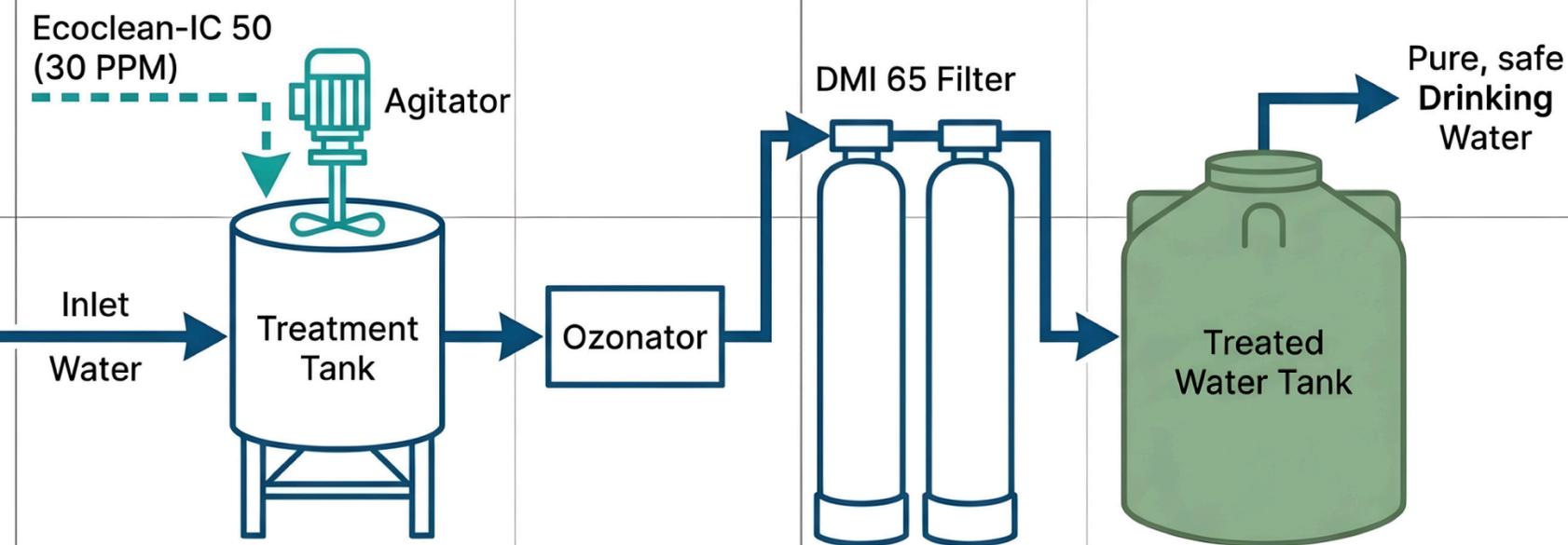
Ozone is a **powerful oxidant** that reverts to pure **Oxygen**, leaving no chemical residue.

Advantages Checklist:

- **Pathogen Destruction:** Kills bacteria, viruses, and protozoa (including chlorine-resistant strains).
- **Chemical Breakdown:** Oxidizes pesticides, phenols, and trace organics.
- **Aesthetic Improvement:** Improves taste, color, and clarity.
- **Metal Removal:** Converts iron and manganese into filterable forms.



The Integrated Process Flow



The Eco-Smart Advantage

Parameter	Conventional WTP	Eco-Smart WTP
Primary Chemicals	Alum + Chlorine + Polymers	Single Herbal Reagent
By-products	THMs, HAAs	Nil
Sludge	Toxic / High Volume	Non-hazardous / Nutrient-rich
Energy	High Demand	30-50% Lower
Footprint	Large	40-60% Smaller

Result: 25-40% Life-cycle OPEX savings.

Assured Quality: IS 10500:2012 Compliance

Treated Water Parameters	
Parameter	Value
pH	6.5 - 8
TDS	<500 mg/l
Total Hardness	<200 mg/l
Nitrate	<45 mg/l
Iron	<0.3 mg/l
Lead / Arsenic	0.01 mg/l
Bacteria (E. coli / Coliforms)	Absent

Fully Compliant with Bureau of Indian Standards (BIS) IS 10500:2012.

Visible Results: The 'Jar Test' Proof



Note the complete removal of suspended solids, turbidity, and color.

Flexible Deployment Models

Urban Water Supply



Raw water treatment at reservoirs; polishing units for existing plants.

Rural Schemes (Jal Jeevan)



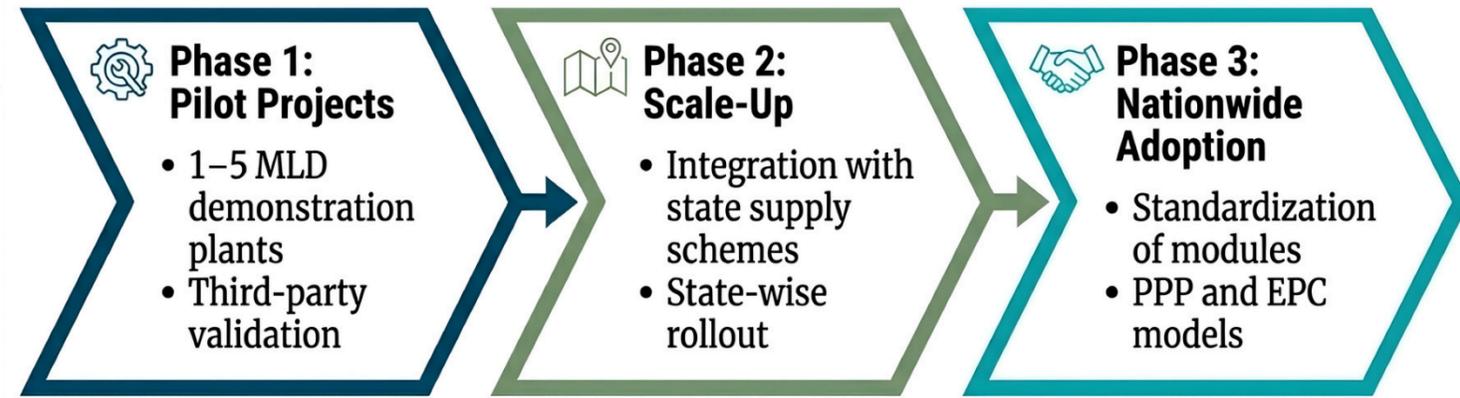
Decentralized community-level plants for remote access.

Disaster Relief



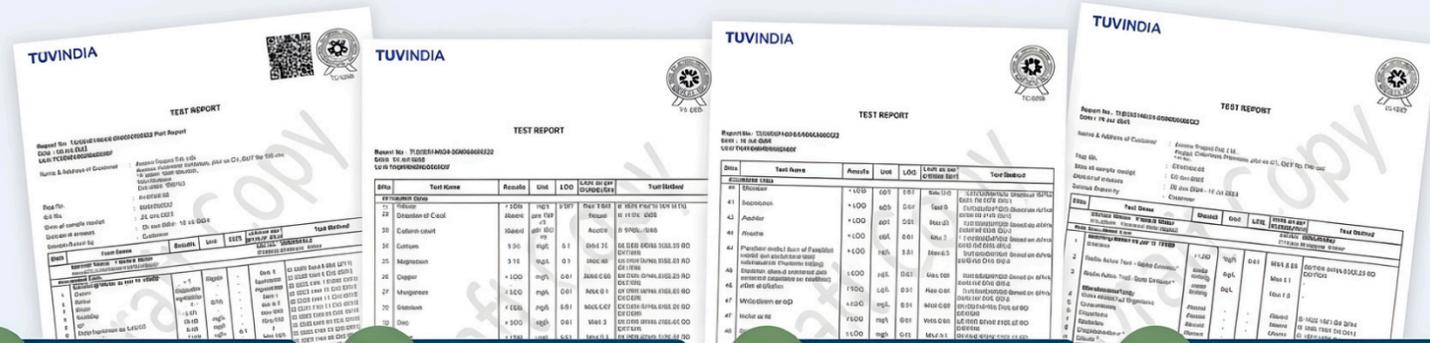
Mobile/Emergency units for flood-hit areas or temporary camps.

Implementation Roadmap



Modular design ensures suitability for peri-urban and remote deployments.

Validated by Science: TUV India Test Reports



Turbidity: < 1 NTU (Standard: 1 NTU)

Pathogens: E. coli & Coliforms Absent

Heavy Metals: Arsenic, Lead, Mercury within safe limits/below detection.

Pesticides: Malathion, DDT, Atrazine < Limit of Quantification (LOQ).

Aligning with National Missions

<p>Har Ghar Jal Jal Jeevan Mission</p>	<p>Swachh Bharat</p>	<p>Make-in-India</p>	<p>Sustainable Development Goals (SDGs)</p>	<p>CAPEX Benefits</p> <p>40-60%</p> <p>reduction in civil footprint and faster commissioning speed.</p>
<p>Jal Jeevan Mission</p> <p>Decentralized, safe water for rural homes.</p>	<p>Swachh Bharat</p> <p>Treating wastewater to prevent source contamination.</p>	<p>Make-in-India</p> <p>Indigenous R&D and manufacturing.</p>	<p>Sustainable Development Goals (SDGs)</p> <p>Supports Circular Economy and Goal 6 (Clean Water).</p>	

The Sustainability Dividend: Carbon & Water Credits



Carbon Credits

- Reduction of ~0.10–0.20 kg CO₂ per KL.
- 1 MLD Plant = **36–73 tonnes CO₂e** reduced annually.
- Potential Revenue: **₹36–146 lakh** over 10 years.



Water Credits

- Enables safe reuse of surface water, reducing groundwater strain.
- Value creation estimated at **₹36–90 lakh** annually for a 1 MLD plant.

Aligns with India's Nationally Determined Contributions (NDCs).

Testimonials



EcoHealth
REDEFINING PURITY

Central Railway

Office of CHI Pune
Divisional Railway Hospital
Pune

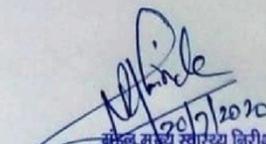
No.PA/Med/H/Sanitation/2020

Date:- 20/07/2020

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Pune division Health Department of Railway has received sample of Herbal disinfectant i.e. The Neem Based Pharma Grade antimicrobial & antiviral disinfectant solution (Eco-clean 50 Plus Pharma Grade) for combatting the COVID-19 for infection, prevention and control works by Mihir Enterprises Pune.

The same was used for disinfection of offices street walls, entrance, exits and all handling spots in Railway areas. The results are extremely Satisfying as we have achieved control as good satisfaction reports. No adverse reactions were reported by field/ Sanitary staff who has been handling and in general public about exposure to the disinfectant spraying.


मंडल मुख्य स्वास्थ्य निरीक्षक
Divisional Chief Health Inspector
मंडल रेल अस्पताल, पुणे
Divisional Railway Hospital, Pune

Marico Limited
E-10, M.I.D.C. Area,
Ajanta Road, JALGAON - 425003.
Tel : (0257) 2210235, 2210134, 9823145448
March 29, 2023



To,
The Managing Director
EcoHealth Products Pvt Ltd
Chennai : 600040.

Dear Sir,

This is regarding to your query on how the reagents we are purchasing regularly from you are being deployed in the treatment of effluents generated in our plant.

Primarily, we are using 2 products manufactured by you, viz:

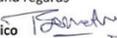
1. Ecolime-C
2. Ecoclean-2300

These reagents are used for treating effluent generated in our plant which produces Edible Oil. The effluent generated is turbid and has a low pH of 1.5 to 3. Traditionally, pH neutralisation was being done with hydrated lime [Calcium hydroxide] or powder lime. While this was effective, it was generating a lot of sludge, which was difficult to manage. After being introduced to your products, we started primary pH neutralisation by dosing EcoLime-C to raise the pH to between 5.5 to 6. Further increase in pH is brought about by adding hydrated lime. By following this process, we are getting optimum neutralisation efficiency, with vastly reduced sludge formation.

After neutralisation, the effluent is treated with about 40 to 50 ppm of Ecoclean-2300 and poly and suitable electrolyte. This causes immediate flocculation and precipitation of all the suspended particles as sludge. The clear water is filtered and further processed. The sludge, which is considerably reduced in volume and therefore easier to manage, is dried and suitably disposed of in conformity to PCB norms.

We would like to state that we have been following the above process for more than four years and we are extremely happy with the performance and efficacy of your products.

Thanks and regards

For Marico 

Peter Gonsalves - Marico India - Mfg - Jalgaon



Marico Limited, Regd. Office : Grande Palladium, 7th Floor 175, CST Road, Kalina Santacruz (E)
Mumbai 400 098 India Tel : (91-22) 6648 0480 Fax : (91-22) 2650 0159 www.marico.com
CIN : L15140MH1988PLC049208



March 29, 2023

TO WHOM IT MAY CONCERN

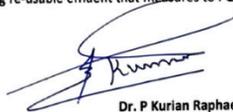
This is to confirm that TATA COFFEE has been using a range of products manufactured and supplied by Eco Health Products Pvt Ltd, Chennai for treating the effluent discharged during coffee processing at our estates in Coorg, Hassan and Chikkamagalur (Karnataka). The treatment process is as follows:

Step 1 : The freshly harvested coffee seeds are de-pulped and the berries are then fermented before the seeds are washed and dried. The de-pulping and fermentation process effluent is thick, dark in colour and has a strong odour. It is also highly acidic. This effluent is first neutralised by online dosing of ECOLIME-2300.

Step 2 : The neutralised effluent is let into a large lagoon, where it is dosed with ECOCLEAN-20 and a prepared solution of ECOSSED-P. This causes flocculation of suspended solid particles, which then sink to the bottom as sludge.

Step 3 : The clear top-water overflows into a series of tanks. The water is clear but contains bacteria and other pathogens and is therefore unsafe of use. To this, the neem-based disinfectant ECOCLEAN-50 PLUS is dosed. This eliminates all the pathogens, making the effluent water absolutely safe for re-use both for irrigation as well as for various secondary uses. The sludge that settles down after treatment will be used for compost preparation.

The entire process involves eco-friendly, herbal-based reagents developed and manufactured by Eco Health Products Pvt Ltd. We have been using these reagents in the above manner for more than six years and found them to be extremely effective in providing re-usable effluent that measures to PCB standards.


Dr. P. Kurian Raphael
Head-R&D
Tata Coffee Limited



WAS Bio Engineering (Gh) Ltd.,
P. O. Box L597, Legon,
Accra, Ghana.
www.wasbioengineering.com
Tel; 0244 382 297
020 442 6837

3rd April.,2023.

The Managing Director,
EcoHealth Products Pvt Ltd.,
Chennai; 600040, India

Dear Sir,

TEST RESULTS OF ECOCLEAN RANGE OF PRODUCTS

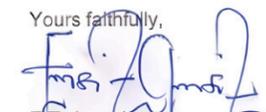
We are happy to inform you that the test results for the Ecoclean 2300 range of products

we conducted have proven to be successful. The treated water is odour free, pathogen free and conforms to Ghana's EPA Standards, for that matter to International Standards.

We therefore wish to order four and half tons of your natural, eco-friendly products

for commercial use in Ghana. Counting on your cooperation.

Yours faithfully,


E.T. Amoah,
Managing Director.

CHANGE INDIA - RESPONSIBLY, SUSTAINABLY

Safe drinking water is a public health imperative. We offer a clean, green, scalable solution that transforms polluted sources into IS 10500 compliant water.



NOVAROON GLOBAL LLP

Anuradha Cinema Building,
1st Floor, MRD Road, Bamunimaidam,
Guwahati, Assam - 781021

Contact : +91 9873744232
+91 8811055987

Email : novaroonglobal@gmail.com

Website : www.novaroonglobal.com