

## Our Mission:

*"Reduce Ecological Foot prints and increase Environmental Justice through Systemic Change by Sustainable Solutions".*

### CONSULTANCY SERVICES:

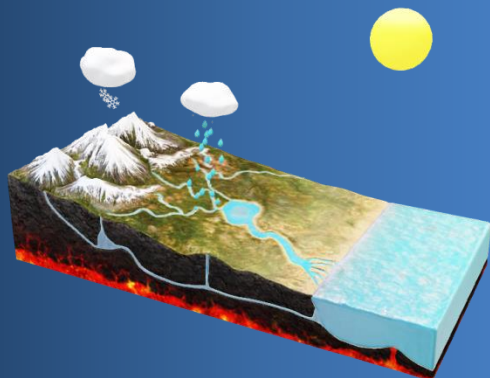
- 🚧 Environmental Consulting
- 🚧 Environmental Diligence Reporting
- 🚧 Environmental Social Governance
- 🚧 Environmental, Energy Auditing and Low Carbon Pathways
- 🚧 HSE Plan for Construction Projects
- 🚧 Sustainability Reporting
- 🚧 Environmental Impact Assessment

### TURNKEY PROJECTS:

- 🚧 Water Treatment Plants
- 🚧 Waste Water Treatment Plants
- 🚧 Effluent Treatment Plants
- 🚧 Bio Gas Plants
- 🚧 Zero Liquid Discharge Plants
- 🚧 Solid Waste Management
- 🚧 Incinerators for Solid Wastes
- 🚧 Microwaving of Hazardous and Bio-Medical Wastes

### WASMANPRO EXPERTISE:

- 🚧 Climate Resilient Industries
- 🚧 Climate Resilient Infrastructures
- 🚧 Resource Efficiency
- 🚧 Renewable Energy
- 🚧 Cleaner technology



**Environmental Impact Assessment**

**Environmental and Coastal Audit**



**Solid Waste Management**

**Marine Impact Assessment**



**Water Treatment Plant**

**Desalination plant**



**Waste Water Treatment Plant**

**Water & Waste Water Management (PMC/O&M)**



*WE POWER TO SHAPE THINGS, and NOT BE PASSIVELY SHAPED BY THEM – WES TEAM*

## ABOUT WASMANPRO

WasmanPro Environmental Solutions LLP (WasmanPro) established in the year 2014, carved a niche in the environmental solutions market, since its inception. Headquartered in Chennai, Tamil Nadu (India), we operate under FOUR business verticals namely Consultancy, Products, Projects and Environmental Training Centre.

WasmanPro has been certified with ISO for its quality management System “Preparation of EIA, EMP, Marine Impact Assessment (MIA), Disaster Management Plan (DMP) Reports for Environmental Clearance from SEIAA & MOEF, Preparation of DPR for Solid Waste Management and conduct energy, water and waste water audit”

ISO Certificate No: RQ91/JA/2665

JAS-ANZ Accreditation No: M4430310IC

MSME UAM Registration No: TN02A0083753

WasmanPro are in environmental consulting, statutory clearances and CSR. WasmanPro consulting division provides environmental studies, audits, project management and reporting services through professional and most sophisticated methodologies and approaches to ensure best outcomes for the clients.

WasmanPro product division provides advanced and innovative Water & Waste water Disinfection system, Pollution Monitoring & Control System, Soil & water Remediation Solution, Solid Waste Management system, Odour Control & Monitoring, and Ultrasonic Algal Control systems.

WasmanPro Projects division takes up turnkey projects in sectors like Water, Wastewater, Solid Waste Management, Air Pollution Control, Bio Mining Rejuvenation of Water Bodies and Soil Reclamation.

WasmanPro has the competence, breadth and depth of resources, and technical talent to help the clients optimize management of their waste resources. WasmanPro expertise includes solid waste system planning, facility design, and daily operations support especially in Detailed Project Report Preparation in Solid Waste Management.

## WASMANPRO is a key member of Centre of Excellence Urban Solid Waste Management (CoEUSWM)

Centre of Excellence in Urban Solid Waste Management (CoEUSWM) encourages cutting-edge and crosscutting research, capacity building and technical knowledge base. The Centre, under the preview of MoUD, addresses the urban solid waste management issues at national, state and local levels in order to support public and government agencies to address the problems in the area of Solid Waste Management. CoEUSWM creates the necessary technical knowhow and development activities to provide the most sustainable solutions for different types of Solid Waste Management.

The Centre facilitates a broader outlook in Corporation and Municipality Waste Management for better waste management in compliance with the Solid Waste Management Rules of 2016. It develops working model with the support of ULBs to examine the Zero Waste Management so as to avoid the conventional system by revisiting the mind- set of residential community to establish a Zero Waste Management System. It acts as a Knowledge Sharing platform integrating the expertise and experience through networking and training. It also provides guidance and technology transfer support to Governments agencies under PPP on planning, implementing and monitoring.

## Sustainability Reporting, Life Cycle Assessment for the Industries

Sustainability has become a critical focal point for industries worldwide. With growing concerns about environmental degradation, social equity, and economic viability, companies are increasingly pressured to adopt sustainable practices. Sustainability reporting and life cycle assessment (LCA) are two key methodologies that enable industries to measure, manage, and communicate their sustainability performance. An integrated framework that combines these approaches can provide comprehensive insights into the environmental, social, and economic impacts of industrial activities throughout their entire life cycle.

### Framework Components:

#### 1. Sustainability Reporting Guidelines:

- Establishing clear sustainability reporting guidelines is crucial for ensuring consistency and comparability across industries.
- Adherence to internationally recognized frameworks such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) can provide a structured approach to reporting on environmental, social, and governance (ESG) indicators.

#### 2. Life Cycle Assessment (LCA):

- LCA involves assessing the environmental impacts of a product or process throughout its entire life cycle, from raw material extraction to end-of-life disposal.
- Key impact categories include carbon emissions, water usage, energy consumption, biodiversity loss, and waste generation.
- Conducting a cradle-to-grave analysis allows industries to identify hotspots and opportunities for improvement at each stage of the life cycle.

#### 3. Integration of Sustainability Reporting and LCA:

- Aligning sustainability reporting with LCA enables industries to provide stakeholders with a holistic view of their sustainability performance.
- Reporting frameworks should include relevant LCA data and metrics, ensuring that environmental impacts are accurately captured and communicated.
- Integration facilitates informed decision-making by identifying trade-offs and synergies between environmental, social, and economic factors.

#### 4. Stakeholder Engagement:

- Engaging stakeholders, including investors, customers, employees, and communities, is essential for ensuring the relevance and credibility of sustainability reporting.
- Transparency and accountability foster trust and enhance the credibility of reported information.
- Regular dialogue with stakeholders allows industries to understand their concerns and expectations, driving continuous improvement in sustainability performance.

#### 5. Continuous Improvement and Innovation:

- Sustainability reporting should not be seen as a one-time exercise but rather as a continuous process of improvement.
- Regularly reviewing and updating sustainability goals and targets based on performance data and stakeholder feedback is essential for driving progress.
- Embracing innovation and adopting sustainable technologies and practices can help industries stay ahead of regulatory requirements and market trends.

#### Benefits of the Integrated Framework:

- Enhanced transparency and accountability
- Improved risk management and resilience
- Enhanced brand reputation and stakeholder trust
- Cost savings through resource efficiency and waste reduction
- Identification of opportunities for product innovation and market differentiation

**An integrated sustainability reporting and life cycle assessment framework empowers industries to navigate the complexities of sustainability while driving positive environmental and social impacts. By combining robust reporting guidelines with comprehensive LCA methodologies, industries can not only measure their sustainability performance accurately but also identify opportunities for continuous improvement and innovation. Embracing sustainability as a core business imperative will not only benefit companies but also contribute to the collective effort toward a more sustainable future.**

**WasmanPro helps the clients in advance environmental sustainability, maintain environmental compliance, and reduce by providing a diverse set of core services including:**

- Environmental Compliance
- Air Emission Inventories and Reporting
- Air Quality and Clean Air Act Compliance
- Environmental Due Diligence
- Environmental Impact Assessment
- Site Investigation and Feasibility Studies
- EHS Audits & Training
- Environmental Management System and Compliance Auditing
- Groundwater and Subsurface Investigations
- Soil Management Plans
- Hazardous and Solid Waste Management Plans
- Remedial Design and Monitoring
- Brownfield Cleanup
- Pollution Prevention Plans
- Environmental, Health and Safety Plans
- Hydro geological studies
- Environmental Monitoring

**Contact:**

**WasmanPro Environmental Solutions LLP**

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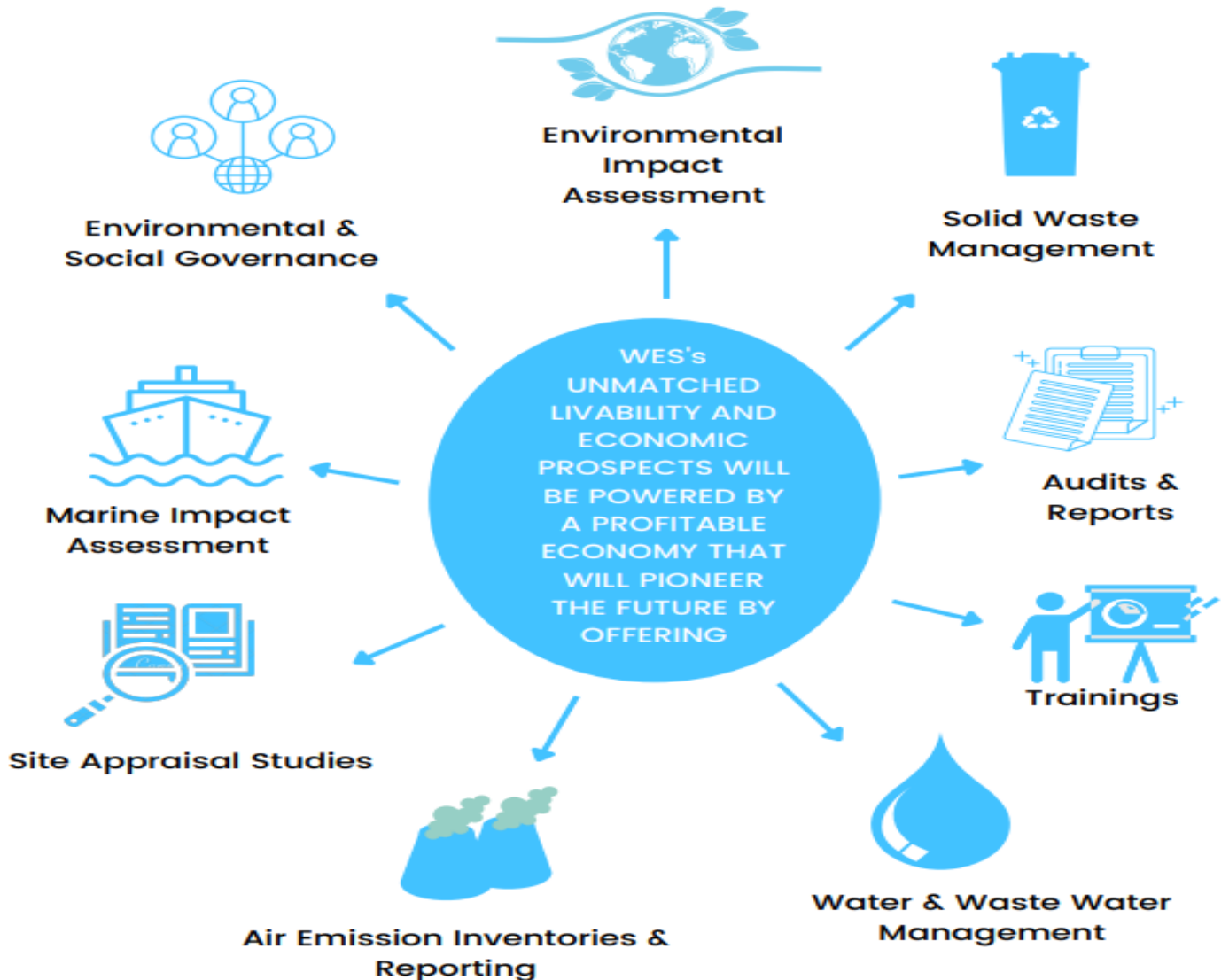
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[drkknpcb@gmail.com](mailto:drkknpcb@gmail.com)

## OUR VISION

Sustainable and Equitable growth for all.



## OUR MISSION

To reduce Ecological footprints and increase environmental justice through systemic change brought by sustainable solutions.



## WASMANPRO ENVIRONMENTAL SOLUTIONS LLP.

### MEET THE TEAM


Sl.No	Name & Title	Qualification	Expertise	Photo
1	<p><b>Dr.K.Karthikeyan</b></p> <p>Former Member Secretary, Tamil Nadu Pollution Control Board (TNPCB)</p> <p>Chief Environmental Coordinator</p> <p><b>Chairman,</b> M/s WasmanPro Environmental Solutions LLP</p> <p>Chairman, Centre of Excellence Urban Air Quality and Climate Change</p> <p>Chairman, Centre of Excellence Urban Solid Waste Management</p>	<p>B.E Chemical Engineering M.Tech Environmental Engineering M.Sc. Industrial Hygiene and Safety Ph.D - Environmental Science Certified Lead Auditor - Environmental Management Systems ISO 14000 and OSHAS 18000 Certified Professional-Fecal Sludge Management Certified Professional- Decentralized Waste Water Treatment</p>	<p>Team Leader, EIA Coordinator, Environmental Impact Assessment, Environmental / CRZ clearance, Environmental Management Plan, Ecology and biodiversity impact assessment, Water Quality monitoring prevention and control, Bathymetry studies, Geotechnical Studies, Brine discharge modeling, Environmental and Social Management Framework Assessment and hazard management, Disaster Management, City Sanitation Safety Plan as per WHO guidelines, Fecal Sludge Management, Decentralized waste Water treatment, Coastal zone Management</p>	
2	<p><b>Dr. R. RAMASUBBU</b></p> <p>Principal Chief Environmental Engineer</p> <p>M/s WasmanPro Environmental Solutions LLP</p>	<p>B.E Civil Engineering, M.E Environmental Engineering, Ph.D Civil Engineering</p>	<p>Experience in Lake Rejuvenation, Preparation of Environmental Impact Assessment, Environmental /CRZ clearance, Environmental Management Plan, Water Quality monitoring prevention and control, Environmental and Social Assessment and hazard management, and Expert in soil sampling &amp; quality Assessment and determining the disposal Methodologies.</p>	

3	<p><b>Er.T.EZHUMALAI</b> Technical Director Projects M/sWasmanPro Environmental Solutions LLP</p>	<p>B.E Chemical Engineering</p>	<p>Experience in Chemicals, Petro Chemicals and Polymer Industries, Waste Water Treatment, Solid Waste Management and Green Belt Development Activities</p>	
5	<p><b>Er. Dhinesh Kumar</b> <b>Director,</b> M/s. WasmanPro Environmental SolutionsLLP</p>	<p>B. E. Mechanical Engineering</p>	<p>Solar Energy, Water Quality Assessment, Solid Waste Management, River Restoration and Rehabilitation, Environmental and Social Management.</p>	
6	<p><b>Mr.Chakrapani</b> <b>Manager</b> M/s. WasmanPro Environmental Solutions LLP</p>	<p>B.A. History</p>	<p>30+ years of experience in Admin, TNPCB</p>	
7	<p><b>Er.P.Gajendran,</b> <b>Senior Environmental &amp; Instrumentation Engineer,</b> M/s WasmanPro Environmental Solutions LLP</p>	<p>B.E Electronic and Communication Engineering</p>	<p>Environmental Instrumentations, Noise and vibration, hazard management.</p>	



8	<b>Er.R.Aurnnivas,</b> <b>Environmental Engineer,</b> M/s WasmanPro Environmental Solutions LLP	B.Tech in Civil Engineering, M.E in Environmental Engineering	Environmental Impact Assessment, Marine Impact Assessment, Social Impact Assessment, Design of Sewage Treatment plan, Effluent Treatment plan and Air Pollution Control.	
9	<b>Er. Ann Christy Jose</b> <b>Senior Environmental &amp;  Instrumentation  Engineer,</b> M/s WasmanPro Environmental Solutions LLP	B.Tech Biotechnology and Biochemical Engineering, M.Tech Environmental Engineering,	Solid Waste Management, Sustainable E-Waste Management, Environmental Impact Assessment, Water Auditing and Water Budgeting, Disaster Management	
10	<b>Er.Anusha Shekhar</b> <b>Environmental Engineer</b> M/s WasmanPro Environmental Solutions LLP	M.Sc Environmental Science and Sustainability	Risk Assessment, ESG analysis, Sustainability Management, Remote Sensing And GIS, Occupational Health And Safety	
11	<b>Er.R. ALFIYA</b> <b>Environmental Engineer</b> M/s WasmanPro Environmental Solutions LLP	M.Tech in Environmental Engineering And Management	Environmental Impact Assessment, Solid Waste Management, Water Quality Analysis	

12	<b>Er. Dikshika N</b> <b>Environmental Engineer</b> <b>Trainee</b> M/s. WasmanPro Environmental Solutions LLP	Master's Degree (M.Sc Information Technology) Bachelor's Degree (B.Sc Computer Science)	Solid Waste Management, EPR- Extended Producer Responsibility	
13	<b>Er.Maheshwari</b> <b>Environmental</b> <b>Engineer</b> <b>Trainee</b> M/s. WasmanPro Environmental Solutions LLP	B.E Environmental Engineering	Air Quality, Water Resource Engineering, Waste Management	
14	<b>Er.Pavithra</b> <b>Environmental</b> <b>Engineer</b> <b>Trainee</b> M/s. WasmanPro Environmental Solutions LLP	B.E Environmental Engineering	Water Treatment Plant, Effluent Treatment Plant, Sewage Treatment Plant	
15	<b>Er.Ramesh</b> <b>Kumar</b> <b>Environmental Strategic</b> <b>System Planner</b> M/s. WasmanPro Environmental Solutions LLP	B.Sc(Computer Science)	ESG Risks And Opportunities ESG Impact: Investor Perspective	
16	<b>Er.Vijay</b> <b>Environmental</b> <b>Data Analyst</b> M/s. WasmanPro Environmental Solutions LLP	B.Tech Artificial Intelligence and Data Science	Power BI Visualization, Tableau Visualization	



16	<b>Mr.N.Ragu</b> <b>Public Relation</b> <b>Officer</b> M/s. WasmanPro Environmental Solutions LLP		30+ Years' experience in Public Relation in TNPCB	
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**CHAIRMAN**  
**WASMANPRO ENVIRONMENTAL SOLUTION LLP**



*N. Ragu*

## CENTRE OF EXCELLENCE URBAN SOLID WASTE MANAGEMENT

### Empaneled List of Experts

Sl.No	Name & Title	Qualification	Expertise	Photo
1	<p><b>Dr.K.Karthikeyan</b></p> <p>Former Member Secretary, Tamil Nadu Pollution Control Board (TNPCB)</p> <p>Chief Environmental Coordinator</p> <p>Chairman WasmanPro Environmental Solutions LLP</p> <p>Chairman Centre of Excellence Urban Air Quality and Climate Change</p> <p>Chairman Centre of Excellence Urban Solid Waste Management</p>	<p>B.E Chemical Engineering M.Tech Environmental Engineering M.Sc. Industrial Hygiene and Safety Ph.D - Environmental Science</p> <p>Certified Lead Auditor - Environmental Management Systems ISO 14000 and OSHAS 18000 Certified Professional-Fecal Sludge Management Certified Professional-Decentralized Waste Water Treatment Certification on 24 hr HAZOPER- Hazardous Operations</p>	<p>Team Leader, Environmental Specialist , EIA Coordinator, Environmental Impact Assessment, Environmental / CRZ clearance, Environmental Management Plan, Ecology and biodiversity impact assessment, Water Quality monitoring prevention and control, Bathymetry studies, Geotechnical Studies, Brine discharge modeling, Environmental and Social Management Framework Assessment and hazard management, Disaster Management, City Sanitation Safety Plan as per WHO guidelines, Fecal Sludge Management, Decentralized waste Water treatment, Coastal zone Management</p>	
2	<p><b>Dr. Saravanamuth Vigneswaran,</b> Director/Distinguished Professor, School of Civil and Environmental Engineering University of Technology, Sydney</p>	<p><b>Professional Expert Member</b></p>	<p><b>Expert in Environmental Technology on Waste management</b></p>	

3	<b>Dr. C. Visvanathan</b> Professor, School of Environment, Resources and Development, Asian Institute of Technology,	<b>Professional Expert Member</b>	Expert in Cleaner Production and Industrial Environmental Management, Membrane technologies for water and wastewater treatment and solid waste disposal and management.	
4	<b>Er. Sebastian Frisch</b> Founder, BlackForest Solutions GmbH	<b>Professional Expert Member</b>	Expert in hazardous waste streams, urban mining, operations of waste treatment facilities and complex wastemanagement	
5	<b>Mr. Russell Krass</b> Business Owner, Essential Recycling MD – Recycling Logistics UNSW Australia	<b>Professional Expert Member</b>	Expert in Recycling and Waste to Zero.	
6	<b>Dr.A.G.Murugesan,</b> Head & Professor, Sri ParamakalyaniCentre of Environmental Sciences, ManonmaniyanSundranar University, Tirunelveli.	<b>Advisor - Steering Committee</b> External Expert	Expert in Bio-Methanization and composting.	
6	<b>Dr.Dawn S S,</b> <b>Professor,</b>  Centre of SWM, Sathyabhama University, Chennai.	<b>Professional Member, Research Council</b> External Expert B.Tech, Chemical Engineering M.Tech, Petroleum Refining & Petro Chemicals Ph.D, Chemical Engineering	Expert in the grounds of advanced Bio-fuel handling; Waste management for value added materials, waste water treatment, bio-fouling and submissive in corrosion studies of the bio-fuel environment	

8	<p><b>Mrs.Mangalam Balasubramaniam,</b> Director, ExnoraPammal, Chennai</p>	<p><b>Steering Committee, Honorary Member,</b> External Expert</p> <p>M.A Sociology</p>	<p>Expert in De-centralized Bio-Mechanization facility and composting. Operating Bio-methanation decentralized facility and compost facility at Pammal,Chennai.</p>	
9	<p><b>Dr Anitha</b> Professor &amp; Head, Dept of Chemical Engg, Hindustan Institute of Technology and Science, Chennai</p>	<p>B.Tech, Chemical Engineering M.Tech, Chemical Engineering</p>	<p>Meteorology, Brine discharge modeling, air quality modeling and prediction, Fecal Sludge Management plan.</p>	

## SOLID WASTE MANAGEMENT PROJECTS

- ✚ Biogas plant 1 Ton Capacity for **Sathyabama University Campus in Chennai** – Design, Erection, Commissioned, Operation and Maintenance
- ✚ Biogas plant 1 Ton Capacity for **Anna University campus, Chennai** – Revamped, Erection and Commissioned.
- ✚ 600 TPD Municipal Solid Waste Facility at **Mauritius** - Prefeasibility Report.
- ✚ Design of Municipal Solid composting plant for 227 houses at Meenamabakkam for the Staff Quarters, **Airports Authority of India, Chennai**
- ✚ Consultancy services for review of waste management facility proposed **Airports Authority of India, Chennai**
- ✚ Consultancy for providing Bio-Methanation Plant in **AAI (Non metro) colony at Meenamabakkam, Chennai.**
- ✚ **Madurai city corporation** 15th Central Finance Commission (CFC) - Preparation of Detailed Project Report (DPR) on Water Balance and Solid Waste Management
- ✚ Establishing biogas from food waste at **Kapaleeswarar temple** as Green Temple Initiative, Kurudampalayam Initiative to achieve zero garbage villages at Coimbatore, **Vellore Shiva Temple, Palani Hill** Biogas plants are part of the initiatives with the stake's holders
- ✚ Consultancy services and DPR for micro planning of Municipal solid waste management of **18 Urban local body (ULB), West Bengal.**
- ✚ The Capacity building and awareness programme for Chennai corporation and sub urban municipalities of **Greater Chennai, Madurai Corporation, Trichy Corporation** were done in respect of source segregation during 2019-2020 sponsored by central pollution control board (CPCB) and organized by the National Productivity Council (NPC)
- ✚ Capacity building program with **Residential Welfare Association, Mylapore**
- ✚ Training program on Capacity Building Program of “ULB’S and Stakeholders on Waste Management Rules 2016
- ✚ Dr. Karthikeyan, Chairman, Wasmanpro Environmental Solutions LLP was invited by the Department of Green Industries, Circular Economy **Australia Alliance** invited to participate the Global leadership program on circular Economy Australian Alliance organized by Southern Australian EPA, Department of Green Industries Southern Australian at **Adeleid** and visited many common Landfill, Solid waste processing facilities at **South Australia** and Addressed the gathering about the Indian Best practices on Solid Waste Management
- ✚ Prepared the resource efficiency and pollution prevention activity for the Marine debris collected at the Intake water collection point, prepared a comparative Solid waste management program with the local fisherman village under CSR for the 5-desalination plant in the ESMF under EIA report for CRZ clearance.

## WATER AND WASTEWATER PROJECTS

- ✚ **M/s Ramsays Corporation Private Limited (Forging & Plating Division, Chemmencherry)** – Revamped and Commissioned existing 22 KLD STP & 8 KLD ETP.
- ✚ **M/s Suparjit Engineering Ltd, Kancheepuram** – Design and Commissioned 50 KLD STP
- ✚ **Realco Recycling Company, Tiruvallur** - Design and Commissioned 10 KLD ETP
- ✚ **OTP Engineers Pvt Ltd, Mumbai** – Supported for the DPR preparation for the Underground Sewerage system with 2 STP at **St.Thomas Mount (4.25 MLD) & Pallavaram (2 MLD) Cantonment Board.**
- ✚ **TamilNadu Water Investment Company Limited (TWIC)** - Feasibility report for setting up of Waste water reuse grid and preparation of Policy frame work for the state of TamilNadu.
- ✚ **TamilNadu Water Investment Company Limited (TWIC)** - Consultancy Services for Restoration and Rejuvenation of 57 Water Bodies (Lakes/Ponds) in Greater Chennai Corporation Area of recommendation.
- ✚ **Asian Development Bank** – Consultancy Services for Tiruppur Underground Sewerage System of 15 MLD Pumping Station for ADB approval.
- ✚ **TamilNadu Water Investment Company Limited (TWIC)** - Environment Monitoring Plan (EMP) for the Construction of Integrated Storm Water Drain in Cuddalore Municipality
- ✚ **TamilNadu Water Investment Company Limited (TWIC)** – Environmental and Social assessment for Rejuvenation of 3 Water Bodies (Lakes/Ponds) in Greater Chennai Corporation Area
- ✚ **Cuddalore Greater Municipality** - Environmental Monitoring plan for the construction of Integrated Storm Water Drain in Cuddalore Municipality – Phase I
- ✚ **Strides Shasun Pharmaceuticals Limited** - Supply, Installation, Commissioning and Monitoring of Online Advanced Silver Ionization Water Disinfection Equipment (15,000 LPH Capacity)
- ✚ **Solara Active Pharma Sciences Limited** - Supply, Installation, Commissioning and Monitoring of Online Advanced Silver Ionization Water Disinfection Equipment (15,000 & 30,000 LPH Capacity)



## EIA & CRZ CLEARANCE PROJECTS

- ✚ Conducted EIA studies, Marine Impact assessment, Disaster Management, Risk Assessment, EMP studies and obtained CRZ Clearance for 60 MLD SWRO Desalination plant at Kuthiraimozhi, Ramnad District - **TamilNadu Water Investment Company Limited (TWIC)**
- ✚ Conducted EIA studies, Marine Impact assessment, Disaster Management, Risk Assessment, EMP studies and Consultancy of CRZ Clearance for 10 MLD SWRO Desalination Plant at Paradip Port, Orissa- **TamilNadu Water Investment Company Limited (TWIC)**
- ✚ CRZ Clearance for 60 MLD SWRO Desalination Plant at SIPCOT Mullakadu, Tuticorin - **TamilNadu Water Investment Company Limited (TWIC)**
- ✚ Conducted EIA studies, Marine Impact assessment, Disaster Management, Risk Assessment, EMP studies and obtained CRZ Clearance for 5 MLD SWRO Desalination Plant at V.O.C Port, Tuticorin- **TamilNadu Water Investment Company Limited (TWIC)**
- ✚ Conducted EIA and EMP studies and obtained CRZ Clearance for 60 MLD SWRO Desalination plant at Koonimedu, Villupuram District - **TamilNadu Water Supply and Drainage Board (TWADB)**
- ✚ CRZ Clearance for **M/s. Manju Groups** proposed Baruna and Barshana housing project is on process.
- ✚ Our company Chairman is part of **150 MLD desalination plant at Nemmieli** as Sr. Environmental specialist and approved by **KfW** to address and monitor ESMF, HSE, and Disaster management plan.
- ✚ Prepared Environmental, Social Impact Assessment, Disaster Management Plan, Risk Assessment and Environmental Social Management Framework for the Railway Bridge No.44, MAS-Gudur Southern Railway Project to obtain CRZ Clearance
- ✚ CRZ Clearance for the construction of Integrated Storm Water Drain in Cuddalore Municipality.
- ✚ CRZ Clearance for Edible Oil Storage Tanks for J.S.Overseas Private Limited, Inside port, Nagapattinam.
- ✚ To prove Tamilnadu Water reuse policy for TWIC Project.
- ✚ Identified hotspot for connectivity Resources as Treated Water and Water Intensive Industries
- ✚ EIA Studies for getting Environmental Clearance for merging of M/s Mayavaram Rolling Mill Pvt Ltd and M/s Avanti Metals Pvt Ltd as single CTO.

## INDUSTRIAL LICENSING AND REGULATORY PERMISSION

- ✚ Consultancy Services to obtain statutory clearance from TamilNadu Pollution Control Board- CTE expansion for **M/s Gurit Winds Private Limited**.
- ✚ Technically supported for the preparation of Compliance report- Getting Compliance Certificate from MoEF / TNPCB for **Wipro Limited** construction of software development building at ELCOT, Sholinganallur, Chennai
- ✚ Consultancy Services to obtain statutory clearance from TamilNadu Pollution Control Board for **Ramsay Corporation Private Limited, Chemmancheri plant - Forging Division**
- ✚ Consultancy Services to obtain statutory clearance from TamilNadu Pollution Control Board for **Ramsay Corporation Private Limited, Chemmancheri plant - Plating Division**.
- ✚ Consultancy Services to obtain statutory clearance from TamilNadu Pollution Control Board for **Ramsay Corporation Private Limited, Chenneri plant**.
- ✚ Consultancy Services to obtain **Hazardous Waste Authorization (HWA)** clearance from TNPCB for **Ramsay Corporation Private Limited, Chemmancheri plant - Forging Division**
- ✚ Consultancy Services to obtain **Hazardous Waste Authorization (HWA)** clearance from TNPCB for **Ramsay Corporation Private Limited, Chemmancheri plant - Plating Division**
- ✚ Consultancy Services to obtain **Hazardous Waste Authorization (HWA)** clearance from TNPCB for **Ramsay Corporation Private Limited, Chenneri plant**
- ✚ Consultancy Services to obtain statutory clearance from State Pollution Control Board for **M/s Sundari Agency (IOCL Dealer)**
- ✚ Consultancy Services to obtain statutory clearance from State Pollution Control Board for **M/s Visoka Engineering Pvt Ltd**.
- ✚ Consultancy Services to obtain statutory clearance from State Pollution Control Board for Mars Synergy Geotech Private Limited
- ✚ Consultancy Services to obtain statutory clearance from State Pollution Control Board for **Yenkay Industries**
- ✚ Consultancy Services to obtain statutory clearance from State Pollution Control Board for **Malabar hotel**

- + Consultancy Services to obtain statutory clearance from State Pollution Control Board for **Indira Medical College Hospital**
- + Consultancy Services to obtain statutory clearance from State Pollution Control Board for **Alankar Hotel Management Ltd.**
- + Consultancy Services to obtain statutory clearance from State Pollution Control Board for **Shaya Polymers Pvt Limited** - Foam and Chemical processing Unit.
- + Consultancy Services to obtain statutory clearance from State Pollution Control Board for **KCP Limited**
- + Consultancy Services to obtain statutory clearance from State Pollution Control Board for **Grt Jewellers India Pvt. Ltd. Chennai** -Industry development (Gold and Silver Secondary Smelting Unit)

## ENVIRONMENTAL MONITORING SYSTEM PROJECTS

- + **Bannari Amman Sugars Limited**- Units- Tiruvannamalai, Sathyamangalam, Bhavani, - Villuppuram - Supply, Installation, Commissioning, Monitoring and a periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)
- + **Madras Sugars Ltd** - Supply, Installation, Commissioning and Monitoring of Online Effluent Quality Monitoring Equipment (EQMS)
- + **Rajshree Sugars & Chemicals Limited**-Units-Theni, Gingee, Mundiampakkam - Supply, Installation, Commissioning Monitoring and a periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)
- + **Trident Sugars Limited** - Supply, Installation, Commissioning, Monitoring and periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)
- + **Dhanalakshmi Srinivasan Sugars Pvt. Ltd** - Supply, Installation, Commissioning, Monitoring and periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)
- + **Dharmapuri District Co-Op Sugar Mill Ltd**- Supply, Installation, Commissioning, Monitoring and periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)
- + **M.R.K Co-Op. Sugar Mill Ltd** - Supply, Installation, Commissioning, Monitoring and periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)

- + **Covestro (India) Pvt. Ltd** - Supply, Installation, Commissioning, Monitoring and periodic calibration of Online Effluent Quality Monitoring Equipment (EQMS)
- + **Alankar Hotel Management Ltd** - Supply and Installation of GREASE TRAP
- + **M/s Ramsays Corporation Private Limited**, Chemmancherry Village - Design and Supply HWA Factory Display Board to Chemmancheri Plant - Plating Division
- + **M/s Ramsays Corporation Private Limited**, Chemmancherry Village - Design and Supply HWA Factory Display Board to Chemmancheri Plant - Forging Division
- + **M/s Ramsays Corporation Private Limited** Chemmancherry - Supply of Media filter for STP & ETP
- + **M/s Ramsays Corporation Private Limited** Chemmancherry - Supply of Stainer and Nut & Bolts

## ENVIRONMENTAL AUDIT

- + **AMET, Education and Training, Chennai**- Consultancy services for Environmental Green Audit (2015-2020)
- + **AMET, Education and Training, Chennai** - Consultancy services for Energy Green Audit (2015-2020)
- + **St. JOSEPH'S College of Engineering, Chennai** - Consultancy services for Environmental Green Audit (2019- 2020)
- + **KCG College of Technology, Chennai** - Consultancy services Environmental Green Audit
- + **M/s Sathyabama Institute of Science and Technology** - Consultancy services for Environmental Audit, Energy Audit and Waste Audit
- + **M/s SSN Trust (SSN College Of Engineering)** - Consultancy services for Environmental Consultancy & Engineering Service - Energy Audit

## ENVIRONMENTAL TRAINING CONDUCTED

Sl.No	TRAINING	VENUE	DATE
1	Indian Environmental Regulations & Case Laws	Bangalore	27th and 28th October 2017
2	Sewage Treatment Plant for Engineers and Operators	Chennai	29th, 30th and 31st March 2018
3	Capacity Building Program of “ULB’s and Stakeholders on Waste Management Rules 2016	Madurai	4th May 2018
4	Capacity Building Program of “ULB’s and Stakeholders on Waste Management Rules 2016	Trichy	5th June 2018
5	Capacity Building Program of “ULB’s and Stakeholders on Waste Management Rules 2016	Chennai	2018
6	Environmental Audit towards Sustainable Development	Cochin.	12th and 13th June 2018
7	Self-Regulation of Hazardous Waste under Principles of Circular Economy	Radisson Blu, Chennai.	28th and 29th June 2018
8	Indian Environmental Regulations & Case Laws	Poonamalle, Chennai	12th and 13th October 2018
9	Hazardous Waste Management Rules and Its Application	Abu Sarovar, Chennai	23rd and 24th November 2018
10	Air Pollution, Source, Identification, Monitoring & Control	Chennai	27th & 28th of April 2018
11	Hazardous Waste Management Rules and Its Application	The Manohar Hotel, Begumpet, Hyderabad.	08th and 09th February 2019
12	Environmental Management in Industries	Chennai	19th and 20th February 2019
13	Industrial Hygiene and Safety Management	Chennai	11th and 12th March 2019
14	Environmental Audit for Health Care sectors- A strategic review for Early Compliance of Biomedical Waste Management Rules, 2016	Chennai	26th and 27th March 2019
15	Sewage Treatment Plant	Chennai	8th and 9th of May, 2019.
16	Environmental Audit for Targeted Sustainable Development Goals	Chennai	10th and 11th of May, 2019.
17	Air Pollution Control and Management	Chennai	13th and 14th of June 2019

18	Environmental Laws and Legal obligations	Chennai	05th and 06th of July 2019
19	Training Programme on Solid Waste	Chennai	29th and 30th of July 2019
20	Environmental Friendly Mining Mitigation and Environmental Impacts (Online)	NLC, INDIA	7th October 2020
21	Environmental Impact & Assessment (Online)	NLC, INDIA	13th October 2020
22	Environmental Friendly Mining Mitigation and Environmental Impacts (Online)	NLC, INDIA	4th November 2020
23	Environmental Impact & Assessment (Online)	NLC, INDIA	17th November 2020
24	Environmental Impact & Assessment (Online)	NLC, INDIA	22nd January 2021
25	Online Training on Ecosystem Restoration	chennai	9th of May, 2021
26	Online Training Promoting Climate Resilient Industries	chennai	24th of June, 2021
27	Online Training Promoting Climate Resilient Industries	Hotel Lemon Tree, Chennai	19&20th of July, 2022
28	Training Program - Cruise Ship / Marpol Waste Management	Wasmanpro Training Centre	27/06 to 01/07 2022
29	Training Programme on Promoting Climate Resilient Industries	Lemon Tree, Chennai	May 2022
30	Training Programme on Promoting Low Carbon Pathways	Hablis Hotel, Chennai	August 2022
31	Training Programme on Promoting Low Carbon Pathways	Hablis Hotel, Chennai	October 2022
32	Training Programme on Low Carbon Pathway to Develop Climate Resilient Industries	Hablis Hotel, Chennai	December 2023
33	Training program on Green Technologies & Policy Instruments and Framework to mitigate Environmental problems	National Productivity Council, Chennai	March 2024

❖ *WHAT DO WE SPECIALISE IN*

WasmanPro Consultancy Service Division provides Environmental Services across wide range of industries, supporting the clients in developing a sustainable environmental oriented project development, and obtaining statutory clearances for the execution and functioning of the project. Our Consultancy service includes

- Environment Social Governance
- Environmental Impact Assessment
- Marine Impact Assessment
- Solid Waste Management Plan
- Biodiversity Impact Assessment
- Hazardous And Bio Medical Waste Management Plan
- E – Waste Management Plan
- Water And Waste Water Management Plan
- Water Reuse Management Plan
- Rejuvenation of Water Bodies
- Sewage Water Management Plan
- Industrial Hygiene and Safety
- Air, Noise, Soil, Water and Vibration Monitoring Plan
- Environmental and Social Compliance for Multi Storied Buildings and Construction Industries
- CRZ Clearance



### 1.Environmental Impact Assessment

Environmental impact Assessment studies are required to understand the impact of a proposed project on the environment. There are various environmental factors which are considered during the study. WasmanPro has enormous experience in Environmental Impact Assessment studies. We have successfully carried out Environmental Impact Assessment Studies for projects.

#### a. Social Impact Assessment

A social impact assessment (SIA) is a proactive and anticipatory tool used to help understand the potential impacts that a proposed project may have on a community. The growing interest in impact measurement have arisen concern over the lack of shared, reliable principles of how to assess the outcomes related to social impact

Wasmanpro with globally Accepted process and procedure carry out baseline studies and generate the data for SIA which includes Socio-economic profile in terms of demographic characteristics, land use pattern, economic profile, occupational pattern and other socio-economic parameters.

**1. Environmental and social management framework**

ESMF is an instrument that examines the issues and impacts associated when a project consists of a program and series of sub-projects. Depending on the nature and location, the project initiatives such as coastal protection measures, waste management, tourism infrastructure, livelihood support interventions, development of smart villages, etc. are likely to result in positive and negative impacts on the project area during their construction, operations and maintenance phases.

Wasmanpro nurtures the client with a set of agreed policies, guidelines, procedures, implementation roles and responsibilities to be integrated into the implementation of the project and describes the principles, objectives and approach to be followed in minimizing and mitigation of the adverse environmental and social impacts caused by implementation of the project.

**1. Environmental and Social Risk Assessment and mitigation**

**2. Share Holder Engagement Plan**

**3. Risk Assessment**

Wasmanpro set of matrix for identifying the risk involved in each and every type of industries and organization by using various tools to locate the specific risk in to the pre identified risk matrix to works through analysis and evaluation in order to develop a control measures to be implemented.

**4. Disaster Management**

Wasmanpro devised an emergency preparedness plan from the past disaster handled by the human race and also assist in the prevention of disaster to the maximum extent by human knowledge through the use of smart sensors and warning devises with IOT.

**5. Resource efficiency and Pollution Control Management**

**6. Community Health and Safety**

**7. Indigenous People**

**8. Heritage and Culture**



## 2. Solid Waste Management

*Wasmanpro Environmental Solutions have Established centre of Excellence in Urban Solid Waste Management*

➤ **Vision of Centre of Excellence in Urban Solid Waste Management (CoEUSWM)**

1. Promoting the community for scientific management in segregation, recycle; reduce treatment, reuse and residue management.
2. Create the awareness on source segregation, recycling the valuables, reduce the landfill burden.
3. Identify the resource management for valuables derived from the segregated waste.
4. Explore the improved version of scientific recycling mode and reduce the residuals through the identified and registered waste collectors.
5. Connecting the recycling community with better scientific outputs.
6. Minimum low foot print technologies and maximum diversion rates as vision of this Centre.
7. Integrating energy intensive house hold hazardous waste and non-recyclable dry wastes and their promotion for waste to energy.
8. Resourcing bulk waste generation and biogas generation, bottling and reusing by waste generators.
9. Community organic waste and eateries waste into decentralized compost units.
10. Reduce landfill burden and landfill fire, leachates.
11. Local stimulations in waste to energy.

The long-term objective of the project is to create a local decentralized solid waste management centers, achieve maximum recycling rate with bulk food waste management at the source. Material recycling Facilities as Dry waste collection and segregation.

➤ **Main Functions of Centre of Excellence Urban Solid Waste Management:**

- 1. The Centre will prepare conceptual approach in choosing the best available and suitable technology based on characterization of waste and waste generation.**
- 2. The center will be a part of advisory body for the local authorities in evolving technical feasibility report.**
- 3. The Centre will provide big data analytics for the composition of biogas generated, quality of compost from different areas of the state , in different seasons.**
- 4. The Centre will establish an institutional mechanism for circular economy for bridging the waste generators, waste collectors, and waste recyclers, industries using waste as raw materials, technology providers, policy makers, enforcement authority and NGO.**
- 5. The center will be participating in preparing the state level policy, district level waste Management policies.**
- 6. The centre will support the De-centralized waste management facilities for their stabilization and continual operation.**
- 7. The centre will co-ordinate with MoUD, MoEF, CPCB, CPHEEO, State Municipal Administrations and Local education institutions for conducting training programme for creating awareness on segregation suitable technology and better recycling methodology.**
- 8. The centre will prepare the district Solid Waste Management manuals, for each municipalities and will suggest the local state municipal authority and local bodies for choice of De-centralized or Integrated waste management approach, in feedstock management for Bio-digesters, Odour management and compost quality achievement , establishing connectivity for principal use of Bio-Gas, electrification, compost with the major fertilizer units.**
- 9. Scrutinizing the Detailed Project Report**
- 10. The centre will establish state of art lab for waste treatment technology like Bio-Methanization, Composting, Advance Bio Fuel, etc.**
- 11. The centre can support the state Government for monitoring maximum diversion from landfills, by effective recycling by the community and recyclers and to reach the minimum residue to landfill.**
- 12. The centre will exhibit their expertise from experts in designing the Unit operations of SWM technologies.**

**CoEUSWM encourages cutting-edge and crosscutting research, capacity building and technical knowledge base. This Centre under the preview of MoUD addresses the urban solid waste management issues at national, state and local levels in order to provide support public and government agencies by the following.**

1. Facilitating a broader outlook in Corporation and Municipality Waste Management for better waste management in compliance with the Solid Waste Management Rules of 2016.
2. Creating awareness about latest trends in policy such as Solid waste management Rules 2016 among commercial and industrial.
3. Providing technical training to improve the skills and competence of urban administration in Solid Waste Management
4. Integrating various stakeholders such as municipalities/Corporations, waste generators, waste collector and waste recyclers under the principal of Circular economy and public procurement innovation
5. Coordinating with District Collectors to develop a road map for a mutual benefit programme from the recyclables and address the livelihood support for the waste pickers which is a legal mandate under solid waste management rules 2016.
6. Supporting the policy makers and enforcing authorities by providing practical, hands-on training sessions to the Households through various Residents Welfare Associations (RWAs), to implement circular economy concept facilitating the State Policy makers, Residential Welfare Associations, Waste Recyclers, Rag pickers and Bulk waste generators in a platform to work out a strategy to minimize the valuable waste reaching the Landfill site.
7. Acting as a Knowledge Sharing platform integrating the expertise and experience through networking and training
8. Providing guidance and technology transfer support to Governments agencies under PPP on planning, implementing and monitoring.
9. Developing working model with the support of ULBs to examine the Zero Waste Management so as to avoid the conventional system by revisiting the mindset of residential community to establish a Zero Waste Management System
10. Offering courses and workshops coordinated with waste management issues and service delivery improvements for urban local bodies;
11. Developing based on case studies of the experience of other cities in India and developing and continuously improving localized waste management models under PPP.
12. Developing research and development activities in the area of Solid Waste Management
13. Environmental Social Impact assessment for decentralized solid waste management projects.

WasmanPro team includes a group of highly experienced and skilled professionals who are extremely dedicated in developing Solid waste management, treatment and disposal plans with the latest and appropriate technologies. WasmanPro infrastructure includes a well-equipped with treatability studies. WasmanPro customize the treatment strategies to the client's requirements and also optimize the treatment procedures employed.

**a. Biomedical Waste Management**

Biomedical or infectious waste is a special type of regulated waste commonly generated in the medical industry and contains infectious materials or potentially infectious substances. These infectious and contaminated agents or materials are a threat to public health and the environment.

WasmanPro is provide scientific handling management approach for effective and safe handling of Bio medical waste and provides integrated solutions to collect, treat and disposal.

**b. Hazardous waste management**

Wasmanpro have extensive experience in hazardous waste management. We identify, characterize and quantify hazardous wastes. Depending on the nature of hazardous wastes we develop treatment, storage and disposal strategies. By employing scientific and unique treatment technologies we make sure that all the regulatory norms formulated by the state regulatory authorities are satisfied. We also help in conducting training programs to the industries for the effective handling, collecting, transport and disposal of the Hazardous waste.

**3. Water and Waste Water Management**

WasmanPro undertake design and engineering for the client's specific requirements in the field of water management. A complete package service includes design, Engineering, identification of vendors and costing. WasmanPro also offer the services for inspection, supervision of erection and commissioning.

**a. Ground Water Resource Impact Assessment**

Wasmanpro provides a frame work to visualize the ground water properties and impacts of the projects on the ground water based on predictive simulations and help the client in improving the understanding of scientific, socio-economic, legal, institutional and environmental issues related to the management of aquifers.

**b. Urban Water Sensitive Design**

Wasmanpro Designs to reduce environmental degradation, while also meeting socioeconomic needs also to improve the aesthetic or recreational value of an area. Water Sensitive Urban Design (WSUD) is a conceptual approach to urban water management, which has become increasingly popular in recent years, with considerable advancement. Water Sensitive Urban Design is a broad term that describes types of land planning or engineering design that support the sustainable management of the whole urban water cycle; including water supply, water reuse, wastewater management, and groundwater or surface water management.

**c. Water and Waste Water Audit**

Wasmanpro has well defined globally accepted process of obtaining a water balance by measuring the flow of water from the site of water withdrawal or treatment through the water distribution system and into areas where it is used and finally discharged

Our audit provides greater water efficiency solutions and cost savings for meeting internal policies, complying with legal obligations or demonstrating a commitment to sustainability.

**d. Urban Lake Management**

Water bodies such as, ponds, tanks and other wetlands are an integral part of the hydrological cycle. Properly managed lakes, in urban areas have an important role as a source of water supply, controlling run-off and groundwater recharge. These water bodies also host a wide variety of flora and fauna, provide recreation spaces and improve micro climate in the built environment

Wasmanpro accomplished several urban lake management plans over the past few years. WasmanPro with the vast experience guide the clients to undertake urban lake management effectively with cost benefit analysis.

**e. Faecal Sludge Treatment and reuse.**

Faecal sludge management is a relatively new term and field that is gaining increased acknowledgement in the sanitation sector. Wasmanpro binds the gap in the Faecal Sludge Treatment and reuse by defining the fact that derives the Faecal Treatment and guiding the clients from both government and government sector in developing a viable and implementing the working model.

**f. Vermi filtration**

Wasmanpro introduce the unique filtration system to its client, where Vermi filtration proves to be cost effective in handling the Faecal sludge potentially obtaining the compost as the by-product.

#### **4.Audits and Reports**

Wasmanpro conducts environmental compliance audit, Environmental management audit and functional environmental audit for organizations and industries to increase their environmental responsibility and their performance in all aspects and to understand to meet their environmental legal requirements.

**a) Environmental Audit**

Wasmanpro conducts environmental compliance audit, environmental management audit and functional environmental audit for organizations and industries to increase their environmental responsibility and their performance in all aspects and to understand to meet their environmental legal requirements.

**b) Energy Audit**

Energy audit services play a major role in energy management system. WasmanPro provides energy audit for your infrastructure by implementing inspection, survey analysis of energy flow, process and system for energy conservation and optimization. Our services includes:

- ✓ Infrastructure inspection
- ✓ Detailed Audit and Field Measurement.
- ✓ Energy conservation measure based on economic viability

**c) Water Audit**

We provide detailed water and wastewater audits for industries and projects that are aimed to prepare water balance chart for the organization or the industry and to optimize the water consumption by identifying the water consumption rate for different process and the possible ways to reuse the proceeds water within the organization or industry.

**d) Solid Waste Audit**

A waste audit is a physical analysis of waste composition to provide a detailed understanding of problems, identify potential opportunities, and give you a detailed analysis of your waste composition. A Waste Audit will help you clearly identify your waste generation to:

- ✓ Obtain detailed data on waste generation
- ✓ Establish baseline or benchmark data.
- ✓ Characterize and quantify waste streams and verify waste pathway
- ✓ Identify waste diversion and source reduction opportunities.
- ✓ Assess effectiveness and determine ways to improve efficiency of your current waste management systems

**e) Environmental Health And Safety Audit**

Environmental and safety audits will play an increasingly important role in evaluating compliance of organization's environment and work safety programs through assessment of properties, facilities, processes, and operations against regulations and standards as well as internal policies and goals. Our service includes:

- ✓ Audits and/or inspections with regard to licenses in regulations
- ✓ Identification of discrepancies to benefit the client
- ✓ Assess exposure of workplace to risk factors.
- ✓ Corrective actions in accordance with requirement.

**f) Green Audit**

Wasmanpro guides the client to identify their available resources i.e. Energy, Water quality, Build-up Space, Air quality, Stationary, Human Resources, Fire Safety, Transport, Cafeteria, Sanitation Facilities, etc. And effective utilization of their resources to obtain a sustainable growth of the institution, organization or industries.

**SERVICES**

Service division takes up works in sectors like.

- Soil Investigation
- Air Emission Inventories
- Noise Investigation
- Vibration Investigation
- Ground Water and Sub-Surface Investigation
- Bathymetry Survey
- Geotechnical Survey
- Hydro geological Studies
- Environmental Management System Compliance auditing
- Environmental Health and Safety Audit
- Environmental Audit
- Green Audit
- Water and Waste Water Audit
- Solid, Hazardous, Bio Medical and E – Waste Audit
- Energy Audit



**Comprehensive Industrial Licensing and Regulatory Permitting**

We provide single point consultancy services for site due diligence and obtaining comprehensive licensing from various departments for from concept to operations including Tamil Nadu Pollution Control Board, Directorate of Industrial Safety and Health, Directorate of Fire Service, Directorate of Public Health and Preventive Medicine, Electrical Inspectorate, Tamil Nadu Electricity Board, Directorate of Town and Country Planning, Petroleum And Explosives Safety Organization (PESO), Ground Water Department, to CRZ permission and Environmental Clearance from Ministry of Environment and Forest (MoEF) & SIEAA and other Local body clearance like Corporation, Municipalities and Panchayat Union Office and all other regulatory permitting services.

### Techno Legal Consultancy

Non Compliance of the mandatory requirements under the various environmental laws is considered to be a criminal offence, it may lead to a closure of the industries in case of non-compliance of the statutory requirements. We provide end to end services for your industry from Concept to Reality.

### Site Assessment and Due Diligence Reports

Technical due diligence can also help a purchaser reduce the acquisition offer price. The due diligence should be self-financing and provide you with a qualitative overview of the business future performance complementing technical and legal data analysis that reveals more of current and historical views.

### Green Building

Green building also called sustainable building or green construction, is the concept of creating structures and processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction.

Its main goals are to preserve resources like raw materials, energy and water, fight against global warming (greenhouse gases emission), minimize waste and other pollutions, and maximise the whole life-cycle performance. Sustainable building also aims to bring comfort and health to occupants by the use of materials of high sanitary and environmental quality, both for the actual construction and for the insulation.

Fundamental principles are linked to green building:

- Minimize resource consumption (energy and water efficiency)
- Maximize resource reuse
- Use renewable or recyclable resources
- Protect the natural environment
- Create a healthy, non-toxic environment

## PROJECTS

Our Project division takes up turnkey projects in sectors like.

- Water Treatment Plants
- Waste Water Treatment Plants
- Effluent Treatment Plants
- Zero Liquid Discharge Plants
- Sewage Treatment Plants
- Solid Waste Treatment Plants
- Bio Gas Plants
- Incinerators for Solid Wastes
- Microwaving of Hazardous and Bio-Medical Wastes

### 1. WATER TREATMENT

#### ➤ SEAWATER DESALINATION

Seawater desalination is the removal of salt and impurities from seawater to produce fresh water. Our desalination plants use a reverse osmosis process. Seawater is pumped into the desalination plant from the ocean and passes through pre-treatment filtration to remove most of the large and small particles.

The filtered seawater is then forced under pressure through special membranes whereby the osmosis process that normally occurs in nature is reversed. The pores in the membranes are so tiny that salt, bacteria, viruses and other impurities are separated from the seawater. In essence they act like microscopic strainers. About half of the water that enters the plant from the sea becomes fresh drinking water. The salt and other impurities removed from the sea water are then returned to the ocean via diffusers, which ensures it mixes quickly and prevents impacted the marine environment.

#### ➤ DESALINATION PROCESS

Wasmanpro incorporate ideology of using Saline Sea water as an alternate source of fresh water by converting saline water into fresh water through desalination process, we provide our client a comprehensive model of desalination with high efficiency and without any compromise to themarine ecology and costal region.



#### ➤ MEMBRANE FILTRATION

Wasmanpro suggest and implement cost effective membranes with wide range options for treating Water and Waste Water, also supports the project in various stages of erection and commissioning.



Technology act as the tertiary treatment of water treatment making the treated water for reuses. Membrane technology covers all engineering approaches for the transport of substances between two fractions with the help of permeable membranes. In general, mechanical separation processes for separating gaseous or liquid streams use membrane technology.

## 2. WASTE WATER TREATMENT

### ➤ DECENTRALISED WASTE WATER TREATMENT – Projects under WWT

Wasmanpro design and develop Indigenous decentralized Waste water treatment system for your requirement with globally proven technologies and principles. Decentralized systems are small, individual or cluster type wastewater facilities to provide wastewater treatment services to residents. In the decentralized wastewater treatment systems, wastewater can be treated onsite through aerobic and anaerobic techniques.

### ➤ EFFLUENT TREATMENT PLANT (ETP)

We offer flaw less design based on the latest available treatment and technologies ideally suitable for water invasive industries such Textile Dyeing Industries, Paper and pulp Industries, Tanneries, Sugar industries, breweries, distilleries, etc.

### ➤ SEWAGE TREATMENT PLANT (STP)

Wasmanpro exclusively designs STP plants for its client with integrated climate resilient models optimized for carbon foot print. Our treatment unit highly differs from the other conventional treatmentplants.



## 3. BIO GAS PLANTS

We have Supply, Installation and Commissioned 1 Ton Bio Plant at Sathyabama Institute and science and Technology, Chennai.

Wasmanpro exclusively designs Biogas plants and doing maintenance works. Biogas plants rely on anaerobic digestion, a fermentation process in which waste is digested by microbes to produce methane gas (biogas). Thewaste can be converted into biofertiliser and spread directly onto fields, or the biogas itself can be used interchangeably with natural gas as fuel.



## ENVIRONMENTAL PRODUCTS

**WasmanPro is also specialized in design and development of industrial Analyzer systems, providing complete and customized solutions for any application. Whether the process in the companies requires a simple sample system or component, a single-stream analyzer or a complete integrated analyzer. WasmanPro is qualified to design and produce according to the specific demands and also provided Environmental Instrumentation products to all the industrial and domestic applications.**

**WasmanPro product division provides advanced and innovative Online Pollution Monitoring & Control System. WasmanPro offer a wide range on Environmental products such as.**

- **Ambient Air Quality Monitoring Systems (AAQMS)**
- **Continuous Emission Monitoring System (CEMS)**
- **Online Waste Water Monitoring System**



- Urban Air Quality Monitoring Plan
- Silver Ionization Water Disinfection System
- Electrolytic De-fluorination for Drinking Water
- Copper Silver Disinfection for Recycled & Cooling Tower water (TAD), Ultrasonic Algal Control systems
- Bio Aerosol Monitoring



## ENVIRONMENTAL TRAINING CENTRE

Wasmanpro Environmental Solution LLP has an Autonomous Training Campus integrated to the office, well equipped with an infrastructure capacity to accomplish training of 30 persons at a time and equipped with LCD projector for presentation as well as white board for orthodox system of training. WasmanPro offer a wide range of training module including.

- Air Pollution, Source, Identification, Monitoring & Control.
- Environmental Audit, green audit.
- Industrial Hygiene and Safety Management.
- Principles of Circular Economy.
- Indian Environmental Regulations & Case Laws.
- Capacity Building Program of "ULB's and Stakeholders on Waste Management Rules 2016.
- Waste water and Sewage Treatment Plant.
- Environmental Management Plan.
- Environmental impact assessment, Marine impact assessment.
- Environmental and social framework management.
- De-centralized water treatment.



WasmanPro Expert Team of Trainers are high profiled professionals with vast experience over the environmental studies and management

1. Dr.K.Karthikeyan - Former Member Secretary, Tamil Nadu Pollution Control Board (TNPCB) B.E Chemical Engineering, M.Tech Environmental Engineering
2. Dr.S.S Dawn Professor & Scientist E Centre for Waste Management Centre of Excellence Energy Research Sathyabama Institute of Science and Technology
3. Dr.Anitha Professor & Head, Dept. of Chemical Engg., Hindustan Institute of Technology and Science, Chennai
4. Mr. Krishna Kumar – Safety Professional
5. Er.T. Ezhumalai – EHS & Safety Expert
6. Dr. A.G Murugesan – Former Professor Centre of Research, Manonmaniam Sundaranar University

The training center aims for a comprehensive, integrated approach that helps enhancing professionalism and capabilities of professionals targeting an intact sector; achieving the highest standards of excellence for practice, competence The center will provide an integrated management system for Environmental Services through research, technology transfer, adoption of new methodology, capacity building by training and networking with research & academic institute and governments. Wasmanpro Environmental Solution LLP accomplished these Milestones in a short period with only thrust of providing a quality service for both our client and the environment.