



एक कदम स्वच्छता की ओर

CREDAI CARES



**MANAGE YOUR WASTE
MANAGE YOUR
ENVIRONMENT**



CREDAI CLEAN CITY MOVEMENT

A CSR initiative of CREDAI

SERVICE PROVIDER . GOVERNMENT OF KERALA

CREDAI

Confederation of Real Estate Developers' Associations of India (CREDAI) is the apex body of organized Real Estate Developers Associations of India representing around 12000 developers through 204 Chapters spread across 23 states of the country. CREDAI has become the preferred platform representing the Housing and Habitat sector through strong networking with Government, Policy Makers, Investors, Financial Institutions and Real Estate Developers.

CREDAI Kerala

CREDAI Kerala is the state chapter ensuring a corporate approach to meet the ever growing demands of home buyers in the State. It comprises of leading builders who over the years have played a crucial role in the development of the state. CREDAI Kerala has 5 chapters in Thiruvananthapuram, Kochi, Thrissur, Palakkad and Kozhikode. CREDAI Kerala is also actively involved in Corporate Social Responsibility (CSR) activities. A major initiative of CREDAI's CSR wing is the 'CREDAI Clean City Movement', promoting the decentralized system of Solid Waste Management in Kerala. It promotes an eco-friendly solid waste management system in high-rise apartments and the gated colonies with the focus on health and hygiene.



CREDAI CLEAN CITY MOVEMENT (CCCM)

The CREDAI Clean City Movement was set up in 2007 when the city of Kochi was facing severe crisis in the Management of Solid Waste. CCCM creates awareness and promotes the installation of decentralized eco friendly solid waste management system with focus on health and hygiene.

The decentralized waste management system developed by the CCCM is now adopted across 7 cities of Kerala. The system has been implemented in around 670 complexes across the state.

CREDAI Clean City Movement is the authorized service provider to "Suchitwa Mission, Government of Kerala".

STRATEGY - CREDAI ADOPTS THE PPP (POLLUTER PAY PRINCIPLE) MODEL

Economical, Ecofriendly and Sustainable decentralized project for Solid Waste Management.

Residents in the gated communities collectively cover the cost of SWM process.

VISION

- **Create awareness to implement decentralized SWM across India.**
- **Educate, Encourage and Promote Self Reliance in SWM.**
- **Reduce the financial burden of Local Self Governments in SWM.**
- **Reduce Landfill and recover space for recreation and developmental activities.**
- **Utilise Compost generated to promote Organic farming.**

THE BENEFITS

Environmental

Decentralized Solid Waste Management has helped to reduce the Air and Water pollution due to transportation and Landfill.

Social

The project has created employment to women from Economically weaker section of the society.

Economical

The operation of CCCM has resulted in considerable savings to the Local bodies in terms of collection and processing of waste.

CCCM IMPACT IN THE SOCIETY (MARCH 2019)

Total no. of Apartment Complexes	- 670
Number of Beneficiary families	- 40,500
Bio degradable waste processed at source per year	- 10,800 Tonnes
Non biodegradable waste sent for recycling / year	- 780 Tonnes
Employment Generation	- 760 Women

- **CCCM operations in Kerala has benefitted in savings to the Local Government of more than Rs.100 Crores during the period 2008 to 2018.**
- **CCCM installations outside Kerala has benefitted more than 1,20,000 households across 5 Cities in 4 States of the country.**

AWARENESS SESSIONS



CCCM has conducted more than 1000 awareness sessions in Apartment complexes, Educational Institutions, Corporations, Municipalities & Panchayats in raising awareness for segregation of waste and door to door collection in waste management.



THE TECHNOLOGY

CREDAI ECO COMPOSTER

Segregated waste is processed in CREDAI ECO COMPOSTER bins through Aerobic Microbial Composting system by applying bio culture.



FEATURES

Capacity in Kg	- 40 Kg/day
No. of Flats	- 40
Space Required	- 255 Sq ft.
No. of bins	- 2 bins
Power Supply	- Nil
End product	- Compost
Operating System	- Manual System
Area of Installation	- Terrace Area

PROCESS OF SOLID WASTE MANAGEMENT



Bio degradable and Non-bio degradable waste segregated in separate buckets for door to door collection.



Final checking to ensure Segregation of waste



Applying Bio culture for processing



Compost Ready After 30 Days

CREDAI TRASH GUARD

MODULAR HIGH RATE DIGESTER - An innovative technology

Developed by **CSIR-Indian Institute of Chemical Technology Hyderabad**, funded by Ministry of New and Renewable Energy, Government of India. This innovative Modular High Rate Digester is convenient to install in Apartment Complexes, Residential Colonies and Hotels. Waste is automatically processed in Trash Guard to produce Bio gas.

FEATURES

- Capacity range - 35 kg, 50 kg, 65 kg, 80 kg and 110 kg per day.
- Treatment efficiency 90% in terms of solid reduction.
- Negligible power consumption (less than 0.10 unit /day).
- Bio-gas obtained as fuel for cooking purpose.
- Automatic processing



CREDAI SOLWEARTH

Fully automatic Compostable waste processor manufactured of SS 304 grade stainless steel for an automated on site compostable waste dehydration system using an energy efficient control process.

SPECIFICATIONS

Model	SE-501	SE-1001	SE-2501	SE- 5001	SE- 8001	SE- 1H
Processing method	Multi-stage indirect heat & dry decomposition process.					
Design type	Stand-alone, Portable.					
Input Capacity	50 Kg per cycle/ batch	100 Kg per cycle/ batch	200 Kg per cycle/ batch	500 Kg per cycle/batch	800 Kg per cycle/batch	1000 Kg per cycle /batch
Average Reduction Rate	83 – 90%	83 – 90%	83 – 90%	83 -90 %	83 -90 %	83 – 90 %
Processing time	8 -10 hours	14-16 hours	15 -18 hours	18 – 20 hours	20 -22 hours	22 -24 hours
Power Requirement	3 phase, 50Hz, 415V	3 phase, 50Hz, 415V	3 phase, 50Hz, 415V	3 phase, 50 Hz, 415V	3 phase, 50 Hz, 415V	3 phase, 50 Hz , 415 V
Power consumption	2.8 Kw	4 Kw	6 Kw	9 Kw	10.8 Kw	12 Kw
Dimension (L*W*H in mm)	1150*900*950	1200*1020*1145	1475*1190*1170	2345*1400*1450	2440*1440*1475	2700*1800*1950
Weight	300 Kg	510 Kg	650 Kg	1100 Kg	1600 Kg	2100 Kg

SOCIAL INITIATIVES

CLEAN TOILET

Clean Toilet, built and maintained by CREDAI Clean City Movement is the first Public Private Participation Project at the District Collectorate, Kochi from 2008.



Outside view



Inside view

PLASTIC SHREDDING UNIT

CREDAI CLEAN CITY MOVEMENT along with Corporation of Kochi is operating a Plastic Shredding Unit. Plastic collected from apartments is shredded and used for tarring the roads. The plastic when used for road tarring helps in reducing the consumption of Bitumen and also enhances the life of roads.



Plastic Shredding Machine.



View of the road tarred using plastic in Ernakulam.

AWARDS & GOVERNMENT RECOGNITION



2015

CCCM President Dr. Najeeb Zackeria received the CREDAI National CSR Award from Hon'ble Union Minister for Labour & Employment, Shri Bhandaru Dattatreya.



2012

CCCM President, Col. John K. Manavalan receiving the Rotary Vocational Excellence Award 2012 for the outstanding performance of CREDAI Clean City Movement.



2008 - 2009

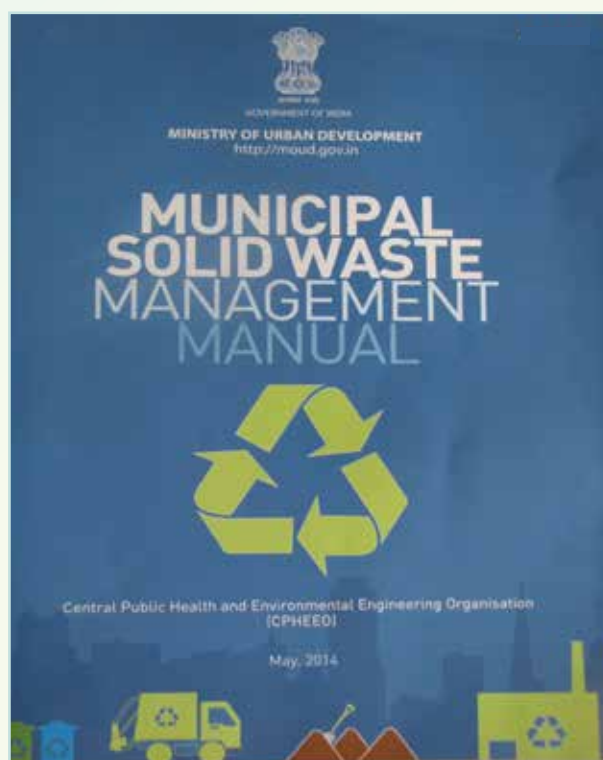
Mr. Mathew Chakola, Chairman CREDAI Clean City Movement receiving the "Certificate of Honour" from Hon. Finance Minister Sri.Thomas Isaac for the initiative to achieve self reliance in rejection managment in Kochi Corporation.



2008 - 2009

Best Environment Friendly Project Award received by Col. John.K. Manavalan, Executive Committee Member of CCCM from Hon. Fisheries Minister S. Sharma.

CCCM OPERATION IS RECOGNIZED AS A VIABLE DECENTRALIZED MODEL IN THE MSW MANUAL 2014 & 2016 OF MINISTRY OF URBAN DEVELOPMENT GOVERNMENT OF INDIA



Decentralized Waste Management System for Apartment Complexes

Year of start: 2007

Main Players: Kochi Municipal Corporation and Credai Clean City Movement.

Approach: Kochi witnessed rapid urbanization in the last few years with various developmental and infrastructural projects. As an outcome of the rapid urbanization the city witnessed the problems of waste management resulting in Garbage crisis in 2007. In order to address the problem of garbage disposal in High rise complexes and gated colonies with the focus on health and hygiene, CREDAI implemented an Eco friendly solid waste management system.

- A suitable technology was identified for decentralised system of waste management and was implemented in apartment complexes.

- Door to door collection system of segregated waste was initiated in the apartment complexes.

- CCCM's system of decentralized waste management system was implemented to process the Bio-Degradable waste within the apartment complex.

Outcome

- The initiative of CCCM is a self sustainable model showcasing the viability of the decentralized waste management system.

EVENTS & ACTIVITIES



2019

Mr. Jyothimani, Chairman Regional Monitoring Committee (South) and other committee members of National Green Tribunal visiting the installation of CCCM along with Dr. Najeeb Zackeria, President of CCCM.



2017

Mr. Nathan, Regional Business head Kerala - PNB Housing Finance Ltd. handing over the key of the vehicle to Dr. Najeeb Zackeria President CCCM.



2016

Sri. Venkaiah Naidu, Hon. Union Minister for Urban Development, Govt. of India visited CCCM stall during the Kerala State meeting on MOUD on 18th October 2016.



2015

Regional Head Mr. N.J Reddy, DGM South Indian Bank handed over the key of the vehicle to Mr. Mathew L Chakola, former Chairman, CCCM on 20th March 2015.



2014

Mr. V. Ignatius, Additional Senior General Manager, HDFC Ltd, handed over the key of the vehicle to Dr. Najeeb Zackeria, President-CREDAI Clean City Movement.



Dr. Najeeb Zackeria, President of CREDAI Clean City Movement, handing over the letter of intent to Hon. Chief Minister Sri. Oommen Chandy for distribution of 2000 bio-digester pots.



2016 CREDAI Clean City Movement team.

CCCM vehicles for the collection of Non Bio Degradable waste.



MESSAGE



Mrs. Almitra H. Patel, Member, Supreme Court Committee for Solid Waste Management.

“Your encouragement for on-site composting by CREDAI eco Composter Bins in high-rise residential complexes, first in Kochi and later in many cities of Kerala, is a wonderful initiative. I urge every member of CREDAI countrywide to provide onsite Eco Composter Bins.”



Sri. T. K. Jose, IAS, Addl. Chief Secretary LSGD - Govt. of Kerala.

“I am very happy to see that CREDAI Clean City Movement is publishing a brochure to showcase their achievements during the last decade. The movement is doing yeoman service to society through MSW Management Project. I am sure that this is the only sustainable and successful model as of date in Kerala. This model incorporates all the principles of MSW Rules 2000 and the guidelines of Hon’ble Supreme Court of India in this regard. I wish them all the success and request CREDAI to scale up this to all cities and towns in Kerala.”

Segregate your waste to produce



CREDAI CLEAN CITY MOVEMENT

Authorized Service Provider, Suchitwa Mission, Government of Kerala.

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