

## **Circular Economy Roundtable- Chennai**

### **1.0 Organisers:**

Ekonnnect Knowledge Foundation Mumbai ([www.ekonnnect.net](http://www.ekonnnect.net)) and Madras Chamber of Commerce and Industry ([www.madraschamber.in](http://www.madraschamber.in))

### **2.0 Date:**

15<sup>th</sup> February 2018

### **3.0 Time:**

14:00-17:00 hours

### **4.0 Venue:**

Conference Hall, Madras Chamber of Commerce and Industry, Chennai



### **5.0 Background:**

The subject of Circular Economy (CE) has evolved today as an effective strategy towards economic development and sustainability. Internationally, CE has been practiced in several countries notably in EU, Japan, Korea, South Australia and even legislated in countries such as China. In 2015, the Ministry of Environment & Forests & Climate Change (MoEFCC) established Indian Resource Panel (InRP). Based on the situation analysis and opportunities identified by the InRP, the NITI Ayog has started focusing on Resource Efficiency and Secondary Material Recycling that are the foundations of CE.

Recently, a vibrant international network of CE professionals has been established as Circular Economy Club (CEC) (<https://www.circulareconomyclub.com/>). In order to promote CE on a global basis, Circular Economy Club coordinated a Mapping Week (7<sup>th</sup> -12<sup>th</sup> February 2018) across 60+ cities in the world. Ekonnnect, an active partner with CEC, conducted roundtables on CE in Ahmedabad and Pune during the Mapping week and jointly organized a roundtable in Chennai with the Madras Chamber of Commerce and Industry.

The roundtables also provided an opportunity to introduce the Leadership Program on Circular Economy, receive feedback and establish connections.

### **6.0 Objectives:**

Introduce the concept of CE, its benefits, challenges and the capacity development needs – especially on the leadership that needs to be built in cities, business houses, financing institutions, planners and regulators, research & academia and NGOs.

Receive inputs for the design of the E-learning and F2F Leadership programs that are proposed with Green Industries South Australia (GISA).

### **7.0 Summary of Sessions:**

#### **Session I:**

Dr. Prasad Modak, *Director, Ekonnnect Knowledge Foundation* briefed the participants on the concept and evolution of CE.

#### **Session II:**

Three eminent Circular Economy practitioners – Mr. Ashok Natrajan *CEO, Tamil Nadu Water Investment Company Ltd*, Mr .Prajeeth Sitherasenan *Growth Manager (Waste Management) Kabadiwalla Connect* and Mr. N Ramamoorthy, *Chief Engineer, ITC Grand Chola* shared their experiences, challenges and outcomes of CE projects implemented in Chennai.

#### **Session III:**

The participants engaged in an open forum discussion on the challenges towards implementation of CE and need for capacity building. Participants were individually asked to pen down examples of CE and thoughts on how it can be implemented within the city.





### **8.0 Key Takeaways:**

- **Zero Liquid Discharge:** Industries have achieved Zero Liquid Discharge in Tamil Nadu with replicable best practices. Tremendous potential to tap secondary sewage reuse by the Urban Local Bodies to meet water demand.
- **Kabadiwalla Connect:** Emphasis should be on behavioural change driven at implementing waste management practices at the source of generation. Apps available to connect waste generators, and building associations to local *Kabadiwallas* (rag pickers).
- **Green Hospitality:** Hospitality sector can offer a multi- sectoral approach to implement circularity through waste water reuse, waste management, energy efficiency and use of renewable power.

## **9.0 Mapping of Initiatives:**

### **Wish list:**

<b>Water</b>	<b>Waste</b>	<b>Energy</b>	<b>Material/ Food</b>	<b>Policy/ Strategies</b>
Recycle RO reject water	Waste Segregation at source	Improve Energy Efficiency in Industries	Distribute surplus food from marriages & hostels	Awareness Campaigns
Energy from Sewage Treatment Plants	Need of Waste Bank			
Zero energy waste water treatment with Wetlands				

### **Examples:**

<b>Water</b>	<b>Waste</b>	<b>Policy/Strategies</b>
Tirupur's ZLD Effluent Management	Mamallapuram & Hand in Hand's Initiative of Waste Management & Bio-methanation	Dual Plumbing lines for Greywater recycling for G+2
	Plastics for Change- Bengaluru	Rainwater Harvesting implemented in Tamil Nadu
	Earth Recycle- Chennai	
	ITC's Wealth out of Waste Initiative	
	Gramalaya's Reusable Cloth Pad	
	Exnora- Pammal's Biomethanation	
	Bio-methanation at Taj Coromandel, Mahindra World City	

## **Annex I: List of Participants**

Sr No	Name	Organization	Email Id
1	Dr. Indumathi M Nambi	Associate Professor , Environmental and Water Resources Engineering Division IITM	indunambi@iitm.ac.in
2	Dr. R Hema	Associate Professor Madras School of Economics	hema@mse.ac.in
3	Mr. Shanmugasundaram	NGO Gramalaya	kgsggramalaya@gmail.com
4	Mr. Mathew Jose	Paperman	mathew@paperman.in
5	Mr. S Venkatachalam	Managing Director, Orient Green Power	s.venkat@orientgreenpower.com
6	Mr. Elango	Director, Eco Services	elango@ecoservices.in
7	Ms. Anjali	Sustainability Lead, Eco Services	anjali@ecoservices.in
8	Ms. Navneeth Raghavan	Chennai Manager, Daily Dump	navneethraghavan@gmail.com
9	Mr. Varadarajan	President, Renewable Energy Harvesting Environment Network Association	rajan@chaviit.com
10	Mr. Abdul Rasheed	Chief Engineer-Chennai Metro Water Board	'juruterarasheed@gmail.com'
11	Mr. Bhaskaran	Chairman Industrial Waste Management Association	chairman@iwma.in
12	Mr. Vijay Kumar	Special Representative, Chennai Embassy of the Kingdom of the Netherlands Netherlands	<a href="mailto:vijay.kumar@nbso.info">vijay.kumar@nbso.info</a>
13	Ms Monica Gonser	Visiting professor, IGCS IIT Madras	monika.gonser@gmx.de
14	Mr. Rajesh Rangarajan	Lead Researcher OKAPI Advisory Services	r.rangarajan@okapia.co
15	Mr. Muralidharan	Secretary, TASMIA Industries	'info@tasmiachennai.org'
16	Mr. N Ramamoorthy	Chief Engineer – ITC Grand Chola Chennai	N.Ramamoorthy@itshotels.in
17	Mr. Ashok Natrajan	CEO,Tamil Nadu Water Investment Company Ltd	<a href="mailto:ashokn@twic.co.in">ashokn@twic.co.in</a>
18	Mr. Prajeeth Sitherasanen	Growth Manager Kabadiwalla Connect	prajeeth@kabadiwallaconnect.in

## **Annex II: Speakers**

### **Mr. K. Ashok Natarajan**



Mr. K. Ashok Natarajan is the CEO of Tamil Nadu Water Investment Company Ltd., a Joint Venture between Government of Tamil Nadu and Infrastructure Leasing & Financial Limited (IL&FS). TWIC has been in the forefront of a number of initiatives both in the urban water sector as well as treatment and management.

Ashok Natarajan has a bachelor's degree in engineering and a post-graduation in Management. Ashok Natarajan has been involved with Indian electric and water utilities for the past 35 years and specializes in Water Management. Ashok Natarajan in his capacity as Utility expert has been involved as Project

Director and Technical expert in many water supply projects (24x7) and has worked on areas of integrated management information systems, NRW, metering in many projects in India.

Ashok Natarajan has been previously the CEO of UPL Group heading their Water Management Company and prior to this as MD of Hydro-Comp an International Water Utility consulting company.

He has published papers on water management in Indian Water Works Association and International Water Loss conference. He is a regular contributor in IIT Madras workshops on Water Management, Smart cities, De-centralized waste water solutions and also has contributed papers in all workshops of Indian Desalination Association, Indian Trenchless Society.

He has recently been appointed as Domain expert and in the Expert Committee for the monitoring/evaluation of Science and Engineering Research Board (SERB) supported ongoing projects and consideration/making recommendation on new projects posed to SERB in the Central Govt. scheme of Uchhatar Avishkar Yojana and Member of Organising Committee for Water Utility Summit 2018. Ashok Natarajan has published and presented papers in many conference and workshops.

### **Mr. Prajeeth Sitherasenan**



Mr. Prajeeth Sitherasenan currently works as the Growth Manager for Kabadiwalla Connect. His role as Growth Manager involves developing a waste management Software as a Service (SaaS) platform, where his focus is on community engagement & building, customer acquisition, activation and retention.

He enjoys inspiring and engaging communities to get most value from their participation. He is passionate about environmental science, consultancy and sustainable

development

Prajeeth has completed his BSc in Environmental Science and MSc in Sustainability at University of Leeds.

**Mr. N. Ramamoorthy**



Mr. Ramamoorthy is an Electrical Engineer with 30 years of experience in ITC Hotels and is currently the Chief Engineer of ITC Grand Chola Chennai.

Besides the day to day Engineering operations and Maintenance, he has been leading the sustainability efforts by the hotel.

Mr. Ramamoorthy is also a part of the ITC's corporate EHS knowledge group for audits, development of guidelines and training.