



**Forum of Cities that Segregate
(12-13 December, 2017)
New Delhi**

**Thiruvananthapuram
Municipal Corporation**

Adv V K Prasanth
Mayor, TMC

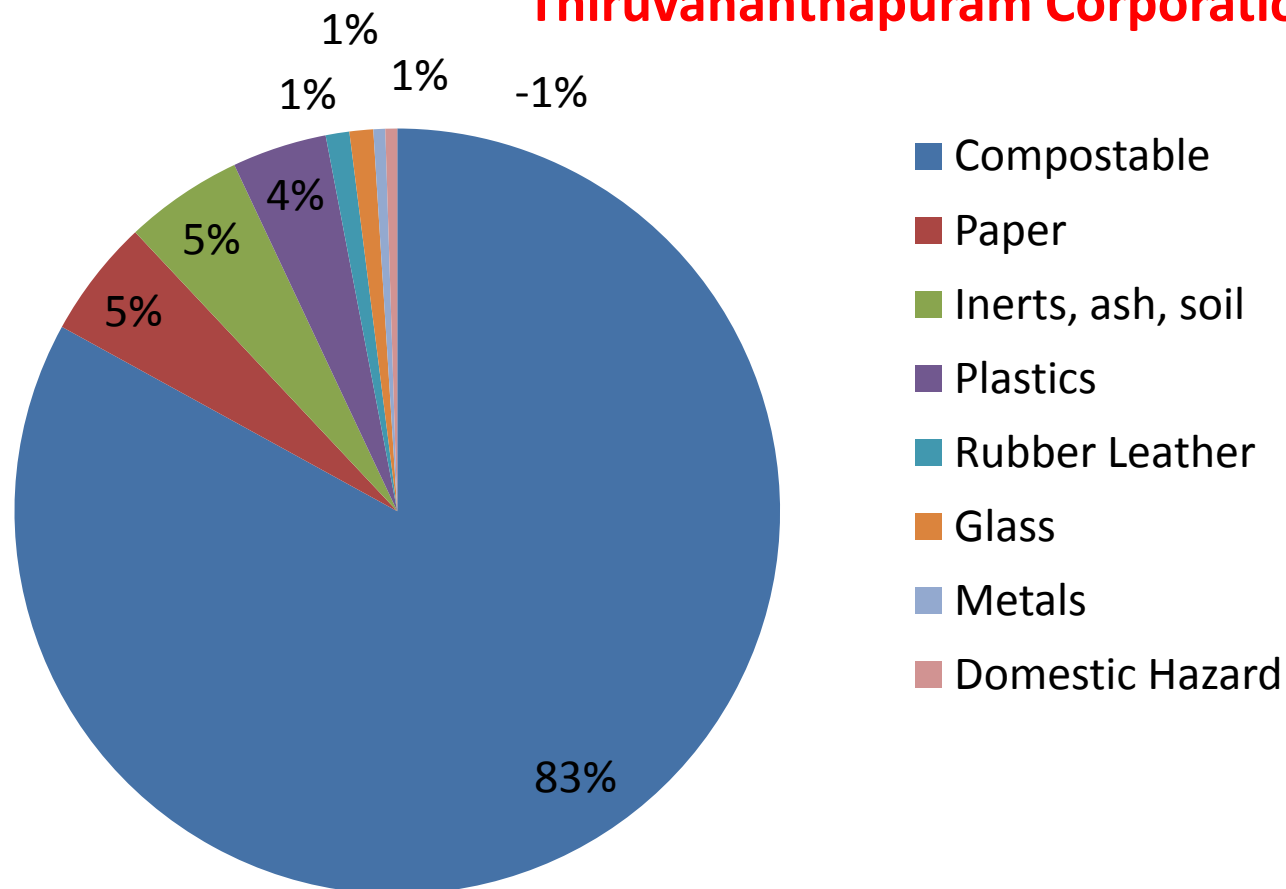
Existing Status of Waste Management

- Population: 9,55,494
- Generation: 300 - 350 Tonnes per day
- Segregation in percentage (%): 55%
- ✓ *Segregation started since: Nov'14*
- ✓ *Number of wards where segregation is happening: 50*
- Door to door (DTD) collection: Not Applicable
- Collection efficiency (in %): Not Applicable
- Processing (recycling & treatment of wet/dry waste):
 - No Centralized Facility for Wet waste
- Disposal:
 - Dry Waste is handed over to GoK logistics partner Clean Kerala Company



MSW Composition

Thiruvananthapuram Corporation



Existing Legislations on Waste Management

- TMC has passed SWM By-law to implement at source segregated waste management system.
 - Service Providers aid households to compost their biodegradable discards
 - Dry Waste collection Calendar is published
 - Community Composting Facilities installed at 16 locations
- Govt of Kerala has issued circular to reduce usage of plastics through Green Protocol
- Project Secretariat is entrusted to expand & monitor decentralized systems
 - Green Army Volunteers to document & monitor the working of existing facilities.



- Penalty imposed for public littering based on evidence produced by any well wisher
(Photo or video captured in Smart phone is accepted)



Volunteers capture act on video

The city Corporation's Green Army trainers have helped to catch a man red-handed while he was dumping garbage in a public space in the city on Wednesday.

Following this, a team of health inspectors visited the location and removed the garbage, and imposed a fine of ₹10,000 on the culprit, who was identified as Shibu, a resident of Perumathura.

Citizens who come across such instances could notify the Mayor with photographs or videos as evidence through Whatsapp (Phone no: 7034232323).

The students were trained by members of voluntary organisations including Thanal, Sahridaya, Sarsaas, MAD, Care Others Too, Recycle Bin, Prakruthi, and the Kerala Sasthra Sahithya Parishad.

Existing Legislations on Waste Management

- TMC has passed by-law banning an extensive list of disposable plastics (carry bag, cups, plates, containers etc.)
- All government offices in the state capital has been asked to implement Green Protocol for all functions
- Periodic collection drive for cleaned categorized dry discards is organized
 - 25 tonne E-waste collected since project inception
 - 30 tonne Hazardous glass waste collected in Nov'17
 - Low value plastic waste collected daily at 20 Resource Recovery Centres



Decentralised Waste Management

- Model for Bio Degradable discards:

- ✓ **Composting**

- ✓ **Households** : Pipe Compost
Kitchen-Bin composter
Pot Compost / Bio composter

- ✓ **Communities** : Aerobic Bin

- ✓ **Bulk Producers** : Organic Waste Converter

- ✓ **Commercial Units: Agreement with service provider**





Pot compost



Organic Waste Converter



Kitchen Bin composter



Pipe compost



Aerobic Bin



Decentralised Waste Management

✓ Bio-methanisation

✓ Households : Subsidy provided

✓ Communities : 50 units installed

Community Bio gas units



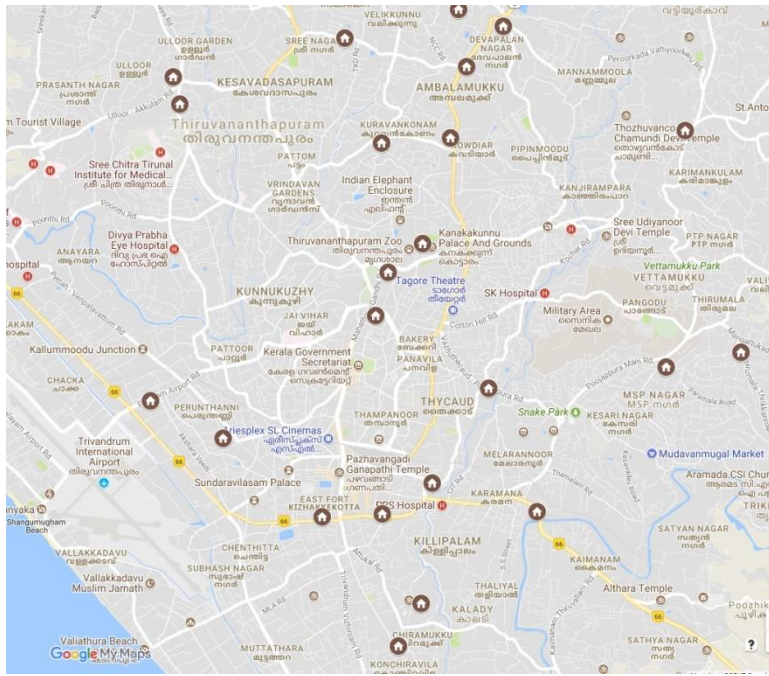
Portable Bio gas unit for Household



Decentralised Waste Management

✓ Dry Wastes

- TMC has published Collection Drive schedule
- 20 Resource Recovery Centers (operate from 5am to 9pm)
- Shredding Unit by Clean Kerala Company at Muttathara



Shredding Unit



Decentralised Waste Management

- The challenges faced in ensuring treatment at source
 - Packaging in Food Take Away
 - Disposal of Absorbent Hygiene Products
 - Household Bio medical waste (syringe, dressing, etc)



Major gaps and challenges of source segregation

- Informal Door-to-Door pick up
- Historical waste dumps
- Water body clean up drives
- Cultural issue for handling waste at households for certain communities
- Convenience provided by door-to-door collection of Mixed Waste



Good Practices

- Campaign to implement Green protocol during an iconic one day religious festival (Attukal Ponkala) reduced waste by 60 tonnes in 2017
- ***3 million devotees***

Green Protocol Campaign team



Distribution of Steel plates & glasses for Green Protocol



Good Practices

- Implemented EPR for India New Zealand T20 match on 7th Nov'17 with the co-operation of Kerala Cricket Association, Pepsi Co & food distributors.

The NEWS Minute

Waste Management

Colossal cleanup: How Kerala's capital cleared 1.5 tonnes of T20 food waste in 2 days

It's a story of meticulous planning and one that involved all stakeholders.

Gopika Ajayan | Saturday, November 18, 2017 - 07:40

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India-NZ T20 to be zero-waste event

THIRUVANANTHAPURAM

India-NZ T20 to be zero-waste event



STAFF REPORTER

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Mayor V.K. Prasanth

Owing to security reasons and BCCI's contract with the company that will supply packaged drinking water in the stadium

Zero waste practices and principles will be enforced for the India-New Zealand T20 international match scheduled at the Sports Hub, Thiruvananthapuram, on November 7.

A decision to adopt the Zero Waste concept instead of the Green Protocol was reached between the City Corporation, District administration, Suchitwa Mission and Kerala Cricket Association (KCA).





Thank You

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