Economics of Solid Waste Management

The way Thiruvananthapuram Municipal Corporation does it…!
Our Past...


- House-to-House collection through Kudumba Shree Unit in 2005

- Centralised facility was shut in 2013 due to conceptual error

- “Ente Nagaram Sundara Nagaram” formed in 2014

- 95% collection & safe disposal of Fish & Meat waste from markets through service provider.
Our Past

• 90% of Institutes (Hotels, Restaurants & Banquet Halls) covered through EPR for in-situ mechanism.

• Recycler linkages formed & collection drives organised for Plastic & Glass

• Promotion of segregated waste management at House hold level & Organic Farming
Milestones

- Thiruvananthapuram ranked 2\textsuperscript{nd} best Capital City in India
- 35\textsuperscript{th} National Games (with 30 venues) conducted without disposable plastics
- Revenue District School Cultural Fest 2016 conducted as per Green Protocol guidelines
- Attukal Pongala (Guinness Record Event) promoted for Green Protocol implementation in 2016 & 2017
- Ban on Disposable Plastics (carry bags & utensils) with effect from March 1\textsuperscript{st}
Target

- City population: 10 Lakh (approx.)
- Number of House Holds: 2.5 Lakh (approx.)
- Number of Wards: 100
- Total waste / day: 300 metric tonnes

Current Focus:
- Waste from House Hold: 60% of Total waste
- Waste per house hold: 2.5kg
- Organic waste: 70%

Segregated Waste Management at House Hold Level
Strategy

Segregated Waste Management at Household Level
Method

Community Aero Bin

House Hold Kitchen Bin

Institute Bio-gas Plant

Community Compost Bin

House hold Pipe Compost
Economics

• Operational Cost of Centralised Facility
  6 Lakh/month (approx.)
  SAVED!

• Transportation cost (house hold to facility)
  9 Lakh/month (approx.)
  SAVED!

• Carbon Foot print due to consumption of fossil fuel
  48 tonne Carbon/month
  SAVED!

• Man Power & Labour Costs for waste collection
  1900 Man hours/day
  SAVED!

• Sales revenue from Recycler linkages
  2 Lakhs/month
  SAVED!
What Do You Think?