Haritha Keralam Waste Management
Why?
300 contaminants have been detected in the umbilical cord blood of newborns.
Leach into soil, water…

Absorbed by plants, microbes, animals

End up in humans
Maximum Concentration in Humans particularly children

Bioaccumulation & Biomagnification of Dioxins

Bioaccumulation: How a toxin enters the food chain (e.g., a bird eats a worm)
Biomagnification: Toxins, stored in fat cells, increase in their concentration as they move along the food chain

Dioxins are released when plants are burned
Dioxin Level

Dioxin Level

Dioxin Level

Dioxin Level

Dioxin Level

26 November 2016
Dr. K. VASUKI
Is this the road we are going to give them to tread their life?
4. Duties of waste generators

- Segregate
- Pay user fee
- Shall not burn or litter
- Permission from local bodies for organising functions having more than 100 people.
15. Duties of local bodies

26 Duties

- Arrange for door to door collection.
- Determine user fees.
- Material Recovery Facility.
- Determine fees for sale of carry bags. No free carry bags.
Main components

- Solid Waste Management
- Liquid Waste Management
- Slaughter Houses
- Crematorium.
Solid Waste Management

- Biodegradable waste (50 to 60%)
- Non-Biodegradable waste (40 to 50%)
  - Recyclable waste (90%)
  - Rejects (5 to 10%)
  - Sanitary waste (1 to 2%)
Waste
Every product we use comes from limited Natural Resources
Waste is not a waste but a resource that is not to be wasted. Every item we discard needs to be given the same respect as any valuable resource.
Strategy

• Source Level Treatment of waste to the maximum.
  – Households
  – Hotels, resorts, restaurants malls

  mandated by Kerala Panchayati Raj and Municipality Act

• Coupling with Kitchen Gardening
• Urban Farming (an upcoming concept)
BIODEGRADABLE WASTE

• Decentralised Community Level Composting
  – Wherever Source Level Treatment not possible.
  – Public places, Agricultural and Horticulture
  – Efficient forward linkages with farmers, live stock rearers, etc necessary
  – Convergence with Agriculture and Animal Husbandry Department.
Eco friendly Kiosks

- Sale of composting devices by private vendors and service providers
- Sale of inoculum
  - Public libraries
  - Krishi Bhavan, etc
The order of importance of these R’s is as follows:
Disposables on an indispensable planet
No disposables..
just say no
Steps to ensure green pongala

DC CORRESPONDENT
THIRUVANANTHAPURAM, FEB 21

The Suchitwa Mission, along with city corporation, will be putting up around 300 volunteers to ensure a green and clean Attukal Pongala. This year the volunteers will be posted only as far as the 5-kilometer radius around Attukal temple. Next year we hope to cover the entire area. However, the stress is not on policing as this has to be a public movement. There should be a change in our attitude,” said Suchitwa Mission Executive Director K. Venkatesh.

Volunteers close to the temple area will not just stop devotees from carrying disposable items, but will provide them with alternatives.

Volunteers will not be allowed to carry disposable items, be it tissue paper, plastic carry bags, paper cups and plastic water bottles. They will have to carry their own steel plates and tumblers. Volunteer close to the temple area will not stop devotees from carrying disposable items, but will provide them with alternatives. For example, the volunteers will hand out cloth bags to replace plastic bags. More than 50 lakhs have been allotted for this purpose.

The Food Safety Commissioner has issued instructions to those providing ‘annadanam’, to avoid plastic plates and cups. The Corporation will provide water in steel tumblers at various spots. In addition, once the festivity is over, more than 1,500 personnel will be deployed by the Corporation to clean the area.

“After the 300 volunteers, which have been deployed, the Suchitwa Mission will be able to influence the women around to make greener choices, according to Venkatesh,” said Venkatesh.

Ultimately, the success of the campaign rests on how well the people take to the ‘Green Protocol’. “We want all the devotees of Attukal Devi to bring steel plates and steel glasses this year and accept at least one steel glass as a token of their pledge that in the coming years also they will avoid the use of plastic and disposable items,” said Venkatesh.

This is the first time that Suchitwa Mission’s ‘Green Protocol’ has been employed at Attukal Pongala. Kudos to the Corporation for enforcing the National Games and the State School Arts festival.
Reuse (SWM Rule 11 (b))

• Repair shops and repair workers
  • Swap shops
India recycles 60% of its recyclable waste.
The real environmentalists of Kerala
Material Recovery Facility
KANNUR – KUTHUPARAMBU MODEL HAS TO BE REPLICATED (SWM RULE 11.(C) )

- Recycling parks in every district
- Can recycle paper, plastic, glass, metal, e waste,
- Convergence with Industries Department.

  - As per SWM rule 11(i) minimum five percent or five plots to be earmarked in industrial estates and Industrial Parks.
LIQUID WASTE MANAGEMENT

• Onsite Waste Water Systems need to be encouraged to the maximum.
• Decentralised sewerage
• Septage plants in every district/local body.
Disposal free synergy for non biodegradable waste
Sanitary Waste

- Can be treated as biomedical waste.
- IMAGE forward linkage.
Rejects

• Sanitary Landfill
  – Every District (25 to 30 acres)
Way forward...

Immediate:
• Campaign launch activities
• Survey
• Household level declaration.
• Performance Indicators
• Online monitoring
Performance indicators

• Percentage of door to door collection.
• Community level composting
• Reduce (Green Protocol)
• Reuse (Swap Shops)
• Recycle (Material Recovery Facility)
• Enforcement activities and rules implementation.
Step to be taken by the local bodies.
Charity starts from home

- All collectorates, Taluk offices
- All other government and public offices.

Zero waste offices
Final outcome

Zero Waste Declaration of all local bodies
Campaign

SRP

DRP

Ward

DRP

Ward

Ward