

# ISWA World Congress

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## Decentralized and Integrated Resource Recovery Centers (IRRC) in Developing Countries:

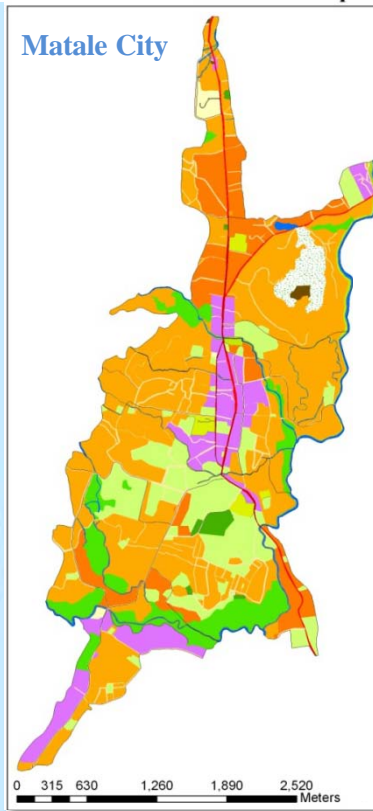
Experiences and Lessons Learnt from Matale City, Sri Lanka

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# Matale – Sri Lanka



- Population: 42,000
- Land area: 8.6 sq.km
- Annual population growth rate: 1.5%
- Population density : 41.55 per hectare
- Urban Poor: 16%
- City Authority : Matale Municipal Council

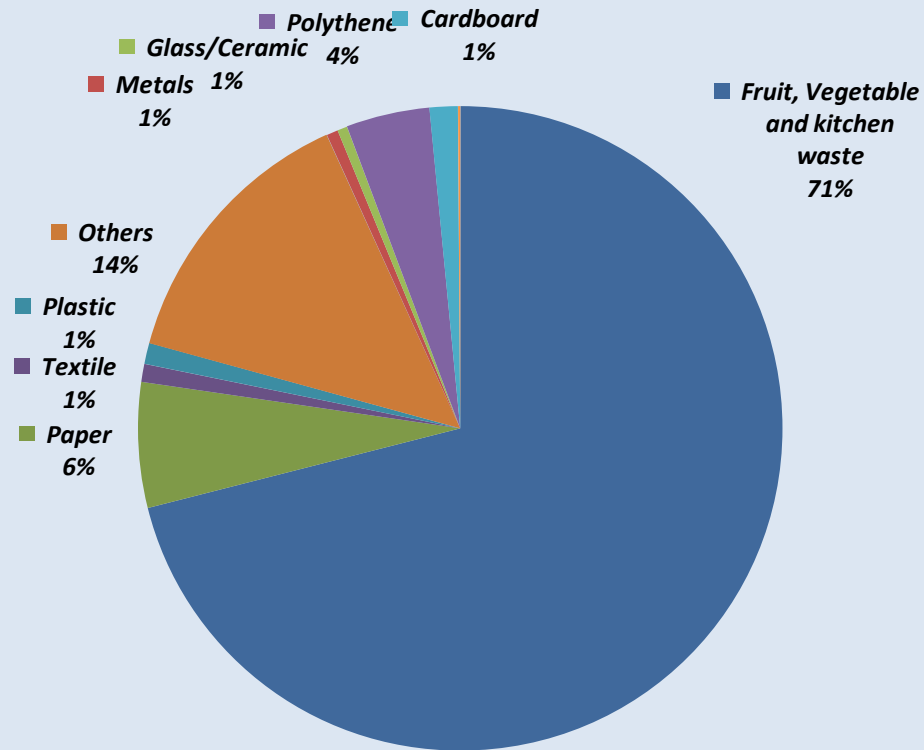
*Matale is a hilly town located in the central province with a growing tourist potential*



## Overview of SWM in Matale

- Total Waste Generation : 21 – 23 tons per day
- Per Capita Waste Generation per day : 0.51 kg
- Waste Collected: 17-18 tons

# Waste Composition in Matale



- Organic waste – 71%
- Recyclables – 14%
- Others – 15%

# Main Challenges before project

- 17-18 tons of waste collected and transported daily to the dumpsite
- Present dumpsite to reach capacity soon and scarcity of land for waste disposal
- Municipality spends 30 – 45% of annual budget on SWM with no revenues derived
- Lack of attention to waste to resource opportunities and 3R initiatives
- Poor waste collection services



Uncollected waste



Dumpsite in Matale

# Introducing the IRRC Project in Matale City

Project implementation by Sevanatha (NGO) with technical and financial support from Matale Municipal Council, UN ESCAP and Waste Concern

**2006**

- A pilot IRRC was set up with a capacity to process 2 tons of waste on a daily basis;
- Door to door waste collection extended to 700 households and 230 commercial units.

**2011**

- Second IRRC was set up with support from National government with a capacity to process 2 tons of waste on a daily basis;
- Door to door waste collection extended to 300 households and whole market area

**2013**

- Third IRRC was set up with a capacity to process 5 tons of waste on a daily basis;
- Door to door waste collection services to be extended to an additional 3000 households

From 2006 to 2013 the IRRC has been gradually scaled up to process 12 tons of waste on a daily basis including 9 tons of organic waste and 3 tons of recyclables covering 4000 households and the main market



# The IRRCs and its operations



First IRRC



Second IRRC



Third IRRC



Mixing waste



Compost boxes



Maturing boxes



Leachate collection tank



Sieving compost



Packing compost

# Planning and Implementation of Source Separation

## Key steps involved:

- Preparation of awareness materials
- Training of trainers
- Identification of target groups
  
- Communication strategies
  - Door to door awareness/training
  - Open house awareness/training
  - Training for special interest groups
  
- Monitoring and feed back



Open house awareness



Door to door awareness





# Income streams of IRRC

After scaling up, the IRRC has diversified its income streams to cover the operating costs. Revenues are derived from:

- Sale of Compost
- Sale of Recyclables
- Collection fee
- Income from Organic Farm/Nursery
- Income from Training Programs



# Project Partners and Key Responsibilities

Sevanatha created MEC Pvt. Ltd as a social business to operate the IRRC with an objective to improve the urban environment, provide jobs to urban poor and sustain the operations and generate limited profits from the revenues derived.

## Municipality

- Provide leadership to implement the IRRC project in the city
- Provide land required for the IRRC facility and organic farm
- Provide support of operational staff to carry out community awareness and waste collection

## Sevanatha

- Responsible for implementing the IRRC project with the support of other partners
- Carry out community mobilization activities and training for waste separation
- Promote IRRC approach in Matale and other cities of Sri Lanka

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_6565](https://www.yunbaogao.cn/report/index/report?reportId=5_6565)

