

## RESOURCE RECOVERY OPTIONS BASELINE SURVEY







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# Acknowledgements

## > Acknowledgements



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### 1 Introduction

Managing and disposing of municipal solid waste is a common problem for all local authorities and municipal, urban and district (pradeshiya shabhas) councils in Sri Lanka. The growth of urban populations and economies has resulted in a corresponding growth of solid waste that municipal governments are finding difficult to dispose. Existing dumpsites are filling up, and obtaining land for new dumpsites is becoming increasingly difficult. The traditional approach to solid waste management focuses on end-of-line solutions that are capital and technology intensive and thus costly to build and operate. Hence, many local governments devote a substantial portion of their annual budgets to collecting, transporting and disposing of solid waste. Despite that outlay, collection is often insufficient; in Sri Lanka the common practice is the open dumping of waste. This causes severe pollution to the soil, air and water sources locally as well as globally. The 3R concept (reduce, reuse, recycle) is missing in current practices.

Some of Sri Lanka's critical problems of urban solid waste management are:

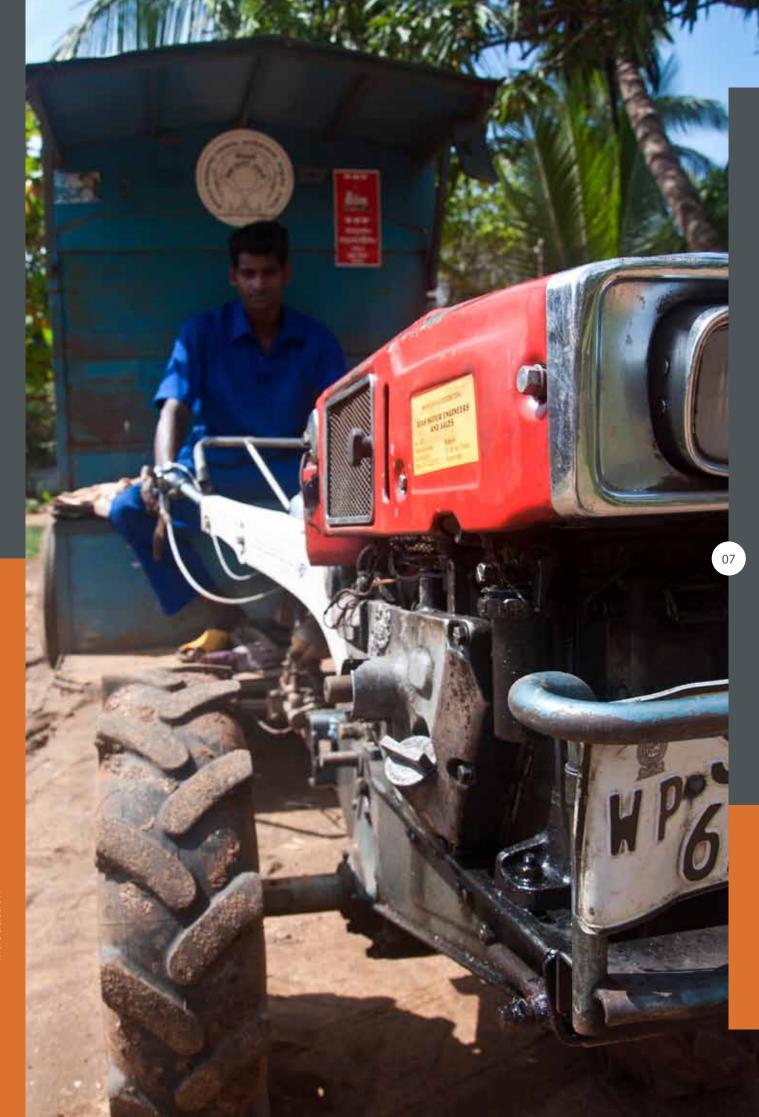
- More than 80 per cent of solid waste is currently managed through open landfills, which contribute to environmental problems and are insufficient to cater to the growing amount of waste.
- Finding suitable land for the disposal of solid waste is a problem for the majority of local authorities due to the scarcity of land, problems of land acquisition, high land cost and lack of public support.
- Most of the urban local authorities are not in a position to allocate sufficient funds and do not have trained human resources and equipment to manage the volume of existing solid waste in their cities.
- There is a lack of community support and awareness of municipal waste management initiatives.
- There is a lack of private sector involvement in urban solid waste management.

The solution lies in improving waste collection services and treatment and in reducing the amount of waste that reaches the dumpsite. This can be achieved by treating wastes as a resource. Beyond recycling, the focus of any sustainable approach has to be on organic waste because it constitutes as much as 85 per cent of all municipal waste in Sri Lanka.

#### STRUCTURE FOR SOLID WASTE MANAGEMENT

Matale is a medium-sized urban centre in central Sri Lanka, with a population of 36,331 and a large population commuting into the city each work day. The city is surrounded by large plantations and is famous for its spice gardens. In addition to agriculture, the city's economic activities also include tourism and trade.

According to data from the municipality, the city generates 21 metric tons of waste per day, of which 17 tons are disposed at an open dumpsite. Although 20 per cent of the Matale Municipal Council's budget is spent on solid waste management, there is no city-wide collection; in a survey carried out by the NGO Sevanatha Urban Resource Centre in 2011, household respondents described the service as poor. They cited unclean drains, poor waste management practices and insufficient sanitation services as priority issues. The Matale Municipal Council has prioritized the provision of a more cost-efficient solid waste management system that will also improve the service to households.



The composition of the household waste in Matale is ideal for eco-efficient solutions: 70 per cent of the waste is organic and can be used for composting and producing biogas, while 10 per cent of the waste is recyclable and can be sold after processing. Only 10 per cent of the waste needs to be sent to the landfill. Because Matale is relatively small, a decentralized approach to managing sanitation that minimizes the transporting of waste is suitable and can further increase the eco-efficiency.



#### MATALE'S IRRC EXPERIENCE

Since 2007, the Sevanatha Urban Resource Centre has operated an integrated resource recovery centre (IRRC) in

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