

RECYCLABLE RESOURCE MANAGEMENT

CURRENT MARKETS

The recyclables stream includes all items for which there are current markets in Tamil Nadu -Pondicherry area. Recyclables include:

- Glass
 - Plate glass
 - Jars and refillable bottles
 - Non-refillable glass containers
- Paper
 - Newspaper
 - Cardboard
 - Packaging
 - Cement bags
- Metal
 - Light steel
 - Heavy steel
 - Non ferrous metals
- Plastic
 - Hard plastics only



The current status and potential of the plastic market is difficult to ascertain. Eco-Service collectors have experienced difficulty selling soft waste plastic.

The plastic recycling industry in economically less developed countries like India, consists of low technology small-scale workshops.¹ This makes it more difficult to identify the range of market options and to establish long term markets with plastics re-processors.

The plastic component of the waste stream is growing exponentially. In Calcutta it is estimated that 30 tonnes per day is available for reprocessing, which is an increase of at least 40% in the last 20 years.²

¹ Lardinois, van de Klundert: *Plastic Waste – Options for Small-Scale Resource Recovery*

² Ptr Services (1992): *A Report on the Recycling of Waste in City of Calcutta*

VALUE ADDING AND MARKET DEVELOPMENT OPPORTUNITIES

To date, Eco-Service has left the collectors to establish their own individual markets for recyclable materials. While this has been adequate in the past, there



is an opportunity to increase current incomes through developing new market opportunities. By increasing the economic value, particularly of plastic resources, the waste will be less likely to remain in the litter stream.

The first step is to trace the processing and sale routes of each material.

Identification of middlemen will be important in an attempt to understand their role in the value chain. Recyclers must be located, and a full understanding of their processes and markets should be gained.

Typical Recycling Processes in India

As an initial value-adding exercise, sorting, washing and drying of plastics is carried out. This simple task has been identified as adding a 60% increase to the value of the product when sold to plastic recyclers.³

Size reduction is usually the next stage in the process, with various techniques such as cutting, shredding and agglomeration being utilised. This reduces transport costs and helps the moulding and extrusion process in later stages. Low cost machinery is available for these processes.⁴

The final steps are pelletising and product manufacture. Extrusion, blow and injection moulding, as well as film blowing, are all technologies that can be developed at a micro-enterprise level. End product development will depend on local market demands, cost competitiveness, and quality issues.

The development of a micro-enterprise by Eco-Service is an area of significant potential. However, a full product development and business planning exercise will be fundamental to its long term success.

As an initial research resource, it is recommended the following text book is purchased.

³ Lardinois, van de Klundert: *Plastic Waste – Options for Small-Scale Resource Recovery* p.78

⁴ Ibid p. 57

Lardinois, Inge and van de Klundert, Arnold (1995): *Plastic Waste. Options for Small-Scale Resource Recovery*. TOOL Publications, Amsterdam.

This book was written as a text to facilitate plastic recovery micro-enterprises. Focusing on South to South technology transfer, the book cites a number of case studies, and gives a comprehensive overview of infrastructure options and costs.

The book costs approximately \$US 20, and can be ordered through the following e-mail address:

alisseeuw@waste.nl