



Commonwealth Litter Programme Sri Lanka: recycling sector workshop 4th March 2021

Report



[Image: National Geographic, 2012]

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1. Introduction

WRAP delivered a workshop with local recyclers in order to gain their opinions and perspectives of the main barriers to successfully treating plastic waste in Sri Lanka, informing the work of Cefas and CLiP with support from UNDP. Sri Lanka faces considerable challenges to waste management, the total amount of solid waste generated is estimated to be 7,000MT per day[1] with only 6% being collected for recycling in some areas[2]. This report summarizes the key points made during the workshop and presents recommendations for the next steps required to improve waste collection and recycling.

WRAP used an interactive Miro board to deliver the workshop via Zoom, please refer to the accompanying PDF copy of the workshop outputs for the full details.

2. Hotspots

A diagram of the plastic material flow was presented, and the recyclers were asked to identify where waste arose within the system or had the opportunity to leak into the environment, these are referred to as 'hotspots'. The plastic material flow was separated into three phases:

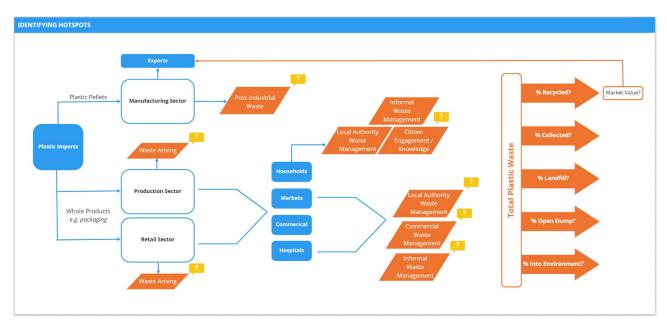


Figure 1 Material Flows Map, hotspots shown as question marks

1. Plastics placed on the market

(Imported as plastic pellets or full products, to be sold directly or to be manufactured into products)

- 500,000 metric tonnes of virgin plastic is imported for manufacturing plastic products
- Waste arriving at recycling sites is not separated, leading to contamination
- A lot of waste is diverted to waste-to-energy plants by default, resulting in lost value
- Multilayer materials are difficult to recycle and have low value, risk damaging equipment
- Lacking end-market opportunities to sell high quality recyclate







2. Use-phase

- Differences in rural and urban collection systems, levels of citizen engagement and facilities
- Multilayer sachets >20g are inexpensive, lightweight and problematic
- Lack of centralized information source (e.g. website), not consistent education, 3 languages
- Products are not being emptied / washed before disposal

3. End of life / disposal

- Dark colours used for rigid plastics such as PET and HDPE do not have enough end-value
- Minimal exports: exporting waste / recyclate is expensive and admin-intensive
- Recyclate is circulated in-country

• Approximately one million sachet packets are disposed of every month, yogurt pots are also disposed of in very high quantities, plastic bags remain problematic

3. Breakouts

Three areas required a more in-depth discussion to explore the barriers in more detail (quality of waste, informal waste sector and financing). Due to time constraints, only two of the three breakout discussions took place during the workshop. The quality of waste had been sufficiently discussed during the plenary session and so the focus was shifted to the two remaining breakout topics:

The informal waste sector

- 40-50% of waste collection is undertaken by informal waste pickers
- Shared feeling that fines are not severe enough
- Shared feeling that material / product bans aren't working and legal loopholes exist
- Perception of informal waste pickers is generally positive, seen as contributing to society and benefitting the environment
- Households have formal collection systems but some informal small-scale collectors have convenient vans/cars.
- Informal waste pickers also collection from beaches landfills/dumps
- Concerns raised about health and safety of informal waste pickers, PPE should be available

Financing shortfalls and requirements

- The development of a network of collectors and collection points is required
- Plastics are seen as pollution, but Sri Lanka lacks the network to get waste from A to B
- High fees for importing machinery / equipment
- No Government support grants available
- Limited foreign funding but more investigation on external overseas investments needed

4. Summary and Recommendations

1. Separate recycling at source:

The waste that is collected is currently grouped together, this includes municipal solid waste as well as hazardous e-waste and biomedical/healthcare. Separation at source will be crucial to ensure valuable materials can be extracted. Guidance on rinsing packaging and polymer types is also required.







2. Educate consumers:

There is currently no consistent guidance on how, where or what to recycle. An education campaign and information platform is required to empower citizens with recycling knowledge. Bins with different colours have been introduced to help separate waste into different factions but they are not always understandable due to unclear symbols and the need to cater for three different languages.

Best practise examples of this include:

• The Ghana Recycling Initiative by Private Enterprises (GRIPE) https://thegripe.org/

• The Separation@Source Programme in Johannesburg, South Africa http://www.pikitup.co.za/seperationsource/

• Bowen and Bowen Deposit Return Scheme in Belize <u>www.cefas.co.uk/clip-belize-outreach-and-best-practice-report.pdf</u>

3. Invest in collection hubs and aggregation facilities:

Informal waste collectors act on an ad hoc basis and collect from multiple locations. Local Authority money is spent on reactive clean-up measures rather than preventative measures. Material separation and collection hubs would help to create a safer and more equitable job for informal waste collectors.

4. Invest in recycling infrastructure and make land available for recycling facilities:

There is a lack of infrastructure facilities and suitable land required to either build recycling plants or better landfills. More investment and subsides are needed to support the purchase of equipment, import costs could be lowered.

5. Develop material channels

The logistics associated with transporting waste materials is not centralized, adequately funded or organised – recyclers need access to material channels and would benefit from designated collection points. Material prices fluctuate based on the global market, more information on this would ensure informal waste pickers are getting paid a fair price.

6. Develop links to external markets

Valuable post-consumer material is being lost due to system inefficiencies. Foreign material markets are not established, research into the most valuable materials, potential export revenue and supporting policies is required.

7. Explore option to fund infrastructure investment through international development banks

There are several opportunities to apply for international funding through development banks and trusts or foundations. Sri Lankan recyclers would benefit from support in finding these opportunities and bid writing.

8. Design systems for urban and rural differences

The majority of recyclers and infrastructure is clustered in the South West, especially in the Colombo Municipal area. Differences in the needs or urban and rural citizens need to be better understood in order to design and implement effective collection and recycling systems in Sri Lanka.

9. Introduce Extended Producer Responsibility legislation

Policy levers to introduce a polluter pays principle can either be voluntary or mandatory, either measure would place a financial uplift on plastic items sold onto the Sri Lankan market. The money







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generated from this can be ringfenced and directly used to fund collection systems, education campaigns or recycling programmes.

10. Integrate informal sector

The workshop participants indicated that informal waste collectors were viewed positively and seen as contributing to society and helping to preserve the environment. They do however lack access to personal protective equipment (PPE) and without a centralised trade body to collectively represent them, they are particularly vulnerable to material price fluctuations. By establishing an organised trade association to represent them (such as the African Reclaimers Organisation in South Africa) as well as providing centralized collection points, the informal waste sector will be more integrated into the wider system.

11. Create a baseline

Without robust material flow and waste composition data, Sri Lanka lacks a baseline to monitor and measure the progress being made year-on-year to reduce plastic pollution and increase recycling. Material imports and exports as well as manufacturing figures, plastic items sold, waste generated, and recycling rates are all essential pieces of information necessary to form a complete picture and highlight the hotspots and system weaknesses.

Arachchige, U, et al. (2019) International Journal of Scientific & Technology Research. Issue: 12
Accessed 18.03.2021: www.jstor.org/stable/resrep29012





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