



POLICY RECOMMENDATIONS: ADDRESSING TEXTILE WASTE IN A GRAM PANCHAYAT

I. Introduction

India is one of the world's largest textile manufacturing hubs, while also being one of the largest markets for textile consumer goods. With textile producers' foray into mass production of fast fashion, it becomes imperative to scrutinise this burgeoning source of waste. Research by Fashion for Good finds that textile waste makes up the third largest source of municipal solid waste in India, indicating that most post-consumer textile waste makes its way to landfill, instead of being responsibly managed. To address this stream of waste, there is a need for robust policy and government support to foster circular practices in the textile ecosystem.

Parivarthaneya Hejje is a solid waste management (SWM) project in Marenahalli Gram Panchayat, Bengaluru that aims to implement source segregation, infrastructure development, scientific waste processing and community engagement for 3000+ households. The project aims to devise a tested, replicable and scalable SWM intervention for Marenahalli GP.

As part of the project, there was a concerted effort to manage post-consumer textile waste from Marenahalli GP. At present, textile waste is collected as a separate waste stream, sorted and sent to the Textile Recovery Facility (TRF) run by Saahas Zero Waste in Gottigere, Bengaluru. From the findings of the project, the policy recommendations are:

1. Ensure dedicated collection of specialised waste streams like textile waste.
2. Promote redirection of textile waste to textile recovery facilities.
3. Liaison with informal networks of textile waste management.
4. Formulate textile EPR policy.

The following section covers the broad recommendations from a policy perspective, that can alleviate the challenges at GP level, as observed during the implementation of the project.

II. Policy Recommendations

1. Ensure dedicated collection of textile waste.

When the Parivarthaneya Hejje project initiated waste collection, the first collection of textile waste amounted to 984 KGs. Over the course of the project, there has been an average of 179 KGs of textile waste per month from 2700+ households. Though some portion of textile waste still gets mixed with dry waste, there has been a substantial decrease in this quantity ever since a separate collection was initiated. There is inconsistency in the quantity as well as quality of textile waste generation owing to the seasonality of nature attached to this waste stream, unlike other waste categories.

1.1. Recommendations:

- IEC for residents: During the daily waste collection, IEC for residents on segregating, accumulating and giving textile waste separately can be provided. This will



streamline efforts leading to the collection of textile waste, as was observed under the project.

- Monthly door-to-door collection: Textile waste can be collected on a monthly basis, with a fixed date that residents will begin to associate with this particular waste stream. Under the project, all incoming textile waste was weighed and documented, which helped in ascertaining the waste generated vis a vis recycled.
- Primary sorting of textile waste: Textile waste can be sorted to ensure that contamination (mixed waste) is removed and any soiled textile waste can be segregated and redirected to processing facilities that handle reject waste. Additionally, basic sorting into broad categories (e.g. pre-consumer waste, post-consumer waste, cloth bags, etc) can be carried out on-site. Under the project, this task was carried out by the primary waste collectors, who also benefited from this activity by reusing the garments that were in good condition.
- Storage of textile waste: Textile waste needs to be stored in a clean, dry storage space that must be allocated apart from/within the SWM unit. The waste should not be in direct contact or near any dust, moisture, water or leachate that will contaminate it and diminish its value.

2. Establish and promote redirection of textile waste to TRFs.

If textile waste was sent to a Materials Recovery Facility (MRF), the GP would not only incur additional transportation costs, but also the cost of disposal. Under the project, textile waste from Marenahalli GP is picked up at zero-cost by the TRF at Gottigere, Bengaluru, resulting in resource recovery and cost savings.

Thus, establishing TRFs and redirecting textile waste to such facilities is the pertinent need of the hour. When waste undergoes an expansive process of sorting, cutting, shredding, being categorised into 5+ different categories before being bagged and transported to a range of vendors who reuse, resell, recycle, upcycle, downcycle or incinerate the different categories of textile waste, there is resource recovery from waste that would otherwise end up in landfills.

2.1 Recommendations:

- Establishment of TRFs: Model facilities as a separate unit or as an addition to the existing MRFs can be set up to establish functional and economic viability. The location of these facilities is also crucial for economic viability, as under the project, Gottigere facility was able to collect the textile waste at no cost to Marenahalli GP.
- Training of GP sanitation staff: Sanitation staff at GP levels can be trained to inculcate IEC/BCC for textile waste along with the messaging for source segregation based on SWM Rules, 2016. The TRF team can build additional capacities for primary collection, sorting and handling, as was done under the project.
- Secondary transportation of waste: Timely collection of textile waste once it reaches the required tonnage/ volume for collection by the TRF team, must be coordinated by the GP to ensure that the storage space is cleared and to avoid overflow or damage of the textile waste. Under the project, collection frequency of once a month was suitable based on the waste quantum generated.



- Institute a reporting mechanism: A monthly or quarterly report should be furnished to the GP, by the service provider operating the TRF or any similar textile processing facility. This report should provide data points on the textile waste, where each category was redirected and recommendations, if any. The TRF under the project is run by a private agency and records all the key aspects.

3. Liaison with informal networks of textile waste management.

Textile waste is acquired, sorted and sold in varied networks of workers and entrepreneurs who manage this waste informally through resale in second hand markets/industries, making thread, co-processing, etc. In the Parivarthaneya Hejje project, once the dedicated collection of textile waste was established, the project team reported a considerable increase in recovery of this waste (by informal workers or by residents who wish to reuse textile waste given by others), before the waste is even collected and brought back to the SWM unit in Marenahalli.

3.1 Recommendations:

- Collaborate with informal workers: Where setting up TRFs is not feasible, partnerships with informal workers can be explored. They would benefit from such interventions if the GP can encourage participation where workers buy/sell the textile waste from/to the GP and operate the TRFs.

4. Formulate a textile EPR policy.

Through an analysis of how the textile waste from Marenahalli GP is processed at the TRF in Bengaluru, it is evident that there are several challenges with textile waste management:

- Sourcing: The lack of sources for segregated and clean textile waste is a significant challenge. As waste is collected from households, its quality can not be controlled, which leads to wastage and loss of resources.
- Financial viability: The cost of sending certain textile waste types to states like Gujarat, for lack of any recyclers in South India, has resulted in high transportation costs that overshoot the cost per KG earned by the TRF for the materials shipped.
- Influx of low-value textiles: Even when textile waste is collected separately, most of it is lower grade, thus deriving very little value in the resource recovery process. There are no markets for the sale of these lower grades of textile waste, with the costs to process them being borne by operating facilities like the TRF, thus making them economically unviable.

In light of the above, textile waste should be brought under the ambit of a textile extended producer responsibility (EPR), in a policy that addresses mass production, worker welfare and the burden of dealing with post-consumer textile waste. Textile EPR can incentivise recovery of hard-to-manage grades of textile waste, through decentralised interventions that are funded by textile manufacturers and producers of textile consumer goods.

4.1 Recommendations:

Textile EPR should be drafted and implemented, along with stringent policy that:



- Disincentivises or makes financially unviable the mass production of fossil-fuel derived, lower grade textiles (e.g. polyester, nylon, acrylic, etc) that are used to make cheap, “use-and-throw” textile consumer goods.
- Improves the working conditions of textile workers at every level of production and resource recovery. At present, the textile industry is infamous for labour exploitation at all stages - from production to disposal owing to fast fashion that is cheap and short lived. If the producers are held responsible for end of life disposal of their merchandise, it is likely to also promote the production of better quality and long lasting products.

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