

The role and experience of women in plastic waste management

In 2019, the global plastic waste generation was 353 million tons – more than double the amount generated in 2000. Plastic waste comprises of about 12 per cent of the municipal waste generated worldwide. While in many developed countries formal waste management systems – governed by regulations and quality standards – are in operation, in developing countries as much as 50-100 per cent of plastic waste management is conducted by the informal sector, with little to no investment from the municipal budget.

This sector is operated on unregulated, purely market-driven demand and supply, and often employs thousands of individuals in any urban context. Women constitute a sizeable portion of the informal plastic waste management workforce. They find themselves facing disproportionate exploitation and marginalization due to low pay, tough hours, no social security net, limited opportunities with little or no support and the pressure to earn money alongside executing traditional 'womanly' duties such as caregiving. This factsheet examines the gendered experiences of women in plastic waste management, based on literature evidence and first-person narratives.

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50-100 per cent

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How does gender influence plastic waste management?

Women are often employed in the lowest tier of waste management

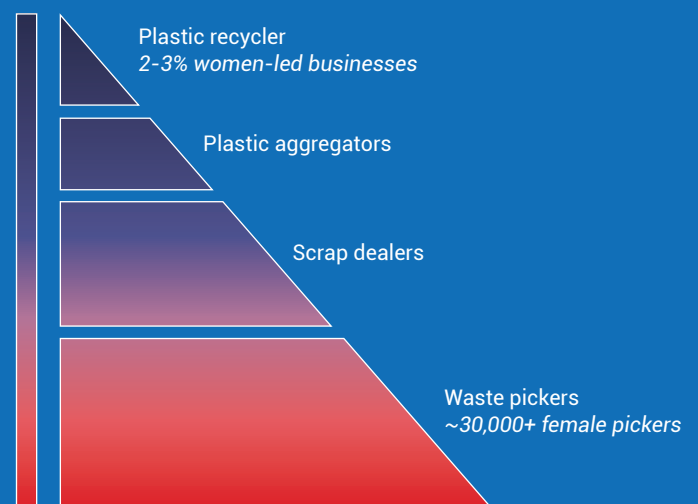
- Informal plastic collection, aggregation and recycling often presents a pyramid-like hierarchy. While at the 'top' there are few plastic recyclers, there are many more aggregators, supplied by many scrap dealers who in turn aggregate from a large network of on ground waste pickers/collectors, who form the base of the pyramid.
- In a city with a handful of recyclers, there may be thousands of waste pickers. In countries like Ghana, India and the Philippines women are disproportionately present as waste collectors, while men dominate further up the hierarchy.
- Women may also find employment at recycling centers as sorters/segregators, but are less likely to be business owners or entrepreneurs in the sector.
- In Ghana, 64 per cent of waste pickers and 68 per cent of waste sorters are women, while only 20 per cent of CEOs and business owners are women.
- In Pune, India, about 90 per cent of the 10,000+ workforce of waste collectors are poor women of lower castes, while about 2-3 per cent of business owners among recyclers are women.

Example of plastic waste management from Pune, India

- Recyclable plastic is collected by ragpickers/waste pickers who are predominately women working alone or with small children
- They are paid based on the market price for the recyclables collected only
- Only opportunity to scale is by procuring a cart or a vehicle – which most women feel they are not 'capable' of doing independently – and might thus involve their spouse

Based on on-ground assessment by SWaCH

Predominately male



Predominately female

Women working in the informal sector see minimal pay and little to no social security

- In developing countries, the informal sector is woven into the social fabric of urban areas and offers price competitiveness that formal players are often unable to match. This is because waste collectors in the informal sector are paid exclusively for the quantity of valuable plastic they procure and there is no minimum wage.
- Waste collectors are not paid for their time or efforts and have little to no security and support such as paid leave or healthcare. Even employees in recycling centers – especially if these centers are informal – may not have access to facilities such as toilets, meals etc. Therefore, women, as dominant participants in such job profiles, face disproportionate impacts and consequences.
- There is no job security due to the high availability of workers.
- The rise of 'formal' systems that meet regulatory standards can be a threat to the livelihood of many informal workers. In most countries, formal waste management employs less people as they are expected to pay fair wages and often invest in mechanized options.

Case study

SWaCH is an autonomous enterprise wholly owned by a cooperative of waste pickers from Pune, India. SWaCH originated in 1993 when waste pickers and itinerant waste buyers in the region formed a membership-based trade union, the Kagad Kach Patra Kashtakari Panchayat (KKPKP). It currently has 9,000 members, 80 per cent of which are women from low income and marginalized castes. In 2000, after the Municipal Solid Waste (MSW) Rules were first implemented in India and required waste segregation and door-to-door pick up, the KKPKP worked with the Pune Municipal Corporation to pilot a model which integrated waste pickers into the door-to-door collection work. Following the successful implementation of the pilot, SWaCH was formed as a pro-poor public private partnership to integrate the informal sector into municipal waste management.

Today SWaCH not only runs its door-to-door collection program, but has also expanded into different waste streams and service offerings.

In 2019, SWaCH piloted a program with a company, ITC, whereby waste pickers were incentivized to collect low-value 'unrecyclable' material such as Multi-Layer Packaging (MLPs). Rather than introducing a separate system in Pune to collect and process MLPs, SWaCH and ITC established a standard rate for the MLP collected, which was higher than the market value for this waste stream – in order to ensure interest as well as support livelihoods of waste pickers. Under this model, the MLP was directly purchased from over 3,500 waste pickers (most of whom were women) and processed through a 200 tons/month facility in the city. Although this system is more expensive than one that consists of a centralised material recovery facility in the city (as recommended by the SWM Rules, 2016), it is able to support a significantly higher number of livelihoods and at the same time encourage segregation and collection of a low-value product at a household level.

Stereotypes influence the type of work and opportunities open to women

- The participation of women in the waste management sector is often seen as 'organic' as it represents an extension of their caregiving role – much like how women are responsible for waste management as a part of their household responsibilities, they are seen to be providing a similar service at a more communal level.
- There are positive stereotypes in some cases that support women's participation in the sector. For example, in Nigeria they are seen as more trustworthy, faithful and dependable and they are likely to work for longer. They are also considered more dedicated and have a higher attention to detail and thus preferred for activities such as plastic sorting.
- However, there is a downside to such stereotypes as women are also seen as lacking in assertiveness and ambition, which might affect the interest that clients show in patronaging women-led plastic collection and recycling businesses.
- In India, one opportunity plastic waste pickers might be able to capitalize on is acquiring a vehicle (such as a cart) that allows for greater collection (thus leading to greater earnings). However, the cart-based collectors are predominately male. In some instances, women waste collectors bring in their husbands or other male members to operate the cart.
- Even in countries with formal systems, such as in Europe, there were some reported incidences of discriminatory hiring due to greater perceived 'suitability' of men to leadership positions.

What are the perceptions of men & women in plastic waste management sector?

Based on consultations & literature review of plastic & e-waste management in developing countries



- Faithful to employer
- Greater attention to detail
- Less likely to get 'bored'
- Low ambition
- Low technical know-how
- Low strength



- Likely to change jobs (more financially motivated)
- Impatient
- Likely to get bored
- Ambitious (entrepreneurial)
- More technically skilled
- Stronger

- Evidence from different contexts show that women who participate in the waste management sector often belong to the most vulnerable communities. In India, waste management is mostly undertaken by people from lower castes, who face some of the highest social discrimination. A survey of waste workers in Ghana showed that many of the women who participated were middle aged or older, and forced into the sector due to circumstances relating to widowhood or being a single parent.
- Women working in the waste sector are still expected to provide care work at their households, particularly as mothers. This often leads to them bringing their children with them to work, which might lead to high exposure for both the mother and the child, especially if the mother is collecting waste from open dumpsites or other places with high pollution.
- As with most male-dominated sectors, women tend to face harassment and gender-based violence in plastic waste management, especially due to the lack of social safeguards, existing gender stereotypes and highly competitive nature of the sector.
- Women are physiologically more vulnerable to the impacts of exposure to toxic materials. There is a higher likelihood of bioaccumulation of the lipophilic compounds released during burning of plastic. This exposure not only increases the risk for women but also for their future children.

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