

## Cooperatives for Formalization of Waste Sector in India

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### *Abstract*

*Economic development, rapid population growth, and urbanization has resulted into the increased waste generation. Appropriate policy measures, programmes and management strategies are required to mitigate the challenge of waste management. The informal sector contributes far more to material recovery from municipal waste than formal waste management services. Waste pickers from informal sector contribute to public health, sanitation and environmental protection as well as promote circular economy. Often, they are not recognized legally as workers. They are treated as dirty and undesirable members of society and may be exposed to a variety of occupational hazards. Despite the fact that the Solid Waste Management Rules, 2016, recognize the mentioned role of informal waste workers, the system as a whole has failed to recognize them as key stakeholders in the waste management process. Integration of informal recycling sector to the formal Municipal Solid Waste operations is vital to improve social and economic standing of informal waste workers. Forming waste pickers cooperatives is one of the ways to recognize the efforts of waste pickers and provide them sustainable livelihood for their betterment.*

*Keywords: Solid Waste Management, Informal Sector, Waste Pickers, Cooperatives.*

### **1. Introduction:**

Increasing solid waste generation is a difficult and costly issue, particularly for low and middle-income countries. Economic development, rapid population growth, and urbanization have increased resource consumption, causing waste generation to increase exponentially over the last few decades. Around 0.15 million tonnes of Municipal Solid Waste (MSW) per day is generated by urban India only. Per capita MSW generated ranges from 0.30 kg to 0.45 kg per day. If present situation is not adequately addressed with appropriate policies, programmes, and management strategies, the volume of waste is estimated to reach 165 million tonnes by 2031 and 436 million tonnes by 2050 (DTE, 2022).

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India has a collection rate efficiency of 50-60% on average in waste collection and disposal. However, due to lack of disposal sites, only 10% of the waste is safely treated. Due to financial gaps, institutional deficiencies, and long-term underinvestment, India's Urban Local Bodies (ULBs) have been unable to manage the massive amount of waste generated, reinforcing a poor waste management infrastructure (SPRF, 2020).

When it comes to management of MSW, recycling is considered as vital. There are three main approaches to the recycling. First is the environmental approach which focuses on the reduced pollution, deviation of waste from the landfills and consequently less impact on environment. Another approach is economic focus. Processing cost of recyclable material is less compared to the processing cost of natural resources. In addition to this creation and maintenance cost of landfills also drops. Ultimately recycling industry gets promoted with active involvement of individuals in the economy of the country. The third and last approach is the social focus. Recycling enables the involvement of individuals in the informal labour market and generating income for them (Miranda, I. T. P. et al, 2020). It is seen that; formal sector is dependent on the informal recycling sector for the raw material required by the industries in the countries like India because of the low-cost services provided by the informal sector.

## **2. Waste Pickers from Informal Sector:**

The informal sector contributes far more to material recovery from municipal waste than formal waste management services. Individuals, families and private sector enterprises providing solid waste management services who are not organized, sponsored, financed, contracted, recognized, managed, taxed, or reported on may be classified as working in the informal sector (DTE, 2022). Waste pickers are mainly men and women from lower income groups migrated from rural areas involve in the activities of waste segregation, collection, handling, disposal and sell of waste from streets or landfills and serving as a link between ULBs and the community. Their contribution to public health, sanitation and environmental protection by encouraging the ecological circulation of resources by reducing the amount of waste going to landfill is noteworthy (ILOCOOP, 2019). Often, they are not recognized legally as workers.

It is well-known that the informal waste collection and sorting sector performs the most labor-intensive and unrewarding job of recovering recyclable materials from unsegregated waste. In India today, there are

approximately 4 million informal waste pickers (TOI, 2022). Despite their critical role, informal waste workers continue to face systemic marginalization, both economically and socially. They are treated as dirty and undesirable members of society and they are subjected to exploitative social behaviour. While the wages and living conditions of various strata of informal waste workers vary greatly, the majority of them (street waste-pickers) work and live in dangerous conditions. Waste-pickers may be exposed to a variety of occupational hazards (Lakshmi J. K. et al, 2021). Various bacterial and viral diseases breed in community waste bins and dumpsites. As a result, waste-pickers frequently suffer from gastrointestinal problems. They are required to separate recyclables from mixed waste. They sometimes handle sanitary waste, domestic hazardous waste, and household biomedical waste with their bare hands, which can lead to a variety of infections. Contact with human and animal excreta, bodily fluids, and dead animals can also lead to infection. Sharp objects, ragged metal edges, and broken glass in the mixed waste also cut them. They frequently lack access to sanitary and medical facilities. Furthermore, child labour is widespread, and life expectancy is low. In addition to this, waste-pickers are not covered, by any labour laws. As a result, they are ineligible for social security and medical insurance (DTE, 2022). Waste pickers are the most vulnerable to the effects of climate change. Despite their vulnerability, they hold a critical key to delaying global warming. Waste accounts for 20% of methane emissions.

To compound their vulnerability, the Indian legal framework (Indian Penal Code 1860) considers waste-pickers to be thieves. Because waste is considered municipal property, its handling and collection by unregistered waste workers puts them at risk of prosecution, exacerbating their predicament (Reddy, 2018). According to a study conducted in 2018 by Chintan, a Delhi-based NGO, approximately 50% of waste workers lost their jobs or saw a significant decrease in their earnings after the Municipal Corporation of Delhi privatized waste collection (SPRF, 2020).

### **3. Recognition to Waste Pickers:**

In 2016, the Ministry of Environment, Forests, and Climate Change proposed a revision to the Solid Waste Management Rules to address the problem of waste management in India. This was for the first time that informal waste workers were included in any administrative framework of the formal waste management system. The Ministry expressed a strong interest in integrating waste workers from the informal sector, as their inclusion in the formal system would provide an opportunity to streamline the workforce and the functioning, while also providing them with more

desirable income options. Despite the fact that the Solid Waste Management Rules, 2016, recognize the mentioned role of informal waste workers, the system as a whole has failed to recognize them as key stakeholders in the waste management process (SPRF, 2020).

According to the International Labour Organization, waste collection is a 'green job' that should be promoted and facilitated because it contributes to a global green economy by achieving environmental sustainability (Wasteaid 2016; ILO 2012; ILO Partnership Agreement, 2015). As a result, waste workers make significant environmental contributions by reducing carbon emissions through recycling activities that help to reduce the size of landfills and increase the rate of reuse of biodegradable and non-biodegradable waste (SPRF, 2020).

There is an urgent need to initiate policy action to improve social and economic standing of informal waste workers. For this purpose, integration of informal recycling sector to the formal Municipal Solid Waste operations for the improvement in the MSW management services as well as standard of living of the waste pickers is vital.

The International Labour Conference, in 2015, accepted the Recommendation No. 204 which refers to the 'Transition from the Informal to the Formal Economy' highlighting the cooperative as one of the ways of formalizing workers in the informal economy. Organizing waste collectors in the waste sector through cooperatives or other organizations or economic forms allows waste pickers to access economic formalization and social inclusion, defend their interests as well as access to markets, occupational safety and health, social protection and help in improving their income and working conditions (ILO, 2015).

#### **4. Role of Cooperatives in Transforming the Lives of Waste Pickers with Examples:**

Kagad Kach Patra Kashtkari Panchayat (KKPKP) formed Solid Waste Collection and Handling (SWaCH), which is India's first waste management cooperative that is wholly owned by self-employed waste collectors and other urban poor at Pune, Maharashtra. This cooperative with a membership of 3,500 had laid the groundwork for changes that would significantly improve not only the Pune city's waste management but also the working conditions of waste pickers. Waste pickers can contribute significantly more to climate change mitigation if they receive support from stakeholders. According to the December 2022 data, services of waste collection of SWaCH covered 70% of the city, equating to

8,00,000 households per day and 70,000 tonnes of waste recycled per year. Rs. 100 crore (INR 1 billion) were saved by the cooperative in 2021 for the Pune Municipal Corporation (PMC) (On the Ground, 2023).

Waste pickers own, manage, and operate three cooperative scrap shops at Pune. Each shop serves between 40 and 100 waste pickers. The waste pickers are all equal shareholders in the shop, with equal decision-making rights and profits. They were founded in response to waste pickers' exploitation at the hands of scrap dealers, who frequently under-weighed materials and underpaid waste pickers. They make decisions about the management of their cooperative, as well as policies and programmes that affect them. If they are not, they assert their right to be heard.

Nalini Shekar along with Anslem Rosario in 2010 formed Hasiru Dala which means 'Green Force' at Bengaluru by organizing waste collectors to integrate them in the local solid waste management and to provide them recognition in the society. Nalini Shekar and her partner worked tediously to provide identity cards to over 11,400 waste collectors, which authorized the waste workers to collect waste within the jurisdiction of the city. Hasiru Dala also worked towards the capacity building of the waste collectors by imparting training of waste collection, recycling and organic management. After receiving ID cards and training, waste pickers of Hasiru Dala could enter into the contract with the local government for authorized door-to-door waste collection, waste sorting and composting services. This remarkable work must be emulated and scaled up throughout India, for empowerment of waste collectors through cooperatives (On the Ground, 2023).

Stree Mukti Sanghatana (SMS) at Mumbai, Maharashtra aims to empower disadvantaged women in India. It trains women waste pickers for composting and gardening. Around 2004, Parisar Bhagini Vikas Sangha (PBVS) federation was established by SMS. It has 250 self-help groups with comprising of 2,500 waste pickers in Mumbai. This was followed by the establishment of the Parisar Sakhi Vikas Sanstha (PSVS) in Navi Mumbai which has 500 members. Cooperatives were formed by PBVS members and registered them with their State government. This enabled them to enter into contracts for Zero Waste projects with housing societies and other organizations (On the Ground, 2023).

Another example of integration of waste collectors from informal sector into formal waste management system is 'Kabadiwalla Connect'. It's a social enterprise that is using ICT and IoT based technology to register

waste pickers as suppliers and authorize their transactions. As a pilot project, this organization distributed smart bin to 1,500 households in Chennai to track the volume and quality of segregation at each apartment.

This information helped waste pickers collect their material directly from the source than foraging through dumpsites. This model can be emulated into the cooperatives to provide sustainable livelihood to the waste pickers and to promote circular economy.

### **5. A Way Forward:**

For identification, organization, training and empowerment integration of waste collectors into the formal waste management chain are necessary. For this government can promote formation of waste collection cooperatives or other institutions and entering into the contract with such cooperatives and institutions of waste collectors for their transformation.

This formalization approach will not only help promote recycling and help to induce a circular economy in waste management, but will help provide sustainable livelihood to the waste collectors.

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