

JUST TRANSITION OF THE INFORMAL RECYCLING SECTOR  
CASE STUDIES

# Organising and Integrating the Informal Recycling Sector in the Solid Waste Management Sector

## INDIA



# Organising and Integrating the Informal Recycling Sector in the Solid Waste Management Sector

## India

Social and Solidarity Economy Organisations (SSEOs)<sup>1</sup>, including cooperatives, as member-owned and democratically controlled entities, are one of the pathways to a just transition of the informal recycling sector. As the International Labour Organisation notes, cooperatives have helped “to advance the concept of moving out of informality because they are not only an effective mechanism to provide economic and social security for informal economy actors, but because they have a record of transforming marginal activities into legally protected work.”

Social and Solidarity Economy Organisations in some countries support workers in enhancing their income and advocating for their rights, recognition, inclusion, and integration in formal solid waste management systems, including policymaking and decision-making processes.

Thus, the experience of successful waste picker cooperatives and associations, such as the SWaCH Pune cooperative in India, can inform various stakeholders of a roadmap for better integration and just transition of the informal recycling sector. SWaCH provides a successful example of this by reflecting direct user fee counting for transparency, accountability, efficiency, relationships with citizens, and women’s empowerment.

### Reference period

Data and information provided in the brief were collected between March 2024 to September 2024.

### Background

The informal waste recycling sector in India accounts for around 4 million people, including waste pickers, local kabadiwaalas (small scrap aggregators), larger aggregator/junkyard owners, and intermediate dealers, or other middlemen playing a significant role in the recovery and recycling of resources<sup>1</sup>.

A recent profile of the informal sector in India by Women in Informal Employment: Globalizing and Organizing (WIEGO)<sup>2</sup> provides that an estimated 2.2 million people are engaged in waste picking, of which 76.2% are informally employed<sup>ii</sup>. Most waste pickers work independently or in small groups, collecting and sorting various types of waste, such as plastic, paper, metals, and electronic waste, from households, streets, and dumping grounds for recycling<sup>iii</sup>. It is estimated that waste pickers in Indian cities collect about 15-20% of municipal solid waste. In cities like Delhi and

Bangalore, most of the recycled plastics are collected by waste pickers, either directly from households or working with non-governmental organisations<sup>iv</sup>. Some estimates suggest that waste pickers in these cities help save the government and taxpayers around 13,700 USD per day in waste disposal and collection costs<sup>v</sup>.

## Waste Pickers Get Organised: The SWaCH Pune Model

### Overview of Waste Pickers Organisations and Associations in India

Currently, there are notable waste picker organisations and associations across India, including Aakar and Aasra Welfare Association in Mumbai, All India Kachra Sramik Mahasangh in Bareilly and Delhi, Avani in Kolhapur, and Gaddikhana Ajivika Swayam Sahayta Samuh in Mussoorie<sup>vi</sup>. These organisations have been working since the 1990s towards empowering waste pickers, providing social and economic support, and advocating for their rights and integration into formal waste management systems. In 2008, the need to coordinate efforts to ensure the inclusion of waste pickers in various national-level programs led several groups to come together and establish the Alliance of Indian Waste-pickers<sup>vi</sup>. Today, the Alliance of Indian Waste -pickers represents 35 waste pickers organisations in 22 cities<sup>vii</sup>. The alliance focuses on improving the income, working conditions, and recognition of waste pickers in India through policy analysis, research, capacity building, and empowerment of their members.

### The Kagad Kach Patra Kashtakari Panchayat trade union in Pune

The Kagad Kach Patra Kashtakari Panchayat (KKPKP) is a membership-based trade union founded in 1993 by waste pickers and itinerant waste buyers in Pune and Pimpri Chinchwad<sup>viii</sup>. The KKPKP has made a concerted effort to increase public support for waste pickers. Through government lobbying, it has advocated for improved working conditions and the protection of waste pickers’ rights. Most significantly, KKPKP demanded that the Pune Municipal Corporation engage in regular communication and discussions with its members to integrate waste pickers into the waste collection and disposal system<sup>viii</sup>.

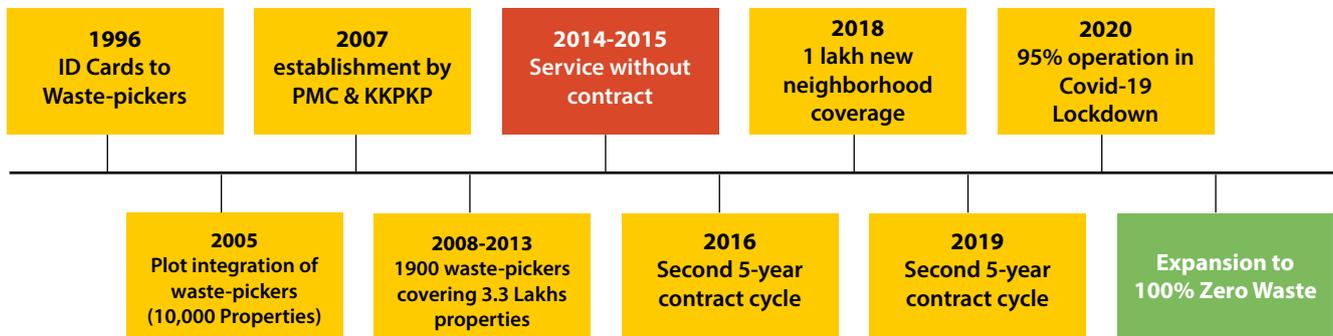


Figure 1: Timeline of Interventions of SWaCH in Pune. Credits: Harshad Barde, SWaCH, 2021

### SWaCH (Solid Waste Collection and Handling) Pune model

In 2005, a pilot program implemented by KKPKP in collaboration with the Department of Adult Education at Shreemati Nathibai Damodar Thackersey (SNDT) Women's University enabled 1,500 waste pickers to become service providers for door-to-door waste collection service for households in Pune city<sup>ix,x</sup>. Through the pilot program, waste pickers who had operated in dumpsites or went through community bins to collect recyclables were brought to citizens' doorsteps as daily waste collection service providers. Citizens were then asked to pay a monthly waste collection fee to the waste pickers. This pilot created a new model for waste collection and bridged the gaps between households and the municipal waste collection service. Further, the pilot was used by KKPKP as an advocacy tool to convince Pune Municipal Corporation to institutionalise the integration of waste pickers. This effort led to the establishment of SWaCH Pune cooperative in 2007, which one year later signed a five-year Memorandum of Understanding (MoU) Pune Municipal Corporation, to provide door-to-door waste collection<sup>xi,xii</sup>.

The MoU authorised SWaCH to collect source-separated waste from households and commercial establishments, transfer the segregated waste to Pune Municipal Corporation - run vehicles at designated points, divert recyclables at the source, and permit waste pickers to charge a user fee directly from the generator. The Pune Municipal Corporation also authorised SWaCH to enter corporate offices for waste collection<sup>xiii</sup>.

SWaCH currently operates as a primary waste collection service provider to households and businesses in Pune, charging a user fee of INR. 85 (approximately 1 USD) per household, Rs. 65 (approximately 0.80 USD) per slum household, and Rs. 170 (approximately 2 USD) per shop<sup>xiv</sup>. Its members further sort the collected waste and drop off non-recyclables at city-managed feeder points. SWaCH also provides onsite composting and biogas services<sup>3</sup> to citizens and partners with brands like ITC Ltd. to collect and recycle multi-layered plastics<sup>xv</sup>. SWaCH also promotes reuse through its donation and thrift store program, V-Collect, in operation since 2008.

SWaCH's revenue includes user fees for primary waste collection services - paid directly by the property owner to the waste pickers - and the sale of recyclables. Additionally, waste picker members contribute 5% of their earnings from user fees to support staff salaries, logistics, and other overheads<sup>xvi</sup>. The Pune Municipal Corporation provides a collection incentive to waste pickers equivalent to around 30% of the user fees. Pune Municipal Corporation also supplies SWaCH members with personal protection equipment such as masks, gloves, raincoats, footwear, and uniforms, as well as collection equipment such as pushcarts, buckets, and sacks<sup>xvii</sup>. In addition, Pune Municipal Corporation also provides medical, life, and accident insurance for SWaCH members and runs two education grant schemes for members' children<sup>xviii</sup>.

## Results

Today, there are over 3,900 active members of the SWaCH Pune, of which 70% are women, operating a decentralised, non-motorised, door-step waste collection model, reaching over 4,000,000 citizens and enabling the recycling of 80,000 metric tons of waste annually<sup>xix</sup>.

The city saves around INR 900 million (approximately 12.5 million USD) each year<sup>xx</sup> through the primary waste collection services provided by SWaCH, compared to the costs of services by private contractors<sup>xxi</sup>. The model has led Pune to achieve a plastic recycling rate of 37%<sup>xxii</sup>, more than three times the national average of 12%<sup>xxiii</sup>.

In addition, it has demonstrated effective onsite composting, leading to a reduction in the amount of organic waste sent to landfills. The SWaCH model has also contributed to saving environmental costs by reducing carbon emissions<sup>xxv</sup>. Calculations by SWaCH have estimated that their work reduces greenhouse gas emissions by 100,000 metric tons of CO<sub>2</sub> equivalent annually.<sup>xix</sup>

Waste pickers who are members of SWaCH, through the Pune Municipal Corporation-SWaCH partnership, have seen significant improvements in their working conditions, income stability, access to social protection measures, and the breakdown of caste and class barriers between citizens and waste pickers. Their income has increased fivefold, while working hours have been reduced from 12 hours a day, 7 days a week, to 6 hours a day, 6 days a week<sup>xxv</sup>.

On average, two waste pickers collect segregated wet and dry waste from 200-300 households and businesses<sup>xvi</sup>, and earn INR 18,000 (approximately 216 USD) per month from user fees and INR 4,000-5,000 (approximately 48-60 USD) from recyclables. Waste pickers who provide composting and biogas services earn additional user fees.

The success of the SWaCH model has also influenced national regulations. Representatives from SWaCH and KKPKP were invited to the drafting committee that led to the inclusion of waste pickers in the Solid Waste Management Rules, 2016 and Plastic Waste Management Rules 2016 (amended in 2018 and 2022), according to the Union Ministry of Environment, Forest & Climate Change. As a result, national legislation now mandates all Indian cities to register waste pickers, issue them with identification cards, and include them in the decision-making processes of waste management<sup>xxvi</sup>.

## Barriers

At the beginning of the SWaCH model's implementation, there was a general distrust and sharp criticism of its operationalization from significant stakeholders, including competitors (e.g., companies such as Hanjer Biotech Ltd. and BVG Kshitij Pvt. Ltd. have attempted to enter waste management contracts with the Pune Municipal Corporation) and policymakers (e.g., councillors who run their own collection system)<sup>xxvii</sup>.

The MoU between SWaCH Pune and Pune Municipal Corporation is time-bound and subject to a renewal process every 5-years, and the perpetual uncertainty is a threat to the model. Between 2013 and 2016, there was no renewal of the MoU between SWaCH and the Pune Municipal Corporation due to several controversies and grievances on both sides, such as non-payment of subsidies. SWaCH had to cut down its operations and reduce staffing. Although the MoU with Pune Municipal Corporation was renewed in 2016, SWaCH has continued to face similar challenges, such as lingering uncertainties around the willingness of the Pune Municipal Corporation to extend the MoU<sup>xxviii</sup>.

While the work of waste pickers is funded through user fees and the sale of recyclables, the financial support from the Pune Municipal Corporation remains crucial for the overall sustainability of the cooperative. Recently, there has been increasing pressure to shut down the cooperative's operations and replace it with private contractors for waste collection. In this context, SWaCH waste pickers who provide primary collection services are continually exposed to competing interests. Their continued engagement depends on political support or a secure position defined by legal instruments with a clear mandate and formal recognition<sup>xxix</sup>. The model also transformed the nature of waste pickers' work: they had to shift from flexible hours at the landfill sites to fixed schedules for doorstep collection. This meant that SWaCH waste pickers had to walk longer distances, interact regularly with households, and report at the same time every day. Their carrying capacity was also reduced, as they now had to collect wet waste and other materials in addition to recyclables.

While this was offset by increased income from user fees, it required waste pickers to adapt their daily routines and financial planning to adapt to the new livelihood structure<sup>xxx</sup>. Many households in Pune were already quite aware of solid waste management. However, making them understand the need for source separation, which was core to their business, remains a challenge. SWaCH had to coordinate a strategy that involved citizen-led volunteerism and proactive outreach campaigns<sup>xxxi</sup>.

## Lessons Learnt

SWaCH emerged from the long-standing advocacy of the KKPKP for the rights of waste pickers<sup>xvii</sup>. The model is rooted in the vision of a sustainable municipal solid waste management system that is inclusive and worker-centric<sup>xviii</sup>.

The initial focus on securing official recognition for waste pickers—through engagement with the community and local authorities—was pivotal. Sustained dialogue between the Pune Municipal Corporation and waste pickers laid the foundation for SWaCH as a “pro-poor public-private partnership”, ensuring the just integration of informal workers into formal municipal systems. KKPKP’s use of field-based research and data helped demonstrate the economic and environmental value of waste pickers’ work. This evidence-based advocacy was instrumental in influencing policy decisions and building acceptance for SWaCH within the Pune Municipal Corporation<sup>xviii</sup>.

The success of the SWaCH model lies in the institutional design, which supports long-term financial self-sufficiency while maintaining worker autonomy. While SWaCH waste pickers are not formal employees of the Pune Municipal Corporation, they deliver a reliable, efficient, and accountable primary collection service. The MoU between the Pune Municipal Corporation and SWaCH has been crucial in clarifying roles and responsibilities. This has facilitated successful collaboration between the two entities in managing the entire waste value chain: collection, processing, and end disposal<sup>xix</sup>. Moreover, the MoU has ensured SWaCH’s secure access to recyclables and freedom to trade them in the market, enabling SWaCH to leverage its expertise in handling recyclable materials<sup>xx</sup>. Furthermore, the introduction of a user fee created a direct accountability mechanism between citizens and service providers. Coupled with income from the sale of recyclables, this has become a major source of livelihood for waste pickers. However, to ensure sustainability, it remains essential for the Pune Municipal Corporation to finance critical components such as equipment, administrative costs, and worker welfare benefits.

## Considerations

The case of SWaCH Pune in India is a strong example of the important role Social and Solidarity Economy Organisations can play in enabling a just transition of the informal recycling sector. Encouraging waste pickers to organise and strengthening their participation in social dialogue and policy-making processes on waste management are critical steps. Moreover, by forming cooperatives, waste pickers are empowered to advocate for their rights, improve

working conditions, and enhance their negotiating power in engagements with municipalities and other stakeholders in the waste management ecosystem. To further support the just transition of the informal waste sector, learning from the SWaCH Pune model, governments, local authorities, NGOs, and the private sector can:

- Provide opportunities for waste picker organisations with tendering and contract processes for the provision of waste collection and recovery services—ensuring the same terms and conditions as other private companies. Preference could also be given to waste picker organisations when their work aligns with broader development objectives such as social inclusion, gender empowerment, and poverty alleviation.
- Clearly define the roles and responsibilities of all parties in agreements between Social and Solidarity Economy Organisations and other stakeholders. Ensure that protocols are in place to meet contractual obligations, including timely disbursement of funds and transparent grievance redressal mechanisms.
- Create supportive ecosystems that enable waste pickers organisations to thrive economically. Invest in capacity-building and leadership development within waste picker organisations to strengthen governance, financial literacy, negotiation skills, and digital competencies via platforms for knowledge exchange and collective action, empowering them to scale their impact further.
- Involve institutions (e.g. universities, civil society, research organisations) in data collection, policy review and analysis, and knowledge generation. This will help to demonstrate the significant role of the informal recycling sector in sustainable waste management, especially in countries of the Global South.
- Ensure access to social protection and legal identity, including occupational health services, insurance, pension schemes, and official identification cards. These protections are essential for enhancing the dignity, safety, and resilience of waste pickers.
- Promote public awareness campaigns that shift perceptions around waste work, reduce stigma, and highlight the environmental and economic contributions of waste picker organisations to society.

## Endnotes

**1** The Social and Solidarity Economy encompasses enterprises, organisations and other entities that are engaged in economic, social, and environmental activities to serve the collective and/or general interest, which are based on the principles of voluntary cooperation and mutual aid, democratic and/or participatory governance, autonomy and independence, and the primacy of people and social purpose over capital in the distribution and use of surpluses and/or profits as well as assets. ILO Resolution concerning decent work and the social and solidarity economy, 2022

**2** WIEGO | Women in Informal Employment Globalizing & Organizing is a global network that supports the movement of workers in informal employment.

**3** “This includes installation of pits and portable FRP (fibre-reinforced polymer) bins, providing the requisite coco-peat and safety materials, and assigning a trained waste-picker to maintain the composting unit. SWaCH also helps individual citizens maintain their existing pits, which makes them eligible to apply for a 5% rebate on property taxes as per Pune Municipal Corporation norms.” (source: <https://swachcoop.com/initiatives/composting-services/>)

## References

- I. Hasan, M.S., and Ghosal, S., (2023). Informal plastic waste recycling firms in rural eastern India: Implications for livelihood and health. *Clinical Epidemiology and Global Health*, Volume 21, 101286, ISSN 2213-3984, <https://doi.org/10.1016/j.cegh.2023.101286>, <https://www.sciencedirect.com/science/article/pii/S2213398423000738>
- II. Raveendran, G. and Vanek, J., (2020). Informal Workers in India: A Statistical Profile. Statistical Brief No 24 August (2020). [https://www.wiego.org/wp-content/uploads/2020/10/WIEGO\\_Statistical\\_Brief\\_N24\\_India.pdf](https://www.wiego.org/wp-content/uploads/2020/10/WIEGO_Statistical_Brief_N24_India.pdf).
- III. Chintan Environmental Research and Action Group & The Incubation Network, (2023). Santulan: Path to Equality for Women Wastepickers in India
- IV. The Circulate Initiative (2023). Mapping Local Plastic Recycling Supply Chains: Insights from Selected Cities in India. <https://www.thecirculateinitiative.org/wp-content/uploads/Mapping-Local-Plastic-Recycling-Supply-Chains-Insights-from-Selected-Cities-in-India.pdf>
- V. Chintan Environmental Research and Action Group. (2018). Wastepickers: Delhi's Forgotten Environmentalists? [https://www.chintan-india.org/sites/default/files/2019-09/Supreme%20Court%20Report\\_01.pdf](https://www.chintan-india.org/sites/default/files/2019-09/Supreme%20Court%20Report_01.pdf)
- VI. GAIA (Global Alliance for Incinerator Alternatives), (2023). ON THE GROUND: Stories of Waste Workers and Waste Pickers in Asia VOLUME 1: INDIA. <https://www.no-burn.org/wp-content/uploads/2023/02/On-the-Ground-Stories-of-Waste-Workers-and-Waste-Pickers-in-Asia-Volume-1-India.pdf>
- VII. The Alliance of Indian Wastepickers (AIW), <https://aiw.globalrec.org/>
- VIII. Poornima, C., and Narayanan., L. (2019). Organising the Unorganised: A Case Study of the Kagad Kach Patra Kashtakari Panchayat (Trade Union of Waste-pickers). [https://www.wiego.org/wp-content/uploads/2019/09/Chikarmane\\_Narayan\\_case-kkpkp.pdf](https://www.wiego.org/wp-content/uploads/2019/09/Chikarmane_Narayan_case-kkpkp.pdf)
- IX. Hashimoto, Y., and Sathe, N., (2015). Waste management and public-private partnership - integrating waste pickers' cooperative in India. [https://www.academia.edu/80544120/Waste\\_management\\_and\\_public\\_private\\_partnership\\_integrating\\_waste\\_pickers\\_cooperative\\_in\\_India](https://www.academia.edu/80544120/Waste_management_and_public_private_partnership_integrating_waste_pickers_cooperative_in_India)
- X. National Institute of Urban Affairs, Urban Management Consulting Pvt. Ltd (UMC) and Centre for Environment Education (CEE), (2014). Compendium of Good Practices in Solid Waste Management. [https://www.academia.edu/24047409/Compendium\\_of\\_Good\\_Practices\\_in\\_Solid\\_Waste\\_Management\\_2015](https://www.academia.edu/24047409/Compendium_of_Good_Practices_in_Solid_Waste_Management_2015)
- XI. SWaCH.SWaCH-PMC Partnership. <https://swachcoop.com/about/swach-PMC-partnership/>
- XII. Chikarmane, P., (2012). Integrating Waste Pickers into Municipal Solid Waste Management in Pune, India. WIEGO Policy

- Brief (Urban Policies) No 8. [https://www.wiego.org/wp-content/uploads/2019/09/Chikarmane\\_WIEGO\\_PB8.pdf](https://www.wiego.org/wp-content/uploads/2019/09/Chikarmane_WIEGO_PB8.pdf)
- XIII. Ministry of Housing and Urban Affairs Government of India & Deendayal Antyodaya Yojana National Urban Livelihoods Mission (2019). The Critical Role of Community Based Organizations in Urban Sanitation and Waste Management. A Compendium of Case Studies February 2019. <https://nulm.gov.in/PDF/ResourceMaterial/COMPENDIUMONBESTPRACTICE.pdf>
- XIV. Gawade, S. (2025). Empowering waste pickers with dignified jobs for environmental change. <https://india.mongabay.com/2025/01/empowering-waste-pickers-with-dignified-jobs-for-environmental-change/>
- XV. SWaCH. MLP collection. <https://swachcoop.com/initiatives/mlp-collection/>
- XVI. SWaCH, (2014). Newsletter, Volume 3, Issue 2, February 2014. <https://globalrec.org/wp-content/uploads/2014/03/Swach-Newsletter-English.pdf>
- XVII. SWaCH. SWaCH History, <https://swachcoop.com/about/history/>
- XVIII. Chikarmane, P. and Narayanan, L., (2023). Pune Waste Pickers' Innovative Efforts to Fund the Extension of Decent Work and Social Protection. WIEGO Resource Document No. 33. [https://swachcoop.com/wp-content/uploads/2024/02/wiego-resource-document-33\\_0.pdf](https://swachcoop.com/wp-content/uploads/2024/02/wiego-resource-document-33_0.pdf)
- XIX. <https://swachcoop.com/about/impact/>
- XX. Moora, H., and Barde, H., (2019). Innovative partnerships with informal workers to recover plastic waste, in an inclusive circular economy approach. Closing the Loop: Pune India Case Study. <https://www.unescap.org/resources/closing-loop-pune-india-case-study>
- XXI. Clean India Journal, (2021). SWaCH Model for a SWaCH Pune. <https://cleanindiajournal.com/swach-model-for-a-swachh-pune/>
- XXII. Narayanan, L. and Anantkrishnan, L., (2022). What We Waste: Household waste generation and recovery by waste pickers in Pune, Kashtakari Panchayat. <https://kashtakaripanchayat.org/wp-content/uploads/2024/05/What-We-Waste.pdf>
- XXIII. Siddharth Ghanshyam Singh, S.G., and Biswas, A., (2022). The plastic life-cycle, Centre for Science and Environment, New Delhi.
- XXIV. UMC and CEE, Involving waste-pickers to improve door-to-door collection PPP between Pune Municipal Corporation and SWaCH, a cooperative of self-employed waste-pickers for waste collection, Pune. <https://swachcoop.com/pdf/wastepickerstoimprovedoor-to-doorcollection.pdf>
- XXV. Urban Management Centre, (2019). The Critical Role of Community Based Organizations in Urban Sanitation and Waste Management A Compendium of Case Studies, February 2019. <https://nulm.gov.in/PDF/ResourceMaterial/COMPENDIUMONBESTPRACTICE.pdf>
- XXVI. Parsons, S., Maassen, A., and Galvin, M., (2019). Urban Transformations: In Pune, India, Waste Pickers Go from Trash to Treasure. World Resources Institute <https://www.wri.org/insights/urban-transformations-pune-india-waste-pickers-go-trash-treasure>
- XXVII. Bhaskar, A., and Chikarmane, P., (2012). The story of waste and its reclaimers: Organising waste collectors for better lives and livelihoods. <https://swachcoop.com/pdf/AnjorBhaskar.pdf>
- XXVIII. Raj, N., (2023). SwaCH Waste Pickers in Pune: Seeking a Sustainable Future Amid Uncertainty. <https://pune.news/city/pune/swach-waste-pickers-in-pune-seeking-a-sustainable-future-amid-uncertainty-68766/>
- XXIX. Parsons, S., Maassen, A., and Galvin, M., (2019). Urban Transformations: In Pune, India, Waste Pickers Go from Trash to Treasure. World Resources Institute <https://www.wri.org/insights/urban-transformations-pune-india-waste-pickers-go-trash-treasure>
- XXX. lilainteractions (2020). The Waste Pickers' Revolution: Organising for Livelihoods and Rights. A scorchingly insightful conversation about the waste pickers who keep the dream and possibility of Swachh Bharat alive by risking their own lives. <https://lilainteractions.in/the-waste-pickers-revolution-organising-for-livelihoods-and-rights/>
- XXXI. Center for Public Impact. A BCG Foundation. (2021). Waste Management Cooperative: Pune, India. <https://www.centreforpublicimpact.org/case-study/waste-management-cooperative-pune-india>



@GRIP-Avenda1