

Precarious Livelihoods And Socio-Economic Vulnerability Of Rag Pickers In Kodungaiyur, Chennai

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Abstract

This study explores the socio-economic vulnerabilities and precarious livelihoods of rag pickers in the Kodungaiyur dumpsite in Chennai. Rag pickers, despite contributing significantly to urban waste management, remain marginalized, working under hazardous and exploitative conditions. Based on a survey of 327 respondents, the study examines demographic profiles, income levels, health hazards, access to financial services, and interest in organized employment through cooperatives. The findings reveal widespread poverty, caste-based marginalization, and limited access to healthcare, frequent work-related injuries, and low levels of financial inclusion. The study concludes with policy recommendations focusing on health and safety measures, financial empowerment, skill development, and integration of rag pickers into formal waste management systems to ensure their social and economic upliftment.

Key Words Rag pickers, socio economic Vulnerability, Health hazards, Working condition, Unorganized employment, Dumpsite.

I. INTRODUCTION

Rag pickers in India play a vital role in waste management and their substantial contribution in the informal waste management system and recycling is often underestimated and there is significant marginalization of the rag pickers community. This empirical paper aims to provide a comprehensive analysis of the socio-economic challenges faced by rag pickers in Kodungaiyur, Chennai, highlighting their contributions to the economy regardless of the unfavorable conditions they endure. By examining factors such as income, education, and health, we can better understand the complexities of their livelihood. Furthermore, this research will explore the systemic barriers that hinder their access to basic services and opportunities for improvement in their living conditions. It is essential to recognize the role of rag pickers in waste management and their potential for contributing to sustainable practices in urban environments.

II. Reviews at International, National and Regional levels

According to Krishna V. et al. (2016) the term Rag Pickers refers to the people who collect rags or recyclable materials that can be sold for money. Another definition says that "Ragpicker" is a generic term denoting anyone who stoops to pick waste of any kind for a living. According to Bhosale and Korishetti (2013) rag picking is one of the substandard economic activities in the urban informal sector.

Iyer, S et.al (2023) found that the rag-pickers habitually made their settlements in areas where basic services are not provided by the government. They do not use safety gears and do not possess the technology-focused skills to enhance earning. Such situation creates a continuum of poverty which gets transgenerational often and suffering of the children continues. The findings accentuate multidimensional vulnerabilities through the lens of ascribed vulnerable status, apathy of government, existing skill-gap and non-inclusive developmental initiatives.

Rag picking is chiefly carried out by those who collect recyclable materials for a living. They face poor socioeconomic conditions working hard for minimal payment. Some families involve their young children to earn money. Unfortunately, they often develop unhealthy habits and engage in crime leading to reduced lifespan. (Mustafa et al, 2008). Many of them smoke beedi and cigarettes and some are also addicted to

drugs and indulge in prostitution and homosexuality, robbery and gambling. All this has affected their lives in several ways and shortened their lifespan considerably. (Saxena, 2012).

III. Statement of problem

Rag pickers in the Kodungaiyur dumpsite represent a marginalized and economically vulnerable population engaged in hazardous, informal work. They face multiple challenges including poor health, low income, lack of social security, and exclusion from formal systems. Despite contributing significantly to urban waste management, their work remains unrecognized and unregulated. Many suffer from work-related injuries, lack access to healthcare, and remain financially excluded. There is an urgent need to study their socio-economic conditions and recommend inclusive policies for their upliftment.

IV. Need for this Study

Rag pickers play a crucial role in waste management but remain socially invisible and economically marginalized. Understanding their living and working conditions is essential to address issues of poverty, health hazards, and social exclusion. The study is needed to highlight the gaps in policy, healthcare access, and livelihood security. It aims to provide data-driven insights for targeted welfare interventions. This research will contribute to promoting dignity, protection, and empowerment for this vulnerable community.

V. Objectives

1. To illustrate the demographic and socio-economic characteristics of the rag picker community in the Kodungaiyur dumpsite.
2. To assess the educational status, skill levels, income patterns, and health conditions—particularly occupational hazards—among rag pickers.
3. To suggest appropriate policy and programmatic interventions for improving the livelihood and well-being of rag pickers.

VI. Research methodology

Descriptive research Design was used and 327 respondents were chosen for primary data collection through purposive sampling. Semi Structured Interview Schedule was used to collect data. The secondary data was collected from journals, official websites and reports.

VII. Area of the Study: Kodungaiyur Dumpsite

The Project Location is Kodungaiyur Dumping Ground (KDG) which is a controlled waste dumping ground. KDG is located at the Northern part of Chennai city and this dumping ground is in operation since early 1980. The site is spread over an area of 342.91 acres.

VIII. Analysis, Results and Discussion

Table – 1 Distribution of the Respondents According to their Age Group

S.No.	Age Group	No. of Respondents	Percentage
1.	Below -20	29	8.9
2.	21-30	91	27.8
3.	31-40	87	26.6
4.	41-50	65	19.9
5.	51-60	37	11.3
6.	Above 61	18	5.5
Total		327	100

The age-wise distribution of respondents shows that a majority of rag pickers belong to the economically active age groups, with 27.8% in the 21–30 age range and 26.6% in the 31–40 group, together accounting for over half (54.4%) of the total respondents. This indicates that ragpicking is predominantly undertaken by young to middle-aged individuals. A significant proportion (19.9%) are aged between 41–50, while 11.3% fall within the 51–60 group, and 5.5% are above 61, suggesting that many continue this work into

older age, likely due to lack of alternative livelihood options. Notably, 8.9% of respondents are below 20 years of age, highlighting the concerning presence of adolescents in this hazardous informal occupation. Overall, the data reflects the intergenerational nature of vulnerability within the ragpicker community.

Table-2 Distribution of the Respondents According to their Sex

S.No.	Sex	No. of Respondents	Percentage
Male	Male	175	53.5
Female	Female	152	46.5
Total		327	100

gender-wise

distribution of respondents reveals that 53.5% of the rag pickers are male, while 46.5% are female, indicating a relatively balanced gender participation in rag picking. Although males form a slight majority, the substantial representation of females suggests that rag picking is not a male-dominated occupation but rather one that involves both men and women almost equally. This highlights the widespread economic vulnerability that compels individuals of all genders to engage in this informal and hazardous livelihood. It also underscores the need for gender-sensitive interventions, particularly considering the dual burden faced by women who often balance income-generating activities with household responsibilities.

Table – 3 Distribution of the Respondents According to their Religion

S.No.	Religion	No. of Respondents	Percentage
1.	Hindu	295	90.2
2.	Christian	23	7.0
3.	Muslim	9	2.8
Total		327	100

The religious composition of the respondents indicates that a vast majority of rag pickers in the Kodungaiyur area belong to the Hindu community, accounting for 90.2% of the total. Christians make up 7.0%, while Muslims constitute only 2.8%. This distribution suggests that rag picking in this region is predominantly undertaken by individuals from the Hindu community, possibly reflecting the broader demographic patterns or social and caste-based marginalization that influences access to livelihood options. The data also underscores the need to consider the socio-cultural background of the community while designing inclusive welfare and support programs.

Table – 4 Distribution of the Respondents According to their Community

S.No.	Community	No. of Respondents	Percentage
1.	SC	186	56.9
2.	ST	27	8.3
3.	MBC	43	13.1
4.	BC	71	21.7
Total		327	100

The community-wise distribution of respondents reveals that a significant majority of rag pickers belong to Scheduled Castes (SC), accounting for 56.9% of the total sample. This is followed by Backward Classes (BC) at 21.7%, Most Backward Classes (MBC) at 13.1% and Scheduled Tribes (ST) at 8.3%. The data clearly highlights that rag picking is predominantly pursued by individuals from socially marginalized and disadvantaged communities, particularly SCs and STs. This reflects the deep-rooted link between caste-based exclusion and engagement in low-income, informal, and hazardous occupations. It also points to the structural inequalities that limit access to better livelihood opportunities for these communities, emphasizing the need for targeted social justice and empowerment measures.

Table – 5 Distribution of the Respondents According to Availability of Bank account

S.No.	Response	No. of Respondents	Percentage
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1.	Yes	169	51.7
2.	No	158	48.3
Total		327	100

The data on bank account ownership among respondents shows that 51.7% have access to a bank account, while a significant 48.3% do not. This nearly equal split indicates a considerable gap in financial inclusion within the rag picker community. While just over half have been integrated into the formal banking system possibly due to government schemes or awareness initiatives the large proportion without bank accounts reflects persistent barriers such as lack of documentation, awareness, or accessibility. This exclusion limits their ability to save securely, access credit, or benefit from direct cash transfers and welfare schemes. Strengthening financial literacy and facilitating easier access to banking services is essential for promoting economic security and empowerment among rag pickers.

Fig – 1 Distribution of Respondents according to Types of Materials collected

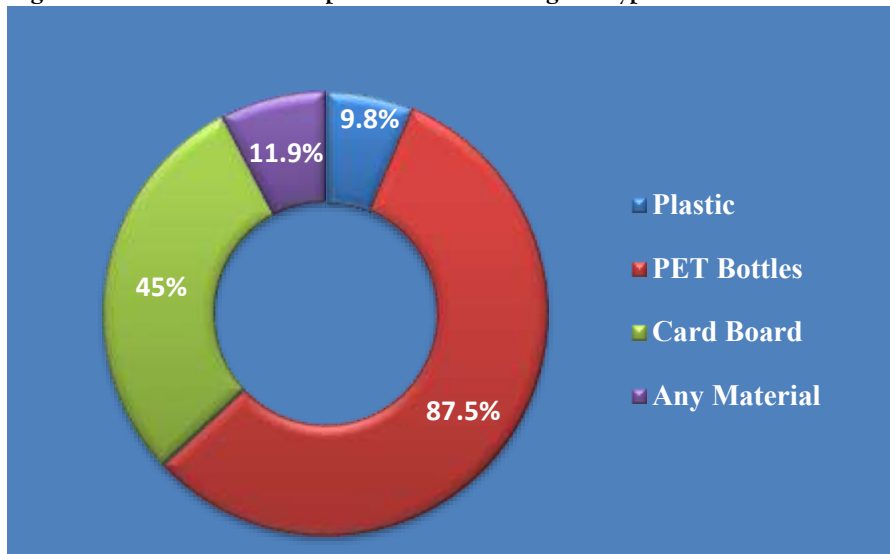


Figure-1Type of materials Collected

The table shows the types of materials collected by rag pickers, with PET bottles being the most common (87.5%), followed by cardboard (45%). Since many respondents collect multiple types of waste, the total percentage exceeds 100%. This reflects the adaptive and diversified livelihood strategies of rag pickers who aim to maximize their daily income by collecting whatever material is available and has resale value.

Table – 6 Distribution of the Respondents according to Quantity of materials Collected

S.No.	Quantity (in KG)	No. of Respondents	Percentage
1.	1-50 KG	313	95.7
2.	51-100 KG	9	2.8
3.	101-150 KG	4	1.2
4.	151 -200	1	.3
Total		327	100

The data on the quantity of materials collected by rag pickers shows that an overwhelming majority 95.7% collect between 1 to 50 kilograms of waste per day. Only a small fraction collects higher quantities: 2.8% gather 51–100 kg, 1.2% collect 101–150 kg, and just 0.3% manage 151–200 kg. This distribution indicates that most rag pickers operate on a small scale, likely limited by physical capacity, time, transport constraints, and availability of materials. The low quantity also reflects the physically demanding nature of the work

and the minimal returns for their effort, pointing to the precariousness of their livelihood and the urgent need for interventions that can enhance efficiency, earnings, and working conditions.

Table – 7 Distribution of the Respondents According to Income Per Month

S.No.	Income in Rs	No. of Respondents	Percentage
1.	Below 10,000	98	30.0
2.	10,001-20,000	166	50.8
3.	20,001-30,000	59	18.0
4.	30,001-40,000	2	.6
5.	40,001-50,000	2	.6
Total		327	100

The monthly income distribution of respondents shows that 50.8% earn between ₹10,001 and ₹20,000, making it the most common income range among rag pickers. This is followed by 30% who earn below ₹10,000, highlighting a substantial section of the community living on very low and unstable incomes. About 18% earn between ₹20,001 and ₹30,000, while only 0.6% each fall into the higher income brackets of ₹30,001–40,000 and ₹40,001–50,000. The data indicates that the majority of rag pickers earn modest to low monthly incomes, reflecting the informal, unregulated, and exploitative nature of this livelihood. It also underscores the economic vulnerability of this group and the need for targeted interventions such as wage support, skill development, and access to alternative employment opportunities to improve their financial stability.

Fig – 2 Distribution of the Respondents According to Injuries during work

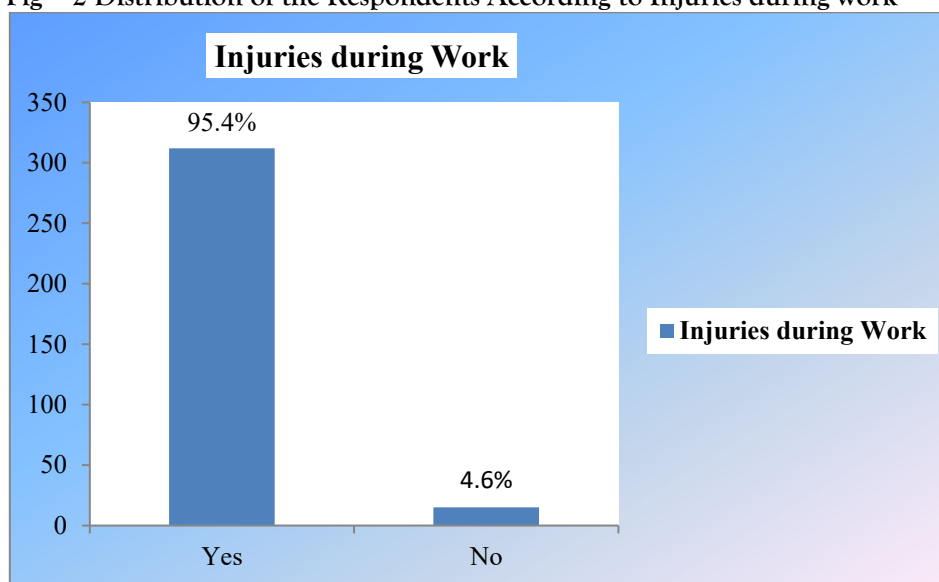


Figure 2 Injuries During work

The data on work-related injuries reveals that a striking 95.4% of the respondents have experienced injuries while working, while only 4.6% reported no such incidents. This overwhelmingly high percentage highlights the extremely hazardous and unsafe working conditions faced by rag pickers, who are frequently exposed to sharp objects, broken glass, medical waste, and toxic materials without any protective gear. The prevalence of injuries also reflects the lack of occupational safety measures, health awareness, and formal regulation in this informal sector. These findings strongly underscore the urgent need for safety interventions, including the provision of personal protective equipment (PPE), health check-ups, and training on safe waste handling practices, to protect and promote the health and dignity of this vulnerable workforce.

Fig – 3 Distribution of the Respondents According to Tetanus Shots in last one year

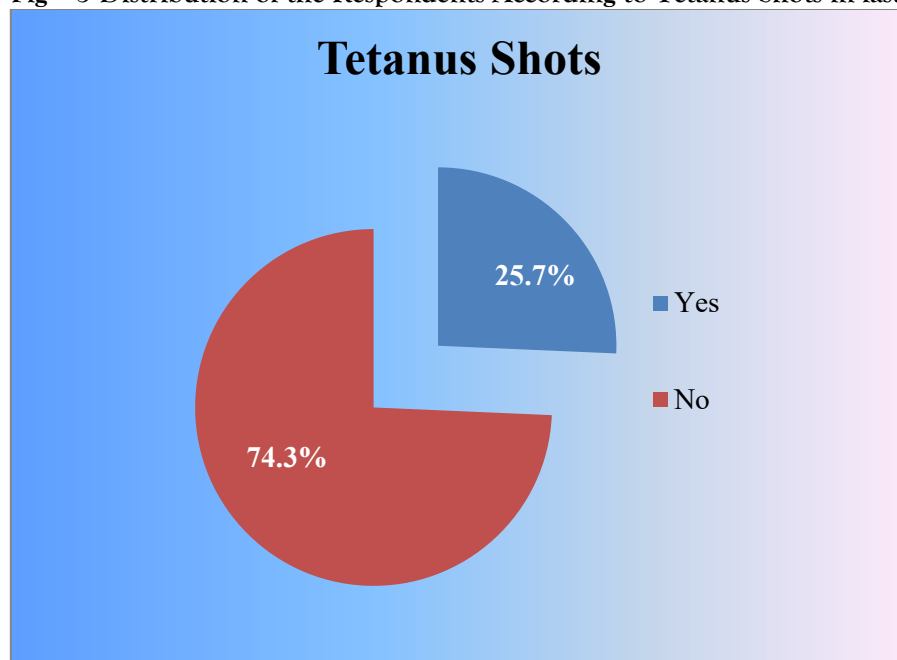


Figure 3 Tetanus Shots in Last One year

The data shows that only 25.7% of respondents received a tetanus shot in the past year, while a staggering 74.3% did not. This indicates a serious gap in preventive healthcare **access** among rag pickers, despite their high exposure to injuries and unsanitary conditions. The lack of timely tetanus vaccination poses significant health risks, as even minor cuts sustained during waste collection can lead to severe infections. This finding underscores the urgent need for regular medical camps, awareness programs, **and** free vaccination drives tailored specifically for rag pickers to improve their health and safety outcomes.

Table – 8 Distribution of Respondents according to Interest in more Organized Employment through Rag Pickers Cooperative

S.No.	Response	No. of Respondents	Percentage
1.	Yes	24	7.3
2.	No	303	92.7
Total		327	100

The data indicates that only 7.3% of respondents expressed interest in more organised employment through a rag pickers' cooperative, while a vast majority of 92.7% were not interested. This low level of interest may stem from multiple factors such as lack of awareness about cooperatives, fear of losing existing income sources, mistrust in formal systems, or reluctance to shift from independent work to structured group-based models. It reflects a need for capacity building, community sensitization, and demonstration of benefits associated with cooperative models. Empowering rag pickers with knowledge, support systems, and initial incentives could gradually foster a more positive attitude towards organised employment alternatives.

Fig-4 Age vs Income Sufficiency

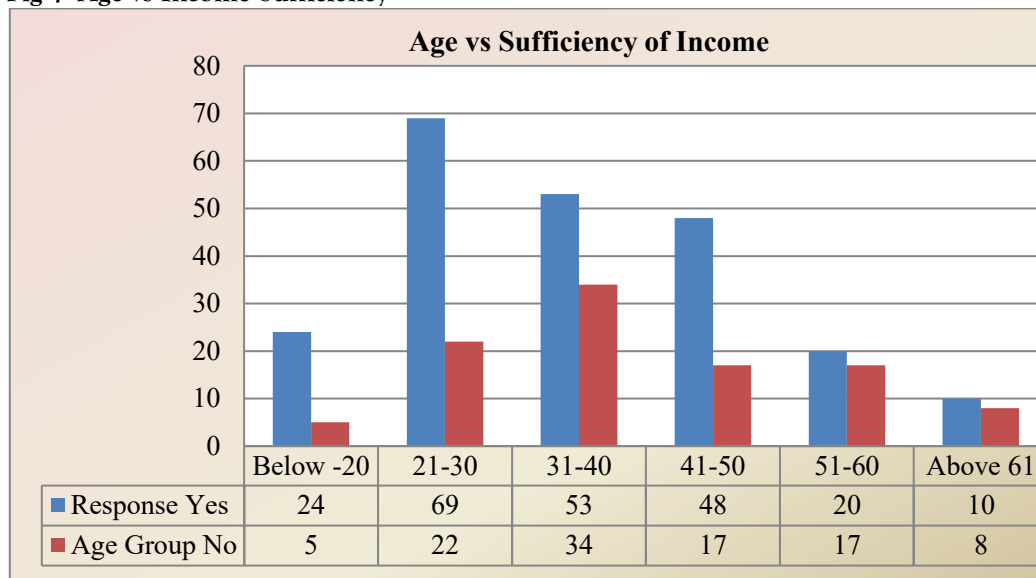


Figure 4 Age vs Sufficiency of Income

The above figure portrays Age vs Income Sufficiency among rag pickers, the highest number of respondents who reported sufficient income falls within the 21–30 age group (69 individuals), followed by the 31–40 group (53 individuals). While younger rag pickers, especially those below 20, also reported income sufficiency to some extent (24 individuals), older age groups displayed increasing economic vulnerability. For instance, among those aged 51–60, the number of respondents who said their income was sufficient (20) was almost equal to those who said it was not (17). Similarly, in the above 61 age group, 10 found their income sufficient, while 8 did not. This trend highlights that income sufficiency declines with age, indicating that older rag pickers may struggle to maintain the same income levels as their younger counterparts, likely due to physical limitations and declining work capacity. The data underscores the precarious nature of rag picking as a livelihood, particularly for the ageing population.

IX. Suggestions

1. Occupational Safety and Health

- Distribute Personal Protective Equipment (PPE) such as gloves, boots, and face masks to reduce injury and infection risk.
- Organize regular medical camps near the dumpsite offering free check-ups, tetanus vaccinations, and treatment for skin, respiratory, and musculoskeletal conditions.
- Introduce mobile healthcare vans for easy access to medical services, especially for elderly and women rag pickers.

2. Literacy and Financial Stability

- Conduct financial literacy workshops to help rag pickers understand banking, savings, and digital payments.
- Collaborate with banks and NGOs to open zero-balance bank accounts, link Aadhaar, and ensure access to direct benefit transfers (DBTs).
- Promote participation in micro-insurance schemes and government financial inclusion initiatives like Jan Dhan Yojana.

3. Skill Development for Better Livelihood Multifariousness

- a. Instigate vocational training programs (tailoring, plumbing, basic IT, etc.) tailored by age group to enhance alternative employment opportunities.
- b. Encourage formation of self-help groups (SHGs) and link them to credit and micro-enterprise support for setting up small businesses.
- c. Offer government-recognized certification for rag pickers to formalize their role in waste management and improve dignity of work.

4. Waste Management Integration

- a. Incorporate rag pickers in municipal solid waste management systems as recognized stakeholders (e.g., in waste segregation, recycling).
- b. Provide identity cards and designate safe collection zones under supervision to minimize exploitation and health risks.

5. Awareness and Social Mobilization

- a. Conduct awareness campaigns about the benefits of forming cooperatives or producer collectives, including better wages, legal protection, and bargaining power.
- b. Involve NGOs and social workers to facilitate training and confidence-building measures among hesitant communities.

6. Education and Child Protection

- a. Prevent early entry into rag picking by promoting child education and linking families to schemes like mid-day meals, scholarships, and free school kits.
- b. Establish bridge schools or learning centers near rag picker settlements for children already engaged in work.

7. Government Policy and Social Security

- a. Advocate for recognition of rag pickers as informal workers under labor and welfare laws.
- b. Extend EPF, ESI, and pension schemes to rag pickers through simplified procedures.
- c. Provide access to housing, sanitation, and clean drinking water in or near ragpicker communities under urban poverty alleviation programs.

X. Specific Recommendations Based on Key Findings

Finding	Specific Suggestion
Majority are aged 21–40	Provide skilling and upskilling programs for productive age groups.
Significant SC/ST representation	Target social protection schemes toward historically excluded communities.
48.3% without bank accounts	Improve access through mobile banking and Aadhaar-enabled services.
95.4% report injuries	Make PPE mandatory and provide first-aid training.
Only 25.7% had tetanus shots	Conduct quarterly free vaccination camps in waste-picking zones.
30% earn below ₹10,000/month	Introduce wage supplements and tie-ups with recyclers for better prices.
92.7% uninterested in cooperatives	Run pilot cooperative models with income incentives and success stories.

XI. CONCLUSION

The study on the socio-economic and occupational conditions of rag pickers in Kodungaiyur reveals a highly vulnerable population predominantly engaged in informal, unsafe, and low-income work. The majority of respondents are in their productive years (21–40), but the presence of children and elderly

individuals underscores the intergenerational nature of economic distress. Gender representation is nearly balanced, highlighting that both men and women share the burden of ragpicking. A large proportion of rag pickers belong to Scheduled Castes and other marginalized communities, confirming the deep-rooted link between caste-based exclusion and informal labor. The data also exposes several gaps in financial inclusion, healthcare access, and livelihood security. While some have access to bank accounts, nearly half remain excluded from the formal financial system. The vast majority reported frequent injuries, yet preventive health measures like tetanus vaccinations are grossly inadequate. Despite working long hours, many earn less than ₹20,000 per month, with income sufficiency varying across age groups. Most rag pickers collect only up to 50 kg of material daily, indicating limited returns for intense physical labor. Moreover, the lack of interest in joining organized employment models like cooperatives reflects either a lack of awareness or trust in formal structures. The cumulative findings of this study highlight the urgent need for targeted interventions to improve the health, livelihood, and dignity of rag pickers.

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