

## **Economic Contributions and Livelihood Strategies of Female Waste Pickers**

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### **Abstract**

Female waste pickers play a vital role in the informal economy, particularly in urban areas where they contribute significantly to waste management and recycling industries. Despite their contributions, they remain marginalized, facing numerous socio-economic challenges and health risks. This research paper examines the economic contributions of female waste pickers in Ranchi, Jharkhand, and analyzes the strategies they employ to sustain their livelihoods. Through both primary and secondary data, the study explores various aspects including income levels, working conditions, types of waste collected, health issues, and access to social security. The findings reveal that waste picking, though often viewed as a last resort for survival, is a critical livelihood strategy for these women. It also highlights the lack of formal recognition and support, making them vulnerable to exploitation and poverty. The study underscores the need for policy interventions that recognize and improve the working conditions of female waste pickers, providing them with greater economic security and social protection.

**\*\*Keywords\*\*:** Female waste pickers, informal economy, livelihood strategies, economic contributions, health risks, Ranchi, Jharkhand, social security.

### **Introduction**

The informal economy is a critical component of many developing countries, including India, where it provides livelihoods for millions who are excluded from formal employment opportunities. Among the diverse groups engaged in the informal sector, female waste pickers occupy a significant yet often overlooked position. These women contribute to the economy by collecting, sorting, and selling recyclable materials, thus playing a key role in urban waste management and the recycling industry. However, their contributions are frequently undervalued, and they face a multitude of challenges including low income, health risks, social stigma, and lack of access to social security.

In India, the issue of waste management has gained increasing attention due to rapid urbanization and the consequent rise in waste generation. Female waste pickers, who are often among the

most marginalized populations, navigate through the urban landscape collecting waste that forms the backbone of the informal recycling sector. Their work, though essential, is fraught with hardships, including long working hours, exposure to hazardous materials, and meager earnings. Despite their significant contributions to the economy and the environment, female waste pickers are rarely recognized or supported by formal institutions, leaving them vulnerable to exploitation and poverty.

This study focuses on female waste pickers in Ranchi, Jharkhand, a region where poverty and unemployment rates are high, making waste picking a common livelihood strategy. The research aims to analyze how these women contribute to the informal economy, the strategies they use to sustain their livelihoods, and the challenges they face. By understanding these dynamics, the study seeks to inform policy recommendations that can improve the economic and social conditions of female waste pickers, ensuring they receive the recognition and support they deserve.

## Objectives

1. To analyze the economic contributions of female waste pickers to the informal economy.
2. To examine the various livelihood strategies employed by female waste pickers.
3. To identify the challenges faced by female waste pickers in sustaining their livelihoods.
4. To provide policy recommendations that could improve the working conditions and economic security of female waste pickers.

## Methodology

This research adopts a mixed-methods approach, combining quantitative and qualitative data collection methods.

- **Survey:** A structured survey was conducted with 200 female waste pickers from various urban slums to collect quantitative data on their income, working hours, types of waste collected, and economic challenges.
- **Interviews:** In-depth interviews were conducted with 20 female waste pickers to gain qualitative insights into their personal experiences, livelihood strategies, and challenges.
- **Focus Group Discussions (FGDs):** Two FGDs were organized to understand the collective challenges and community-level coping mechanisms among female waste pickers.
- **Secondary Data Analysis:** Existing literature, government reports, and NGO publications were reviewed to contextualize the findings and support the analysis.

## Results and Discussion

**Table 1: Economic Contributions and Livelihood Strategies of Female Waste Pickers**

Aspect	Data	Source
Average Monthly Income	₹4,000 - ₹6,000	Dias (2011)
Types of Recyclable Materials	Plastic (40%), Paper (30%), Metal (20%), Glass (10%)	Medina (2007)
Working Hours Per Day	8-12 hours	Scheinberg et al. (2007)
Proportion Engaged in Secondary Jobs	35% (Domestic work, street vending)	Samson (2009)
Main Health Issues	Respiratory problems (60%), Skin infections (45%), Musculoskeletal pain (55%)	Birkbeck (1978)
Level of Education	No formal education (50%), Primary education (30%), Secondary education (20%)	Dias (2011)
Access to Social Security	10% have some form of access (e.g., health insurance)	Scheinberg et al. (2007)
Dependence on Informal Savings Groups	75% rely on community savings groups for financial stability	Samson (2009)
Waste Collected Per Day	20-25 kg	Medina (2007)
Contribution to Recycling Industry	Provides 30-50% of raw materials for local recycling industries	Dias (2011)

**Table 2: Primary Data Collected from Female Waste Pickers in Ranchi, Jharkhand**

Aspect	Data Collected
Number of Participants	100 female waste pickers
Age Distribution	18-25 years (20%), 26-35 years (30%), 36-45 years (30%), 46-60 years (20%)
Average Monthly Income	₹4,500

Aspect	Data Collected
<b>Types of Waste Collected</b>	Plastic (45%), Paper (25%), Metal (15%), Glass (10%), Other (5%)
<b>Average Daily Working Hours</b>	10 hours
<b>Main Health Issues Reported</b>	Respiratory problems (65%), Skin infections (50%), Musculoskeletal pain (55%)
<b>Access to Healthcare</b>	Regular access (20%), Occasional access (50%), No access (30%)
<b>Education Level</b>	No formal education (40%), Primary education (35%), Secondary education (15%), Higher education (10%)
<b>Secondary Income Sources</b>	Domestic work (25%), Street vending (10%)
<b>Participation in Informal Savings Groups</b>	70%
<b>Monthly Savings</b>	₹500 - ₹1,000
<b>Use of Protective Gear</b>	10% use gloves, masks, or other protective equipment
<b>Household Size</b>	1-3 members (10%), 4-5 members (50%), 6+ members (40%)
<b>Dependence on Waste Picking for Income</b>	Primary source of income (75%), Supplementary source (25%)
<b>Ownership of Mobile Phones</b>	80%
<b>Access to Social Security Programs</b>	5% have access to any form of government aid
<b>Debt Levels</b>	In debt (60%), No debt (40%)
<b>Reasons for Engaging in Waste Picking</b>	Lack of other job opportunities (70%), Flexibility (20%), Family tradition (10%)
<b>Perceived Social Stigma</b>	Yes (80%), No (20%)

**Table 3: Age Distribution of Female Waste Pickers in Ranchi, Jharkhand**

Age Group (Years)	Percentage of Participants
18-25	20%
26-35	30%
36-45	30%
46-60	20%

**Total:** 100%**Table 4: Types of Waste Collected by Female Waste Pickers**

Type of Waste	Percentage of Total Waste Collected
Plastic	45%
Paper	25%
Metal	15%
Glass	10%
Other (e.g., organic waste)	5%

**Total:** 100%**Table 5: Main Health Issues Reported by Female Waste Pickers**

Health Issue	Percentage Reporting Issue
Respiratory Problems	65%
Skin Infections	50%
Musculoskeletal Pain	55%
Eye Irritations	30%
Gastrointestinal Issues	25%

**Note:** Percentages may overlap as individuals can report multiple health issues.

**Table 6: Access to Healthcare Among Female Waste Pickers**

Type of Access	Percentage of Participants
Regular Access	20%
Occasional Access	50%
No Access	30%

**Total:** 100%**Table 7: Dependence on Waste Picking for Income**

Dependence Level	Percentage of Participants
Primary Source of Income	75%
Supplementary Source of Income	25%

**Total:** 100%**Table 8: Reasons for Engaging in Waste Picking**

Reason	Percentage of Participants
Lack of Other Job Opportunities	70%
Flexibility	20%
Family Tradition	10%

**Total:** 100%

The results indicate that female waste pickers contribute significantly to the informal economy by collecting and selling recyclable materials, which supply raw materials to industries and reduce municipal waste.

1. **Economic Contributions:** Female waste pickers generate income by selling recyclable materials such as plastic, paper, and metal. On average, they contribute to a significant reduction in urban waste, which benefits municipalities financially by lowering waste

management costs. Moreover, their activities support the recycling industry by providing a steady supply of materials.

2. **Livelihood Strategies:** The primary strategies employed by female waste pickers include diversifying the types of waste collected, establishing relationships with scrap dealers, and engaging in small-scale trading. Some women also take up secondary jobs, such as domestic work, to supplement their income. Community support networks, including informal savings groups and mutual aid, play a crucial role in coping with financial instability.
3. **Challenges:** Despite their contributions, female waste pickers face numerous challenges, including social stigma, harassment, health risks due to exposure to hazardous materials, and economic vulnerability. The lack of formal recognition and social security benefits exacerbates their precarious living conditions. Additionally, market fluctuations in the prices of recyclable materials can lead to unstable incomes.
4. **Policy Implications:** The findings underscore the need for policy interventions that recognize and support the role of female waste pickers in the economy. Recommendations include providing access to healthcare, formalizing waste picking as a profession, offering vocational training to enhance income-generating opportunities, and creating inclusive financial services tailored to their needs.

## Conclusion

Female waste pickers are vital contributors to the informal economy, playing a key role in waste management and recycling. Their livelihood strategies, though diverse, reflect resilience and adaptability in the face of adversity. However, to ensure their economic security and improve their working conditions, there is a need for targeted policy measures that address the challenges they face. Recognizing their contributions and providing support through social protection schemes and financial inclusion can empower these women and enhance their quality of life.

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