

A Study on Harithakarma Sena: Assistance and Problems with Special Reference to Kuzhalmannam Panchayath, Palakkad, Kerala

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ABSTRACT

Waste management has emerged as one of the most critical global environmental challenges of the 21st century. In response, the Government of Kerala established the Harithakarma Sena (HKS) in 2017 under the Haritha Kerala Mission — a community-based initiative primarily composed of women workers engaged in the collection, segregation, and recycling of non-biodegradable waste at the grassroots level. This study investigates the assistance provided to, and the problems faced by, Harithakarma Sena workers, with special reference to Kuzhalmannam Panchayath in Palakkad district. Using a descriptive and analytical research design, primary data were collected from 30 respondents through a structured questionnaire, and analyzed using simple percentage analysis. The findings indicate that HKS workers are exclusively women, predominantly aged 40–50, with SSLC-level qualifications and modest household incomes. While all workers receive basic health and safety provisions and additional remuneration, they face serious challenges including persistent health risks, complete absence of government-provided transportation, irregular training, inconsistent access to equipment, and limited community recognition. The study concludes with policy recommendations to strengthen worker welfare and improve the overall effectiveness of the HKS program.

Keywords: Harithakarma Sena, Waste Management, Kerala, Kuzhalmannam Panchayath, Women Empowerment, Decentralized Waste Management, Solid Waste

1. INTRODUCTION

1.1 Global Waste Management Context

Waste management is widely regarded as one of the most pressing environmental problems facing the world today. Every year, approximately 11.2 billion tonnes of solid waste are collected globally, contributing around 5% of total greenhouse gas emissions. The rapid growth in waste generation driven by population increase, urbanization, and evolving consumption habits has overwhelmed conventional disposal infrastructure in both developed and developing nations. Waste from electrical and electronic equipment alone contains dozens of hazardous substances posing long-term risks to ecosystems and human health.

The tension between economic development and environmental conservation is central to this challenge. While economic growth raises living standards, it simultaneously accelerates environmental degradation often with irreversible consequences. Sustainable development thus requires that both imperatives receive equal and integrated attention.

1.2 Kerala's Decentralized Waste Management Model

Kerala has responded to this challenge by implementing a decentralized waste management model at the panchayath level. The Haritha Kerala Mission was launched to promote eco-friendly practices, effective solid waste management, rejuvenation of water reserves, sanitation, and organic farming. The Suchitwa Mission, functioning as the Technical Support Group under the Local Self Government Department, provides technical and managerial support for waste management across the state, and also serves as the nodal agency for the Swachh Bharat Mission.

A cornerstone of these efforts is the Harithakarma Sena, a cadre of trained community workers engaged in door-to-door non-biodegradable waste collection, segregation, and forwarding waste to recycling units. HKS workers are predominantly women, linked to the Kudumbashree self-help group network for financial and organizational support. The program simultaneously pursues two goals: effective waste management and women's economic empowerment.

1.3 Kuzhalmannam Panchayath

Kuzhalmannam is a town in Palakkad district, Kerala. The HKS was introduced here in 2021. The panchayath has 17 wards, each served by 2 HKS workers, for a total workforce of 34 workers. Workers collect non-biodegradable waste on a monthly basis and channel it exclusively to recycling units. The average monthly salary is ₹10,000, supplemented by additional government remuneration.

2. STATEMENT OF THE PROBLEM

Despite Kerala's progressive waste management policies, on-ground implementation faces significant hurdles. The increasing volume of waste, inadequate infrastructure, limited public awareness, and insufficient support to frontline workers continue to undermine the effectiveness of the HKS program. There is a particular need to evaluate the socio-economic conditions of workers, the quality of institutional support they receive, and the operational challenges they encounter. This study addresses these gaps with specific reference to Kuzhalmannam Panchayath.

3. OBJECTIVES OF THE STUDY

1. To assess the socio-economic profile of Harithakarma Sena workers in Kuzhalmannam Panchayath..
2. To identify the major forms of assistance provided to Harithakarma Sena workers.
3. To examine the difficulties and challenges faced by Harithakarma Sena workers.

4. REVIEW OF LITERATURE

1. Rajendran and Nair (2017) investigated the Kerala model of community participation in waste management, highlighting HKS as a successful example of citizen involvement.
2. Ganesan (2017) observed that local governments often resist changes to solid waste management systems, creating implementation challenges.
3. Goris, Harish, and Bhavani (2017) noted that Kerala's structured waste management system — including color-coded, labeled bins — effectively simplifies sorting for users.
4. Kumar and Radhakrishnan (2018) found that HKS significantly improved garbage segregation and recycling rates, though scalability was constrained by infrastructural limitations.
5. Shinogi et al. (2018) identified NGO motivation and support as major drivers of the waste management movement, along with awareness programs on composting and bio-pesticides.

6. Noonjiyil et al. (2018) recommended continuous awareness programs and sustained supervision for effective household waste management in rural Kerala.
7. Joseph, Kallarakul, and Varghese (2019) emphasized that community support and involvement in waste management are essential for sustainable tourism development in the backwaters of south Kerala.
8. Sivakumar (2019) documented HKS's transformative impact on gender equality, highlighting how the program empowers women through economic participation and community leadership roles.
9. Das (2020) provided a comprehensive review of Kerala's waste management policies, focusing on the role of local bodies and HKS in their implementation.
10. Babu Ambat and Jayanthi (2022) concluded that Kerala's decentralized solid waste management system — encompassing source-level segregation, composting, and recycling — has had a markedly positive environmental impact.
11. Ekanthalu (2023) highlighted that rapid urbanization is a primary driver of construction and demolition waste in Kerala, with the 3R approach (Reduce, Reuse, Recycle) central to sustainable management.
12. Srinivasan (2023) suggested that mobile applications and social media campaigns can significantly improve awareness and participation in waste management, especially among younger generations.
13. Kumar S B.(2024) With substantial revenue generated from recycling projects, HKS supports women's financial independence and contributes to the broader goal of sustainable development.

5. RESEARCH METHODOLOGY

Research Design:: The study is descriptive and analytical in nature.

Population: This study was conducted among HKS workers, Kuzhalmannam Panchayath

Sampling Method: Purposive sampling method is used for the study

Sample Size 30 respondents of HKS workers, Kuzhalmannam Panchayath

Primary Data : Structured questionnaire is administered for data collection

Secondary Data: Books, journals, internet, websites etc. are the source of Secondary data

Analysis Tool : Simple percentage analysis is used for analysis and for presentation

tables and charts are used

6. DATA ANALYSIS AND FINDINGS

6.1 Socio-Economic Profile of Workers

- The majority of workers (53.33%) are aged 40–50 years, followed by 30% in the 30–40 age group. This reflects a middle-aged female workforce.
- All 30 respondents (100%) are female. The HKS workforce in Kuzhalmannam is entirely composed of women, with men involved only in transportation roles.
- 83.33% are married; 6.67% are widowed; 6.67% are unmarried; and 3.33% are divorced.
- 66.67% hold SSLC qualification — the minimum requirement for the role. 30% have completed higher secondary education, and only 3.33% are undergraduates.
- Ration Card Category: 46.67% hold Pink cards, 40% hold Blue cards, and 13.33% hold Yellow cards — indicating that the majority belong to lower-income households.
- Family Size: 53.33% have families of 2–4 members. 30% have 4–6 members.
- Earning Members: 43.33% of families have 2 earning members; 26.67% have 3, and another 26.67% have more than 4.

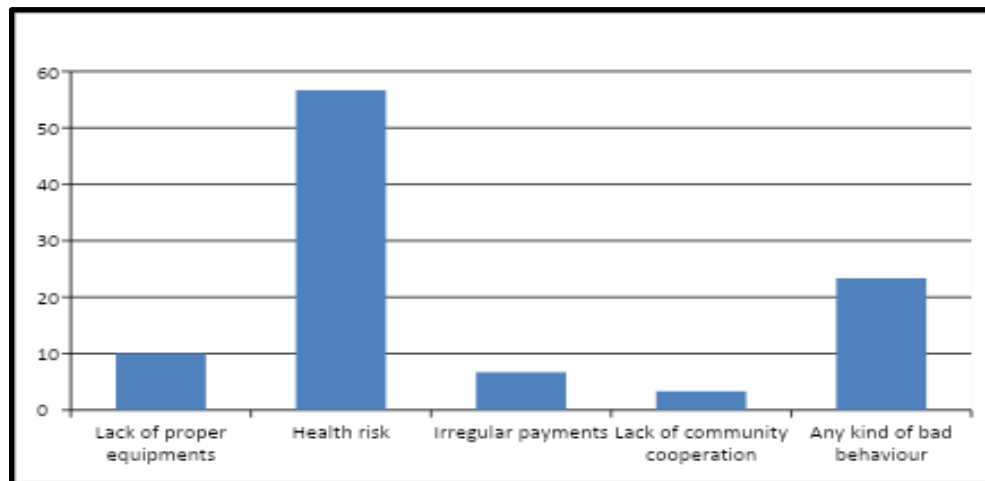
- Annual Family Income: 46.66% earn between ₹20,000–₹40,000 annually. Only 13.33% earn above ₹60,000, highlighting widespread economic vulnerability.
- Income Sufficiency: 53.33% say their income "sometimes" meets family needs. Only 13.33% report it "always" sufficient, indicating financial stress is common.
- Investment Capacity: 53.33% can "sometimes" invest for the future; only 10% say "always," and 16.67% say "never," pointing to limited long-term financial security.

6.2 Assistance Provided to Workers

- Additional Remuneration: 100% of workers receive additional government remuneration (such as bonuses) beyond their regular salary — a positive finding indicating baseline financial support.
- Full-Time Employment: 60% are "neutral" about whether they get full-time work in a month; only 23.33% agree they do. Employment regularity depends on the household density of assigned wards.
- Waste Type Handled: 100% handle exclusively non-biodegradable waste. No worker handles biodegradable, hazardous, or mixed waste.
- Waste Disposal Method: 100% forward collected waste to recycling units — reflecting a clean, environment-friendly disposal chain.
- Collection Frequency: 83.33% collect waste monthly; 16.67% do so once every two months.
- Work Experience: 46.66% have more than 3 years of experience; 30% have 2–3 years. The workforce is predominantly experienced.
- Health and Safety Provisions: 100% receive health and safety measures including gloves, masks, and health checkups — a significant institutional achievement. However, 30% feel these measures are not fully sufficient for their actual needs.
- Tools and Equipment: Only 20% always have proper tools; 60% have access only "sometimes"; 20% report no access — highlighting inconsistency in resource provisioning.
- Training and Workshops: 90% receive training only occasionally; just 10% receive it regularly. No worker is left without any training, but frequency is inadequate.
- Government Segregation Instructions: 50% say instructions are given "often"; 43.33% say "sometimes"; 6.67% say "never." Instructions are never given consistently or always.
- Support from Local Authorities: 46.67% rate local authority support as average; 36.67% as good; 10% as excellent; and 6.67% as poor.
- Transportation Facilities: 100% report that no transportation is provided by the government — the most critical infrastructural gap in the entire study.

6.3 Challenges Faced by Workers

Categories	No.of Respondents	Percentage
Health risk	17	56.67%
Bad behaviour from public	7	23.33%
Lack of proper equipment	3	10%
Irregular payments	2	6.67%
Lack of community cooperation	1	3.33%



- Health risk is the dominant challenge, faced by over half the workforce. Direct handling of non-biodegradable waste exposes workers to chemical irritants, sharp objects, and unhygienic conditions daily. Social disrespect and bad behavior from the public (23.33%) reflect the persistent stigma attached to sanitation work. Equipment shortages and payment irregularities further compound difficulties.
- Community Recognition: 50% believe the community values their work; the other 50% are "not sure." No respondent says their work is devalued, but uncertainty about recognition suggests public appreciation is inconsistent.
- Citizen Participation in Policy: 40% say only "someone" (minimal citizens) is involved in waste management policy selection; 3.33% report "all" citizens are involved — highlighting a major democratic deficit in policy formulation.
- Job Satisfaction: 50% are "neutral" about their working conditions; 40% are "sometimes satisfied"; 10% are "very satisfied." No worker reports dissatisfaction, indicating basic acceptance of conditions despite challenges.

7. SUMMARY OF KEY FINDINGS

- All HKS workers in Kuzhalmannam are women, mostly aged 40–50 with SSLC qualifications.
- The majority belong to the pink ration card category, reflecting lower middle income status.
- Annual family income for most workers falls in the ₹20,000–₹40,000 range — barely sufficient for household needs.
- All workers receive additional remuneration and health and safety measures.
- Only non-biodegradable waste is collected; disposal is done exclusively through recycling units.
- Training is available to all but is provided only occasionally to 90% of workers.
- No government transportation is provided — a unanimous finding across all 30 respondents.
- Health risk is the single biggest challenge, cited by 56.67% of respondents.
- Citizen involvement in policymaking is minimal; community recognition is uncertain for half the workforce.
- Overall job satisfaction is neutral to moderate — no dissatisfaction was reported.

8. SUGGESTIONS AND RECOMMENDATIONS

1. Provide Transportation: The government should immediately address the complete absence of transport support by providing dedicated vehicles or mobility allowances.
2. Upgrade Health and Safety: More comprehensive PPE should be provided, and occupational health screenings should be mandated annually.
3. Regularize Training: Training programs must be scheduled regularly — not merely occasionally — covering new waste management techniques, safety protocols, and equipment use.
4. Revise Wages: Given the physically demanding and health-hazardous nature of the work, periodic salary revision and access to social security, insurance, and pension schemes are essential.
5. Public Awareness and Recognition: Campaigns should be launched to educate citizens on waste segregation while fostering respect for HKS workers, thereby countering social stigma.
6. Enhance Citizen Participation: Formal mechanisms such as panchayath-level consultations and participatory planning should be introduced to ensure genuine citizen involvement in waste management policy.
7. Digital Tools: Mobile applications and social media platforms should be leveraged to strengthen communication between HKS workers, local bodies, and the public, particularly targeting younger residents.

9. CONCLUSION

The Harithakarma Sena represents a significant and commendable initiative in Kerala's decentralized waste management framework. In Kuzhalmannam Panchayath, HKS workers — all women — have built and sustained an effective system of monthly non-biodegradable waste collection and recycling, making a meaningful contribution to environmental cleanliness and community health.

This study has demonstrated that while the program's foundational structure is sound, several structural deficiencies must be urgently addressed. The complete lack of government-provided transportation, inconsistent access to tools, infrequent training, and persistent health risks are the key problem areas. The socio-economic vulnerability of workers — many of whom belong to low-income households and struggle to meet basic family needs — makes adequate institutional support not just desirable but morally imperative.

At the same time, the absence of worker dissatisfaction and the consistency of recycling-based disposal reflect the program's embedded value and the workers' strong commitment to their mission. Harithakarma Sena is an indispensable part of Kerala's green future, and its workers deserve recognition, respect, and robust support from both government institutions and the communities they serve.

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