

*“MECHANIZATION AS A TOOL FOR SOCIAL REFORM: EXAMINING THE LEGAL FRAMEWORK AND POLICY CHALLENGES IN ELIMINATING MANUAL SCAVENGING IN INDIA”.*

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**Abstract**

Manual scavenging, a practice which is deeply rooted to the practice of cleaning human excreta by hand, continues to persist in India. This practice disproportionately affects marginalized communities, perpetuating caste-based discrimination and violating fundamental human rights. While mechanization has emerged as a promising solution, its implementation remains inconsistent. This paper explores the historical context, legal frameworks, and societal implications of manual scavenging. The study emphasizes the need for a holistic approach that includes legal enforcement, technological innovation, societal change, and economic empowerment to uphold the dignity and rights of marginalized communities.

**KEYWORDS**

SOCIAL STIGMA, MANUAL SCAVENGING, CASTE DISCRIMINATION, HUMAN RIGHTS VIOLATION.

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## INTRODUCTION

Manual scavenging involves the manual removal of human excreta from dry latrines, sewers, and septic tanks. It is an inhumane practice that reflects India's lingering social inequalities and inadequate sanitation systems. Despite numerous attempts to eradicate it, manual scavenging continues to persist in various parts of the country. The issue transcends sanitation concerns and speaks to broader systemic challenges of caste discrimination, economic marginalization, and social exclusion. India's legal framework addressing the issue, and assess the potential of mechanization to serve as a sustainable solution. It also explores social challenges linked to the rehabilitation of those formerly engaged in this practice and offers recommendations for better implementation of policies and technological innovations. Despite being outlawed under The Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act, 2013 (hereafter referred to as "the Act"), this inhumane practice continues to plague Indian society. The persistence of manual scavenging reflects not only gaps in policy implementation but also deep-seated social inequities tied to caste-based discrimination.

## RESEARCH METHODOLOGY

This study adopts a doctrinal research method supplemented by empirical insights to thoroughly investigate the eradication of manual scavenging in India. The research methodology includes the following components:

- (1) **Primary Sources:** The research extensively examines legal frameworks such as the *Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act, 2013*, and the *Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993*. Additionally, Constitutional safeguards like Article 17, which outlaws untouchability, and Article 21, which guarantees the right to life and dignity, are explored. Judicial decisions, notably the Supreme Court's ruling in *Safai Karamchari Andolan v. Union of India (2014)*, are analyzed to highlight the judiciary's perspective on eliminating manual scavenging.
- (2) **Secondary Sources:** The study references a variety of secondary materials, including academic publications, books, official reports, and media accounts, to offer a broader understanding of the social, economic, and cultural aspects surrounding manual scavenging.

- (3) Empirical Analysis: Data on manual scavenging-related deaths, caste-based occupational patterns, and the outcomes of mechanization initiatives in cities like Indore and Chennai are examined. Information from agencies such as the National Commission for Safai Karamcharis (NCSK) and the Centre for Policy Research (CPR) is incorporated to provide evidence-based insights.
- (4) Comparative Study: The research draws on successful mechanized sanitation models from countries such as Japan, Sweden, and South Africa. These international practices are evaluated for their potential application in India to improve sanitation systems and reduce manual intervention.

## **LITERATURE REVIEW**

Studies highlight that manual scavenging persists due to caste discrimination and social exclusion. Legal frameworks like the *2013 Act* improved protections, but enforcement gaps remain. Technologies like Bandicoot Robots and sewer jetting machines have shown success in cities like Indore. However, challenges persist in skill development, financial aid, and social reintegration. International models from Japan and South Africa offer valuable insights for sustainable solutions.

## **HISTORICAL CONTEST**

Manual scavenging has its roots in India's caste system, where specific communities primarily Dalits were historically relegated to perform this degrading task. This practice perpetuates untouchability and social exclusion. Despite modernization efforts and legal bans since 1993, manual scavenging persists due to systemic neglect, societal indifference, and poor enforcement of laws.

Some of statistics are :-

**Caste Dynamics:-** Approximately 97% of manual scavengers belong to Dalit communities.

**Health Hazards:-** Workers face serve risks such as exposures to toxic gases, respiratory illnesses, and life- threatening accidents<sup>3</sup>.

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<sup>3</sup> Priya Singh, *Manual Scavenging in India: Challenges, Innovations, and Future Directions* (Dec. 10, 2024).

Underreporting:- The illegal nature of manual scavenging leads to underreporting, masking the true scale of the problem<sup>4</sup>.

## **LEGAL FRAMEWORK GOVERNING MANUAL SCAVENGING IN INDIA.**

[1].India's Constitution provides a robust framework for ensuring human dignity, equality, and the abolition of oppressive practices like manual scavenging.

Article 17: Prohibits untouchables a social evil closely tied to the persistence of manual scavenging.

Article 21: Ensures the right to life and dignity, which is severely compromised by manual scavenging.

Article 42: Calls for just and humane working conditions.

Article 46: Directs the State to protect weaker sections from social injustice and exploitation.

[2] The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993.

This law criminalized the construction of dry latrines and the employment of manual scavengers. However, poor enforcement and limited awareness rendered the law largely ineffective.

[3] The Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act, 2013.

This Prohibits manual scavenging in all forms, also requires authorities to identify and rehabilitate manual scavengers with skill development programs, financial support, and housing assistance. It establishes accountability measures for municipalities and local bodies to ensure mechanization of hazardous sanitation work<sup>5</sup>.

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<sup>4</sup> Arunbalaji Selvaraj, *Eradicating Manual Scavenging: A Step Toward Upholding Human Rights and Social Justice*, LSE Human Rights Blog (Jan. 11, 2024).

<sup>5</sup> Tracing the Progress of Government Schemes Towards Eradication of Manual Scavenging, Centre for Law & Policy Research (Apr. 1, 2022).

## Case laws

In *Safai Karamchari Andolan v. Union of India*(2014) the Supreme Court directed compensation for families of deceased workers and emphasized rehabilitation measures<sup>6</sup>

The *Manav Garima v State of Gujrat*(2013) case held civic authorities accountable for violations<sup>7</sup>.

Delhi High Court Orders (2021): The court criticized delays in implementing mechanized cleaning systems and called for stricter enforcement of laws banning manual scavenging.

## **SOCIAL AND ECONOMIC IMPACT OF MANUAL SCAVENGING**

### Caste-Based Discrimination

Manual scavenging is deeply intertwined with caste-based oppression where Dalits are disproportionately affected due to historical marginalization also societal stigma perpetuates exclusion from alternatives employment opportunities<sup>8</sup>.

### Economic Marginalization

Lack of education and vocational training limits upward mobility for former manual scavengers<sup>9</sup>.The rehabilitation programs often fails due to inadequate funding and poor implementation.

### Health Risks

Workers engaged in manual scavenging are routinely exposed to toxic gases, harmful pathogens, and hazardous chemicals, skin infections, Chronic respiratory diseases and

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<sup>6</sup> Ibid

<sup>7</sup> Lavanya Chetwani, *The Menace of Manual Scavenging in India: The Case for Stronger Legal Implementation*, Oxford Human Rights Hub (July 13, 2023).

<sup>8</sup> Arunbalaji Selvaraj, *Eradicating Manual Scavenging: A Step Toward Upholding Human Rights and Social Justice*, LSE Human Rights Blog (Jan. 11, 2024)

<sup>9</sup> Priya Singh, *Manual Scavenging in India: Challenges, Innovations, and Future Directions*, SSRN Electronic Journal (Dec. 10, 2024)

musculoskeletal disorders due to unsafe working conditions, and in extreme cases, death due to asphyxiation<sup>10</sup>.

### Mechanization as a Solution

Mechanization offers a viable alternative to eliminate manual scavenging by replacing human labor with machines for cleaning sewers and septic tanks.

### Government Initiatives

- (a) Swachh Bharat Mission (SBM): Focused on improving sanitation infrastructure and promoting the use of mechanized cleaning systems.
- (b) NAMASTE Scheme (2022): A targeted initiative to eliminate manual scavenging by equipping sanitation workers with advanced cleaning tools and ensuring their safety through protective gear and training.
- (c) Safaimitra Suraksha Challenge (2020): Encouraged cities to adopt mechanized sewer-cleaning solutions and ensure that no worker enters a sewer or septic tank without protective equipment<sup>11</sup>.
- (d) Swachhta Udyami Yojna (SUY):- Provides concessional loans for purchasing cleaning equipment
- (e) Self Employments Scheme for Rehabilitation of Manual Scavengers (SRMS):- Offers capital subsidies up to ₹5 lakhs for sanitation projects.

### Challenges in Implementation

- (a) Poor documentation by government agencies on measures taken.
- (b) Limited accountability mechanisms for municipal authorities.
- (c) Insufficient financial support for mechanization efforts.

### Technological Innovations

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<sup>10</sup> Priya Singh, *Manual Scavenging in India: Challenges, Innovations, and Future Directions*, SSRN Electronic Journal (Dec. 10, 2024)

<sup>11</sup> Arunbalaji Selvaraj, *Eradicating Manual Scavenging: A Step Toward Upholding Human Rights and Social Justice*, LSE Human Rights Blog (Jan. 11, 2024)

- (a) **Bandicoot Robots:** AI-driven robotic scavengers designed to clean manholes, eliminating the need for human entry. These robots are equipped with cameras, sensors, and precision tools to handle hazardous cleaning operations.
- (b) **Vacuum Suction Machines:** Used to extract waste from septic tanks efficiently without human intervention.
- (c) **Automated Sewer Jetting Machines:** These devices utilize high-pressure water jets to clear blockages, significantly reducing the need for manual intervention.

### Barriers to Mechanization

The high costs associated with procuring advanced equipment where the sanitation workers have limited access to financial resources also resistance from local authorities due to lack of awareness<sup>12</sup>.

### Judicial Oversight

Despite progressive legislation, judicial directives have often been undermined by administrative inefficiencies, Compensation schemes remain poorly implemented also the Civic authorities frequently evade accountability the Rehabilitation programs fail to address root causes like caste discrimination and lack of education.

### Success Stories

- (a) **Indore's Smart Sanitation Program:** Indore has achieved remarkable success in eliminating manual scavenging by embracing fully mechanized cleaning systems and creating awareness campaigns to facilitate social acceptance.
- (b) **Tamil Nadu's SHG-led Sanitation Model:** Women-led self-help groups have been instrumental in adopting mechanized cleaning equipment, ensuring economic independence for former manual scavengers.

### Comparative Analysis with other countries

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<sup>12</sup> Priya Singh, *Manual Scavenging in India: Challenges, Innovations, and Future Directions*, SSRN Electronic Journal (Dec. 10, 2024)

- Japan's Automated Waste Disposal System:- Japan's sanitation systems rely heavily on automation, ensuring that no human intervention is required in waste collection or sewage maintenance.
- South Africa's Community-Driven Sanitation Model:- South Africa adopted a participatory sanitation model that empowered communities to manage sanitation systems, reducing dependence on manual cleaning.

### Future Recommendations

Establish independent monitoring bodies to oversee enforcement of the 2013 Act and implement stricter penalties for violations and increase funding for R&D in sanitation technology also ensure timely deployment of mechanized equipment in high-risk areas. It offer skills training, educational support, and financial assistance to manual scavengers transitioning to alternative employment.

### Conclusion

The elimination of manual scavenging is not merely a legal or technological challenge; it is a moral imperative that reflects India's commitment to human dignity and social justice. Mechanization offers a promising pathway but must be complemented by robust legal enforcement, societal change, and economic empowerment initiatives.

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