

Health, Safety, and Dignity of Sanitation Workers: Labour Protection and Social Justice Perspectives

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Abstract: The sanitation sector in the modern, urbanized world, lacking competitiveness, accountability, and development, constitutes a tragic abomination perpetrated in the informal economy, despite a record of acknowledgements, accreditations, and access to basic labor protection and rights. The devoted work of sanitation workers remains invisible, unquantified, neglected, and ostracized due to the social stigma, discrimination, and caste-based inequalities, despite their outstanding contributions in facing innumerable challenges to protect public health and safety. To understand the plight of sanitation workers, this situational analysis examines current trends and social welfare policies to protect them from health hazards and occupational risks, thereby promoting well-being. The main aim of this article is to evaluate the psychosocial support through rehabilitation by exploring the critical human rights issues at the grassroots levels that lead to recommendations of suitable legal and legislative frameworks and policy recommendations by identifying the structural barriers to achieving actions by eliminating systematic inequalities. The recommendations of Rehabilitation measures, Welfare Schemes, and Social Work interventions facilitate a platform for the sanitation workers to voice out their concerns on emerging safety needs in day-to-day practices. Through an expanding scoping review, the study captures the crux of some of the intolerable, ordeal, traumatic experiences at the workplace, Health Hazards and Occupational Risks in Sewerage and Septic Tank Workers that are alarming to capture the attention of policy makers to advocate for a structural and functional transformation to protect the wellbeing and promote a legacy among the sanitation workers towards social equity. The study attempts to present illustrations that propose good practices, approaches, policies, standards, and regulations aimed at improving the working conditions of sanitation workers concomitantly improving the quality of life by spotlighting on the government initiative to address the systemic gaps in implementation that calls for a collective action through collaboration at various levels to overcome the vulnerabilities, insecurities and uncertainty adds a significance to the review to cope with the precarity and adhere to assessment on protective measures such as vaccinations, health check up's and health insurance. The scope of the study lies in building a strong evidence base that bridges the gap between sanitation infrastructure and the provision of sanitation services to ensure employee protection.

Keywords: sanitation workers; occupational risks; health and safety; equity; human dignity; rehabilitation; SDGs; social policy; collaborative actions

Introduction

Sanitation and solid waste management are the crucial, fundamental core to public health protection, development, and survival. Lack of proper sanitation facilities due to the systematic regulation to dispose, recycle, or waste treatment leads to adverse impact on human health and environment, indirectly escalating the economic health cost of the country. Henceforth, the promising modernisation, development, and population growth that accentuates the demand for food, shelter, and population indirectly emphasises the need for an effective and efficient sanitation system, innovative involving the proper segregation. India, in partnering with global agencies has made significant strides in improving sanitation through several mission like Swachh Bharat Abhiyan (Clean India Mission), National Action for Mechanized Sanitation Ecosystem (NAMASTE) still the challenges remain in resolving the demands and solicitation of the sanitary workers expressing the desire to deserve for dignity, esteem and responsible member of the society, safeguard the public health of the nation shielding the well-being of the citizens. The hierarchical system involving duties and the types of work underscores a structure ensuring clear lines of accountability and helps maintain order and efficiency. Sanitation workers play a key role in engaging into the most basic commitment of maintaining safe sanitation services in homes, schools, hospitals and other public settings, protecting the public health at the same time, becoming a fatal loser of robust self-good health exposed to wide range of physical and chemical agents, risk of injury, perilous heavy labour, and psychosocial impact of exclusivity. Inherently, the participation of the workers in this informal sector is compelled by poverty, illness, poor nutrition, migration, marginalisation, discrimination, and deprivation of their ability to live a basic, usual, and typical human life. The working status, legal implementation, and social aspects vary across the developing nations and high-income countries, drawing a line of vulnerability due to the unregulated labour practices or unenforced environmental and legal protections, and formulation of guidelines to access health and safety (Oza et al, 2022). However reduction of risk among the sanitation workers by expanding protection against illness, measures to ensure occupational health by providing capacity building training to use Personal Protective Equipment (PPE) and educated to practice basic hygiene practices and use the technology that satisfy the needs of the occupation along with the choice of clothing is the need for the hour to embrace protective gear and shield the self from the threat of being impacted brutally (Centre for Disease Control and Prevention, 2020). A range of sanitation technologies and approaches exists that adhere to the growing technology and innovation belonging to sanitation services levels within and across countries. Irrespective of being grouped into the formal employment or the informal employment, the workers are the key in maintaining onsite sanitation systems contribute to functional faecal sludge management systems; henceforth have to adhere to legal protection systems and social security upholding the dignity of sanitation workers (Sperandeo and Srinivasan, 2020; Sharif, 2009). Sanitation work supply chain and duties range from attendant, maintenance, sweeping, latrine cleaning, evacuating, operations of vacating, treatment and disposal. Sanitation workers in the growing economies are often informally employed, which makes it difficult to determine the estimates. Sanitation workers occupy an essential role in our daily lives and become a crucial public service nominee (Ngatia, 2023). Preventing consequences of poor sanitation acknowledgement is an essential step in professionalizing the sanitation workforce is an essential step in protecting, upholding the dignity of sanitation work. Assessment of risks and mitigations of the occupation risks are the rudimentary power strategies to empower the sanitation workers by motivating the workers by addressing concern like fair wages, medical and maternity benefits, accessibility to medical health care and security of employment is the key to keep cities and environment clean and functioning and engage more female workforce into the sector (Sapkota

et al, 2020). Warranting Dignity at work is concerned with the respect for human life and the inherent dignity of the person fundamentally inform statements of universal human rights at workplace (UNDESA and UNECLAC, 2015) emphasizing dignity of sanitation workers concerns physical and psychological integrity and empowerment over all a positive perception of sanitation workers in the society is a helpful agenda to be set to prioritize the needs of sanitation workers and help the community to rise up the quality of life. The overarching objectives of the article involves exploring the strategies and approaches for potential transformations of constitutional principles in sanitation sector and converting them into feasible course of action to ensure a good quality of life among the sanitation workers by understanding the challenges, emerging and re-emerging mental health concerns to restore dignity among the workers thereby building a stronger political and administrative scenario to salute the oblation of the workers and promote inclusive society.

Sanitation practice methods (Health, Sanitation, Hygiene)

Despite the fact that sanitation workers provide a liable and obligated service work to the society at the cost of their dignity, safety, health and life's traumatic experiences, they still are treated as inferior in comparison to employment in other social sectors. There are vulnerable times when their work becomes invisible, unquantified and ostracized fundamentally due to lack of acknowledgement, appreciation and esteemed service. Workers of manual scavenging hail from marginalized, low-income, class, caste background or religious minorities lacking accessibility to fundamental principles of human rights, health benefits, pension and legal protection (Acharya, 2017, 2019; Chhara; 2023; Acharya, 2017). The ILO-led initiative accounted for the adoption of dedicated strategies to address the decent work deficits of sanitation workers as a key contribution to SDG 6 focuses on ensuring access to clean water and sanitation for all and SDG 8 stands for decent work and economic growth. Regardless of the growing attention, there were struggles to restore sanitation workers' humanity in India since the early twentieth century (Yamauchi et al, 2022). The plight of sanitation workers is often invisible due to the lack of policy framework and legislative agendas and prejudiced caste based structures of Indian society, predominantly confined to community and caste system as "untouchables" (Acharya, 2017; Bhatnagar et al, 2022). Exploring the background in which the sanitation workers are underrepresented there are several disparities and adversities faced by the sanitation workers includes social discrimination, social stratification intensified by gender disparities (Tacchi et al, 2020). Though the contribution of several global entities like the World Bank, International Labour Organisation, Water Aid, which have conducted numerous studies, there is a dearth of comprehensive studies in order to restore the dignity of the sanitation workers (WHO, 2023). In a study conducted by (Dalberg, 2017), among the presence of five million sanitation workers, nearly two million engaged in high-risk jobs as informal workers lacking consistent recognition and protection under the prevailing regulatory framework (Cichon and Cichon, 2016). Current practices in the Indian scenario cut across the introduction of progressive laws and the mission to ensure the safety and dignity of the workers (Chetwani, 2023; Chen and Lund, 2016). Exploring the customary and prevailing situation calls for a fundamental policy encompassing the scope of rehabilitation, drawing a considerable gap to adhere to entitlement to benefits, suffers from inconsistencies and gaps in the supply chain (Bhatnagar et al, 2012). All that the action needed is the assessment of the policy framework in this critical sector to identify considerable challenges by a reliable data for the formulation and implementation of effective sanitation works policies to address the root cause of the expanding problem recognise the complete spectrum to uphold occupational health and safety measures

restoring dignity through provision of legitimate social security scheme benefits (Mishra, 2018; Puri et al, 2025).

Health, sanitation, and hygiene are considered invaluable foundational elements for National prosperity, often ignored in the lens of the source of wealth and well-being. Accentuating attention, embracing Engineering and Technology to develop innovative methods, and fostering global investment in the sanitation infrastructure significantly reduces disease burden, improves productivity, up-scales economic growth, and enhances the well-being of citizens. Directing human capital and resources on sanitation sector by crucial measurements of challenges to awareness and implementing accurate monitoring system is the hap towards decrease of incidence of illness, spread of epidemics, reducing the strain on health care systems and lowering health care expenditure(Dickin and Gabrielsson, 2023; Brown, 1997; Dangi, 2006), which indirectly influence the productivity of the nation to contribute to the growing economy, taking in account of which Swachh Bharat Mission in India was initiated to eliminate open defecation and improve solid waste management by raising awareness through campaigns(Suresh and Lavanya, 2023; GOI,2020). The objectives of the foresaid mission draws considerable attention of global partners with the prime objectives of eradicating manual scavenging bring about evolution and manifestation of a behaviour change regarding sanitation practices and finally capacity building and improving infrastructure to improve the solid waste management and progress toward Sustainable Development Goal 6 established by United Nations in 2015(Khanna and Pretika, 2015; Sinha and Sinha, 2016;kidd, 2015; Swatch Bharat mission phase II guidelines, 2020).The mission like the same served as an epitome for sanitation intervention to generate a disease-free nation (Gera and Ishaan, 2024; Gupta et al, 2016). Exploring the assessment of sanitation practices addressing inequalities related to water, sanitation, and hygiene is also critical from a social justice perspective and sustainable development. Beneath the numbers and statistics on the growing evidence the situations are uneven and certain groups of people are disproportionately impacted based on the geographical divide of urban-rural divide, division based on poor households, poverty intricate and the growing disparities (BMGF,2015; Blackett et al,2017; Chirgwin et al, 2021; WHO and UNICEF JMP, 2021) starting with basic, fundamental need of every citizen to frame policy adhering to sustainability as the key to address inequalities, challenges and progress towards Sustainable Development Goal (Stuart and Woodroffe et al, 2016; Winkler et al, 2014; Tilley et al, 2014). Adding to the emerging challenges to achieve wellbeing, produced disease burden and social inequality, addressing the issues of deaths related to the chronic, inhuman working conditions, frequent fatalities demand an urgent reform to ensure their quality and social wellbeing (NHRC, 2025). All countries dote on environmental sustainability as a valuable asset (United Nations Human Settlements Programme,2023). It impedes equal importance in engaging with individuals and organisations working at the grassroots levels to adhere to proper sanitation practice, pollutant-free, ensure sustainable use in order to protect the resources rich in nutrients and energy to restore and contribute to a more circular economy (BMGF, 2015; Tilley et al, 2014). Additionally, improving sanitation and water management is an overall strategic investment to the Nation, though hidden, that adds to the emergence of a health revolution (Allison and Aiello et al, 2008; Karaman,2006; Beukes and Naidoo,2015; Alam,2011).

Plight of Sanitation Workers

Since the early twentieth century, sanitation labour has been carried out by people belonging to minority communities and are referred to as “Untouchables” (Masuki, 2022). Later on, the leaders like Mahatma Gandhi and Ambedkar, along with government authorities and NGO’S,

addressed the poor circumstances of sanitation workers by addressing the moral aspect of scavenging and structural inequalities in pre-independence intervention, colliding with customary rights and legal actions, attempted to achieve the status of adequate sanitation (Chaplin, 2011; Claus, 2022). Desperately, sanitation workers are perceived to be low-class labourers bound to stereotyping and discrimination across all the social strata, the division of labour and their treatment remains deeply rooted in the connotation of impurity, dirt, a low status, and often an invisible status issue in India. Beyond gender, their low status was influenced by the intersection of bias of caste, class, ethnicity, and religion (Healey, 2013). Many times, employability related to waste and sanitation is reserved for migrant workers, homeless people, and other marginalised waste workers (Huynh, 2022; Aahuti, 2020; Wahab et al, 2014). In response to the stereotyping and continuous stigmatisation in the background of a latent socio-cultural economy, many Dalits migrated to the cities to escape caste discrimination (Khan, 2023). Suffering social discrimination, they faced access to information about relevant government services such as unemployment insurance, disability benefits, health care costs, and pensions, which aggravated the occupation-based environmental injustices lacking anticipated health protection for all (Sapkota et al, 2020). To date, sanitation workers frequently face social stigma and discrimination from the nature of the occupation, leading to social exclusion and limiting their social status from growing and developing in the economic pathway (Karki, 2022). Alongside the economic and social difficulties to live a decent standard of living, Sanitation workers experience psychological distress due to the violence, abuse, and sexual harassment, and neglect that compound the challenges (Karki et al, 2022). Failure to attend to their emotional needs and build resilience highlights the need to enrich a deeper understanding of the awe and eradicate the deep-rooted social and systemic inequalities.

Further, the occupational hazards experienced by the sanitation workers in the form of risk of contracting diseases, injuries, and experiencing violence can drive workers to use alcohol or drugs to cope, impacting their mental and physical health conditions (Madhumithra, 2021). Deficiency in developing, updating, and deploying scientific innovation into the sanitation infrastructure considerably affected the delivery of sanitation services, which caused health impact (Gada et al, 2023; Andersson et al, 2018). The health threat from the occupation includes exposure to harmful gases, cardiovascular degeneration, musculoskeletal disorders, infection, skin problems, and respiratory problems that cause several morbidities because of the lack of knowledge and best practices of safety devices (Sheeba et al, 2023). Over and above this, the overburdened and risky work conditions of the sanitary have remained unchanged over the century due to the failure to implement technological advancement and safe devices for evacuating dumps to disposal sites (Russel, 2017), and an assessment that ponders the strengths, weaknesses, identified practices, and areas of action as per the growing needs and custom priorities. Pronouncing a sound call for adding health facet as essential dimension of sanitation workers rights and dignity it paves an essential pathway to foster a discussion on achieving health and wellbeing (Sabde and Zodyley, 2008). Sanitation workers are at risk of range of disease as they are intact the hazardous and perilous waste includes Asthma (Singh and Ladusingh, 2017) Cholera, Typhoid (Faluim and Prince, 2012) Hepatitis (Yan et al, 2015) Polio and Gastroenteritis (Rijal et al, 2014). Sanitation workers fail to raise awareness on self-care and protection, leading to long-term illnesses. Ongoing exposure to intense weather chemicals, sun, and UV rays contributes to dermatological irritation and long-term vision impairments that are neglected at all levels for ensured interventions and rehabilitations (Karaman et al, 2006; Wahab et al, 2014; Bartram and Cairncross, 2010). However, India's complex labour market includes sanitation workers as a part of informal employment and has a non-unified system to expand social protection (Kelloway et al, 2023).

Legal and social protection measures and gaps

Considering sanitation workers as the backbone to protect Indian public health systems through services and management, the workers must be beneficiaries of central and state government social protection and welfare schemes such as pension, differently abled and education, women welfare assistance for swift access, and ensure wellbeing (TNUSSP, 2020). However, the legal framework focuses on improving practices in the sanitation cycle, addressing the gaps and needs of stakeholders by strengthening governance and accountability. To improve the quality of life of the workers, providing them with the benefits of improving livelihood, access to medical care, employability beyond education, and substance empowerment. The need to strengthen the sanitation regulation is vital to play a delivery of safe, inclusive and sustainable services (United Nation General Assembly, 2020) without effective regulation and policies the provision of sanitation services may be deficit posing threats and challenges for citizens through ineffective social protection and public health failure (Kamble, 2022; WHO,2010;2018;2020;2022). To gain visibility and appreciated for the service across the functions involving containment, emptying, transport and treatment the public to recognise several different roles such as de-sledging workers, community and public toilet cleaners, cleaners in school, offices and commercial, domestic workers, railway toilet cleaners, informal waste pickers and workers belonging to solid waste management systems at state level (Karki,2022). Connecting sanitation workers across different states is the key to achieving social security and welfare schemes instituted by the government and nurturing knowledge and awareness. There are several departments to collate to implement national and local level policies, including special tahsildar revenue, district revenue officer, district sanitation rehabilitation officer, DSWO, TADCO, TAMCO, SCA'S, NSK FDC, RRB'S, and nationalised banks (TNUSSP REPORT, 2024). To eliminate fatalities in sanitation work, a profiling and registration scheme called National Action for Mechanized Sanitation Ecosystem (NAMASTE) was introduced to ensure occupational safety training and distribution of personal protective equipment, including insurance coverage under Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, implemented by the Ministry of Social Justice and Empowerment and the Ministry of Housing and Urban Affairs. Swachh Bharat Mission to uphold the sanitation practices and improve the working conditions are two landmark schemes that stood for the welfare of the sanitation workers. After a while, enhancing the skill and employability became a critical set of needs to overcome poverty and unemployment, which was implemented by a special programme called PM- DAKSH (Pradhan Mantra DAKSHTA Aur Kushala Sampann Hitgrahi), which helped the sanitation workers to adhere to more dignified employment.

Spectrum of sanitation predicament involving issues, challenges, and obstacles to outreach a dignified disposition likely involves a critical assessment of standardisation of working conditions and development of Cohen policy solutions (Bhatnagar et al, 2022). This invisibility of the plight stems from systemic exclusion from government records, nonprofit, and private sector support through the underreporting of incidents that are reliable in nature. A dearth of comprehensive data on sanitation workers and their entitlement to benefits, sufferings due to inconsistencies of accurate assessment, lays a considerable gap for formulating policies and rehabilitation (Shaikh, 2018; Acharya and Patra, 2019). Another crucial gap that exists in the current system to improve the overall welfare of sanitation workers in India lack of profiling of workers as per the supply chain due to the current socio-political climate and leverages existing government structures that have failed to organize as per the formal or informal employment status (Chetwani, 2019). One other operating deficiency in the policy gaps is the failure to implement smart sanitation systems, optimising waste collection and automated waste

collection vehicles that may incur costs by reducing the hazardous outcomes, reducing the burden of sanitation workers (Anderson et al, 2018). Implementing digital technologies through an operational framework and policy integration to monitor infrastructure and optimise resource management, can improve decision-making in the sanitation systems. Important technologies can be used for mapping, monitoring, and assessing the impact of the steadfast commitment from the government, civil society, and private sector to ensure dignity and safety of the sanitation workers. The sanitary workers have survived the cruel irony of discrimination, bigotry, and systematic oppression; therefore, up-skilling the sanitary workers to use machinery, safety devices, and innovative smart solutions, replacing human direct contact with hazardous waste substances, and enrolling to access the welfare measures and legal protections.

Spheres of collective action

To shed light on the most neglected community despite their contribution to protect the public health, the community of sanitation workers is considered to be vulnerable (Babajanian, 2016). The spheres of collective actions involve the development of infrastructure to heighten the provision of sanitation services, reforming policy, legislation, and regulation to acknowledge and professionalise the sanitation workforce along the sanitation service chain, advocating for rights and dedicated commitment of sanitation workers for health care accessibility, and strengthening their voice to uphold dignity. Finally, build an evidence base for continued collaboration to achieve SDG-6, ensuring access to water and sanitation for all (WHO, 2018). uncovering the gaps in knowledge by assessing good quality information systems and data to create relevant policies, regulations, standards, and legislation that would systematically govern the good practices facilitates (Anand, 2007). Addressing mental health remains a growing concern as it impacts the well-being of the workers and is a determinant of the productivity and participation of several other scavengers to be employed in the sector (Beukes and Naidoo, 2015). Capturing the lessons learnt from the past and tracing the changes, and preparing for future development is the key to improving the quality of life of sanitation workers. Executing rehabilitation intervention across all parallel sectors can be embraced with a supportive network at all the local, national, and international levels to create safe opportunities and strengthen the global agenda, recognising all types of work carried out in the sanitation sector, enabling exercise of the voice to address the imbalance of power. The social challenges are addressed through exercising their fundamental basic rights involving operational procedures, protective mechanisms strengthen their confidence and self-respect they belong to a dignified social stratum (ILO, 2021) the prospects of the will progress in the areas to build a sustainable respect, free from burden of disease and improved standard of living (Brown, 1997; CDC, 2015 (Centre for Disease Control and Prevention); Dalberg Advisors, 2017; Day and Meagan, 2019).

Building an approach beyond the nature of their operations and working conditions implies formalisation, livelihood opportunities, and the intersection of gender norms (Kabeer, 2009; OECD, 2014). Creating a dignified culture involves overcoming inequalities, gender bias, and discrimination. Women, being a part of this informal sector, undergo gendered norms and perceptions that influence their vulnerability to gender-based violence (Bwengye-Kahororo, 2015). Women engaged in the sanitation sector are witnessed as they opted for a cross-role to play, as men to be employed in sanitation (Darvesh and Das, 2017). The status of the workers belonging to this sector depends on the countries where they share their workforce. The global assessment advances a common paradigm to evolve a justice approach to strengthen and reframe that pledge through the prism of human rights (UNOHCHR, 2008). A conceptual shift in the focus of workplace health and safety is the preliminary effort to restore the dignity of sanitation workers, adding to which the degree of fundamental attitudinal and behavioural

shifts can be effective in shaping the potency of sanitation workers. Expanding equality by forgoing religion, social status, gender, and caste is the means to manifest dignity and equality. Overcoming patterns of marginalisation demands a regulatory system to recognise, organise, and formalise the sanitation work. Ensuring the application of fundamental principles and encouraging social dialogue on the plight of sanitation workers can upskill, reskill, and promote global commitments. Defining the occupation of sanitation from a philosophical perspective, acknowledging the difference through the lens of justice can fill in the gap between people's well-being and harmful discriminatory practices. Creating an inclusive society that addresses the goals of equality, a sense of upholding dignity by protecting the interests adequate to human life (Hocking, 2017).

Expanding wellbeing through holistic rehabilitation

Quantifying the problems and stereotypical challenges existing among the sanitation workers, the population is witnessed as a left-alone community prone to untouchability, stereotypes, and stigmatization at work, boundary struggles, and struggles and protests to acquire protection. Improving the situation of sanitation workers is essentially important, along with other structural and functional inequalities. (Maduki, 2022; Eales and Kathy, 2005). Underlying this idea, exploring the sanitation methods priorities by evaluation of strengths, weaknesses, and arising threats of the existing system, along with the implementation and planning of set objectives, aligning resources constitutes setting goals to ensure safety and dignity of sanitation practices. The problem of risks is overcome by some of the smart management practices to mitigate the existing challenges. The hard-bound challenges in implementation are to be overcome by resource allocation improvement of functions within the organisation by discovering the areas of paucity for a leading competitive infrastructure based on global infrastructure and practising strategies of adaptation involving screening the growing business environment. Adoption of new trends by analysing limitations in the existing systems (Dos Santos, 2015). All the above quantify the structural and functional challenges in sanitation prioritising concerns in human resources, financial resources, operational methodology, and technological advancements influenced by several political factors of the emerging economies (Goncharuk et al, 2023). However, the problems of well-being, which are unquantifiable, are estimated only based on the qualitative expression of emotions, values, and morals attached to the dilemma at hand. Manual scavenging practices are abolished by the government provision of alternate occupations has been the top priority of the governmental agencies and the policy makers to prohibit the inhumane practices (GOI, Ministry of Social Justice and Empowerment, 2022).

Therefore, due to the invaluable contributions of sanitation workers, the mental health of the workers is often overlooked, which is often a matter of concern (Khan et al, 2023). Addressing mental health problems can improve productivity and overall quality of life, often leading to a targeted mental health intervention (Hussani and Joshi, 2024). Abolition of manual scavenging, Installation of float toilets, and criminalization of manual scavenging are considered to be milestones in the socio-political movement after independence. However, reflecting on the focus which has now shifted to the latter half of the twentieth century, the alliance of governments' efforts to enhance the standing position of sanitation workers (Masuki, 2022). In order to protect the best interests of the sanitation workers, the governments have allotted huge investments in building sanitation infrastructure and collection, disposal, and recycling. However, the deficiency lies in the lack of capacity building among the sanitation workers to equip themselves with the skills and competence to handle the equipment and derive benefit from it. Several plans and schemes are being implemented to acknowledge the response to

hazardous working conditions and replace them with safer treatment. Some of the key schemes that are implemented, realizing the importance of sanitation workers, are the sanitation workers' rehabilitation scheme. Convergence of the SBM scheme with the National Urban Livelihood Mission (NULM) for integrating them as a formal workforce and recently launched trademark schemes like the "NAMASTE" and "Swachh Bharat" turned the perspectives of the local citizens' attention to the sanitation workers beyond the stereotypes and social stigma that prevailed in the past (Claus et al,2012).

Historical outlook of witnessing sanitation workers as belonging to marginalised communities has changed over the years. The system that faced considerable exclusion, failed to avail services, like health care, education, and employment, turned out to be an effective and responsible community of the society by the governmental initiatives, knowledge, and awareness created by the nongovernmental organisations, and ensured social safety nets by the policy makers. Tragically, there were deaths in septic and sewer tanks due to exposure to hazardous substances, a lack of safety measures to protect themselves from the discernible, chronic, contagious infections. According to government statistics, 347 sanitation workers died in India over five years up to 2022 while cleaning sewers and septic tanks. This data was reported by the government in July 2022. The deaths occurred due to the hazardous nature of the work and a lack of safety precautions. Uttar Pradesh, Tamil Nadu, and Delhi accounted for 40% of these fatalities (Bhuyan, 2023). This worrying figures ring the bell of urgency reforms that ensures discussions on emerging challenges, dignity and rights from the human rights perspective (NHRC, 2025) there are several kinds of stigma surrounded although the attitudes of people are evolving consequent modernisation but the root crust of the sector remain resistance to change therefore there is a need for continued efforts to address the latent but a pressing issue and ensure that such violation are eradicated. The working conditions of the sanitation workers, like frequent exposure to the sun, cause long-term health hazards that are denied insurance coverage and facilitation of proper medical scrutiny, and the risk of exposure to hazardous gases limits their life expectancy by causing breathing trouble, pneumonia, etc.

Highlighting the real-life experiences, it is important to determine the extent of occupational health risk faced by the scavengers. It is imperative to design and implement policies that transform perspectives and deepen understanding of critical issues to ensure social justice in employment. One of the most secluded but very critical concerns is the gender discrimination that adds to expanding social injustice by inequalities, harassment, violence, and gender-based discrimination (Panneer et al,2025). In the sewage sectors, women constitute a major portion of the manual scavenging workforce. Only women can match the capacities of certain work, like sweeping and cleaning public toilets. Therefore, women are primarily assigned to the lowest-paying task of cleaning and equally contribute to the maintenance of the system. (Panneer,2019) Despite encountering several instances of discrimination and bias, male scavengers have easy access to health, rehabilitation, and career advancement opportunities, but women are denied as they belong to the informalisation and are predisposed to ill-treatment, wage disparities, and claims of funds for the losses. Moreover, a considerable percentage of men are often engaged in more skilled waste removal tasks involving machinery and transportation. Women who are unable to attend capacity building training across geographic transitions, household, and child care responsibilities lose the opportunity to be a part of the growing development and opportunities for growth.

Acknowledging the legislative, executive, and judicial efforts to restore the dignity of the workers, several advocacies can still promote the well-being by bringing out the empathetic woes of the sanitation workers that lead to struggles and plight-conquering mechanisms.

However, several scheme implementations are a bliss to uphold the dignity, bridge the gap to make them visible, recognize an acknowledgement, the initiatives are yet to be monitored for the provision of a systematic assessment, grievance monitoring system, and develop an inclusive society “leaving no one behind”. Therefore, the research and advocacy campaigns promote decent work, skills, and knowledge development, which can create an expected impact on the social status of sanitation workers. Designed with an explicit pro-poor focus that seeks to eradicate poverty and unemployment, the 2030 Agenda for Sustainable Development promises to “leave no one behind”. Upon prioritizing safety and health, providing equal opportunities for women, advocating for fair wages and employment benefits, and strengthening government initiatives can address the spectrum of problems to ensure social protections. One of the deficiencies to ensure dignity among sanitation workers is the lack of sufficient data, which is inaccurate, unattainable, and serves as a fundamental obstacle to adherence and compliance with legal protections. Often, fostering a precise understanding through the policy measures and legal instruments appears to be structurally inefficient and inadequately implemented. Underpinning the casual scarcity of the number of workers, a transparent registry can capture the scope of the sector and propose policy solutions.

Suggestions and way forward

Several international agencies propose a policy mission to actively improve the global sanitation sector to strengthen the system to achieve SDG 6, ensuring access to water and sanitation for all. The ultimate goal of the organisations is to collaborate with various stakeholders, including government, civil society organisations, the private sector, and local communities, to educate, progress, and attain goals through effective intervention. Breaking down the barriers by the use of safely managed equipment, ensuring protective and safe working conditions, respecting the dignity of sanitation workers, and acknowledging the sector for its invaluable contribution through the proposed policy solutions to uphold its contribution to the nation’s health. Analysing the key ideas, crucial historical pathways of development, and contemporary debates that voice out the social injustices is the key to building interdisciplinary knowledge and offers a new framework for practice in the angle of human rights and social justice (Sreya&Panneer,2019). Understanding the intersection of theory and practice offers philosophical links and moral principles to engage a path towards social acknowledgement.

1. Generating a system of the National Sanitation workforce Registry by systematic scrutiny of accountable personal information of Aadhaar and the public financial management system.
2. Disseminating information, awareness, and imparting rights education for mobile registration services for enrolment in collaboration with local NGOs and Panchayati Raj institutions
3. Reporting of a transparent record on tracking manhole death, contracting, detailed examination of the impact of dangerous occupation on the families to be subjected to rehabilitation
4. Provide an alternate livelihood for sanitation workers injured or met with accidents at work, along with insurance, both health and life, and medical aid.
5. Establish a special dedicated cell to report mandates about the status, plights, and challenges encountered along the enforced action.

6. Create an operational framework, developing several emerging schemes aligned with the national development goals, to integrate and develop a comprehensive policy document
7. Standardisation of norms, customisation of work culture along with the inputs gained on consensus from local labour unions, ILO standards, and legal experts.
8. Promote the adoption of smart solutions, robotics, and bio culture to recycle, safety standards in urban commercial congested localities, and encourage CSR funds to gain visibility.
9. Education through legal literacy drives for an attitudinal and behavioural change and builds awareness on legal rights to ensure safety and dignity among sanitation workers.
10. Customize the grievance mechanism based on the segregation of geographical locality to ensure customized redressal and fast-track dispute resolution.
11. Prioritise proper prometric education to upskill and reskill, cautioning on strict entry protocols, usage of protective devices, use scalable security, and effective rehabilitation.

Conclusion

Plight and struggles among sanitation workers are sporadic across centuries, but recent times have evolved, unfolding their primary necessity across growing degrees to deserve an equal position in society. Several approaches have been instigated to eliminate dehumanising forms of manual scavenging, victimisation, and untouchability by addressing and replacing the discrimination, bias, stereotypes, and prejudices of inequalities with modern, scientific, and democratic nation of acceptance based on the moral, ethical, and justice aspect, overcoming structural inequalities. As citizens of a developing nation, the liberation ideas of the sector revolve around the assertion of the modern civil and fundamental basic human rights not only by the workers but also by the recipients. At varied times and in very different social circumstances, the voice of the workers is muted, engraved in the system of poverty, discrimination, social prejudice, and deprivation, where the occupational rights of the individual are concealed, seeking to be acknowledged by the principles of fairness and equity. The immediate and intergenerational sufferings are brought into light by the implementation of social welfare schemes like NAMASTE and Swachh Bharat Abhiyan (Clean India Mission), aimed to promote just and fair inclusive societies accessible for all. The overall schematic initiatives by the government address the social protection, empowering the workers, community, and individuals to acquire social justice. Under the lens of justice, the overview and critical examination of literature provides promising directions for research by obtaining the real-world data that stimulated advocacy, policy framework, and networking to build a critical conceptual model that ensures dignity at the workplace. The concept of dignity is articulated by good practices embedded in social systems along with the formulation of responsive policies among central and state agencies. Reducing mortality by ensuring health and safety of the sanitation workers is the key to entering into a global commitment of 'sanitation for all'. The rising inequalities pose urgent challenges to achieve sustainable development by working towards "leaving no one behind" to advance existing practices.

Author Contributions

The authors contributed equally to the manuscript.

Conflicts of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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