BEST PRACTICES FROM INDIAN CITIES

SAFAIMITRA
SURAKSHASHA
AUR SAMMAAN

17TH AUGUST, 2022
देश ने स्वच्छ भारत मिशन के माध्यम से जो हासिल किया है, वो हमें आश्वस्त करता है कि हर भारतवासी अपने कर्तव्यों के लिए कितना संवेदनशील है, कितना संतर्क है। इस सफलता में भारत के हर नागरिक का योगदान है, सबका परिश्रम है और सबका पसीना है। और हमारे स्वच्छता कर्मी, हमारे सफाई मित्र, हर रोज झाड़ू उठाकर सड़कों को साफ करने वाले हमारे भाई-बहन, कूड़े की बदबू को बरास्त करते हुए कचरा साफ करने वाले हमारे साथी सच्चे अर्थ में इस अभियान के महानायक हैं। कोरोना के कठिन समय में उनके योगदान को देश ने करीब से देखा है, अनुभव किया है।

श्री नरेंद्र मोदी
भारत के मानसीय प्रधानमंत्री
In the last few years, India has moved a long way in ensuring improved sanitation systems coupled with the safety and welfare of our sanitation workers, as part of the Government of India’s flagship scheme Swachh Bharat Mission. Within this, it is particularly important to recognize the efforts being made by our SafaiMitaras who form the cornerstone of the sanitation ecosystem. Therefore, it has been especially encouraging to see the efforts being made by our cities and towns that are proactively engaging with the public to build awareness on safe desludging practices, facilitating sani-preneurship, building internal capacities, and safeguarding the health and well-being of SafaiMitaras. These efforts are equally complemented by numerous other sector partners, community based organizations, not-for-profits, and other non-governmental sector allies who continue to sustain the momentum at the grassroots and with cities.

It is a proud moment for India that over 500 cities have declared themselves ‘SafaiMitra Surakshit Shehar’ - with over 94 lighthouse cities leading this momentum - and more cities joining the pursuit of becoming safe for SafaiMitaras. It brings me immense pleasure to introduce the stories of 41 such cities curated in this document that have demonstrated good practices which can be scaled up and replicated by cities and towns in the country.

I would like to appreciate the states’ and cities’ efforts in contributing to this document. My special acknowledgment to the NFSSM Alliance for curating these case studies. I hope this document will inspire more cities to achieve freedom for their sanitation workers from hazardous sewer and septic tank cleaning through adopting the good practices under mechanization and institution strengthening, collectively transforming India as SafaiMitra Surakshit.

Shri Manoj Joshi
Secretary
Ministry of Housing & Urban Affairs,
Govt. of India,
New Delhi
Over the last few decades, rapid urbanization in India has created pockets of dense living conditions in cities. This overcrowding in urban areas has put significant pressure on the country’s sanitation systems, which are often on-site, especially in small towns.

The brunt of this crisis is borne by sanitation workers – who were previously, often untrained, and with limited access to equipment, safety gear, or resources, many of them from already marginalized communities. The hazardous nature of the work, involving manual desludging, made them disproportionately vulnerable to health and accident risks. At the same time, being an informal and unregulated sector, they were subject to financial challenges, compounded by inadequate access to financial and social security.

Acknowledging the gravity of the issue, the Government of India, over the last few years, has laid considerable emphasis on streamlining sanitation operations and formalizing the sector. A key initiative of the Ministry of Housing and Urban Affairs – SafaiMitra Suraksha Challenge – especially focuses on encouraging cities to transform manholes to machine holes, enabled through its three-pronged approach of (i) setting up institutional mechanisms such as Responsible Sanitation Authority (RSA) in districts, Emergency Response Sanitation Units (ERSUs), with citizen grievance addressal processes (ii) equipping cities with adequate machinery and safety gear for sanitation workers, and (iii) training sanitation workers to ensure the right set of skills are imparted, MoHUA aims to eliminate hazardous entry of sanitation workers into sewers and septic tanks.

I am pleased to note that this Compendium, titled ‘SafaiMitra Suraksha Aur Sammaan’, aims to highlight these very efforts and best practices with regard to ensuring the recognition and empowerment of SafaiMitras covering areas such as access to wages, health benefits, training, safety, capacity building, etc. The Compendium gives a pan-India view, highlighting the journey of 10+ states across the country as they effectively move from manhole to machine hole.

As we celebrate our country’s 75 years of independence with Azadi ka Amrut Mahotsav, it is hoped that through the collective efforts of governments, civil society, and NGOs, we can accelerate the momentum in achieving safety and dignity for our SafaiMitras.

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Overview

Sanitation has been a key focus area of development in India, with sustained political will towards improving the sector. In October 2019, urban India was declared open-defecation free, owing largely to the efforts made under the Swachh Bharat Mission (SBM) 1.0. In urban India, universal access to toilets has already been achieved, with the construction of 62 lakh household toilets and more than six lakh community and public toilets (MoHUA, GoI). Further, as of 2022, the government has provided 85 lakh sewer connections and constructed 1,800 MLD of sewage treatment facilities (MoHUA, GoI).

The Mission’s success in this sector would not have been possible without the efforts of sanitation workers—often overlooked and taken for granted in the chain of sanitation services. A study conducted by Dalberg Associates in 2018 estimated that India has approximately five million workers engaged in nine different categories of work across the sanitation value chain, including cleaning toilets; cleaning and emptying sewers, septic tanks, and drains; and operating sewage treatment plants (“Sanitation worker safety,” 2017). Despite their critical contribution to the sector, sanitation workers continue to face social discrimination, economic hardships, and health and safety issues.

Cognizant of these challenges, India has now increased its focus on ensuring the safety and well-being of sanitation workers, and this subject has entered the policy discourse. Building on the success of Swachh Bharat Mission 1.0 (Urban), SBM 2.0 has incorporated concepts of ‘equity’ and ‘inclusion’ as part of its implementation plan. The Mission’s guidelines focus on various measures to improve the living conditions of sanitation workers, preserve their dignity, and provide them with alternate livelihood opportunities. Over the years, several other initiatives have also been implemented at the national, state, and city level, to address the various issues that deprive sanitation workers of their right to dignified working and living conditions.

This compendium details the leading best practices needed for solving these complex and intersectional issues aimed ultimately at improving the lives of sanitation workers and ensuring a sustainable sanitation ecosystem for all. It covers schemes and interventions that focus on solving issues such as the invisibilization of sanitation workers; lack of access to safe work environments; non-availability of benefits and access to finance.

Challenges faced by sanitation workers

A majority of sanitation workers in India come from marginalized communities, due to the intergenerational, caste-linked nature of this occupation. This not only compounds the social stigma and discrimination that sanitation workers face, but also limits their chances of economic and social mobility. The precarious state of their employment within a largely informal sector deprives most workers of regular and decent wages, access to public welfare benefits, and the power to negotiate safety in their workplace (“Dalberg Study,” 2018). The reasons are lack of formal work contracts, no defined job roles, and non-availability of permanent work, etc. Furthermore, the hazardous nature of sanitation work is exacerbated by the lack of a) proper protective gear and safety equipment; b) understanding of and access to insurance and social security schemes; c) machines for mechanized cleaning; and d) formal systems of training and certifications. Over the years, successive governments have made investments in the sector. However, sanitation workers have been unable to fully benefit from these interventions or seek alternative livelihoods. One key reason for this is the lack of exhaustive enumeration of workers, which acts as an impediment to the workers in gaining access to government benefits and services.

In 2020, the complexities introduced by the COVID-19 pandemic brought the precarity of the sanitation workers to the forefront and compounded the existing issues; for example, the risk created by a lack of access to Personal Protective Equipment (PPEs). To be sure, during later periods of lockdown and thereafter, sanitation workers were lauded as “Frontline Warriors,” with a marked improvement in the social perception towards them. However, their contributions initially went unrecognized by the state. Their social exclusion increased due to their work in containment zones, and the systemic hindrances that they faced, did not allow them to easily seek alternative livelihood opportunities to offset the financial difficulties imposed by the pandemic (Urban Management Centre & WaterAid India, 2020).
### 1955
Civil Rights Act calling for abolition of manual scavenging

### 1977
Stricter implementation of Civil Rights Act

### 1993
MoHUA-GoI
Enactment of Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act

### 1999
NSKFDC, MoSJE - GoI
Mahila Samridhi Yojana (MSY) loans to women for alternative livelihood

### 2007
MoSJE - GoI
Introduction of Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)

### 2013
MoSJE - GoI
Start of The Prohibition of Employment of Manual Scavengers And Their Rehabilitation (PEMSR) Act

### 2014
MoHUA - GoI
Swachh Bharat Mission (Urban) for the identification and rehabilitation of manual scavengers

### 2014
NSKFDC, MoSJE - GoI
NSKFDC implemented several schemes including:
- Micro-Credit Finance and General Term Loan for alternative livelihood
- Mahila Adhikarita Yojana (MAY) loans to women for alternative livelihood
- Swacchta Udayami Yojana (SUY) and the Sanitary Mart (SM) Scheme to meet sanitation needs
- Green Business Scheme to set up businesses that tackle environmental problems
- Education Loan scheme for children of sanitation workers

### 2020
SafaiMitra Suraksha Challenge
MoHUA - GoI
Launched to prevent entry of septic tank workers into sewers of septic tanks and promoting mechanized cleaning

MoSJE - GoI
Skill development programmed for people from marginalized communities under the PM-DAKSH scheme

Garima Scheme
Government of Odisha
Scheme launched for safety and dignity of core sanitation workers

### 2022
MoHUA and MoSJE - GoI
National Action for Mechanised Ecosystem (NAMASTE)
- Enumerating workers engaged in sewer line and septic tank maintenance and cleaning
- Extending social and financial safety nets
- Providing livelihoods assistance (credit, training, and skilling support)
- Federating the sanitation workers as SHGs
- Ensuring occupational safety through appropriate PPE and safety devices.
Abolishing manual scavenging

Given the social and caste-based complexities tied with the sanitation sector in India, particularly with manual scavenging, the topic has always been one of political significance. The earliest government interventions in the sector were in 1955, with the Civil Rights Act calling for an abolition of manual scavenging on the grounds of caste discrimination. In 1977, this was revised to enable stricter implementation. However, both moves failed to yield significant results. Consequently, in 1993, the government prohibited and criminalized the employment of manual scavengers via the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993. It was through this Act that the National Commission for Safai Karamcharis was first set up with a mandate for five years, which was later extended indefinitely.

The scope of this Act was further expanded in 2013 to include the rehabilitation of manual scavengers (and their dependents) and inclusion of mechanization in sanitation work through the Prohibition of Employment of Manual Scavengers and Their Rehabilitation Act, 2013 (PEMSRA). Over the years, the National Safai Karamcharis Finance & Development Corporation (NSKFDC) has implemented several rehabilitation schemes for manual scavengers and their dependents, with a focus on skill development, one-time cash assistance (OTCA), loans for livelihood generation, scholarships for education, etc. Typically, such schemes are extended to beneficiaries by their respective corporations via State Channelling Agencies (SCA), nominated by the state governments. The NSKFDC has also nominated certain National and Regional Rural Banks (RRB), to serve as additional channelling agencies for these schemes.

Prior to the PEMSR Act, 2013, in 2007, the Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) was implemented by the NSKFDC, under the MoSJE (Ministry of Social Justice and Empowerment). The scheme provides identified manual scavengers an OTCA of Rs. 40,000, skill development training, loans of up to Rs. 15 lakhs, health insurance under the Ayushman Bharat (AB-PMJAY) Yojana, health camps and workshops on hazardous cleaning of sewers and septic tanks. As per a September 2020–21 report by the Standing Committee on Social Justice and Empowerment, approximately 69% of the 63,246 identified manual scavengers have received an OTCA and 15% (9,653) have received some voluntary skill development training (MoSJE, 2019–20). However, the Safai Karmachari Andolan (SKA) claims that the survey conducted to identify manual scavengers could be underreporting their numbers. Further, the implementation of the scheme in states such as Karnataka have been hindered due to a lack of clarity about the channelizing agency (Paliath, 2021).
India’s flagship efforts for improving sanitation

In 2014, the government adopted a more holistic approach to improving the sanitation space in India through the SBM. The Mission aimed to achieve “open-defecation free” (ODF) India by the 150th birth anniversary of Mahatma Gandhi, i.e., 2 October 2019. To meet this goal, an estimated 89.9 million toilets were built between 2014 and 2019. The mission’s overall objective also included goals such as eradicating manual scavenging, generating awareness and bringing about a behavioural change around sanitation practices, and augmenting the capacity of sanitation workers at the local level.

The second phase of the mission builds upon the gains of the first phase and aims to sustain India’s open-defecation free status while enhancing the solid and liquid waste management efforts and ensuring safe working conditions with a view to improving the lives of sanitation workers. Over the years, the SBM has turned into a “jan andolan,” given the deep involvement of communities and citizens in making it a success. This unique initiative, unlike any other government scheme, is not bound by budgetary constraints and converges with the success of a variety of parallel programmes such as Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Pradhan Mantri Awas Yojana (PMAY), SMART Cities Mission (SCM), National Mission for Clean Ganga and DAY-National Urban Livelihoods Mission (DAY-NULM). The DAY-NULM has issued the guidelines for convergence with SBM, to empower self-help groups (SHGs) by providing them with employment opportunities in the growing sanitation and waste management sector. The guidelines focus on the formation of SHGs of sanitation workers, waste pickers, transgenders, and other persons working in vulnerable occupations. Since 2019, the annual action plan mandates the states to dedicate 10% of the yearly target for formation of SHGs towards persons working in vulnerable occupations.

Source: https://sbmurban.org/
Socio-economic opportunities for sanitation workers

Sanitation workers play a pivotal role in the success of the SBM. To achieve the goals of the mission and meet the consequent demands for sanitary materials, the NSKFDC has implemented two key schemes—the Swachhta Udayami Yojana (SUY) and the Sanitary Mart (SM) scheme. Under SUY, sanitation workers are entitled to financial assistance of up to Rs. 25 lakhs for the construction, operation, and maintenance of pay-and-use community toilets under a public-private partnership model. This scheme also extends to the procurement and operation of sanitation-related vehicles. The SM scheme provides loans to safai karamcharis for setting up stores to sell sanitary products.

The NSKFDC also provides low-interest loans under schemes such as the Micro-Credit Finance and General Term Loan, to sanitation workers (including waste pickers) and their dependents, aimed at helping them set up income-generating activities or small businesses. Additionally, the NSKFDC provides sanitation workers (aged 18-45 years old) with employment-linked skills training through government training institutions and Sector Skill Councils (SSCs) promoted by the Ministry of Skill Development and Entrepreneurship (MoSDE). Since 2020–21 the NSKFDC, under the PM-DAKSH scheme, has rolled out skill development programmes for people from marginalized communities, including SC, ST, DNT, OBC, EBC, and transgenders. Special schemes have also been designed to address gender disparity; for example, the Mahila Adhikarita Yojana (MAY) and the Mahila Samridhi Yojana (MSY) provide loans to women safai karamcharis and their daughters to facilitate alternative income-generating activities and businesses. In the backdrop of climate change, the NSKFDC launched the Green Business Scheme, which extends loans to manual scavengers, safai karamcharis, and their dependents to help them set up businesses aimed at tackling environmental problems, such as mitigating pollution and greenhouse gas emissions.

Occupational Safety and Dignity for sanitation workers

Sanitation workers get exposed to hazardous gases and toxic wastes during the cleaning of sewers and septic tanks. This makes them vulnerable to major health risks and, in certain cases, even fatal health problems. To address this issue, the Ministry of Housing and Urban Affairs (MoHUA) introduced the Safaimitra Suraksha Challenge 2021, which aims at preventing manual cleaning of sewers and septic tanks by promoting mechanized cleaning. A total of 246 cities participated in the challenge, and data was collected from over 31,000 citizens across these cities. As part of the challenge, more than 47,000 PPE kits were distributed among Safaimitras, and more than 100 cities have established 24/7 helpline numbers — 14420, for safe cleaning of septic tanks/sewers and registering complaints related to hazardous cleaning. To further promote mechanized cleaning, the NSKFDC, under SSCs and supported by the MoHUA, organizes loan melas across the country to help Safaimitras avail loans for the procurement of sewer/septic tank cleaning machines/equipment. Several such melas have been conducted to date, for disbursement of loans to procure machines for maintenance of sewers and septic tanks.

Skill development training of Safaimitras has also been conducted through the support of the MoSJE via the NSKFDC in 115 cities, across Andhra Pradesh, Bihar, Chhattisgarh, Haryana, Jharkhand, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu, and Uttar Pradesh. This intensive training module is based on the “Recognition of Prior Learning” (RPL) model, comprising theoretical and practical sessions conducted by affiliated trainers from the Skill Council for Green Jobs (SCGJ). These sessions are specially designed for Safaimitras working in the field of sewer and septic tanks cleaning. To date, over 9,200 Safaimitras across more than 115 cities have already completed training.

The MoHUA has also designed standard uniform designs for different categories of sanitation workers across urban India. These include Swachhata Commandos (sanitation
workers engaged in underground cleaning of sewers and septic tanks), Safaimitras (engaged in road sweeping and waste collection), and Swachhata Supervisors/Operators. Uniforms will go a long way in dignifying sanitation work and changing the public perception of sanitation workers. Moreover, they will cement the idea that such workers are gainfully employed by the government or other agencies, to render paid and essential services.

The **Swachh Survekshan**, conducted by MoHUA since 2016 under SBM, is the world’s largest urban sanitation and cleanliness survey, focusing on cleanliness, hygiene, and sanitation in cities, and towns across India. It is conducted annually and encourages large-scale citizen participation to prevent deaths due to the cleaning of sewers and septic tanks (“Swachh Survekshan,” 2022). Launched as part of the SBM, the first survey was undertaken in 2016 and covered 73 cities (53 cities with a population of over a million, and all state capitals). By 2020, the survey had grown to cover 4,242 cities, thus taking the mantle of the largest cleanliness survey in the world.

Further, in 2022, the National Action for Mechanized Sanitation Ecosystem (NAMASTE) Scheme has been launched as a convergent effort between the Ministry of Housing and Urban Affairs and Ministry of Social Justice and Empowerment. NAMASTE would be implemented across 500 cities (from 2022 to 2026) with Urban Management Centre as knowledge partners. The salient components of the scheme are:

1. Enumerating workers engaged in sewer line and septic tank maintenance and cleaning
2. Extending social and financial safety nets
3. Providing livelihood assistance (credit, training, and skillling support)
4. Federating the sanitation workers as SHGs
5. Ensuring occupational safety through appropriate PPE and safety devices.

**Breaking the intergenerational nature of sanitation work**

Historically, sanitation work has been intergenerational, contained unjustly along caste lines. Owing to their poor access to social mobility, in most cases, the children of sanitation workers are initiated into the sanitation value chain at an early age. This problem is further exacerbated by the fact that families of sanitation workers lack access to many basic facilities such as education, and face systemic exclusion that further limits their access to opportunities for pursuing alternative livelihoods. To address this challenge, the NSKFDC has implemented an **Education Loan Scheme** for the children of sanitation workers, wherein students can avail of loans to pursue professional education, graduate and postgraduate level education, and job-oriented courses, both in India and abroad.

Additionally, the NSKFDC provides assistance to the SCAs for conducting **camps that raise awareness about the schemes** available for safai karamcharis and manual scavengers, reimbursing up to Rs. 30,000 per awareness camp (NSKFDC, 2022).

The policies and schemes discussed above are being implemented at the national level. The 74th Constitutional Amendment, which decentralized urban governance in India, also enabled ULBs to manage the sanitation needs of their respective jurisdictions. Thus, there is currently a range of schemes and initiatives for the benefit of sanitation workers at both the state and municipal levels.

One of the first states to launch a dedicated and convergent scheme for the safety and dignity of sanitation workers is Odisha, which announced the **Garima Scheme** in September 2020. The Housing and Urban Development Department, Government of Odisha, is leading the implementation of the scheme across 115 ULBs, has earmarked annual budgets, and is creating an enabling environment with technical support from the UMC.

However, since there is no single repository of leading practices, a significant gap remains between policy and practice on ground. This compendium attempts to address this gap by capturing and elaborating on the best practices towards empowering sanitation workers, while ensuring their safety and dignity.


7. https://safaimitrasurakshachallenge.org


CHAPTER 1

DEVELOPING A FAVOURABLE ECOSYSTEM FOR SANITATION WORKERS
The Prohibition of Employment as Manual Scavengers and their Rehabilitation (PEMSR) Act, 2013 has criminalized manual scavenging in India. However, the practice not only persists but in certain instances, the disregard for standard protocols of dealing with hazardous sewage waste has also resulted in the death of sanitation workers. To address the issue and prevent such deaths, the Ministry of Housing and Urban Affairs (MoHUA) conceptualized “Emergency Response Sanitation Units” (ERSU). It issued an advisory to the states in 2019, to set up these ERSUs with a standard helpline number—14420—to enable Urban Local Bodies (ULBs) to provide comprehensive and safe sanitation services by adhering to guidelines and SOPs. However, some states are yet to adopt this system. Even in states where the system has been incorporated, incidents of manual cleaning as well as associated injuries and fatality of sanitation workers have been reported. This is largely due to the inadequate implementation of guidelines and SOPs at the ULB level.

The case discussed in this chapter highlights the details of the ERSU and the 14420 advisory, along with their implementation in key states/cities, such as Odisha, Mysuru (Karnataka), Chandigarh, and Indore (Madhya Pradesh). In regions where SOPs have been implemented, no incidents of manual cleaning have been reported, resulting in improved occupational health, safety, and dignity of sanitation workers. Moreover, the stakeholders (especially local authorities and employers) are being held accountable for systematizing public service delivery. Other states can draw from the experience of these regions, to replicate their success in institutionalizing safe practices and mitigating dangers to sanitation workers.

CASE 01: SETTING UP ADMINISTRATIVE SYSTEMS TO ENSURE SANITATION WORKERS’ SAFETY

Implementing Organizations:
Ministry of Housing and Urban Affairs, Government of India,
Housing and Urban Development Department, Government of Odisha
Mysuru City Corporation; Municipal Corporation Chandigarh;
and Indore Municipal Corporation

Technical Partner:
Urban Management Centre for the Govt. of Odisha

Location:
Odisha,
Mysuru,
Chandigarh,
Indore

Partner Contact Details:
www.umcasia.org
(for Odisha)
Manual scavengers work in extremely vulnerable conditions and handle sludge unsafely. This puts them at a high risk of diseases and infections. Furthermore, entering confined spaces for cleaning leads to inhalation of toxic aerosols, abrasions from the co-disposed solid waste, and exposure to other physical risks from hazardous cleaning agents (WHO, 2018). Such working conditions have caused fatalities in the past, with 161 sanitation workers reportedly having died while cleaning sewers or septic tanks between 2015 and 2020 (Athawale, 2021), a cause for grave concern for the government.

The PEMSRA Act, 2013 prohibits manual scavenging and provides for the rehabilitation of manual scavengers and their families. The Act defines manual scavengers as: “persons engaged or employed for manually cleaning, carrying, disposing of, or otherwise handling in any manner, human excreta in an insanitary latrine or in an open drain or pit into which the human excreta from the insanitary latrines is disposed of, or on a railway track or in such other spaces or premises” (“PEMSRA,” 2013). It has provisions to ensure that no person, local authority, or any agency engages or employs, either directly or indirectly, any person or employee for manual cleaning of a sewer or a septic tank, without the employer providing protective gear and cleaning devices and ensuring safety precautions (“PEMSRA,” 2013).

However, with India continuing to record sanitation worker deaths despite these measures, MoHUA put together a repository of mechanized solutions for cleaning sewers and septic tanks, along with a directory of Indian vendors and manufacturers who offer such equipment. Finally, in 2019, it issued an advisory for all states to set up Emergency Response Sanitation Units (MoHUA, 2019), to be deployed in extreme situations where mechanical equipment cannot successfully clear a blocked sewer/septic tank. In these cases, when human intervention becomes critical for preventing the overflow of sewage into roads and public spaces and protecting the citizens from exposure to serious health hazards, the ERSUs can ensure that only trained Sewer Entry Professionals (SEPs) enter the confined spaces, with all required safety gears and protocols. Thus, ERSUs are units set up in ULBs “to provide professional, well trained, motivated, and appropriately equipped workforces for the maintenance and management of sewers and septic tanks, thereby eliminating the deaths caused by entry of workers into sewers and septic tanks without proper PPEs & training and nonadherence to security protocols” (MoHUA & Central Public Health and Environmental Engineering Organization, 2019). To streamline the system and encourage citizen-centric behavioural changes, MoHUA also introduced a dedicated 24/7 helpline number, 14420, to register complaints and provide real-time solutions on desludging or sewer overflow (MoHUA, 2021). This case details the provision for the setting up and functioning of ERSUs in different states across the country, and identifies certain best practices adopted by states.

Through the ERSU advisory, the Government of India has mandated the ULBs of state capitals and major cities (with either a Municipal Corporation or a Water Supply & Sewerage Board, or both) to set up ERSUs for providing well-trained and appropriately equipped workforce for the maintenance and management of sewers and septic tanks. The move was aimed at eliminating the risks of manual cleaning by providing services for the desludging of septic tanks and sewers in the cities through machines. Under the advisory, ERSUs would be responsible for meeting sanitation emergency requests from all smaller towns within a 75 km radius, and all such requests would be registered through the standardized national helpline number 14420.

The ERSUs consists of a Responsible Sanitation Authority (RSA), a telephone operator, duty supervisors (for instance, Sanitary Inspector/Jr Engineer (PHEDI)), and a team of Sewer Entry Professionals (SEPs) composed of authorized entrants and attendants. ERSUs are headed by a Responsible Sanitation Authority (RSA), who is accountable for the timely and safe delivery of sanitation services. One official—the Municipal Corporation Commissioner, Municipality Executive Officers, the District Collector/Magistrate, or the Head of Parastatal—gets appointed as the RSA, with their office premises designated as the ERSU headquarter, responsible for providing round-the-clock responses through the helpline number. The RSAs are mandated to procure adequate protective gears and maintain their optimal efficiency, and are vested with the power to authorize subordinate officers to carry out any duty related to the ERSUs.

Each ERSU team has two SEPs, including one authorized entrant and one attendant per 500 septic tanks, or up to 50 km of sewer length. SEPs must be selected from traditionally employed sanitation workers; certified to use all required equipment; and comprehensively trained in their job as well as safety/security measures, including the hazards of entering a confined space, so as to minimize the risk to their lives while cleaning the sewer/septic tanks. Professionally trained and equipped Private Sanitation Service Organizations (PSSOs) must be empanelled by the respective ULBs to provide an assured number of SEPs and equipment sets, depending on the size of the city. However, it is not mandatory to employ all the SEPs on permanent government strength to efficiently meet the cleaning requirements of a region.

In Odisha, the Housing and Urban Development Department (H&UDD) has initiated a mandatory structured and intensive course and certification for SEPs, to be conducted by the Odisha Water Academy (OWA), Bhubaneswar. Chandigarh has outsourced such trainings to third-party training institutes that certify SEPs for a year. In other regions such as Mysuru and Indore, the providers of the equipment and machinery deliver these training and certificates on a renewal basis.
Undertaken an extensive process of mechanization (as detailed in Chapter 5, “Procurement of Machines”), which has almost eliminated the need for manual cleaning since 2015. While addressing complaints, an initial site inspection is done with the duty supervisor, where a rodding machine is first used to determine if manual cleaning is unavoidable.

In Chandigarh, private workers work under the direct supervision of the Municipal Corporation/ERSU. The city has not undertaken any manual cleaning of sewer lines in recent times. In most instances where machines fail to clean the line, manual cleaning is not preferred; instead, sewer lines are demolished for repair. Under unavoidable circumstances, gas detectors are used before any cleaning can be approved and commenced.

In Indore, machine cleaning is done through a set route for each team. In case of overscheduling, spare machines are deployed from the Corporation’s workshop to ensure prompt redressal of complaints.

As per the directive by MoHUA, the ULBs of these states have also set up the ERSU helpline number (14420), which residents and institutions can call for cleaning septic tanks or sewers. The telephone operator records and forwards the request to the duty supervisor. The duty supervisor collects information about the sewer/septic tank from the owner or official previously in charge of the site. They may also perform a site visit, identify potential hazards, and make a report to be submitted to the RSA. If machine cleaning/suction of sewer or septic tank is feasible, the task is undertaken by contractors/vendors or the empanelled PSSOs. In case manual entry is unavoidable, the duty supervisor must obtain written permission from the RSA and then instruct the telephone operator to arrange the SEP team, On Priority Call paramedics, ambulance, and police personnel. The duty supervisor oversees the entire sewer/septic tank entry process, arranges the necessary PPE and site equipment either through the PSSO or from the ERSU store, and has the authority to call off the entry in case they sense any danger that cannot be mitigated.

Unauthorized manual entry is strictly prohibited, and the RSA is liable for action in case of contravention of the Act. The first contravention carries a fine of up to Rs. 2 lakhs, or imprisonment for up to two years or both, and any subsequent contraventions carry a fine of up to Rs. 5 lakhs, or imprisonment for up to five years or both (“PEMSRA,” 2013).

**Implementation Approach**

The implementation of the ERSU guidelines has systematized the process of sanitation delivery. While broad guidelines exist at the national level, some states have modified how they implement these through their own SOPs. Odisha has optimized the delivery system through proper documentation and approvals at every step of the process:

- A pre-printed command certificate is issued to the PSSOs or ULB staff by the duty supervisor for mechanical cleaning.
- If mechanical cleaning cannot resolve the issue, a “Hazard Assessment Report” detailing the unavoidable need for manual entry and situation at site is prepared by the duty supervisors and approved in writing by the RSA.
- The RSA can provide a “confined space entry” permit that allows human entry subject to the availability of a trained, fully equipped, and physically and mentally fit SEP team.
- SEPs provide a signed self-declaration that they are fit for manual cleaning and are aware of the risks and hazards, and then the duty supervisor submits the work completion status report to the RSA at the end of the cleaning.

In Mysuru, sanitation workers in prime health condition are selected as SEPs, based not only on their work experience as manual cleaners but also on the interest expressed by them to continue being engaged in such roles by the Municipal Corporation. Further, Mysuru has undertaken an extensive process of mechanization (as detailed in Chapter 5, “Procurement of Machines”), which has almost eliminated the need for manual cleaning since 2015. While addressing complaints, an initial site inspection is done with the duty supervisor, where a rodding machine is first used to determine if manual cleaning is unavoidable.
Ensuring accountability: While the PEMSR Act, 2013 bans manual scavenging, the ERSUs and 14420 helpline provide the system and infrastructure to achieve this goal. The national-level advisory for establishing ERSUs encourages all the states to issue their own guidelines for a structured cleaning/desludging process, which was previously informal and allowed for minimal accountability within the system, leading to the deaths of sanitation workers while cleaning sewers and septic tanks. The new system also enables states and ULBs to introduce checkpoints at every stage, with various formats for monitoring compliances and holding stakeholders responsible wherever possible. Practices from various states and cities that have been successful are detailed below.

Streamlined reporting mechanism: Odisha has developed a smooth system of reporting and ensuring accountability with the support of the UMC, by recording each clean-up at every stage—from the receipt of the complaint, to the assessments made by the duty supervisor and the permissions granted by the RSA. They monitor the compliance of each ERSU through geo-tagged photos shared on a common WhatsApp group, which enables them to maintain parity between different centres in the state. Similarly, Chandigarh has supported the ‘14420’ helpline with a 24/7 call centre and a computerized system for tracking complaints via their website and WhatsApp messages. This allows all matters to be escalated to the next person in charge, in the event that a clean-up is not performed on time.

Integrating existing systems: In Mysuru, a task force similar to the SEP team was formed in 2011. This has since morphed into ERSUs, allowing Mysuru to develop more concrete SOPs and integrate existing channels of sanitation service delivery with the recommendations of the MoHUA advisory. Previously, all public complaints were uploaded to the Janahita website and assigned to the field via field radio or mobiles, in order of priority. The operator would call the complainant after the cleaning was completed to check if the problem was resolved and to receive feedback, post which they would close the request on the Janahita website. Now, with the introduction of the 14420 helpline, a real-time redressal system has been adopted, which relies on bulk SMSes and collecting feedback.

Developing sustainable and economical solutions to ensure effective adoption: Indore supplements the work of its ERSUs through sanitation workers - turned - external contractors, who provide service to the ULB for O&M of sewer lines using jetting machines. To address the high machinery cost, they have adopted sustainable solutions such as innovating and manufacturing in-house equipment, including mechanical fawda (shovel) (Rs. 8,000), mechanical rodding machines (Rs. 12,000), and tricycle mechanical fawda (shovel) (Rs. 40,000). Such economical solutions can help maximize the adoption of mechanical cleaning within the city.

Figure 1: Process Flow of an ERSU complaint
The impact of ERSUs has been significant across the country. In Odisha, ERSUs have been notified across all 115 ULBs of the state as of May 2021, and units have been operationalized in five AMRUT Municipal Corporations—Bhubaneswar, Berhampur, Cuttack, Rourkela, and Sambalpur—and four AMRUT towns, namely, Balasore, Baripada, Bhadrak, and Puri Municipality, which have a total of 15 empanelled PSSOs. Considering the administrative changes in the designation of RSAs, who have been identified for all ULBs, the ERSUs are being restructured in the remaining 106 ULBs. The orientation for operationalization of these units and the identification of ERSU members has been done across all state ULBs. As of May 2022, 280 CSWs across the state have been trained, covering the nine AMRUT cities. Of the 280, 258 have been certified as SEPs. Another round of training will be provided to those who could not receive certification during the first phase, and approximately 300 more estimated SEPs will be designated across the state. Odisha, in particular, has decided to train more than 1,500 CSWs engaged in sewer/septic tank cleaning. All mechanical cleaning requests are closed within 24 hours of receiving them, while manual cleaning activities are completed within three days. Every day, around 50–60 mechanical cleaning activities are reported across these ULBs. Since the establishment of ERSUs, only three manual cleaning activities have been recorded, all of which were performed in compliance with ERSU protocols. This has demonstrated that regulating sanitation service delivery allows for cases to be pre-evaluated and ultimately reduces the number of manual cleaning instances.
Mysuru has had a 100% closed sewerage system since 1904, spanning 2,400 km, with 68,000 maintenance hole and three STPs. The city is divided into four districts covered by 231 sanitation workers, of which 14 are SEPs divided into seven teams. They are responsible for cleaning around 10 maintenance holes every day, with each going through a routine cleaning twice every quarter. All cleaning requests are closed within a maximum of 10 days, and manual entry into sewer/septic tanks has been banned in the city since 2011. Mysuru was able to achieve this with the help of 18 jetting machines, 23 rodding machines, two power rodding machines, and one bandicoot.

In Chandigarh, the 114 sq. km area is covered by a 100% storm drainage and sewerage network. There are six STPs, 65 permanent workers, and around 125 are outsourced workers engaged in liquid waste management, with 12 SEPs forming six teams. Chandigarh’s last manual entry was recorded in 2015. The ERSUs manage to close all requests within 24 to 72 hours, due to the availability of eight jetting machines and two bandicoots.

Indore has 19 zones and 85 wards, which are covered by 100% closed sewage. The city has 772 sanitation workers enrolled with the Municipal Corporation and 75 informal workers who address household complaints. Each zone has its own set of PPEs and equipment for mechanized and manual cleaning. Since 2019–20, Indore has had two SEP groups of five people each and not had any manual cleaning reported in the last two years. The city’s maintenance holes are codified and cleaned once every quarter. Similarly, the septic tanks are cleaned either every third year or when a request is made, whichever happens first.
Reflections and Lessons

The ERSUs are still in the nascent stages of implementation, and there is significant scope for improvement. Based on preliminary conversations with the stakeholders involved, some potential challenges have been identified and are summarized below:

1. The duty supervisors and sanitation workers might be hesitant to adopt the ERSUs, due to the misconception that the additional compliance requirements make it longer to complete each request, causing them to pile up. However, since most requests will be handled using machine cleaning, it cuts down the overall time spent by SEPs per request. These misconceptions need to be dispelled and the benefits of ERSUs emphasized through Information, Education, & Communication (IEC) campaigns (hoardings, wall paintings, jingles, etc.) to educate both employers and residents. Additionally, such basic information must be prominently displayed in the ERSU offices.

2. The duty supervisors take up ERSU duties in addition to their existing workload. This may hinder them from visiting each site to evaluate the hazards, leading them to operate with only a basic, working knowledge of the layout of the city districts.

3. Residents may, out of long-established habits, choose to hire workers informally or through private contractors instead of calling the helpline. While some private operators do inform the ERSUs about such service requests and obtain the required permissions, there is no system to keep track of such cases. It is important to actively educate the public on the benefits of placing service requests through the ERSUs.

4. In Odisha, the UMC receives the requests and completion reports with geo-tagged photographs of the site from the nine ERSUs via WhatsApp. However, with the number of ERSUs increasing, this process will become unsustainable, and the state is currently working on developing a digital monitoring system. Thus, it is necessary to establish an efficient monitoring system as the number of ERSUs increase in all states.
Potential for Replication

While the national advisory for ERSUs was issued to all states in 2019, their establishment across the country has been slow and scattered. As of November 2021, the 14420 helpline number and call centres have been operationalized in 345 of the 2,953 cities across the country; only 210 cities have established ERSUs; and 31 states/union territories have appointed an RSA (“Population of cities in India,” 2022). Given the seriousness of the situation that the ERSUs were conceptualized to address, the implementation of the programme across the country is critical and has the potential to eliminate incidents of deaths due to manual cleaning of septic tanks/sewers.

Using the broad national guidelines for the ERSUs, states and cities such as Odisha, Mysuru, Chandigarh, and Indore have managed to define specific state-/city-level guidelines to ensure that there are checkpoints at every step of the implementation process. Odisha has mandated the preparation of proper documentation at different stages—the receipt of the service request, approvals for the clean-up, the closing of the complaint, etc. This enables the stakeholders to comply with the PEMSR Act, 2013; ensure accountability; and mitigate any hazards connected to the practice of manual scavenging.

Other states/cities in India can learn from the success of the states and cities discussed above. For example, it will be beneficial to set up institutions for training and certification of SEPs, similar to the OWA in Bhubaneswar. Odisha has also partnered with organizations such as the UMC, which is helping them develop their SOPs, training curriculum, and a digital monitoring system. Chandigarh and Mysuru have acquired adequate machines and equipment and provided training to their SEPs, to ensure timely completion of requests, and set up 24/7 call centres to address sanitation needs in real time. Indore has produced economical and sustainable mechanical solutions to better meet local sanitation service requirements and has outsourced cleaning to sanitation workers-turned-entrepreneurs, to fulfil the city’s sanitation requirements and rehabilitate informal workers. Other states can adapt these guidelines and models to fit their specific contexts, with a view to combating the issue of manual cleaning, building a holistic system of sanitation services, and promoting mechanical cleaning through proper evaluation of requests. This will not only enable sanitation workers to safely carry out their duties with dignity but also hold individuals accountable for their participation in the perpetuation of manual cleaning.

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8. Public Health Engineering Department.
CASE 02: ENSURING ADEQUATE WAGES AND FINANCIAL BENEFITS FOR CORE SANITATION WORKERS

The Government of India revised its system of National Classification of Occupations in 2016, based on the International Labour Organization (ILO) framework, which provides that the hierarchy of skills is established primarily based on formal education and technical qualifications (ISCO-08). This has, in part, resulted in all types of sanitation workers being labelled as “unskilled workers” despite their technical prowess. To counter this narrative, the Government of Odisha has categorized sanitation workers as “skilled” and “highly skilled,” acknowledging that sanitation work requires a skilled workforce to be able to empty drains and septic tanks and clean/maintain sewer networks, wastewater treatment plants, and community/public toilets. Since minimum wage is a state mandate, this has resulted in a hike in wages as well as a “Risk and Hardship” allowance to appropriately compensate sanitation workers for their hard work and exposure to hazardous work environments.
Under the Minimum Wage Act, 1948, all sanitation workers were homogenized into a single class of “unskilled labourers” and were identified as cleaners and sweepers (MoLE, 2017). More recently, the Ministry of Labour and Employment (MoLE) introduced the Code on Wages, 2019 to determine the minimum wages for different categories of workers. However, it does not provide explicit criteria for classifying unskilled, semi-skilled, or skilled workers, and continues to label all sanitation workers as unskilled. This is concerning, since sanitation workers provide a broad range of services—from routine tasks such as cleaning of community toilets, to more precarious and technical ones such as cleaning sewers and septic tanks. Several sanitation workers also require years of experience and skill in using specialized cleaning machines, handling lethal bio-waste, and operating in confined spaces. However, owing to social stigmatization, their work is considered menial, and they often do not receive appropriate recognition and compensation for their contribution. This further perpetuates the occupational cycle, as workers are unable to appropriately provide for their families’ needs, and future generations are pushed into the same line of work.

The Government of Odisha recognizes that sanitation workers should be further categorized as per the skills required to perform their jobs. According to the Garima Scheme, tasks that carry greater risks and require higher levels of expertise and training are labelled “core sanitation services.” Since 2020, the Housing and Urban Development Department (H&UDD) has worked closely with the State Labour and Employees State Insurance (LESI) Department to advocate the need for the inclusion of sanitation workers as highly skilled and skilled workers. Consequently, the LESI Department issued a directive on 10 March 2021 to label these services as skilled and highly skilled under special categories of the existing Act. Additionally, since the jobs performed by highly skilled workers carry relatively higher risk and hardship, the Government of Odisha has allocated a prorated allowance of 15% of the wages, inclusive of Variable Dearness Allowance (VDA) (MoLE, 2021) as Risk and Hardship Allowance (RHA) for highly skilled Core Sanitation Workers (CSWs). The allowances are paid along with the wages, for the day(s) of work that involve high-risk assignments.

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1 Variable Dearness Allowance (VDA) defines the new amount that is earned every six months after the increase or decrease in the Consumer Price Index. This is where the dearness allowance is calculated and updated for the workers and applies to the employees of the Central government.
Implementation Approach

The CSWs in Odisha are currently being enumerated through a state-wide survey (UMC, 2022) under the Garima Scheme. As part of the process, workers self-identify the task they perform, and are then categorized as highly skilled and skilled workers. Table 1 lists the nature of work covered under each category of core sanitation, which determines their new wage. These wages are revised every six months.

<table>
<thead>
<tr>
<th>Category</th>
<th>Name of the work</th>
<th>Nature of work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly skilled</td>
<td>Core Sanitation Worker Grade-I</td>
<td>Core sanitation workers engaged in Desludging of sanitation systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 Maintenance of sewer network</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Cleaning of inspection chambers by manual entry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Septic tank cleaning and maintenance</td>
</tr>
<tr>
<td>Skilled</td>
<td>Core Sanitation Worker Grade-II</td>
<td>Core sanitation workers engaged in operations other than the above, such as</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Cleaning of drains</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 Cleaning, operation, and maintenance of public and community toilets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Operation and management of Sewage Treatment Plants (STPS) or Faecal Sludge Treatment Plants (FSTPs)</td>
</tr>
</tbody>
</table>

Table 1: Core Sanitation Work Categorization

The LESI Department, Odisha, shared the directive with the Urban Local Bodies (ULBs) and parastatal agencies, who further shared it with the private contractors/PSSOs, notifying them to pay the revised wages and the RHA as per the new categorization. For contractual employees, the directions mandate that the contracts must be updated to reflect the new wages, unless it already has clauses to allow for the same.

Furthermore, to increase awareness about the new wage structure and benefits, the CSWs whose enumeration has been verified during the survey have received SMSes from the H&UDD, clarifying the new category they belong to and the associated wages. In Puri, this was also shared as an update during the morning assembly of the CSW.

Highlights

The change in the wage categories was made possible by the initiative of H&UDD Odisha, which welcomed the idea of providing sanitation workers with a more dignified pay, and its convergence with the LESI Department. Their joint effort not only enables CSWs to receive compensation in line with their contributions, but also ensures that they earn the title of “highly skilled” or “skilled” workers. Moreover, CSWs now also receive RHA, in addition to any Dearness Allowance they were previously entitled to. To ensure adequate compensation, the RHA has been deliberately set as a percentage of the daily wages and will get revised every six months, instead of being fixed for an extended duration.

Impact

Based on the revised categories of CSWs, the new wage structure will first be implemented in the five cities (Berhampur, Cuttack, Rourkela, Sambalpur, and Puri) where the Garima enumeration has been completed, and then scaled to the remaining 110 cities once they complete the enumeration process. A total of 5,016 CSWs have been identified, of which 397 are highly skilled while 5,031 are skilled workers. The new minimum wages will be Rs. 476 per day for Grade-I category and Rs. 416 for Grade-II category, against the existing Rs. 326 per day. Thus, minimum wages increase by 50% for highly skilled CSWs and by 33% for skilled CSWs.

6 cities where Garima was implemented | 109 number of cities scaled to | 5,016 CSWs identified | 50% increase in minimum wages for highly skilled CSWs | 33% increase in minimum wages for skilled CSWs

2 The sum of the skilled and highly skilled workers is higher than the total number of CSWs, as many workers are involved in multiple job roles.
Reflections and Lessons

The new wage categories and RHA are at different stages of implementation across various cities, and are being included as and when contracts are renewed. While it will take some time for the wage revision to be implemented across all 115 ULBs, faster implementation of the changes can be ensured by addressing some of the current and potential challenges.

- The existing work contracts entered into by private sanitation workers may contain clauses specifying the wages and terms of modifications. Thus, contractors may hesitate to adopt the new schedule as certain base-rate assumptions might be applied, revising which would impact their cost of rendering services. Moreover, making amendments to multiple contracts can be time consuming. The issuance and adoption of model clauses for various work categories will be critical.

- It may be challenging for CSWs and employers to keep up with the change in new rates. SMSes have been sent out in the pilot cities to notify the CSWs of the new categories and associated minimum rates. However, since the base wages change every six months, there is a need to foster ongoing awareness. Regular IEC will be fruitful in informing workers of their revised wages.

- There is no data on the total number of workers who have received the new wages, or the amounts received by them. Generally, the RHA depends on the number of days a CSW performs a Grade-I category job. While certain parastatal agencies, such as WATCO, usually engage their CSWs in some core sanitation tasks every day and have thus started paying RHA for the entire month, this may not be true for all employers. UMC is currently developing an Employee Management System to track the number of days of core sanitation work, as well as the wages they are receiving.

Potential for Replication

The challenges related to poor compensation of sanitation workers for their skilled work is not limited to Odisha. Under the Minimum Wages Act, 1948, both the Central and Central and State Governments have dominion over fixing the wages. With the state governments fixing their own scheduled employments and releasing the corresponding rates of minimum wage as well as VDA, there is no uniform minimum wage rate applicable across the country, and the revision cycle differs for each state (Minimum Wages Act, 1948). The Centre has hiked the daily minimum wages of contract, casual, and other workers, with retrospective effect from 1 April 2022, in view of the revision of the Consumer Price Index-linked VDA (MoS&PI, n.d.). Under this, the sweeping and cleaning staff are set to receive daily wages of Rs. 443, Rs. 553, and Rs. 663 based on the city categories (MoLE, 2022). However, while the initiative to increase minimum wages provides sanitation workers better compensation, they are still clubbed together as unskilled labourers.

Odisha addresses this issue through its new directive, recognizing the expertise of sanitation workers by appropriately categorizing them as skilled and highly skilled workers. This, in turn, ensures that the pay they receive is commensurate to their skills, while also adding a component of RHA to compensate them fairly for the professional risks undertaken. Since all state governments have the powers to fix wages, other states can carry out similar exercises of enumeration and classification of sanitation workers, to ensure that they receive appropriate compensation. However, these activities of classification and enumeration must be carried out in a way that ensures that all sanitation workers benefit from the scheme.

References


Consumer Price Index measures change over time in the general level of prices of goods and services that households acquire for consumption.
In line with the United Nations Sustainable Development Goal (UN SDG) No. 6, the Citywide Inclusive Sanitation (CWIS) is fostering an environment to provide access to safely managed sanitation services to the urban population around the world (World Bank, n.d.). The safety of sanitation workers is one key aspect of this.

Wai, a small town in the Satara district of Maharashtra, was among the eight cities around the world chosen to pilot the initiatives of the CWIS. For the same, Centre for Water and Sanitation (CWAS) of CEPT University is assisting the Wai Municipal Council (WMC) in the institutionalization of personal protective equipment (PPE) for sanitation workers. Wai represents over 7,000 small- and medium-sized towns in the country, and is home to 50% of India’s urban population. The CWIS initiatives piloted in Wai, therefore, have the potential to be replicated in these other similar towns.

The CWIS initiative focused on providing services and an enabling environment, rather than building infrastructure. Thus, this intervention to institutionalize PPEs is noteworthy for its comprehensive approach to improving the sanitation ecosystem.
Access to clean sanitation services for the public often comes at the cost of the health and well-being of sanitation workers. Sanitation workers regularly come in contact with faecal matter while desludging septic tanks and cleaning toilets, often without appropriate safety gears. While the use of PPE is recommended across all processes in the sanitation value chain, there is significant non-compliance on ground—both on the part of the workers and supervising officials. This endangers the health and well-being of sanitation workers, which was further confirmed during the COVID-19 pandemic.

Cognizant of these realities, the Citywide Inclusive Sanitation (CWIS) programme, an initiative funded by the Bill and Melinda Gates Foundation (BMGF), has been working to advance safe, equitable, and sustained urban sanitation services, with a focus on ensuring that the services reach women, girls, and low-income communities. Wai, a town in the Satara district of Maharashtra, was among the eight cities around the world that were chosen under this initiative.

In Wai, sanitation activities are undertaken by the WMC, private operators, or a combination of the two parties. Currently, most of the activities are contracted out to private operators and labour suppliers, such as cleaning the community and public toilets, desludging of septic tanks, operation and maintenance (O&M) of faecal sludge treatment plants, door-to-door collection of waste and its conveyance and sorting, garden maintenance, and crematorium work. The WMC, and specifically the sanitation inspector, oversees the execution of these processes. Private operators are also responsible for paying salaries, providing PPE kits, and supervising the sanitation workers under them. In this regard, the Ministry of Housing and Urban Affairs (MoHUA) has released advisorys and standard operating procedures (SOP) on sanitation and solid waste management (SWM), with a focus on the types of PPE, their usage, monitoring and replacement regimes. The WMC and private contractors are together expected to uphold these protocols. However, discussions with private contractors and an assessment of existing contracts shows a lack of clauses pertaining to safety and PPE usage.

<table>
<thead>
<tr>
<th>Employer</th>
<th>Type of work</th>
<th>PPP/Service Contracts</th>
</tr>
</thead>
</table>
| Wai Municipal Council     | • Managed completely by the government with no outsourcing  
                        | • The sanitation workers are on payroll of WMC underclass 3  
                        |                                                   | • Multi-year service contracts  
                        |                                                   | • Sumeet Facilities for desludging of septic tanks  
                        |                                                   | • TIDE Technocrats for O&M of FSTP  
| Labour Supplier           | • Contractors only for labour supply; employ sanitation workers via informal contracts  
                        | • Dudhane Labour Supplier for activities for SWM, road-drain cleaning  
                        |                                                   |                                                   |                                                   |
| Private Operators         | • Operations run directly by private operators for profit; informal agreements with sanitation workers  
                        | • Nirmal Bharat for O&M of all CTs/PTs  
                        | • Seva Foundation for O&M of 1PT  
| PPP/Service Contracts     |                                                   |                                                   |                                                   |

Figure 1: Modalities of Engagement of Sanitation Workers and Their Roles
CWAS, a partner organization to BMGF for the implementation of CWIS, launched a study to assess the sanitation ecosystem in Wai. The primary objective of the study was to:

1. Assess the sanitation ecosystem in Wai to understand PPE usage patterns
2. Provide recommendations to improve the safety of sanitation workers based on the findings from the assessment
3. Implement and institutionalize these recommendations

CWAS conducted a comprehensive assessment of the sanitation ecosystem, which included profiling of sanitation workers to gather information on:
- The number of workers,
- The activities they are involved in,
- Type of employment, and
- The benefits they receive.

The assessment also evaluated other aspects concerning the use of PPE, such as contracts of the sanitation department and guidelines on sanitation/SWM. Qualitative discussions were held with all sanitation workers to understand PPE usage patterns; reasons for non-compliance, e.g., issues arising during usage; and PPE monitoring or replacement protocols, if any. PPE wholesalers were also consulted to compare prices and gauge the availability and user friendliness of available PPE.

The assessment reveals the challenges related to the nature of employment of workers, benefits available, and the attitude towards the safety of sanitation workers. Some of the key findings are given below:

- Women’s representation in the sanitation ecosystem is poor. Of the 37 employees in the WMC, only four are women, and hired through schemes that allow family members of sanitation workers to be employed by the WMC in the event of their death/fatal accident or retirement.
- The employees on the WMC’s payroll have access to insurance, provident fund, and a paid membership to the sanitation workers’ association for an annual fee of Rs. 500. WMC workers also receive PPE, uniform, and uniform washing funds, as well as a provision for medical check-ups twice a year. On the other hand, workers employed by private contractors have no access to any of these benefits. Of the three contracts awarded to private operators, only one had a clause on PPE usage and monitoring, and even then, monitoring and replacement were not carried out systematically and left to the discretion of supervisors. Moreover, some private contractors fail to provide workers with the right PPE, despite repeated requests.
- PPE usage patterns vary for several reasons. First, not all sanitation workers are given the right PPE or adequate training on how to use them. Second, some workers do not feel the need to wear them unless mandated by a supervisor. Finally, the lack of a replacement protocol further discourages the use of PPE.

In discussions with sanitation workers, CWAS was able to gather disaggregated information on the challenges in PPE usage for different gears. A critical issue that emerged from these discussions is the lack of an appropriate formal grievance redressal mechanism, wherein currently the workers have to verbally convey complaints to supervisors.

CWAS held several dialogues and discussions with private operators, officials of the WMC, and elected officials to sensitize them on the importance of PPE usage, monitoring, and replacement. They were also made aware of the importance of using the right PPE that are activity-appropriate, and of the right size and material. Furthermore, CWAS assisted the WMC in redesigning the contracts in a way that would ensure the adequate availability of PPE, as well as improve the monitoring and replacement mechanism.
Implementation Approach

To ensure the proper inclusion of PPE clauses, CWAS first assessed all the existing contracts managed by the sanitation department of the WMC. These were then compared with the PPE clauses in the contracts of other municipal councils in Maharashtra. The existing contracts were then further strengthened with the inclusion of new PPE clauses after brainstorming with WMC officials, including the Chief Officer of the WMC.

Since it was found that sanitation workers were often not provided with the right, work-specific PPE, the tender notice and work order for procuring PPEs were revised. Based on the guidelines issued by MoHUA, and the discussions with sanitation workers and PPE vendors, a list of mandatory types of PPE kits were prepared, depending on the nature of the activities to which it pertained. These were then used to update the tender notices. A new monitoring report, including a section for monitoring PPE usage, was created for sanitation supervisors. Additionally, CWAS assisted WMC in monitoring PPE usage digitally, with the help of the SaniTab App.

A new record book was prepared to log requests for new PPEs from sanitation workers. The book includes the names of sanitation supervisors, the workers under them, and all the PPE listed against their names. The sanitation supervisors were assigned the responsibility for distributing or replacing the PPEs upon receiving a request.

In November 2019, the WMC conducted a training and orientation workshop on PPE usage and safety for all sanitation workers. The workshop included a health camp and counselling sessions for sanitation workers, distribution of PPE kits, and dissemination of relevant information using visual flyers and posters in the local language.

1 The register was used for a month and suggestions received for improvement of the format were incorporated—e.g., printing of names of workers, adding a column for the signature of workers, increasing the size of the book, adding space for SI’s signature.
### Highlights

<table>
<thead>
<tr>
<th>1. Acknowledging the need for safety:</th>
<th>2. Sustainable interventions:</th>
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<td>The institutionalization of safety interventions requires a change in attitude towards the safety of sanitation workers. Consultations with WMC officials, elected representatives, and sanitation workers to highlight and bring awareness to the issue has been pivotal to the success of the interventions.</td>
<td>Since they are built on existing systems within WMC, the new interventions are simple and sustainable. For instance, the responsibility of a sanitation inspector, previously in charge of recording attendance, has now been expanded to include recording PPE usage.</td>
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<th>3. Scheduled desludging:</th>
<th>4. Citizen engagement and increased transparency:</th>
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<td>One of the earliest interventions focused on institutionalizing scheduled desludging, which turns it into a mechanized process that does not involve workers entering septic tanks. This prevents fatal accidents and exposure to health hazards. Wai is the first town to have implemented scheduled desludging in India.</td>
<td>The SaniTab App monitors the scheduled desludging process. Additionally, CWAS included a recording system to ensure PPE usage during the process. The site supervisor must record PPE usage in the presence of a representative of the household.</td>
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Impact

70% of workers wear appropriate PPE | 100% access to PPE in revised contracts

The WMC, with support from CWAS, has been able to implement and institutionalize best practices for the health and safety of sanitation workers. New clauses have been incorporated in the labour contract of SWM, drain cleaning, and road sweeping, to provide adequate and activity-specific PPE kits, ensure PPE usage with penalty for non-compliance, and set up a monitoring and reporting mechanism. According to CWAS, as of June 2022, approximately 70% of the sanitation workers in Wai wear work-appropriate PPE and follow the best practices pertaining to their usage and maintenance. For sanitation workers in the private sector, the revised contracts have resulted in 100% access to PPE.

Revised tender notices and work orders for procuring PPE will be used in all future procurement. Several rounds of training and health camps have also gone a long way in raising awareness about the importance of PPEs.

Reflections and Lessons

The first step towards the implementation of safety interventions involves acknowledging the importance of the health and safety of sanitation workers, and the existence of detrimental gaps in the sanitation ecosystem. This acknowledgement must reflect at all levels—from workers to elected officials and general citizens. This can be achieved with regular training of workers and officials; health camps to raise awareness in the communities of sanitation workers about the importance of PPE usage, etc. In recent years, CWAS has also used street plays to raise awareness among sanitation workers’ communities and citizens. Combined with systemic changes to processes in the sanitation value chain—right from tenders and work orders to contracts and operating procedures—focused on providing appropriate safety equipment to the workers, this can create a sustainable environment for delivering safely managed sanitation services.

Potential for Replication

The interventions designed by CWAS have successfully created a shift in the mindset of the officials of the WMC. These can now be replicated in other cities and states. However, it is important to lay the groundwork for such interventions by assessing the existing landscape through data collection on sanitation workers, PPE usage patterns, provisions for monitoring and replacement of PPEs in contracts, etc. Since many sanitation workers are engaged via informal contracts that seldom make provisions for PPEs, it is essential to ensure access to appropriate and adequate PPE kits through the employers.

As the use of SaniTab App shows, behavioural change can be brought about through technology, by engaging all stakeholders in the ecosystem. Most importantly, sanitation workers and their work must be acknowledged at all levels, to accord more dignity to their work and improve the prevailing attitude towards their health and safety.
Sanitation workers and waste pickers have historically faced discrimination in terms of access to jobs and alternative livelihoods, often compounded by the fact that many of them come from already marginalized communities. Over the years, they have attempted to fight this discrimination by collectivizing, not only to draw support from each other but also to amplify their voices. Acknowledging the benefits of collectivization, particularly among the sanitation workers and waste pickers, the Ministry of Housing and Urban Affairs (MoHUA) launched the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) and Swachh Bharat Mission (SBM) convergence guidelines in 2018. Urban Management Centre (UMC) provides technical support at the national and state levels (in Odisha and Telangana) to implement the DAY-NULM and SBM convergence activities. The convergence guidelines have incentivized the formation of Self-Help Groups (SHGs) of sanitation workers, waste pickers, and transgender persons in the states, to improve their social mobility—through a collective voice, peer-to-peer learning, access to affordable credit, and skill training. Furthermore, collectivization has opened the door for sanitation workers to build capacity for engaging in sanitation-based activities as well as other alternative livelihoods.

CASE 04: COLLECTIVIZATION OF SANITATION WORKERS AND WASTE PICKERS INTO SELF-HELP GROUPS

Implementing Organizations:
Housing and Urban Development Department, Government of Odisha
Greater Warangal Municipal Corporation, Telangana

Technical Partner:
Urban Management Centre

Location:
Odisha, Warangal

Partner Contact Details:
www.umcasia.org
Sanitation work has historically been associated with socially marginalized communities, with the most oppressed communities often taking up activities with the highest risk to health and life. According to government reports, of the estimated 43,797 identified manual scavengers, around 99% of the workers belong to Scheduled Castes, Scheduled Tribes, or Other Backward Classes (Athawale, 2021). Moreover, the lack of access to decent wages, formal employment opportunities, and their stigmatized background makes them susceptible to exclusion from basic health and education services, welfare schemes, social security measures, and alternative livelihood opportunities (WaterAid, n.d.).

For several decades, individuals from urban poor communities have come together and become collectivized as SHGs, which has been seen as an effective tool for social as well as economic opportunities. The Social Mobilization and Institution Development (SM&ID) guidelines under DAY-NULM define SHGs as groups of 10–20 individuals who come together to improve their living conditions through group savings and loans. Regular meetings and the creation of a corpus fund (which can be used to extend loans to members) with the savings of the group are some of the key characteristics of the SHGs. By providing opportunities for peer learning, collectivization allows marginalized communities to increase their awareness of basic rights, benefits, as well as alternative livelihood opportunities. Various national- and state-level schemes have been formulated that seek to help the formation of SHGs and provide support for their training, skilling, and capacity-building. This case details the formulation of such SHGs among sanitation workers and waste pickers for empowering the marginalized groups through the creation of sanitation-based livelihood models and integrating the persons involved in vulnerable occupations under DAY-NULM. This was augmented by an advisory issued to all states to allocate 10% of their total target mentioned in the Annual Action Plan towards the formation of SHGs of sanitation workers, waste pickers, transgender persons, and other vulnerable groups by 2022.

Following this, similar advisories were issued by the State Urban Development Agency, Odisha (implementing agency for DAY-NULM in the state) and MEPMA in Telangana to further push the implementation in the cities. The Government of Odisha also issued guidelines for the integration of waste pickers’ SHGs into the solid waste management (SWM) value chain and adopted the Garima Scheme, which included a programme to enumerate sanitation workers (see Chapter 4 Case 01).

The UMC supported the Government of Odisha and Telangana in piloting the initiatives in line with the Centre’s guidelines in 12 cities, viz. Bhubaneswar, Paradeep, Dhenkanal, Khordha, and Jatani in Odisha and Warangal and six cities under the Yadadri Bhuvanagiri district in Telangana. With the learnings from the pilot initiatives, this is now being upscaled across both the states.

### Implementation Approach
The implementation was done through a six-step process for the formation of SHGs.

1. **Identifying potential SHG members through field visits:**
   Potential members of SHGs were identified with the support of SBM officials, who shared the list of sanitation workers, including the permanent and contractual sanitation staff of the ULB as well as workers engaged under private sanitation service providers. This was followed by field visits to the traditional settlements and communities of sanitation workers and waste pickers, at the time of their convenience with the NULM officials. To combat the dearth of information on waste-pickers, the UMC team, along with the ULB officials, visited the waste picker settlements to orient them about the benefits of forming SHGs.

2. **Orientation of potential SHG members:**
   The orientation of SHG members was conducted with support from SBM and DAY-NULM officials. To increase awareness about the benefits of this initiative and ensure uptake, meetings were first conducted with the community leaders and then with the community members, to explain the concept, purpose, and benefits of SHGs. The initial meetings with the community leaders were aimed at building a rapport with them, to establish trust and identify pockets where the most vulnerable lived. These were particularly relevant in the case of the transgender
community, as it was first essential to build a level of awareness and trust among the community leaders. These orientation meetings were conducted multiple times using various communication tools, such as audio-visual content and experience sharing by other SHG members, to better convey the information to the community. The potential members of the SHG were also oriented on using the U-LEARN (Urban Livelihood e-Learning and Resource Network) platform (“U-LEARN,” n.d.), which is jointly developed by DAY-NULM, MoHUA, and UMC. It has a series of drama-based tutorials describing the journey of an SHG towards becoming entrepreneurs and other benefits available under DAY-NULM. It is available as both a web-based platform (http://www.u-learn.in/) and a mobile application, which makes it more accessible for the targeted beneficiaries. Tutorials from the platform were shown to potential SHG members, and all attendees were encouraged to download the application on their phones for future use.

3. Formation of the SHG:

Post the orientation meetings, a common interest group was formed, involving potential members, so that individuals working in similar vulnerable occupations could come together. The UMC team, along with COs, also ensured that, wherever possible, sanitation workers and waste pickers residing in close vicinity were encouraged to form an SHG. This made it easier for them to organize monthly meetings, discuss community issues, and explore group livelihood opportunities. The SHG members were oriented on the purpose of forming such groups and the benefits available under the Mission. Thereafter, the SHG members elected a president, secretary, and treasurer from among themselves, who would help lead the operations. Being a part of the SHG has helped boost the confidence of vulnerable communities in their collective voice, as they now feel recognized and included, while also providing them with better knowledge of the various welfare benefits and entitlements.

4. Document collection:

For registration, every member of the SHG is required to have an identity proof, residential proof, and a passport size photograph, while at least 70% of the members also need to show proof of belonging to the “BPL” category. For sanitation workers and waste pickers who did not have proof of residence, the UMC helped seek letters from executive authorities of the ULBs, stating that the concerned workers were residents within the ULB jurisdiction area. Additionally, in some cases, details in the Aadhaar card were found to be incorrect or missing, particularly in the case of transgender persons. Some transgender persons had not added/updated their gender on the Aadhaar card, and could therefore not seek the benefits available to them under this initiative. In such cases, the UMC made them aware of these benefits and helped update their details on Aadhaar. Ensuring accurate and legitimate documents was also critical for opening bank accounts and registering on the DAY-NULM MIS portal.

5. Opening a bank account for the SHG:

It is mandatory for SHGs to have a bank account as the various financial benefits that they are entitled to under different schemes are directly deposited in these accounts. The UMC helped open accounts in the name of the SHGs. For ease of access, bank branches were selected based on their proximity to the settlement of the SHG members. In certain cases, in line with the Digital India Movement of the Government of India, digital banking facilities were also availed by the SHGs, to help save time that would otherwise be spent on conventional banking processes. This has also helped SHGs transition into cashless transactions. Furthermore, since most members did not have adequate financial literacy, the UMC conducted technical trainings on managing account books, calculating lending and savings, recording minutes of the meetings, and overseeing the day-to-day operations of the SHGs. Particularly in the all-male SHGs, many members failed to see the importance of savings and hence, they were made aware of the benefits of inculcating the habit of regular savings.

6. Registration of the SHG under DAY-NULM

The SHGs of sanitation workers and waste pickers were also registered under DAY-NULM through the national MIS portal. During registration, the ULBs ensured that they were registered under the activity of sanitation and SWM, which would then reflect as an achievement against the target of 10% at the state level.

Highlights

The main highlight of these initiatives is that they do not consider the formation of the SHGs as the actual goal, but rather as a building block towards the holistic social development of marginalized communities. Thus, DAY-NULM understands the importance of the support provided to the SHGs at every stage of the formation and post-formation process. Empathy-based measures, such as approaching the community at a time of their convenience in their places of work or residence, have enabled more members to attend the orientation meetings and understand the benefits of forming an SHG, thus increasing the outreach.

Finally, understanding the knowledge gaps of the target communities, in terms of technical know-how and general attributes, has also helped the state and ULBs to tailor the initiative to make it more effective for sanitation workers, waste pickers, and transgender people. For example, the training provided to SHG members (see Chapter 3, Case 01) has been particularly effective in ensuring the successful formation of the SHGs.

Since its inception, DAY-NULM has enabled the formation of more than 6.92 lakh SHGs across the country (Mukherjee, 2020). The SBM-NULM convergence guidelines issued in 2018 paved the way for the collectivization of sanitation workers, waste pickers, and other vulnerable communities into SHGs, enabling them to reap the benefits of the Mission. Under these guidelines, Odisha and Telangana have led the way, with 350+ and 400+ SHGs, respectively, of persons engaged in vulnerable occupations. In the pilot cities, the UMC has supported the ULBs in forming 18 SHGs of sanitation workers (of which eight are all-male SHGs), 25 SHGs of waste pickers, and 19 SHGs of transgender persons. Thirteen SHGs have been engaged as service providers for the ULBs in the sanitation and SWM value chain.

**Benefits of Joining Self-Help Groups**

1. Collective voice and representation in the ULBs
2. Increase in awareness of their rights and entitlements
3. Increased ability to participate in discussions and resolving community-level issues
4. Increased access and opportunities for secured and dignified livelihoods
5. Increase in average earnings by almost double with SHGs saving between ₹6,000 and ₹40,000 per month
6. Better access to formal credit systems, hence lesser risk of getting exploited
7. Increase in confidence as service providers and entrepreneurial skills, leading to better negotiation skills due to a better understanding of the formal administrative processes of the ULBs.
8. Increased willingness to explore more avenues for engaging in multiple enterprises
9. Increase in aspiration for and, therefore, commitment towards a better standard of living and education for their children
Reflections and Lessons

Building trust: During the initial stages of implementation, one of the major challenges faced was the lack of trust among the community leaders towards DAY-NULM and its benefits. They did not see the benefits of formalizing themselves into SHGs, since it did not offer any immediate increase in their incomes. This issue was more severe in extremely marginalized communities such as transgenders, who, due to the continued persecution that they experienced, had very little faith in the system and its potential benefits. Several focus group discussions were conducted with the community leaders and the members, to convey the benefits of forming SHGs and being enrolled in programmes under DAY-NULM. Regular meetings also helped build a rapport with the community and gain their confidence.

Tailoring programmes as per the needs of the community: Due to long working hours, not all community members could be available during the orientation sessions and missed out on important information about the programme. This led to people being less likely to join the SHGs. Even those who had joined tended to not be available for meetings due to their work hours. To counter this, community leaders were consulted while deciding the timings of the orientation meetings, which were then scheduled during late evenings after the sanitation workers returned from work. This practice was extended to the meeting hours of the SHGs, so as to not disturb the work routine of the members.

Extending support for opening bank accounts: Post collectivization, the SHGs faced difficulties in opening bank accounts. This was mainly due to the lack of proper documentation among the members. In such cases, the community organizers helped SHGs procure and submit the required documents. There were also instances where bank officers refused to open accounts for male or transgender SHGs, due to a lack of awareness about the government advisory on the same. UMC helped procure authorization letters from the executive authorities of the ULBs, while the CMMU contacted the bank branches with the advisory and assisted the SHG with the account-opening processes. However, this would often delay the opening of the bank accounts by 15–20 days.

Potential for Replication

The NULM targets to bring 1 crore women under SHGs by 2024 (MoHUA, 2021). An enabling environment for achieving this target has already been established at the national level, with the advisories and guidelines creating a concrete pathway for the empowerment of those engaged in vulnerable occupations, such as sanitation workers. This, combined with the learnings from the experience of model states such as Odisha and Telangana, offers a tremendous potential to scale up this initiative across the country. Other states can draw lessons from the initiatives to set up the ecosystem around the collectivization of sanitation workers, waste pickers and transgenders in SHGs.
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CASE 05: DEVELOPMENT OF MODEL CONTRACTS FOR THE ENGAGEMENT OF SHGs IN OPERATIONS AND MAINTENANCE (O&M) OF SANITATION AND SWM INFRASTRUCTURE

Implementing Organization: 
Housing & Urban Development Department, Government of Odisha

Technical Support: 
Urban Management Centre

Objective
To provide ULBs with model contracts for engaging SHGs in O&M activities of various sanitation and waste management facilities.

Intervention
Policies under DAY-NULM, as highlighted in Chapter 01, Case 04, have encouraged sanitation workers to collectivize as SHGs and engage as service providers with the ULB. Despite the efforts made for their training and education, there is still a need to establish an enabling ecosystem for them to avail these opportunities.

With this background, the UMC has helped the state of Odisha draft model contracts/MOU for engaging sanitation workers’ SHGs in O&M of material recovery facilities, micro-composting centres, community/public toilets, battery-operated vehicles, and door-to-door waste collection.

The procurement process and model contracts are drafted to help the SHGs overcome systemic disadvantages, such as lack of access to capital (by eliminating EMD and tender fees) or documentation (PAN card, GST registration, etc.), while securing the tender. The Government of Odisha issued an advisory for engaging SHGs across the sanitation and solid waste management value chain. These contracts provided better clarity on payment terms, reporting structure, roles and responsibilities for ULB and SHG, specifications of major and minor repairs, relaxation in penalty clauses, standardization of book-keeping records, and invoice generation. This has ensured that SHGs of sanitation workers, waste picker and transgender persons have a fair and competitive opportunity to take up sanitation-based livelihoods.

They are also designed to help ULBs reduce their administrative effort in enabling standardization of the contracting process for sanitation-based O&M projects across the state while facilitating economic opportunities for the sanitation workers. The contracts’ comprehensiveness and translation into the local languages have helped ensure a better understanding of them among the SHGs.

Impact
These model contracts have been implemented in pilot cities, namely, Bhubaneswar, Paradeep, Dhenkanal, Khordha, and Jatani in Odisha, where municipal contracts have been awarded to SHGs. A state-wide rollout of the model contracts is currently underway in Odisha.

Challenges
Initial challenges with the model contracts revolved around aligning them with the existing municipal contracts so that they could be adopted by the ULB. Further, since administrative systems vary across the states, these model contracts will need to be modified according to local needs.
CASE 06: ENABLING THE FUNCTIONING OF SANITATION WORKERS DURING THE COVID-19 PANDEMIC

Implementing Organization: Government of Uttar Pradesh
Technical Support: Centre for Science and Environment (CSE)

Objective
To develop an enabling and safe ecosystem for sanitation workers to function during the COVID-19 pandemic.

Intervention
Taking cognizance of the need for uninterrupted FSSM services during the COVID-19 pandemic, the Centre for Science and Environment (CSE) conceptualized and implemented several advocacy campaigns centred around the health and safety of sanitation workers in the ULBs of Chunar and Bijnor, in the state of Uttar Pradesh. Several meetings were conducted with the bureaucrats of these ULBs to sensitize them regarding the health risks faced by sanitation workers due to the pandemic. It was also suggested to recognize sanitation work as an essential service and issue passes for them to facilitate uninterrupted services to the citizens.

For the benefit of the sanitation workers, CSE published an illustrated handbook as well as collaterals in different languages (Hindi, English, and Urdu) on the COVID-19 safety guidelines issued by the Government of India. Orientation and training programmes were also organized in Lucknow, Prayagraj, Jhansi, Agra, Unnao, Gangaghat, and Lakhimpur for awareness generation of both sanitation workers and sanitary inspectors on the importance of observing all safety measures, including PPE usage. In addition, CSE also installed foot-operated hand-wash stations in the municipality and JalKal (municipal water supply department) offices in Chunar and Bijnor. To inculcate good hygiene practices, demonstrative programmes of safe handwashing techniques were also rolled out in these municipalities on the occasion of World Water Day 2020.

Impact
As a result of sustained advocacy efforts, the ULBs and the state government have moved to recognize sanitation work as an essential service. Anecdotal evidence points to an increased awareness about safety practices and a widespread acceptance of PPE usage among sanitation workers, especially at Chunar and Bijnor.

Challenges
Despite raising awareness and creating a self-sustaining environment that ensures adherence to protocol and safe practices, there have been challenges, as it calls for behavioural shifts in all the stakeholders including sanitation workers, the administration, and the citizens. Therefore, it is important to codify best practices that have emerged from the campaigns, formalize the PPE procurement and replacement protocols, and set up a system of checks and balances to monitor PPE usage to ensure compliance.
CHAPTER 2
ACCESS TO FINANCE FOR LIVELIHOOD GENERATION
CASE 01: PERFORMANCE-BASED CONTRACT WITH ENTREPRENEURSHIP FOR SAFAI KARAMCHARIS: THE DICCI MODEL OF HYDERABAD

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<th>Technical Partner:</th>
<th>Location:</th>
<th>Partner Contact Details:</th>
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<tr>
<td>Hyderabad Metropolitan Water Supply &amp; Sewerage Board</td>
<td>Dalit Indian Chamber of Commerce and Industry</td>
<td>Hyderabad</td>
<td><a href="http://www.dicci.in">www.dicci.in</a></td>
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The Hyderabad Metropolitan Water Supply & Sewerage Board (HMWSSB) took an initiative to adopt Mini-Sewer Jetting Vehicles for cleaning sewers, to eliminate human contact with faecal matter in the process of sewer cleaning. Doing so allowed the Board to extend sewer maintenance to non-maneuvrable narrow lanes as well. A total of 68 such machines were contracted, through a micro-entrepreneur model of rehabilitating manual scavengers, with funding support integrated with government loan and subsidy schemes. More vehicles are now being inducted based on increased demand. This model has successfully demonstrated the mechanization and professionalizing of sanitation work, bringing about dignity and safety to the sanitation workers’ life. The model is also being replicated in other cities in India.
Over the last few years, a considerable emphasis had been placed on increasing access to sanitation infrastructure in India. However, a major problem that remains is that most of the existing infrastructure for sanitation value chain, in India relies on manual labour for cleaning and maintenance. Compounded by a festering caste system that often dictates work opportunities, labourers are generally underpaid, undertrained, mistreated, and denied access to resources. Sewerage management in cities of India involves workers operating in dangerous and inhuman conditions, endangering their lives and compromising their health.

The city of Hyderabad has an underground sewage system connected to sewage treatment plants for the treatment and disposal of sewage. About 95% of the core city is connected to sewer lines, with 173 km of trunk lines and 6,083 km of internal lines. The internal lines collect sewage from residential and commercial institutions and join the trunk line. There are several issues with the existing sewer system that result in frequent blockages. While sewer jetting machines were already being used by the HMWSSB, the existing system necessitated regular and frequent manual intervention, especially for blockages caused by heavy objects. These machines could also not access narrow by-lanes of the city. Consequently, sanitation workers were exposed to various occupational hazards by way of entering the sewer; handling faecal matter, biomedical waste, municipal waste; and being exposed to toxic chemicals and diseases. Moreover, since many of these workers are hired on a contractual basis, they receive low pay, no social benefits, and no insurance.

Sewerage management in cities of India involves workers operating in dangerous and inhuman conditions, endangering their lives and compromising their health. News of workers dying in maintenance holes is frequent and ubiquitous across the country. In this backdrop, the Government of Telangana and the HMWSSB made a conclusive decision to eliminate manual intervention from sewerage operations in Hyderabad.

To address this issue of manual scavenging, the HMWSSB deployed 70 mini-jetting machines through a micro-entrepreneur model of rehabilitating manual scavengers, to eliminate human contact with faecal matter during sewer cleaning. The new machines eliminate the need for manual entry inside the sewers/maintenance holes. The machines are tailor-made, with Jetting, Rodding, and Grabbing machines (all) mounted on a small chassis. This enables the sewer-cleaning machine to operate even in the narrowest lanes/streets, which were earlier inaccessible to the large machines.

The machines require a capital investment of approximately Rs. 36.16 lakhs, and a working capital of Rs. 4 lakhs. Funding is integrated with government loan and subsidy schemes. So far, 70 manual scavengers have been rehabilitated through the issuance of formal work contracts. Members from Scheduled Caste (SC) and Scheduled Tribe (ST) communities can avail of a loan for 75% of investment under the Stand-Up India Scheme (SUIS), wherein SC/ST or women entrepreneurs can avail of bank loans between Rs. 10 lakhs to Rs. 100 lakhs.
Additionally, the vehicle owners, being MSMEs from SC/ST classes, were eligible for obtaining support from the Government of Telangana under “T-Pride: Promoting Entrepreneurship among SC/ST Scheme.” Under this scheme, they can claim subsidy (35% for men and 45% for women) on the cost of the vehicle and up to 9% subsidy on loan interest charges. Once the job is commenced, vehicle owners can apply for the subsidy, which is granted by the government within three to four months. The HMWSSB has created 70 entrepreneurs through the implementation of this model. A management service is provided to coordinate the activities and present a single voice/point of contact between the HMWSSB and the entrepreneurs.

Implementation Approach

The HMWSSB adopted a four-pronged approach to improve service delivery and worker safety.

1. Awareness and Behaviour Change:
   Planning and awareness workshops were conducted with sanitation workers, officials, and resident welfare associations to eliminate manual scavenging. Small films and advertisements were developed for sensitizing end users to help minimize blockages. Operational health and safety training and workshops were also conducted for both permanent and contractual employees.

2. Tech-Based Interventions:
   To effectively extend sewer maintenance to small lanes, the HMWSSB deployed 70 mini-jetting machines through a micro-entrepreneur model. In this model, the HMWSSB floated a tender for sewer-cleaning services, which was awarded to the green field contractors from SC/ST communities and linked with the Government of India’s flagship SUIS for financial support. The Telangana chapter of the Dalit Indian Chamber of Commerce and Industry (DICCI) played a key role in helping the Safai Karamcharis transition to safe mechanized practices. They provided guidance to the workers for preparing project proposals and applying for loans, to procure the Mini-Sewer Jetting Vehicles. At the same time, workers themselves were actively involved in the tendering process for landing the contract from HMWSSB, for cleaning septic tanks and sewer networks. Furthermore, the micro-entrepreneurship offered by the HMWSSB has helped in the socio-economic development of families from marginalized communities, by integrating them into the mainstream economy of the country. The owners of the vehicles from SC/ST classes (25 men and 6 women) have become successful bidders for 69 vehicles. A total of 142 members have obtained employment as drivers and cleaners of the vehicles, of which most are from manual scavenging backgrounds.

3. Infrastructure Upgradation:
   The existing sewer trunk lines, which need replacement, are being identified and upgraded/replaced. Around 1,200 slit chambers have been constructed on-site to trap material likely to cause blockages. Finally, complaints are consistently monitored to identify areas of frequent blockage in the city.

4. Standard Operating Procedure:
   With support from the Administrative Staff College of India (ASCI), a Standard Operating Procedure (SOP) was developed for sewer cleaning, which is now used for training sanitation workers. The proposed SOP includes the use of safety gear, such as chemical cartridge masks, gloves, and safety belts, following the PEMSR Act, 2013.

Highlights

6% drop in average daily complaints
24% drop in average monthly complaints

The average daily complaints have dropped by 6%; monthly complaints have dropped by 24% (between June–August 2016 and 2017). Worker safety has improved; the HMWSSB claims that there has been no manual entry into sewers post the intervention; and no deaths or accidents have been reported. The preference for those with prior experience in sanitation work has also enabled the sustained rehabilitation of workers and their families.

The model has been designed keeping in mind its sustainability, which is reflected in favourable economics for machine owners and the establishment of a financially sustainable services company to support owners. There is guaranteed revenue from the government, financial subsidies from existing government schemes (T-Pride, SUIS, etc.), and support for entrepreneurs through a services company that helps de-risk the model for new entrepreneurs.
Impact

Before the introduction of the Mini-Sewer Jetting Vehicles, only reactive measures were taken up through the process of manual cleaning and the usage of bigger sewer cleaning vehicles. The use of the Mini-Sewer Jetting vehicles has enhanced the ease with which sewer cleaning can be done in narrow lanes and congested localities. This is largely due to the ease of mobility and flexibility of the vehicle. There has also been an increase in customer satisfaction, since these machines have reduced the time taken for grievance redressal, ensuring that the tasks are completed within the Service Level Agreement period. Finally, there has been a considerable decrease in the reliance on conventional sewer-cleaning techniques and manual labour, which will contribute towards the long-term goal of eliminating the practice of manual scavenging in India.

Potential for Replication

The DICCI model has been instrumental in mechanizing and professionalizing sanitation work, as well as ensuring dignity and safety for sanitation workers. The Mini-Sewer Jetting Vehicle can be considered a prototype for ULBs to achieve their goal of Swachh Bharat. It is not surprising that the success story of SC/ST entrepreneurs at the HMWSSB in Hyderabad has caught national attention, for ensuring 100% eradication of manual scavenging and helping sanitation workers become entrepreneurs who provide complete mechanized services. A similar model is now being replicated in New Delhi for the mechanization of sewerage activities under the Delhi Jal Board.

Reflections and Lessons

The following are the key achievements attributed to the initiative:

1. Elimination of manual operation in the sewerage system
2. Increased efficiency of sewerage operations
3. Improved dignity of labour for Safai Karamcharis
4. Reduction of sewerage problems, especially in previously inaccessible areas such as small lanes and streets
5. Improvement in quality of life in poor, lower-middle class, and middle class localities
6. Adoption of proactive measures instead of reactive measures
CASE 02: FINANCIAL ASSISTANCE TO SUPPORT ENTREPRENEURSHIP AMONG SANITATION WORKERS

Implementing Organizations:
Bhubaneswar Municipal Corporation, Odisha
Indore Municipal Corporation, Madhya Pradesh

Objective
To create awareness about the availability of collateral-free loans for sanitation workers under the SafaiMitra Suraksha Challenge and provide an easy loan facility to sanitation workers for the purchase of septic tanks and sewer-cleaning machines.

Impact
- The sanitation workers as well as ULB officials became aware of the various machines and equipment available in the market for septic tank and sewer cleaning.
- Mechanized cleaning procedures were promoted to ensure safety of sanitation workers.
- Financial assistance was extended to informal sanitation workers to incentivize them to adopt mechanized cleaning.
- The entrepreneurs are provided guaranteed work from the ULBs, thus facilitating timely repayment of loans.

Challenges
- Initially, there was a low response from informal sanitation workers due to the high cost of machines and fear of non-repayment of loans to banks.

Intervention
The intervention had two main components:
01 Machine Exhibit
The manufacturers of mechanized cleaning equipment were invited to participate in the loan mela and set up exhibits of their comprehensive range of equipments for cleaning and maintenance of septic tanks and sewer lines. Informal sanitation workers and ULBs interacted with representatives of various participating manufacturers to understand the technical aspects of how various equipment and machines work.

02 Loan Mela
NSKFDC and officials from various nationalized banks were invited to explain the design of the loan scheme and the process to avail these collateral-free loans for setting up sanitation enterprises. Informal sanitation workers were encouraged to become entrepreneurs by purchasing various machines and equipments and shifting to mechanized cleaning.

Impact
- 30 loans disbursed to SafaiMitras
- 20 SafaiMitras purchased cleaning vehicles
- The sanitation workers as well as ULB officials became aware of the various machines and equipment available in the market for septic tank and sewer cleaning.
- Mechanized cleaning procedures were promoted to ensure safety of sanitation workers.
- Financial assistance was extended to informal sanitation workers to incentivize them to adopt mechanized cleaning.
- The entrepreneurs are provided guaranteed work from the ULBs, thus facilitating timely repayment of loans.

Challenges
- Initially, there was a low response from informal sanitation workers due to the high cost of machines and fear of non-repayment of loans to banks.
CHAPTER 3
CAPACITY BUILDING OF SANITATION WORKERS
The Government of India, as well as various state governments, have used the collectivization of sanitation workers in SHGs to aid in their social upliftment. However, while the SHG formation allows them to develop skills and access new opportunities, certain challenges hinder workers from moving higher in the sanitation value chain. Although most sanitation workers and waste pickers have extensive knowledge and experience of sanitation/SWM-related work, they lack formal training on new and mechanized ways of operation. To address this, the state the Odisha and the city of Warangal, with technical support from Urban Management Centre (UMC), have developed modules for building capacities of Self-Help Groups (SHGs) in operations and management (O&M) of public toilets, micro-composting centres, and material recovery facilities. These modules were intended to educate SHGs on the use of new technologies, the business aspects of these enterprises, and the skills needed to successfully manage and operate these facilities. Modules on communication skills, financial management, and digital literacy were also developed to facilitate the overall development of the groups and help them better utilize the opportunities presented to them.

**CASE 01: BUILDING CAPACITIES OF SHGs FOR SKILLING AND LIVELIHOOD OPPORTUNITIES**

Implementing Organizations: Housing and Urban Development Department, Government of Odisha, Greater Warangal Municipal Corporation, Telangana

Technical Partner: Urban Management Centre

Location: Odisha, Warangal

Partner Contact Details: www.umcasia.org

The Government of India, as well as various state governments, have used the collectivization of sanitation workers in SHGs to aid in their social upliftment. However, while the SHG formation allows them to develop skills and access new opportunities, certain challenges hinder workers from moving higher in the sanitation value chain. Although most sanitation workers and waste pickers have extensive knowledge and experience of sanitation/SWM-related work, they lack formal training on new and mechanized ways of operation. To address this, the state the Odisha and the city of Warangal, with technical support from Urban Management Centre (UMC), have developed modules for building capacities of Self-Help Groups (SHGs) in operations and management (O&M) of public toilets, micro-composting centres, and material recovery facilities. These modules were intended to educate SHGs on the use of new technologies, the business aspects of these enterprises, and the skills needed to successfully manage and operate these facilities. Modules on communication skills, financial management, and digital literacy were also developed to facilitate the overall development of the groups and help them better utilize the opportunities presented to them.
Sanitation and waste management remains one of the most underpaid and high-risk jobs in India. While occupational hazards plague the entire working community in this sector, the ill-effects are often disproportionately felt by oppressed communities (Ruhil, 2020). The social stigma attached to sanitation work, especially manual scavenging, severely affects those employed in this sector and makes it difficult for them to seek other livelihood opportunities. The problem is compounded by the low earning potential in the sector, making social and professional mobility of sanitation workers almost impossible.

To help sanitation workers overcome systemic disadvantages, a national initiative under Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) was undertaken to enable the formation of SHGs of sanitation workers, waste pickers, and transgender persons (see Chapter 01, Case 04). While the intent of the intervention was the empowerment of the persons working in vulnerable occupations (both men and women), it was observed that they are unable to take up roles of O&M within the sanitation ecosystems, due to a lack of technical knowledge and managerial experience in these activities. There was hence a need for focused training of SHGs to manage various aspects of business operations, such as financial management, negotiation with the ULB, developing accountability mechanisms, and management of day-to-day operations.

The Government of Odisha and Greater Warangal Municipal Corporation, in partnership with the UMC, undertook a series of training and capacity-building initiatives to support the SHGs of sanitation workers, waste pickers and transgenders. The training modules developed for this purpose focused on building entrepreneurial capacity of the SHGs in sanitation-based livelihoods, focusing on the O&M of micro-composting centres (MCC), material recovery facilities (MRF), and public/community toilets (PT/CT). The modules were field tested in pilot cities, before being rolled out state-wide in Odisha. Broadly, the training pertained to orientation on DAY-NULM and SBM convergence, various government schemes, and entitlements available for the urban poor, linking SHGs to various enterprises (sanitation based and alternative) including the O&M of sanitation/SWM infrastructure, managerial aspects, and overall capacity-building of SHGs such as soft skills, digital literacy, financial literacy, business plan preparation, assessing market feasibility, and negotiation skills. The modules were designed to give the trainees an all-round understanding of how to operate these facilities.

The modules made heavy use of graphics, pictures, illustrations, and videos to make the learning process more engaging for the workers. They broadly covered the following:

1. Overview of the possibility of engaging SHGs in sanitation-based enterprise
2. Technical aspects of the enterprise, e.g., O&M of CT/PT, MRF, MCC
3. Roles and responsibilities of various stakeholders
4. Assessment of the profitability of the enterprise
5. Training on how to read contracts and its clauses
6. Book-keeping and record maintenance
7. On-field hands-on technical training for operating the facility
8. Liaising and negotiation with the ULB officials

The “Needs Assessment” conducted prior to the commencement of the training showed a requirement for developing basic skills among the members of the SHGs, to better equip them to utilize the opportunities presented to them. Hence, modules are developed to educate them on communication skills, digital literacy, financial literacy, and the basics of enterprise development. These are aimed at helping workers gain both technical skills and soft skills required for running a sanitation-based enterprise.
The project was first piloted by the UMC in select cities in Odisha and Telangana. The learnings from the pilot project were incorporated in the training modules as well as training pedagogy. Further, the capacity-building and training support was scaled up at the state level in Odisha, to train the SHGs engaged in O&M of MRF and MCC. The project was implemented in six stages:

**Ecosystem Mapping:** This involved identifying all the key stakeholders in the sanitation ecosystem, including nodal officers, community organizers, swachha sathis, swachha sathi supervisors, the drivers of the waste collection vehicles, and the sanitation workers engaged at the MCC and MRF in Odisha.

**Training Needs Assessment (TNA):** The TNA was undertaken to determine the existing knowledge level of the SHG members and identify areas where they might need further assistance. The TNA also focused on the training needs for the ULB officials, to orient them on various engagement modalities and handholding support for the SHGs. It was during this assessment that the need to develop modules for soft skills, financial management, digital literacy, and other entrepreneurship development skills came to the fore.

**Training module Development:** Based on the results from the assessment that was carried out, various training modules were developed by the UMC team to cater to the exact needs of the SHG members, ULB officials, and the field functionaries of the SBM/sanitation department.

**Identification of Trainers:** This involved the profiling of individual trainers, either subject-matter experts or trainers from various state-level training institutes, who would effectively use the training modules to build capacities at the grassroots level.

**Training of Trainers (TOT):** The training of the identified trainers was conducted cluster-wise across the state, to equip them to further deliver the training across all the ULBs in the state. This was followed by grading these trainers based on their technical knowledge and training skills. Based on their grading, the trainers had to undergo further refresher courses in specific areas.

**Rollout of Programmes:** The capacity-building programme was rolled out across all ULBs in the state. Stakeholders were assessed by the trainers post the completion of the capacity-building programme.

The intervention focused on the development of the whole ecosystem, with sessions being conducted with multiple key stakeholders on the importance of enabling sanitation workers to take up O&M roles in the sanitation sector.

Training modules were aimed at all-round development of sanitation workers, focusing not only on the practical aspects of running these centres but also on the development of their soft skills through training modules on communication, digital literacy, financial literacy, etc.

Efforts were made to carefully select the trainers and evaluate them based on their subject knowledge as well as training delivery skills. Further, the training modules were designed using actual on-ground images/pictures and infographics, to convey information effectively and make the content easier to understand.

The training modules included aspects related to the safety of sanitation workers and the importance of PPE.

### Impact

- **ULBs with completed training, as of July 2022 (Odisha):** 70
- **SHG members provided training (Odisha):** 2,500+
- **SHG members engaged at wealth centres across 115 ULBs (Odisha):** 7,000+

The training programme was aimed at an overall shift within the sector, with the ultimate goal of enabling sanitation workers, waste pickers, and transgender persons to take up O&M activities across the sanitation value chain.

In Odisha, the trainings started beginning to roll out in June 2022 and have been completed in 70 ULBs as of July 2022. Around 1,000 state-, district-, and city-level officials were given orientation training to engage SHG members as service providers. Moreover, more than 2,500 SHG members engaged as swachha sathis, swachh sathi supervisors, and swachh karmis have been provided training on technical and managerial aspects. Overall, the training programme aims to train 7,000+ SHG members engaged at wealth centres across 115 ULBs.

The training modules have helped the SHG members gain a better sense of understanding of the administrative processes of the ULBs, improved their negotiation and entrepreneurial skills, and had an overall impact on the nature of their engagements and interactions with the ULBs. Given the flexible nature of the modules developed, it has been possible to keep it up to date, to address the latest issues/challenges faced by the SHGs.
Experience in Odisha shows that formation of SHGs or even engaging them in sanitation-based livelihood options is not sufficient as they lack advanced technical knowledge and prior experience in managerial work. Therefore, SHGs must be empowered with skills, including soft skills, required to overcome systemic disadvantages of the sector with all-round development. The training module was developed with an emphasis on graphics, pictures, videos, and illustrations for easy comprehension. Given the low literacy levels of the participants, maintaining a balance between texts and pictorial representation was essential to ensure that the information is communicated to the participants more effectively.

In addition to the efficient modelling of the programme, understanding its effectiveness is equally important, for which running pilot programmes becomes necessary. Therefore, the modules were first field tested in intervention cities across Odisha and Telangana, before being rolled out to other jurisdictions. This enabled the identification of conclusive areas of improvement.

The experience brought to light the need to identify all stakeholders in the sanitation ecosystem and impart holistic training. The process of identification and training of the trainers is also important and must be given due attention, so that their capacities are enhanced to ensure continuous development.

References

Potential for Replication
Upskilling sanitation workers, waste pickers, and transgender persons to help them scale up the professional ladder is an important aspect of their overall well-being, especially their financial independence. Often, sanitation workers lack the skills required to optimally avail the opportunities presented to them, resulting in their continued dependency on the sanitation sector, which is neither very lucrative nor economically sustainable. The successful implementation of the capacity-building programme in Odisha and select cities of Telangana makes a compelling case for replication across different states/cities. The step-by-step implementation, including the training needs assessment, can provide insights into the appropriate structuring of the training module.

Moreover, since these training modules are systematically documented in English as well as local languages, i.e., Odia and Telugu, they ensure better understanding for the participants. Training for alternative livelihoods may, however, differ from city to city, depending on the type of sectors that are lucrative and financially feasible for the SHGs, and therefore may need contextualizing.
Acknowledging the gap in formal training that exists in the sanitation sector, the Government of India has launched an initiative to formally train and certify sanitation workers. This is being implemented through various skill training programmes undertaken by the National Skill Development Corporation. To address the growing demand for upskilling the sanitation workers to adopt mechanized ways, the Urban Management Centre (UMC) provided technical support to National Skill Development Corporation for developing Qualification Packs—National Occupational Standards (QP-NOS) for three job roles under the Skill Council for Green Jobs, namely, septic tank technician, desludging operator, and Faecal Sludge Treatment Plant (FSTP) O&M technician. These modules have also been adopted for conducting Recognition of Prior Learning (RPL) training for sanitation workers.

Building on this, the Bhubaneswar Municipal Corporation, Dhenkanal Municipality, and Paradeep Municipality, with support from UMC, collaborated with the empanelled training providers to conduct RPL training to improve the technical skills and ensure the safety of sanitation workers and waste pickers. Post the training, certificates were given to the sanitation workers based on the post training assessment. The government worked closely with the technical partners and key ULB officials, focusing on training and upskilling the sanitation workers. This aimed to enhance the technical knowledge of the workers and train them to take up mechanized sanitation jobs that would ensure their safety.
Due to the informal nature of the sanitation sector, there is little to no regulation over the requirement of minimum standards in training and skilling of sanitation workers to perform highly technical and hazardous tasks. Before 2016, the National Skill Development Council (NSDC) had not defined "job roles" for the sanitation sector. In the current landscape, there are no formal systems for training sanitation workers, with most learning happening through peer interaction or through on-the-job learning. The lack of a holistic approach towards the skilling of sanitation workers deprives them of the opportunities to progress socially, professionally, and financially. Moreover, due to the lack of formal training among the contracted workers, the ULBs are unable to adopt mechanized means of cleaning and maintenance.

Within the current ecosystem, the training of sanitation workers remains a challenge with estimates suggesting that India would require approximately 5.2 million formally trained sanitation workers in the future (IRC, India Sanitation Coalition, & TARU Leading Edge, n.d.). Lack of formal systems of training hinders sanitation workers from becoming competent in new technologies and machinery—often rendering them irrelevant or their jobs redundant, within the constantly evolving sanitation ecosystem. This may also create situations where they are forced to put their safety at risk by manually performing hazardous tasks (despite the ban on manual scavenging under the Prohibition of Employment as Manual Scavengers and their Rehabilitation (PEMSAR) Act, 2013) which can also be done by a machine. This potential shortage of formally trained sanitation workers can impact India’s larger goals in the sanitation sector. Recognizing the benefits of training and certifying sanitation workers for their safety and for the overall formalization of the sector, the Central Government has undertaken various initiatives to define sanitation-based job roles and their training curriculum.
Interventions

In 2016, the Ministry of Skill Development and Entrepreneurship (MSDE), in partnership with the NSDC, under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), launched an initiative to offer RPL training to sanitation workers who are already engaged in the sector. The main objective of this initiative is to fill the gaps in their knowledge and update their on-the-job skills, so that they may be well equipped to perform their duties. The programme also aims to formalize the large unregulated workforce in the country, which has acquired a range of skills even without a formal training process, and recognize them under the National Skill Qualification Framework (NSQF).

In line with this, the NSDC, with technical support from UMC, has developed qualification packs for the following three job roles:

- Septic tank technician
- Desludging operator
- FSTP O&M technician

The training modules were developed as per the framework of the National Skill Qualification Framework (NSQF), and focused on filling the gaps in the workers’ knowledge to equip them to efficiently and safely carry out their professional work. Since the modules were designed for workers who were already engaged in similar sanitation-based livelihoods, the eligibility criteria was minimal and based on the technical skills and expertise required to perform the particular task. For instance, the FSTP O&M technician needed, at minimum, an Industrial Training Institute (ITI) qualification, while the module for a septic tank technician required the participants to only have cleared their standard 5 examinations and have minimum experience of three years as masons.

The training module is designed to be conducted either as a full course (160–220 hours spaced up to one month, duly keeping in mind the occupational hours of the trainees) or as a bridge course over 2–3 days. Each day focused on imparting knowledge in one key area, such as an overview of the job, health and safety, technical aspects of the job role, and modalities of engagement. Each module concluded with revision, Q&A, and a post-training assessment, based on which the certificates were given to the participants. These training modules covered both theoretical and practical aspects of the subject matter, to ensure easy comprehension, and were adapted and contextualized by the UMC team for piloting the RPL training in Odisha. The SafaiMitra Suraksha Challenge emphasized the need for RPL training of sanitation workers. UMC with support of the Sector Skill Council for Green Jobs developed 3 day RPL training module for sanitation workers engaged in desludging operations.

Implementation Approach

In Odisha, the RPL training was piloted in the three ULBs of Dhenkanal, Bhubaneswar, and Paradeep, with support from UMC- and NSDC-empanelled training providers. Sanitation workers were provided training on mechanized cleaning, FSTP operations, and other technical aspects; whereas waste pickers were trained on the operations of waste-processing plants, waste segregation, etc. The training also laid special emphasis on the safety precautions to be taken during work and the importance of PPEs. It included field visits to waste-processing plants, desludging sites, and FSTPs.

The pilot initiative followed a six-step procedure to train workers in a systematic manner. The process started with the identification of existing/potential sanitation workers and waste pickers with the support of ULBs and a pre-assessment conducted to evaluate skill gaps. Based on the gaps identified, workers were trained to acquire specific competencies. Post training, workers undertook an assessment that allowed instructors to gauge the progress made on this front. Once the assessment was completed, workers were awarded the RPL training certificate.

Following the success of the pilot initiative, similar training programmes are being organized across the state, based on the targets allocated by the Centre.

¹ In addition to these, NSDC also developed qualification packs for Safai Karmacharis.
The RPL training factored in the learnings that the sanitation workers already possessed from the field, and only sought to fill in the gaps and formalize their knowledge. This allowed existing sanitation workers to be certified through courses of shorter durations.

A significant focus of the training modules was on aspects of mechanization within the sanitation and waste management sector. The intent was to upskill sanitation workers and bridge their knowledge gaps, enabling them to operate the machines critical to performing their daily tasks.

The certificate received by the participants gave them a higher sense of recognition among the ULBs and, in some cases, also resulted in their promotion to high-skilled sanitation jobs.

Going beyond simple, employment-based skill training, the RPL modules incorporated the development of soft skills and communication skills among the sanitation workers.

A monetary pay-out of Rs. 500 was given to the participants as compensation for the wages lost during the training. This encouraged more sanitation workers to undergo the training without the fear of wage loss. The training sessions incorporated the use of both theoretical and practical methods to ensure that the sanitation workers understood the modules being taught.

Highlights

Going beyond simple, employment-based skill training, the RPL modules incorporated the development of soft skills and communication skills among the sanitation workers.

A monetary pay-out of Rs. 500 was given to the participants as compensation for the wages lost during the training. This encouraged more sanitation workers to undergo the training without the fear of wage loss. The training sessions incorporated the use of both theoretical and practical methods to ensure that the sanitation workers understood the modules being taught.
Impact

The RPL training has served as an early step in the formalization of the training and skilling ecosystem for sanitation workers. The certification of sanitation workers and their upskilling in more mechanized aspects of the sanitation services has drastically improved their ability to seek better employment opportunities with higher pay. This has also had a positive ripple effect in the local community, since workers who have seen gains are now spreading the word in local gatherings and everyday interactions. This is leading to the increased popularity of the programme within the community of sanitation workers and waste pickers.

Within Odisha, the intervention has had an impact on the establishment of a formal training ecosystem for upskilling the sanitation workers. The certification process has given the ULBs a pool of qualified and certified sanitation workers who can be employed by them to provide sanitation services.

Reflections and Lessons

While piloting the training in Odisha, it was observed that most of the sanitation workers were illiterate and hence there was a need to use a combination of practical training and theoretical course modules in the local language. It was also important to develop specialized pedagogy to address the needs and experiences of all key stakeholders within the ecosystem.

The experience in Odisha indicates that an initial monetary pay-out can go a long way in encouraging sanitation workers to opt into the programme. However, as the benefits of the programme—in terms of better opportunities and wages—began to emerge, the demand within the sanitation workers’ community grew. Eventually, more workers opted in for the training with less focus on the pay-out component.

Potential for Replication

The formal training ecosystem in the sanitation sector is weak throughout India, and most states need mechanisms to formally train and certify sanitation workers. To this end, the national coverage of the RPL training makes it easier to replicate in other states the efforts undertaken in Odisha, and will help ensure uniformity in all regions. The lessons learnt from Odisha can inform the implementation of the programme in other states and help address teething issues early on. The learnings related to the engagements of sanitation workers and the development of training and communication materials, in particular, can be valuable to other states at the design stage of their programmes.

References


**CASE 03: TRAINING OF SANITARY INSPECTORS ON OCCUPATIONAL HEALTH AND SAFETY**

**Implementing Organizations:**
The Sanitation Capacity Building Platform (SCBP) of the National Institute of Urban Affairs (NIUA)
Directorate of Local Bodies, Rajasthan
City Managers’ Association - Rajasthan (CMAR)

**Technical Support:**
National Institute of Urban Affairs (NIUA)

**Objective**
To upskill sanitary inspectors for monitoring and imparting training to grassroot functionaries (sanitation workers) of their ULBs on health and safety issues related to the cleaning of sewers and septic tanks in the context of COVID-19.

**Intervention**
The National Institute of Urban Affairs (NIUA) conducted two-day online training programmes for sanitary inspectors on the 15-16 June and 24-25 August in 2020, with the assistance of CMAR and at the request of the Directorate of Local Bodies, Government of Rajasthan. The first session briefed the sanitary inspectors on the PEMSR Act, 2013 and updated them on the most effective ways to ensure the safety of sanitation workers including safety issues at operational facilities, machines, and tools available for sewer cleaning and desludging, standard operating procedures, and safety equipment for confined space entry as well as the need for and importance of work-appropriate PPEs. Administrative controls such as selection of sewer entry professionals, setting up an Emergency Response Sanitation Unit (ERSU), and an emergency response process were also highlighted.

The second session covered the various government advisories and guidelines issued to ensure safe sanitation encompassing solid and liquid waste management and the sanitization of public spaces during the COVID-19 pandemic. This session also highlighted the different types of PPE required for high-, moderate-, and low-risk activities undertaken by sanitation workers during the pandemic. A template for creating a budget for procuring required PPEs by the city was also provided.

**Impact**
The training session covered sanitary inspectors from all the ULBs in Rajasthan with 120 inspectors trained during the two sessions. 70 of them were trained during the first batch in June and 50 more were trained during the second batch in August.
CASE 04: SKILLING AND TRAINING OF CORE SANITATION WORKERS UNDER THE GARIMA SCHEME

Implementing Organizations:
Housing & Urban Development Department, Government of Odisha

Technical Support:
Urban Management Centre

**Objective**
To ensure that core sanitation workers have practical training to undertake sanitation services in a safe and dignified manner.

**Intervention**
The programme aims to provide practical and hands-on training considering adult learning pedagogies, in safe sanitation practices, especially for workers engaged in cleaning septic tanks and sewer lines, a semi-literate audience. For this purpose, the Odisha Water Academy was designated as the dedicated training institute, with specially-built demo models to help the sanitation workers get practical training without putting their health and safety at risk. The programme was undertaken in the following stages:

1. **Active outreach:** All sanitation workers across the state who have been enumerated under the Garima Scheme (see Chapter 04, Case 01) and are involved in cleaning of septic tanks and sewer lines are being provided the training through Odisha Water Academy.

2. **Pre-training assessment:** A pre-training assessment is undertaken to understand the existing levels of skills and knowledge among the targeted trainees at the beginning of the training, to and set a benchmark.

3. **Hands-on training:** Interactive, hands-on training sessions are conducted in small batches of sanitation workers involving participatory methods such as role play, demonstration of safety devices, and sessions for operating them to gain practical experience.

4. **Post-training assessment:** Post-training assessment is conducted to ascertain that sanitation workers have understood the SOP and learnt practical applicability of various equipment through both verbal and practical assessments. Sanitation workers who scored more than 70% are certified as Sewer Entry Professionals by the Odisha Water Academy.

To assist with this, a cohort of master trainers (MTs) was developed from among trainers who have previously delivered training on sanitation-related subjects and those who met minimum eligibility criteria (relevant soft skills, previous experience of giving practical training etc.). A similar pre-training assessment was conducted for the potential MTs and practical training was provided to them to build their capacity for delivering hands-on training to sanitation workers. A post-training assessment was also conducted consisting of theoretical, practical and verbal assessments.

**Impact**

<table>
<thead>
<tr>
<th>Workers certified as SEPs</th>
<th>Master trainers certified</th>
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<tbody>
<tr>
<td>258</td>
<td>19</td>
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Until July 2022, 280 workers had been trained, of which 258 have been certified as SEP. Similarly, 22 MTs were also trained, of which 19 were certified upon successfully concluding the programme. The programme will ensure identified sanitation workers from all 115 ULBs shall receive the training.

**Challenges**
For states to implement a similar training programme, the major challenges would be identifying sanitation workers who require the training and ensuring that they undertake the same, as well as in identifying an appropriate training institution that is sensitive to the specific target audiences. In Odisha, the enumeration processes launched as part of the Garima Scheme helped mitigate this challenge as the importance of the benefits of the training could easily be conveyed to the sanitation workers directly. Another challenge is to ensure that sanitation workers have access to training where they can learn hands-on application of safety devices and equipment. Odisha Water Academy ensured the same by developing the necessary infrastructure and procuring safety devices required for delivering practical training.
CHAPTER 4

ENABLING ACCESS TO BENEFITS FOR SANITATION WORKERS
The Government of Odisha has identified various gaps in the delivery of sanitation services in the state. It has recognized the impact that poor working conditions have on the health and dignity of sanitation workers, especially those who work in close proximity to hazardous wastes. Moreover, lack of access to alternative livelihoods often forces workers to remain in sanitation work, offering them little to no socio-economic mobility. The lack of a comprehensive state or national database has made it difficult to link workers with their rightful entitlements. In its understanding of these issues, with the notion that no worker should be left behind, Garima stands as a unique scheme, unlike any other in the country. It aims to improve various aspects of the sanitation workers’ lives, irrespective of their modality of engagement, which could be formal or informal. In 2021, it provided for the first-of-its-kind state-level survey of sanitation workers, which allowed the state to link these workers with various benefits in six major cities of Odisha. This is further scaled up across 109 other Urban Local Bodies (ULBs). The survey model and tools developed are made open-sourced, which can be easily scaled across the country.
Sanitation workers, given the mostly precarious nature of their work, are often invisible in government databases, which obstructs their access to welfare programmes and other social security benefits. Even today, there is no official data on the number of sanitation workers in India. Among them, manual scavengers are the worst affected due to the hazardous work environment and the social stigma associated with their jobs. Two national surveys were conducted by the Ministry of Social Justice & Empowerment (MoSJE) for the identification of manual scavengers in 2013 and 2018. However, these surveys had a limited reach, since only 18 states participated and only 58,098 manual scavengers were identified, of which 230 were in Odisha. There is also uncertainty regarding the validity of these numbers, as some states claimed to have zero manual scavengers. This invisibility of sanitation workers came to be particularly highlighted during the COVID-19 pandemic, which claimed the lives of many on-duty workers (WaterAid & UMC, 2020). Yet, the lack of official data made it difficult for the families to avail the compensation promised to them by the Central and state governments.

The identification of Core Sanitation Workers (CSWs) is critical for the proper allocation of capital and resources at the state and city levels. CSWs under Garima are defined as workers involved in (i) desludging of onsite sanitation systems; (ii) maintenance of sewerage network; (iii) cleaning of drains; (iv) operation and maintenance of Sewage Treatment Plants or Faecal Sludge Treatment Plant; and (V) cleaning, operation, and maintenance of public and community toilets. Lack of robust and regular enumeration exercises have hindered access to the necessary machines, appropriate PPEs (Personal Protection Equipment) and skills training for CSWs. Further, it has been challenging to link those who wish to leave sanitation work with the welfare schemes and training programmes aimed at alternative livelihoods.

Having identified the lack of enumeration as a key obstacle towards ensuring dignified working and living conditions for CSWs, Odisha launched an effort to enumerate them as part of the Garima Scheme for Safety and Dignity of CSWs. This chapter documents how Odisha has been successful in identifying CSWs, as a first step to linking them with various schemes being implemented by the state government.

Odisha launched India’s first comprehensive scheme for the Safety and Dignity of the CSWs, called Garima, in September 2020. As part of this scheme, a large-scale enumeration of CSWs across Odisha is being conducted. This is the first time such a comprehensive survey is being done in any state in the country, and it is estimated that around 20,000 CSWs and their families, totalling around 1 lakh, will benefit from the scheme.

The overall objectives of the Garima Scheme (H&UDD, n.d.) are:

| Institutionalizing and regulating the core sanitation services | Providing service-level benefits |
| Offering social and financial security benefits to core sanitation workers and their families | Increasing the focus on the enforcement of statutory provisioning under various national and state legislations. |

The Garima Scheme is being implemented by the Housing & Urban Development Department (H&UDD), Odisha, with technical support from the Urban Management Centre (UMC), a not-for-profit organization. The state-wide enumeration process includes identification, survey, validation, and registration of CSWs in a centralized database, by all 115 ULBs. Information is also collected on the workers engaged by Private Sanitation Service Organizations (PSSOs), which are registered with the ULBs. To promote better participation, the surveys are conducted by volunteers from the Safai Karamchari Andolan (SKA), which builds a level of comfort among sanitation workers. The Garima Scheme also adopted a snowballing approach to reach more sanitation workers by leveraging the existing networks of the survey respondents.

Institutionalizing and regulating the core sanitation services

Offering social and financial security benefits to core sanitation workers and their families

Providing service-level benefits

Increasing the focus on the enforcement of statutory provisioning under various national and state legislations.
To enumerate all eligible CSWs, so that no one is left behind, pre-survey mapping was done to identify the settlements of sanitation workers by speaking to peer workers, community leaders, private contractors, and ULB field staff. The ULBs and PSSOs were asked to share the list of sanitation workers contracted with them. Awareness was created about the surveys through discussions with the field-level ULB staff through morning assembly, hoardings, and leaflet distribution, to encourage all eligible sanitation workers to participate in the survey. Concurrently, volunteers who had been with the SKA for many years were identified as enumerators, since they were already known within the sanitation worker communities. Enumerators were provided the necessary training on how to conduct the surveys and operate the user-friendly survey app SHWAS (meaning “breath” in Hindi; lit: Sanitation workers Health Welfare and Safety;) developed under the Garima Scheme (UMC, 2022). The survey data collected then needed to be verified so that the benefits could reach the right people. For this, the UMC and the ULB staff together conducted desk and field verification. Calls were made to a random sample of respondents to cross-verify basic and work-related information. Simultaneously, errors were flagged and rectified at the backend, by checking the survey responses collected by enumerators against the lists from the ULBs and PSSOs. To encourage maximum reach, a toll-free number was also set up, through which left-out workers or their families could contact and register a request for enumeration.

After completing the surveys, the ULBs published a draft list and posted it in public places such as the ULB ward office and the CSW settlement areas for a month. The respondents could check if they were on the list and cross-check their information on the file. In cases where data had been incorrectly captured, they could inform the ULB officials or field staff, or call the toll-free number. Moreover, to ensure the accuracy of records, the ULB staff and front-line workers (FLW) conducted field-based validation of survey responses in urban areas and peri-urban areas, respectively. Through the validation process, the ULBs identified the eligible CSWs from the pool of respondents and published the final database for each ULB on the Beneficiary Management System Portal. A unique Garima ID was issued to the validated respondents, to facilitate better access to benefits. Thereafter, the cities conducted camps to validate the information of the workers before generating the ID cards as well as create opportunities for the government to provide entitlements to these workers, such as issuing Aadhaar card or opening bank accounts.
Granular, multipronged approach for identifying all CSWs

- Before beginning the survey, the enumerators and the ULB staff held opening community meetings to inform the sanitation workers about the Garima Scheme and the objective of the survey.
- During the surveys, the respondents were asked to share the contact details of family members, relatives, and peers with similar jobs in pilot cities, even if they resided in peri-urban areas. Alternatively, the enumerators shared their numbers or the toll-free call centre number.
- Enumerators also held closure meetings in the communities to find left-out workers.
- In some pilot cities, SMSes were sent to the respondents to check for other workers who want to be surveyed.

Validation of survey data

- SMSes were sent to respondents when the draft list was published so they could verify if their details were correctly included. Field-based validations were also conducted.

Ensuring transparency and involvement of the CSW community in the survey process

- The strategy was developed to include sanitation workers’ communities in designing the tools and methodology for conducting the survey.
- The surveys were peer-led, conducted by enumerators from the SKA. This brought a certain level of sensitivity to the process, since the enumerators were aware of and empathetic towards the workers’ issues. Where needed, the survey process was modified based on feedback from the SKA enumerators.
- Local Community Organizations and Swachh Saathis were engaged in the validation process given their pre-existing knowledge of the tasks carried out by different sanitation workers.

Digital sophistication

The survey application—bilingual, in Odia (the local language) and English set up as part of the Beneficiary Management System (BMS) and digitally enabled through SHWAS to obtain real-time data. The app also allowed for survey responses to be filled in offline and synced later.
## Impact

| 6 piloted cities | 5,016 sanitation workers validated as CSWs | 3,000 CSWs linked to the Biju Swasthya Kalyan Yojana | 70+ linked with Aadhaar |

The survey was piloted in six cities: Bhubaneswar, Berhampur, Cuttack, Rourkela, Sambalpur, and Puri, where roughly 44% of the urban population of Odisha resides. More than 15,000 sanitation workers who worked in these cities were surveyed, of which 5,016 were validated as CSWs in five cities, excluding Bhubaneswar, where this process is still underway. The enumeration has made it easier to link CSWs with the schemes targeted at them. More than 3,000 validated CSWs have been linked to the Biju Swasthya Kalyan Yojana, based on their unique Garima ID. The enumerators discovered that less than 5% CSWs lacked Aadhaar cards; subsequently, the Garima-TSU facilitated linking 77 such workers with Aadhaar. These efforts have provided the identified sanitation workers with the visibility they had hitherto been deprived of—a first step towards gaining access to the government welfare entitlements and opportunities critical to socio-economic mobility.

### Reflections and Lessons

A few challenges were identified during the pilot run, since a survey of this nature was happening for the first time in the country.

#### 01. Pre-survey:

- While most CSWs live in large communes (bastis), many are also scattered since they are either housed by private contractors or are immigrants. **Identification of the settlements of sanitation workers proved challenging**, and tracing each CSW is a time-consuming task. Involving the CSW community in this process helped address the issue to some extent.
- **Not all private contractors were willing to provide the list of CSWs** working for them, since many were employed informally, and often illegally.
- Surveys had to be designed factoring in the uncertain duration of various job roles.

#### 02. During survey:

- Some CSWs were initially hesitant to participate due to the stigma associated with the job.
- **Job timings of sanitation workers had to be considered** before visiting the respondents. Multiple visits were made to the same settlement to enumerate all CSWs.
- Many respondents faced survey fatigue, as they had previously participated in several surveys conducted by different agencies, with no tangible outcome. The enumerators gained the trust of the CSWs once the workers saw that other respondents were being validated and registered.
- **Over-inclusion was an issue during the survey, with some of the non-eligible workers, who did not fall under the definition of CSWs, also being enumerated.**

#### 03. Post survey:

- **There were some challenges in finding the respondents at the time of validation** (both for quality check call and on field) as they would change their contact details or be unreachable for other reasons. For instance, some CSWs could not afford to recharge their phones and their incoming calls were blocked. Thus, the details of sanitation workers require frequent updating. Keeping this in mind, the SHWAS is dynamic in nature.
- **ULB field staff were overburdened** with other work. They found it difficult to manage the tasks related to enumeration in addition to the work that they already had.
- **The enumeration process needs to be kept dynamic.** ULBs are in the process of setting up systems for the inclusion of non-enumerated sanitation workers under the GARIMA Scheme.

### Potential for Replication

Given the success of the pilot, there is clear scope for scaling the surveying process throughout the state. The next round of surveys has already begun, and the learnings from the pilot have been used to train the enumerators in 109 ULBs in March 2022. Swachh Saathis, or local volunteers, have been engaged in scaling up the survey in the remaining 109 cities of Odisha, and their remuneration for each validated survey has already been approved by the government.

In other states and cities as well, similar field-level cadres can be mobilized to complete surveys in 5–15 days, depending on the size of the region and the number of sanitation workers. While the validation process took 1.5 months during the pilot, the time can be reduced to 10–15 days with a dedicated team of workers. Moreover, the IT tools and surveys have been prepared on an open-source platform, which makes it easy for others to adopt and scale. Additionally, the training and Information Education and Communication (IEC) material developed for enumerators can be easily adopted by other states and countries.

The practices and learnings from this case have shown how engaging local organizations and local outreach cadres of the government can not only increase accessibility to the communities of sanitation workers for easier enumeration but also help strengthen coverage. Moreover, with proper training and digitization, the enumeration process can be completed in record time, paving the way for wider recognition and increased access to welfare benefits for CSWs.
The non-CSW (railway cleaners, sweepers, etc.) had to be sifted out of the pool of respondents, through desk and field validation based on the nature of their work.

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References

Due to inadequate sanitation facilities and a lack of hygiene education, by the late 1990s, the urban poor within the City of Tiruchirappalli, or Trichy, a city corporation in the state of Tamil Nadu, were subject to frequent outbreaks of waterborne diseases. Over the past decade, various organizations have made efforts to improve the sanitation conditions in Trichy. The latest in this series of efforts has been the Trichy Citywide Inclusive Sanitation (CWIS) Project, which is guided by Urban Local Bodies (ULBs) and delivered by a consortium of partners led by the Indian Institute for Human Settlements (IIHS). While the project aims to improve overall sanitation outcomes in Trichy across the full cycle of sanitation, what makes this programme stand out is its focus on improving the work and living conditions of informal sanitation workers and waste pickers, who often live on the fringes of society. The Tamil Nadu government has made provisions to recognize the occupations of informal workers, by issuing job cards. The programme has been successfully piloted in Trichy. In future, these job cards will also link their holders with various social security benefits.

<table>
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<tr>
<th>CASE 02: JOB CARD ENROLMENT FOR INFORMAL SANITATION WORKERS</th>
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<td><strong>Implementing Organization:</strong> Tamil Nadu Unorganized Workers Welfare Board, Tamil Nadu Labour Department</td>
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<tr>
<td><strong>Technical Partner:</strong> Indian Institute of Human Settlements</td>
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<tr>
<td><strong>Support Partners:</strong> People Development Initiatives, Sathanai Unorganized Workers Welfare Association</td>
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<tr>
<td><strong>Location:</strong> Trichy, Tamil Nadu</td>
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<td><strong>Partner Contact Details:</strong> <a href="https://iihs.co.in/">https://iihs.co.in/</a></td>
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Trichy is one of eight global cities selected under the CWIS initiative that aims to provide equitable, safe, and sustainable outcomes across the full cycle of sanitation. The initiative focuses on improving the delivery of sanitation services in the city and ensuring the safety and welfare of sanitation workers and waste pickers. Improving their quality of life remains key to achieving the city’s CWIS outcomes; however, the social stigma, health risks, and working conditions they face act as bottlenecks to achieving the desired outcomes. These challenges are further magnified for those involved in the informal segments of the sanitation sector, such as waste pickers, who do not have a fixed place of employment and must travel to different neighbourhoods on a daily basis to collect waste.

In Trichy, the social stigma is compounded by the sanitation workers being restricted to reside in the 23 settlements across the city. For instance, waste pickers are usually confined to desolate areas such as Dharanallur, Stalin Nagar, Indra Nagar, and Thidir Nagar. The challenges of spatial exclusion, along with lack of access to financial/social security and health/social welfare schemes, exacerbates the plight of sanitation workers in the city. This is particularly problematic, since a sizable portion of waste pickers are women, with men in the sector usually responsible for trading collected waste.

The Tamil Nadu Unorganized Workers Welfare Board (TNUWWB), under the Tamil Nadu Labour Department, is mandated to provide welfare assistance to 58 types of informal workers. However, informal sector workers, especially waste pickers, often do not have an established employer, which makes it difficult for them to access these benefits. The lack of official identification of their employment has been identified as one of the reasons for the stigmatization and harassment faced by informal sanitation workers. The lack of formal recognition also hampers their access to various schemes and benefits.

To address this, the Tamil Nadu Labour Department, with support from the IIHS, has undertaken an initiative to issue job cards for informal sanitation workers. These job cards, approved by the Tamil Nadu Labour Department, formally recognize the recipients as a category of informal sanitation workers. This, in turn, helps the workers claim various social security benefits that they are entitled to, including education and marriage assistance for children, insurance, medical support, and pensions. To ensure wide coverage of this programme, the IIHS has partnered with two organizations that have on-ground expertise—the People Development Initiatives (PDI) and the Sathanai Tamil Nadu Unorganized Workers Welfare Association. This helps in verifying and certifying the residential and occupational status of informal workers. The implementing team also helps the beneficiaries procure the required documentation to get an Aadhaar card, which is mandatory for getting the job card.
Implementation Approach

As part of the enrolment process, the following activities were undertaken:

1. Conducting a survey for identification of informal workers
2. Occupational verification of identified workers
3. Visit to their residences to confirm the address
4. Support in uploading ID proofs and filling up enrolment forms
5. Ensuring receipt of identification job card
6. Tracking and renewal of job cards post expiry (every 5 years)

These camps were set up on specific days and had officials from the Tamil Nadu Labour Department /TNUWWB, the Postal Department (to help link the recipient’s phone number with their Aadhaar), and Sathanai. The initial identification and verification done by Sathanai was then submitted to the Village Administrative Officer (VAO) or Sanitation Inspectors, who further issued the official Occupational Certificate for informal workers. Based on this certification, and after verification of the applicant’s Aadhaar, the online enrolment was completed and a job card number was generated by the TNUWWB. The Tamil Nadu Labour Department maintains a database of the cardholders and keeps track of the various claims availed by the beneficiaries. The job cards were issued within two to four weeks after the registration. Sathanai helped distribute the issued cards, while also spreading awareness about their benefits and the process of claiming them. Moreover, it continues to provide ongoing support to the card holders for applying and receiving claims as per their eligibility.

Sathanai’s previous engagements with sanitation worker welfare programmes enabled them to conduct the initial identification and enumeration of the informal workers in different geographical areas. They were also able to conduct 27 awareness camps across waste pickers settlements, to disseminate information on the process of registration and to create awareness about the benefits of the job card and the various entitlements linked to it.

The job cards must be renewed every five years during the period that the beneficiaries are employed as informal workers, and once before they turn 58 and become eligible for pension. To maintain long-term sustainability of this programme, Youth for Sanitation (YS) Clubs are being formed with volunteers from the settlement, who will then help with claiming benefits, filling out forms, and tracking card renewal dates. The YS Club members have received training on fulfilling their roles and are being encouraged to hold monthly meet-ups to promote teamwork.

The Tamil Nadu Labour Department has already digitized the processes of renewing the cards and delivering benefits. However, while this was done to streamline operations across the state and reduce the influence of middlemen, it complicates the application process for those who do not have access to digital devices. To mitigate this problem, four Citizen e-Centres (CeC) are being set up around settlements where the beneficiaries live—E.B. Road, Mulathoopu, Thiruvaramburm, Kalarai Mettu Street. These centres will function as profit-making businesses, while also assisting eligible workers in enrolling, claiming their benefits, and renewing their cards every five years. The CeC staff will be trained to apply for these various schemes and educated about their eligibility and benefits. While the enrolment process is underway, the IIHS is already planning to establish a monitoring mechanism for tracking the claims raised and benefits received by gender.
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Impact

The enumeration and issuance of job cards have provided greater visibility to informal sanitation workers, particularly to women. As of March 2022, a total of 368 informal sanitation workers were enrolled under the programme, of which 300 beneficiaries have already received the job cards. Given the programme’s focus on the most vulnerable groups, 53 of the beneficiaries are waste pickers, of whom 49 are women.

The job cards provide their holders with access to various welfare measures such as maternity support, medical support, access to life insurance, health insurance, pension fund, and funeral expenditure. They are covered under insurance, with a coverage of Rs. 5 lakhs in case of death or permanent deformity and Rs. 1 lakh in case of partial deformity. The card also provides access to specific benefits targeting the girl child of informal workers. Education support of Rs. 4,000 for degree courses and up to Rs. 6,000 for technical degree courses is available for daughters of informal workers, along with an additional provision for hostel fees. The job card also enables workers to seek funds for marriage support for up to two children—Rs. 5,000 for a daughter and Rs. 3,000 for a son.

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Highlights

Of all types of informal workers, waste pickers face the most discrimination. Since they have no fixed workplace and are rarely formally employed, they are often subjected to interrogations by the police or the public. Having a job card will grant waste pickers an occupational identity, which will, in turn, protect them from such undesirable situations.

¹ The service fee will be minimal, but it is yet to be determined.
Potential for Replication

While the current programme enables access to various social benefit schemes, several social and systematic challenges persist. These necessitate additional measures to ensure the welfare of the community. In 2021, the Tamil Nadu Adi Dravidar Housing and Development Corporation Ltd (TAHDCO) amended the structure of their Sanitation Worker Welfare Board, which now recognizes informal sanitation workers from Scheduled Caste/Scheduled Tribe communities across the state, by registering them and bringing them within its purview. This measure will enable such informal sanitation workers to access additional benefits provided by the TAHDCO, to augment those already being provided by TNUWWB. The IIHS is currently working closely with the Trichy chapter of the TAHDCO to align the schemes and benefits and scale the programme across the state.

The model used in Tamil Nadu can be scaled and replicated across different states under their respective labour departments. Similar provisions of registration and recognition of informal sanitation workers can be created by other state departments to facilitate access to various state schemes. The states could also consider engaging labour welfare organizations to execute the programme, since such organizations already have a basic understanding of and a presence in the community of the intended beneficiaries.

The programme has been highlighted as a best practice, since it helps validate otherwise unrecognized sanitation workers, helping them obtain social security benefits to which they are entitled. More importantly, it formally recognizes their role in the larger sanitation system of the city, thereby giving them a sense of identity and potentially reducing social stigma.

Reflections and Lessons

The enrolment of informal workers has been challenging due to their inherent uncertainties associated with their employment, their lack of documentation, and the lack of information on the benefits of the scheme. Some key lessons learnt so far are listed below.

1. There is a need to converge the registration process and the provision of benefits, given the involvement of multiple departments such as the Tamil Nadu Labour Department, ULBs, and the Postal Department.

2. Some beneficiaries required either an Aadhaar card or their mobile numbers to be relinked with their Aadhaar, before they could be enrolled in the programme causing week-long delays in the registration process. Moreover, if the beneficiary does not have a mobile, their Aadhaar will be linked to the phone number of another family member, adding a layer of complexity to the process.

3. The residential verification process proved to be tedious, since many informal workers do not live in pucca houses.

4. There is a need for increased sensitization of the officials providing the occupational certificate—the VAO or the sanitation inspectors. The lack of awareness about the programme and the registration procedure, slows down the overall process, despite the assistance provided by the welfare associations.

5. Since many waste pickers may not have basic literacy skills, disseminating information through pamphlets, even pictorial ones, will not help create awareness. The entitlements must be explained to them orally, and reiterated many times to ensure no information is missed out or skipped over.
The nature of sanitation work puts those involved in the sector in precarious conditions with respect to their health and safety. In India, these workers routinely engage in this type of hazardous work without the social and financial security of health or life insurance. Despite various state and Central government schemes which are targeted at benefiting the poor, the lack of knowledge among the targeted beneficiaries on the importance of such schemes has made the overall uptake low. This programme conducted by the Indian Institute of Human Settlements (IIHS) in Trichy aims to educate the sanitation workers in the city on the importance of insurance and link them to at least one of the existing government schemes that they are eligible for.
Sanitation workers in India routinely work in hazardous conditions, often without the right Personal Protective Equipment (PPE), making them vulnerable to health risks and fatal accidents. Further, caste-based discrimination, low wages, and job insecurity make access to basic healthcare, without insurance, prohibitively expensive.

In most cases, sanitation workers are either employed by Urban Local Bodies (ULBs) or private contractors. The ULBs works with both permanent employees and contractual hires: the former are entitled to benefits including insurance, whereas those hired contractually (as well as workers in the private sector) rarely receive insurance coverage. One report estimates that 90% of sanitation workers in India do not have insurance coverage (Paliath, 2020). While there are several insurance products available that specifically target low-income groups, which make up for the absence of employer-based insurance, the general lack of awareness among sanitation workers makes insurance a low priority for them.

The Pradhan Mantri Suraksha Bima Yojana scheme is available to people in the age group of 18 to 70 years, provided they have a bank account and have consented to auto-debit on an annual renewal basis. A premium of Rs. 20 per annum (previously, Rs. 12 per annum) is deducted from the account holder’s bank account. The risk coverage under the scheme is Rs. 2 lakhs for accidental death and full disability, and Rs. 1 lakh for partial disability.

The Chief Minister’s Comprehensive Health Insurance Scheme (integrated with the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, AB-PMJAY) launched by the Tamil Nadu state government provides healthcare coverage at no cost to the insured, across 250 enlisted government and private hospitals. All families with an income of less than Rs. 72,000 per annum are eligible.

The IIHS, along with its partner Her Voice Foundation, launched an initiative to enrol all sanitation workers in the city of Tiruchirappalli, in at least one such scheme. The objective of the initiative is threefold:

1. Creating awareness among sanitation workers about the importance of insurance and about the schemes available to them
2. Assisting them in the process of enrolment in eligible schemes
3. Supporting beneficiaries with claims and renewal processes

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1 Based on conversations with sanitation workers, the IIHS reports that they do not prioritize subscribing to insurance coverage due to the lack of awareness about the importance of insurance and the schemes targeting low-income groups.
Reflections and Lessons

1. Conversations with sanitation workers shed light on the difference in the perceptions of insurance schemes. While workers were reasonably aware of the need for health and accident insurance, the need for life insurance was not well understood. Moreover, a general lack of awareness was recorded regarding the government subsidized insurance schemes that specifically targeted low-income groups.

2. Most sanitation workers were unaware of the processes involved in successful and continued enrolment in insurance schemes, specifically the renewal of policies. There is a need to educate workers on the importance of maintaining a minimum balance in their bank accounts to ensure the periodic auto-renewal of policies.

3. Currently, the IIHS initiative caters to informal sanitation workers in 23 settlements in Trichy. This can be scaled up to include a larger number of sanitation workers. Additionally, it is also important to increase the coverage of the schemes, to include family members and dependents.

Impact

- With the help of Her Voice Foundation, the IIHS enumerated 3,281 sanitation workers—2,003 women and 1,278 men—in Trichy. Of these, 661 workers needed insurance coverage under the Chief Minister’s Comprehensive Health Insurance Scheme. As of March 2022, 222 sanitation workers, including 158 women and 64 men, have been linked to the scheme. The IIHS is in the process of enrolling an additional 439 workers.
- Out of the 3,281 individuals enumerated, 1,283 had access to some form of life and accident insurance. The remaining 1,998 sanitation workers were then linked with the Pradhan Mantri Jeevan Jyoti Bima Yojana and the Pradhan Mantri Suraksha Bima Yojana.
- As of March 2022, an additional 951 sanitation workers, including 691 women and 260 men, had been linked with insurance schemes.

Implementation Approach

The implementation of this initiative began with the estimation of the number of sanitation workers and understanding of their levels of awareness about existing schemes and their benefits. Subsequently, the initiative helped the workers obtain the necessary prerequisites for enrolling in the schemes, such as opening bank accounts, getting Aadhaar cards or other forms of identification, and procuring proof of income. The IIHS and its partners took a bottom-up approach in the implementation of the initiative, as listed below:

Assessment: As part of its larger Citywide Inclusive Sanitation (CWIS) initiative in Trichy, the IIHS first enumerated sanitation workers. Along with Her Voice Foundation, it conducted a detailed assessment of the existing landscape, going door-to-door, with the help of a questionnaire regarding awareness and enrolment in insurance and other schemes.

Creating Awareness: Based on the assessment, the IIHS conducted several awareness programmes with the help of Her Voice Foundation to reach sanitation workers and their families who lacked insurance coverage. These were organized within the 23 settlements of sanitation workers. The objective of the programme was to create awareness about the importance of insurance schemes, the different types of schemes available, as well as to provide details on the process of availing of the schemes.

Facilitating Enrolment: Enrolment to these schemes is contingent on linking the beneficiaries’ bank accounts, providing documents such as income certificates, etc. The IIHS supported sanitation workers in obtaining documents, opening bank accounts, and linking them to the insurance scheme.

Ensuring Sustainability: To ensure the continued enrolment of eligible sanitation workers and the timely renewal of insurance schemes, the IIHS conceptualized an organization called “Youth for Sanitation” (YS) Club. The YS Club is a voluntary youth-led, community-based organization in each of the 23 settlements in Trichy. While Her Voice Foundation is currently leading these activities, the IIHS aims to use the YS Clubs to make the initiative self-sufficient. The clubs will ensure that sanitation workers maintain a minimum balance in their bank accounts to enable premium payments and remind enrolled workers of renewals.

sanitation Workers Enumerated

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,281</td>
<td></td>
</tr>
<tr>
<td>1,998</td>
<td>Workers linked to the Pradhan Mantri Jeevan Jyoti Bima Yojana, and Pradhan Mantri Suraksha Bima Yojana.</td>
</tr>
<tr>
<td>951</td>
<td>Additional workers linked to insurance schemes on March 22</td>
</tr>
</tbody>
</table>

sanitation Workers

<table>
<thead>
<tr>
<th>Enumerated</th>
<th>Linked to Pradhan Mantri Jeevan Jyoti Bima Yojana, and Pradhan Mantri Suraksha Bima Yojana</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,281</td>
<td>2,003 women and 1,278 men</td>
</tr>
<tr>
<td>1,998</td>
<td>158 women and 64 men</td>
</tr>
<tr>
<td>951</td>
<td>691 women and 260 men</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,281</td>
<td>Workers enumerated and linked to insurance schemes.</td>
</tr>
<tr>
<td>1,998</td>
<td>Workers linked to the Pradhan Mantri Jeevan Jyoti Bima Yojana, and Pradhan Mantri Suraksha Bima Yojana.</td>
</tr>
<tr>
<td>951</td>
<td>Additional workers linked to insurance schemes.</td>
</tr>
</tbody>
</table>

1. Conversations with sanitation workers shed light on the difference in the perceptions of insurance schemes. While workers were reasonably aware of the need for health and accident insurance, the need for life insurance was not well understood. Moreover, a general lack of awareness was recorded regarding the government subsidized insurance schemes that specifically targeted low-income groups.

2. Most sanitation workers were unaware of the processes involved in successful and continued enrolment in insurance schemes, specifically, the renewal of policies. There is a need to educate workers on the importance of maintaining a minimum balance in their bank accounts to ensure the periodic auto-renewal of policies.

3. Currently, the IIHS initiative caters to informal sanitation workers in 23 settlements in Trichy. This can be scaled up to include a larger number of sanitation workers. Additionally, it is also important to increase the coverage of the schemes, to include family members and dependents.
### Potential for Replication

The IIHS initiative to enrol sanitation workers in Trichy for insurance schemes has been successful due to the comprehensive approach taken to ensuring 100% coverage. The replication of such an initiative would, therefore, require enumerating sanitation workers within the targeted region and creating a robust database. Thereafter, a background assessment must be conducted, of their understanding of the importance of insurance and awareness about existing schemes available to them. This will help guide the approach to enrolling sanitation workers into appropriate schemes, with the following steps:

1. **Designing awareness programmes, to educate sanitation workers about the importance of insurance and schemes available to them, as well as the process to access them;**
2. **Assisting them with the processes involved in enrolment, including opening bank accounts and obtaining relevant documents such as income certificates and identification documents; and**
3. **Creating awareness about periodic renewal and the processes involved in claiming benefits.**

The success of such an initiative also requires the creation of a sustainable environment within the community, to ensure that no sanitation worker is left behind. To this end, it is necessary to:

- Enrol sanitation workers, and perhaps their families, in relevant schemes;
- Track renewals and make sure they are successful, by nudging workers to maintain a minimum balance in their bank accounts.

The YS Club serves as a model organization that can help create a self-sustaining initiative, with support from young volunteers from the sanitation workers’ settlements.

### References

CHAPTER 5

IMPROVING THE QUALITY OF LIFE FOR SANITATION WORKERS
Education is the foundation on which equitable and prosperous societies are built. It is a basic human right ("Universal Declaration of Human Rights," n.d.) and one of the six fundamental rights guaranteed by the Constitution of India. However, quality education remains out of reach for many children in India, especially those from marginalized communities. Historically, access to good educational opportunities has been difficult for the children of sanitation workers—predominantly from communities lower in the caste hierarchy—and the COVID-19 pandemic has further exacerbated the situation. Moreover, lack of support from parents, who are often unlettered, also increases the likelihood of children of sanitation workers dropping out of schools.

Ensuring higher levels of education for the children of sanitation workers can unlock alternative livelihood opportunities for them and help break the intergenerational cycle of sanitation work. In 2021, the Urban Management Centre (UMC), while assisting the Government of Odisha with the Garima Scheme for sanitation workers, piloted a community-driven programme called DRISHYA (Delivering Reimagined and Intellectual Learnings for Holistic Development of Young Children and Adolescents) in sanitation workers’ settlements in Cuttack and Berhampur. The programme takes a holistic approach to facilitate learning with an engaging, adaptive, and activity-based pedagogy. With the help of counselling and guidance, the programme also aims to ensure continued interest in and prioritization of education—both among children and parents. The involvement of the communities of sanitation workers in the two cities, in various capacities, has contributed to the success of the initiative, making it noteworthy.
In India, sanitation work has historically been caste-driven and often delegated to marginalized communities, particularly the Scheduled Castes (Athawale, 2021). Thus, sanitation workers have experienced social ostracization due to both their caste identity and their occupation. Over the years, this systemic isolation has resulted in the lack of access to basic necessities such as education and healthcare, for sanitation workers as well as their dependents, which further inhibits their opportunities for socio-economic progress.

The school closures during the lockdowns due to the COVID-19 pandemic exacerbated the problem of access to education, with children from marginalized communities being disproportionately affected. This includes children of sanitation workers, especially those enrolled in government schools, who often lack the appropriate infrastructure to access online classes (UNICEF India Country Office, 2021). Moreover, many parents are unable to support their children's learning, either due to low levels of literacy or lack of time, making the children more likely to drop out of schools and ultimately take up the same profession as their parents. This increases the risk of exploitation and perpetuates a vicious intergenerational cycle (I., Shruti & Majumdar, 2021).

The UMC created the DRISHYA (Delivering Reimagined and Intellectual Learnings for Holistic Development of Young Children and Adolescents) programme for the children of sanitation workers in Odisha. It is designed to enable their effective participation in society, by strengthening and enhancing their functional literacy, numeracy, and basic science skills. It equips children with key skills such as critical thinking, problem solving, and social skills. By providing an enabling learning environment within the community, and educating and counselling both parents and children, the programme aims to capture and sustain their interest in education and encourage parents to make children's education a priority. This, in turn, reduces school dropout rates among children of sanitation workers. The programme also aims to orient adolescents to alternative occupations, by exposing them to the skills and education required to break the intergenerational nature of sanitation work.

Implementation Approach

While supporting the Government of Odisha with the Garima Scheme, the UMC was able to establish its presence and build a network with the ULBs and communities of sanitation workers in the cities of Cuttack and Berhampur. The UMC used these networks and leveraged the data they had already collected as part of the Garima Scheme, to contextualize the programme within the sanitation workers' ecosystem1, which was key to implementing the programme.

Once the cities were chosen, the UMC set up learning hubs within the communities of sanitation workers, run by trained DRISHYA fellows, within their homes. DRISHYA fellows are individuals from the local community, identified by community leaders and then selected by field officers following an assessment and interview process. Each fellow conducts classes for a group of 15–20 children, for two hours every day. Children are assessed and subsequently grouped and enrolled in classrooms based on their aptitude. To ensure that the fellows have the requisite teaching and managerial skills, the UMC has partnered with PRATHAM, an NGO focused on bridging gaps in the education system, to deliver a seven-day training programme. The training focuses on using adaptive learning pedagogy and developing an engaging curriculum, conducting regular assessments of children, managing the classroom, and practising computer skills to deliver the curriculum using audio-visual aids. In addition to the training, fellows are provided with a teaching kit—each containing a Raspberry Pi computer (“What is a Raspberry Pi,” n.d.), a computer screen, speaker, and a web camera. The fellows receive a stipend to cover the expenses of the hub as well as their personal expenses. The UMC is also expanding its aptitude-based curriculum to include subjects such as Odia, English, Mathematics, Science, and Social awareness, which is shared with the fellows via e-mail.

In a post-pandemic world, as physical classrooms begin to reopen, UMC plans to use this learning programme to ensure the re-enrolment of the children in schools, by helping them gain confidence in their foundational literacy skills. It also helps in ensuring that the children are not left behind due to poor access to online classes. Another important component of the programme is counselling, which is provided to both parents and children, in order to sustain their interest in schooling and raise awareness about lucrative educational outcomes. In the long run, the initiative aims to urge parents to prioritize their children's education and set aside a portion of their income towards the children's education.

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1 A majority of children in these communities did not have access to smartphones or computers during the COVID-19 pandemic. Additionally, most sanitation workers were unable to support their children’s learning at home due to low levels of literacy.
So far, the UMC has successfully established a total of 17 learning hubs, with 18 teaching fellows—11 in Cuttack and seven in Berhampur. As of June 2022, 285 children (53% girls, 48% boys) have been enrolled across 17 learning hubs. The children are assessed periodically, based on ASER tools developed by PRATHAM. The assessment indicates significant improvement in the learning levels of children within a short period of time.

At the time of enrolment, 31% of children were not able to read, write, or count a number/letter. Within three months of learning, it came down to just 1%. The percentage was even higher for basic literacy (i.e., the child can read, write, and count a word or two-digit number), with 28% of children showing a marked improvement. The impact numbers reflect the benefits of regular classes, with a record of 82% average monthly attendance, along with activity and audio-visual based teaching methods that aid in better understanding among children.

**Better attendance rates:**
A key milestone and a significant challenge in the early days of the DRISHYA programme was regular attendance. However, the use of technology and audio-visual aids have created a novel and fun learning environment, resulting in a marked improvement in children’s interest and, consequently, their enrolment and attendance over time.

**Tailored teaching:**
The ASER (Annual Status of Education Report) assessment ("ASER survey overview,” n.d.) allows children to be grouped according to their proficiency. For instance, children capable of identifying numbers and performing simple addition and other arithmetic operations are assigned to Level 1, regardless of their age. The UMC tailors the curriculum to these groups, to enhance their basic numeracy and literacy skills.

**Experiential learning:**
Although most of the curriculum steers away from traditional school curriculum, it does focus on reinforcing basic concepts in mathematics, science, and language. Anecdotal evidence suggests that this approach could supplement and bolster children’s learning at school.

**Interpersonal and hygiene skills:**
The UMC has also designed a curriculum on behavioural and social skills to inculcate interpersonal skills and good hygiene practices. Anecdotal evidence reflects that the children have started adopting better WASH (Water, Sanitation, and Hygiene) practices and are also teaching these practices to their families.
Reflections and Lessons

Structured as a community-led programme—anchored by DRISHYA fellows, children, and parents—the programme has proved effective in the intervention settlements of Cuttack and Berhampur. The aspects of this programme that helped enhance its effectiveness in the community are noted below.

Adaptive learning pedagogy: Conversations with the community indicated a significant interest among children in learning due to an adaptive learning pedagogy. The programme focused on activity-based learning, which ensured engagement with children attending the classes, contributing to the group activities, and doing their homework regularly. The children were encouraged to think creatively and express themselves through arts and crafts, and dance, which helped enhance their soft skills. The baseline indicated that at the time of enrolment, over 31% of the children could not read, write, or count, which was reduced to 1% within three months, as a result of the adaptive learning pedagogy. This initiative is, thus, compensating the loss of the education incurred due to COVID-19 with great value addition.

Fostering community champions: DRISHYA fellows were deliberately chosen from within the communities and settlements of sanitation workers to facilitate a strong connection between the fellows and the children and their parents. Selected based on standard criteria and interviews, the fellows belonged to similar backgrounds as the children. As a result, they were not only personally motivated to change the status quo but also able to build a good relationship with the children and their families, to help achieve the objectives of the programme. The fellows have now become role models for other youth of their community, as they are formally engaged with an organization while building on their own professional skills. This encourages the youth in the community to explore alternative opportunities for work.

Counselling support: The UMC is training counsellors in the organization to counsel children, their parents, and the youth of the community to sustain their interest in education and help identify different pathways to building a strong career in the future. The trained counsellors will conduct periodic counselling sessions in the local community to orient them on various educational and professional careers.

DRISHYA’s approach has been to teach children “how to learn,” and with the schools re-opening, this approach will continue to enrich their education experience.

Potential for Replication

Access to education is key to breaking the cycle of intergenerational sanitation work. Often, children from sanitation workers’ communities are left behind in schools due to a lack of support, ultimately resulting in their education being cut short. The successful implementation of DRISHYA in Cuttack and Berhampur makes a compelling case for its replication in other cities in the country. However, it is important to contextualize the programme by understanding the needs of the children in these communities and tailoring it to meet their specific needs.

Focus group discussions with the members of the community can help understand the need for such initiatives. Leaders and prominent members of the community should be involved in various stages of the programme, for example, in identifying fellows and spreading awareness about the programme. Focusing on strengthening the foundations—e.g., ensuring basic literacy, numeracy, and science skills—before imparting complex skills can bolster traditional school education and ensure higher retention rates in schools. At the same time, supplementing classroom learning and pedagogy, and providing support and guidance to the parents and children in the form of counselling, will help anchor their interest in education.
References


The caste-based systemic disadvantages faced by sanitation workers extend across generations. This restricts them from access to opportunities in jobs and education, making social mobility as a community extremely difficult. Hence, sanitation workers and their families are usually stuck in the field of sanitation for multiple generations, without the opportunity to seek alternative livelihoods. To address this issue, the Indian Institute for Human Settlements (IIHS) and the Tamil Nadu government have been working on developing vocational skills and on-the-job training for the family members of sanitation workers. The programme also focuses on securing job placements for them in alternative fields.

CASE 02: VOCATIONAL SKILL TRAINING FOR SANITATION WORKERS’ FAMILIES

Implementing Organizations:
Her Voice Foundation,
SWEAR Trust

Technical Partner:
Indian Institute of
Human Settlements

Location:
Trichy,
Tamil Nadu

Partner Contact Details:
https://iihs.co.in/
In India, sanitation work has a long history of being stigmatized and tied to caste. The relegation of sanitation work to caste groups historically considered "lower", traps people in a vicious intergenerational cycle, with little to no access to opportunities outside the field. Furthermore, the interplay of caste and gender makes women in the sanitation sector particularly vulnerable to discrimination and job insecurity (PRIA India, 2019). One way to disrupt the intergenerational nature of sanitation work is through education and training. Access to skills training could provide families of sanitation workers a path to access alternative sources of livelihood and enable their social mobility.

In this context, and since the principles of Citywide Inclusive Sanitation (CWIS)1 lie at the intersection of gender and equity to ensure inclusive sanitation in urban areas, the IIHS, piloted an initiative to rehabilitate sanitation workers and the members of their families, specifically women, via vocational training programmes under CWIS in the city of Tiruchirappalli.

The initiative was launched with the objective of providing skills/vocational training that could make alternative sources of livelihood accessible to sanitation workers and their families. Along with skills training, the initiative also aims to assist beneficiaries with job placements. For entrepreneurial members, the training assists in setting up and/or upgrading their enterprises.

To understand their needs and wants, the IIHS and its partners conducted several focus group discussions (FGDs) with sanitation workers in Trichy, in 2019. These discussions shed light on their aspirations for themselves and their children, primarily centred around finding better employment opportunities that could lead to better income. The FGDs helped the IIHS chart the course for the initiative, focusing on the following activities:

1. Identifying government-approved training providers, i.e., government-approved training institutes and institutes run by NGOs, within Trichy.
2. Helping potential beneficiaries assess opportunities, by imparting knowledge on the scope of enterprises and encouraging them to discover appropriate interests and upskill accordingly.
3. Training beneficiaries to acquire specific skills that can be leveraged to set up enterprises or find gainful employment.
4. Monitoring the quality of training through monthly follow-ups, with the participants as well as the skill training institutions.
5. Offering post-completion support to ensure the viability of the beneficiaries’ business models and help transition those into income-generating enterprises.

Beneficiaries are free choose from two different types of trainings—one that offers certified vocational skill training programmes and another that is demand-based. Institutions that offer certified vocational skill training programmes often do so free of cost, with the support of government schemes. They typically follow a prescribed syllabus and conduct practical training in standardized labs. Moreover, a small number of institutions, often with fewer than 35 trainees, also provide stipends. On the other hand, demand-based training programmes, as organized by CWIS, through its partners, are conducted in the vicinity of the sanitation workers’ settlements. These programmes are delivered by qualified resource persons and tailored to meet the needs of members of the community who are skilled in particular trades. Such demand-based training programmes are shorter and typically conducted by private organizations and institutions. This also means that trainees are often charged a fee depending on the trade, usually ranging from Rs. 3,000 to Rs. 15,000 per month. The fee-based model makes these programmes prohibitive for many trainees.

The primary differences between the certification programmes and demand-based programmes are highlighted in the table below.

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1 CWIS is a global initiative by the Bill & Melinda Gates Foundation, which focuses on improving the delivery of sanitation services in the city and ensuring the safety and welfare of sanitation workers. Trichy is one of eight global cities to be selected under the initiative.
According to the IIHS, as of 15 June 2022, a total of 216 trainees have been enrolled across government-approved, private, and NGO-run training institutions. Approximately 65% of these trainees have successfully completed a training programme. Additionally, institutions run by NGOs have the highest completion rates at 94%. Nearly 22% of trainees who have completed a programme have found gainful employment. Trainees also receive enterprise development training, resulting in a majority (62%) of them taking up self-employment post-completion.

It is also worth noting that all successful trainees from government-approved and private training centres have either found employment opportunities or are self-employed.

### Skill Training Details (Data as on 15 June 2022)

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<th>Type of Institution</th>
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<th>NGO Training Centre</th>
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<td></td>
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<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>No. of members enrolled for training</td>
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<td>17</td>
</tr>
<tr>
<td>No. of completed training</td>
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<td>14</td>
</tr>
<tr>
<td>No. of members under training</td>
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<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>
**Reflections and Lessons**

**Employment-oriented training:** One of the objectives of this initiative was to ensure access to alternative sources of employment to facilitate better income for the families of sanitation workers. The IIHS encouraged the youth from these communities to participate in skill development and upskilling programmes by creating awareness about the outcomes, i.e., employment opportunities and income. However, some trades and skills such as cell-phone repair emerged as more popular than others such as driving, among men from the same settlements. This could result in multiple men vying for the same resources in the settlement for obtaining employment or setting up an enterprise. For such cases, in order to ensure gainful employment and a level playing field for business opportunities, the IIHS encouraged them to consider choosing a different trade from the available options.

**Non-traditional training for women:** The vocational training programmes were launched by the IIHS under the gender initiative of the CWIS. It was observed that men, more than women, were likely to participate readily in the training programmes. To bridge this gender gap, the IIHS urged men to enrol women from their families in these training programmes. Since women were also more likely to choose traditional training such as tailoring and stitching, the IIHS encouraged women to actively choose non-traditional skill training by limiting the number of students per trade. Consequently, there was a gradual increase in the uptake for non-traditional skills among women, such as driving and cell-phone repair.

**Potential for Replication**

Skill development and skill-based training are essential to the rehabilitation of sanitation workers and their families. It is also a tool that can level the playing field for women from these communities. The IIHS initiative, launched with a focus on employment-oriented training in Trichy, has successfully laid the foundation to achieve these goals. It has championed skills training, particularly non-traditional skills training, for women, with the assistance of the community. This was possible due to extensive landscape mapping, i.e., mapping training resources available in the vicinity of the communities to possible employment and business opportunities. The model can be replicated in other cities, with the success of the initiatives hinging on the awareness and interest among members of the community. One way of achieving this is by leveraging Self-Help Groups that operate within the community. Ultimately, rehabilitation can be achieved by building an enabling environment that makes training and alternative employment opportunities accessible to sanitation workers and their families.

**References**

Sanitation workers are often at the risk of infections, due to their work involving waste collection and segregation, faecal sludge management, and sewer maintenance. To avoid spreading the risk of such infections to their families and communities, it is important for them to have a safe space where they can store their personal protective equipment gear and wash up after they finish handling waste. However, most sanitation workers do not have access to toilets during work, due to the nature of their job and the accompanying social stigma. It is, therefore, important to provide them with an aesthetic and functional space to serve this purpose.

The models for integrated sanitation facilities developed by Bremen Overseas Research and Development (BORDA)¹ address this problem and provides workers with sanitation amenities that are currently lacking. The quality of these units goes beyond the typical sanitation facilities constructed by the government, to provide workers with a sense of dignity in their work. Furthermore, to ensure operational sustainability and provide sanitation workers with a sense of ownership, the workers have been entrusted with the management of these facilities, which also incorporate retail spaces that can bring in the required revenue for operation and maintenance (O&M).

CASE 03: DEVELOPMENT OF COMMUNITY WASH FACILITIES

Implementing Organizations: Municipal Committee, Leh; Urban Development Department, Karnataka

Technical Partner: Bremen Overseas Research and Development Association

Location: Leh, Kargil, Karnataka

Partner Contact Details: https://www.borda.org/

¹ BORDA is an expert NGO specializing in full-cycle decentralized sanitation in over 20 countries around the world. Its Headquarters in South Asia is in Bangalore, Karnataka.
The nature of sanitation work, such as waste collection and segregation, faecal sludge management, and sewer maintenance, exposes those involved in ground-level work, to unhygienic conditions, putting them at risk for diseases and infections. However, despite these risks being widely known, the workers are often unable to avail of basic sanitation facilities—either at work (primarily due to the lack of a fixed employer or place of work) or at home (since most sanitation workers reside in informal settlements without proper access to clean water or toilets). The lack of sanitation facilities and shortage of dedicated storage areas for Personal Protective Equipment (PPE) increase the risk of them carrying diseases back home to their families. This problem was aggravated during the pandemic, when sanitation workers were employed in hospitals, responsible for picking garbage from COVID-19-positive households and the disposal of bodies of COVID-19 victims (Bhatnagar, 2021). Thus, the pandemic brought to the fore the need for improving the availability and access to dedicated sanitation facilities for sanitation workers, to minimize the risks faced by them on a daily basis.

The first prototype of this integrated sanitation facility was constructed in Leh, Union Territory of Ladakh through a partnership between BORDA, which provided the funding and technical expertise, and the local municipality, which provided the land for the facility. Key features of these facilities include:

- Basic utilities of clean and reliable toilets and bathing units, as well as solar water heaters, changing rooms, individual lockers, and laundry rooms where workers can clean up before heading home.
- Clean RO drinking water, first-aid provisions, a pantry, and a common recreational and dining area where the workers can eat or relax during non-working hours.
- Spaces for establishing commercial units, to help sanitation workers run other businesses from within the facility and ensure a sustainable stream of revenue for regular maintenance of this facility.
- Aesthetically appealing design, with bright paints and artwork on the walls, to ensure that the workers can take pride in these spaces.
- Proximity to one of the biggest residential settlements of sanitation workers, to ensure ease of access for their families as well, since most of them did not have sanitation facilities at their places of residence.

Thus, the Leh facility was designed as a financially self-sustaining unit, to be ultimately run by the sanitation workers. While the cost of construction and initial operations was borne by BORDA, the long-term plan was to transfer ownership to the workers utilizing the facility and ensuring the maintenance of the facility themselves. The sanitation workers in Leh had a workers’
Thus, the Leh facility was designed as a financially self-sustaining unit, to be ultimately run by the sanitation workers. While the cost of construction and initial operations was borne by BORDA, the long-term plan was to transfer ownership to the workers utilizing the facility and ensuring the maintenance of the facility themselves. The sanitation workers in Leh had a workers’ committee consisting of eight representatives, to whom the facility was handed over after consulting with the community and obtaining the requisite signatures of approval from them. To this end, BORDA has also provided them with the basic training and knowledge required to run these units. One of the committee members is now looking to establish a commercial unit (daily needs store) within the facility, the revenues from which will contribute to the facility’s maintenance.

A similar approach was taken in implementing the facility in Kargil. However, for the facilities in Bangladesh and Karnataka, the BORDA team only provided technical expertise with the projects being fully funded by the government. This has allowed for rapid implementation and expansion of the initiative.

What sets the facilities developed by BORDA apart from the standard sanitation facilities by the government is their design that goes beyond that of basic public toilets. These facilities are tailored to the requirements of the sanitation workers and geographical context, as exemplified by the Leh facility, where the design takes into consideration the local needs and environmental conditions, and includes specific features such as washing areas with machines, airlock entries, solar-heated water provision, solar-passive walls, insulation of water systems and room heaters to address a range of needs of sanitation workers. Additionally, the infrastructural quality of these facilities is superior to those of existing government facilities which increases their utility value while giving the users a sense of pride and dignity in owning these spaces. The retail space provision within the facility also funds their long-term O&M, thus addressing one of the biggest challenges faced by public sanitation facilities.
Impact

The BORDA facilities are tailored to meet the contextual needs of the local sanitation workers, instead of following a standard design template. This was demonstrated in the first sanitation facility constructed in Leh, which was equipped to function even during the harshest of winters when the temperature is between -23°C and -8°C. The 1,008 sq. ft facility is used every day by 40–50 sanitation workers and their families, to wash their clothes and comfortably rest in a warm space located close to their place of residence.

The most notable impact has been increased consideration regarding the well-being of sanitation workers through discussions on this matter at the local and state level. A similar project was implemented in Kirtipur, Nepal in 2020, with a 1,000 sq. ft facility being built for approximately 40 sanitation workers. The governments of Karnataka and Bangladesh are working towards building similar high-quality integrated sanitation facilities for their sanitation workers. The momentum has also created a positive ripple effect: six months after the construction was completed, due to the availability of a clean dining space.

Reflections and Lessons

The concepts designed by BORDA are broad, basic templates that can be evolved depending on the needs of a particular community and region. Based on the construction of the first site in Leh, various learnings are now being applied to other locations such as Karnataka and Bangladesh:

1. Where government finance is assured and continuously available, it can be used to facilitate operation. However, a revenue business model is essential for the long-term sustainability of the public sanitation facilities. The Leh business model includes a retail unit (daily needs store), while in Karnataka, sanitation workers provide office-related utilities (photocopier and stationery).

2. Contextualization is key for greater uptake of the facilities. The design, usage pattern, and location of the facilities should be decided based on the community that they serve. So far, the Leh facility has recorded only 50% of the expected footfall of 100 workers per day. One of the reasons postulated is that the location, while chosen to ensure proximity to sanitation workers and their families, is accessible to only the portion of the intended users who live in the closest settlement, while other workers reside 5–10 kilometres (round-trip) away. Based on this insight, the Karnataka facilities are being planned near offices where the sanitation workers report for their shifts, using creative solutions to ensure proximity, e.g., converting vacant convention centres. Additionally, workers in Karnataka were asked about their preference for specific utilities, which was not done in Leh and thus led to resources being underused. The first Karnataka site saw a large uptake even before the construction was completed, due to the availability of a clean dining space.

3. Appropriate government funding under various Central and state schemes are required to meet the construction and maintenance costs of the facilities. The initial centres were set up as pilots by BORDA to encourage future funding and uptake by other municipalities across the country and the larger South. In Karnataka, the initial investment for construction is being provided by BORDA, and the subsequent expenditures will be taken on by the state government. In Nepal and Bangladesh, the government is ready to make the entire investment, and BORDA will only provide technical support. The ultimate ownership of these facilities will rest with the government and the sanitation workers’ community.

4. There is a need to sensitize government authorities on recognizing that dignity and happiness are basic needs. These sanitation facilities are meant to be community spaces for sanitation workers to relax, and providing safe sanitation is just one of the many components. Thus, the spaces are holistically designed to be bright and cheerful.
Potential for Replication

The pilot facility at Leh served as a learning model for scaling the idea to other regions. It served as a proof of concept, which has since allowed BORDA to pitch this model of development of sanitation facilities to other municipalities. The uptake of the pilot facilities has also been instrumental in overcoming funding hesitancies among the municipal officials. Given the ease of adoption of the designs and standards set by BORDA, and the low technical and technological requirements for the same, states such as Karnataka are taking the lead in scaling the project across their jurisdiction, with BORDA providing the required implementation expertise. Success in Karnataka could pave the way for similar adoption across other states in the country, with such facilities becoming a norm for the development of sanitation infrastructure.

Testimonials

“I have been working as a Sanitation worker for about 22-23 years under the Municipal Committee Leh. Earlier, we used to do sweeping without wearing any mask or gloves, and once our work was done, we returned to our home as there was no particular place for us to wash our hands and face. If we don’t give importance to cleanliness, this can cause health issues for our family. However, with this facility, now we return from work, wash our hands and face and take a shower as well before going back home. Now all sanitation workers living at different locations in rented facilities can come and take the benefits of this facility for taking showers, relaxing, and washing clothes. We also get hot water in the winter season. We can also have meals in the waiting room while watching TV. We all take good care of this centre on a roster basis.”
–Farooq Ahmad
(Sanitation worker)

“We used to get water from a tanker; however, unfortunately, we could fill only two-three cans of water due to overcrowding. So, sometimes we take water from streams or buy water from the market for drinking. Earlier, we had no bathroom, and men went to Masjid or streams to shower, but women had no option except for a dry pit toilet used by both men and women. However, now we have this facility, and it’s very convenient for us. We have separate bathrooms and toilets for women, which provides more comfort.”
–Jana Begum
(Sanitation Worker)

“Leh has become a hot tourist destination, and due to this, many hostels, hotels, and guesthouses open every year. The increase in tourism also results in more waste generation. Currently, there are around 100 sanitation workers under Municipal Committee Leh who keep our town clean. However, we did not pay much attention to their health and hygiene so far. So now, we decided to build a WASH facility centre for them in collaboration with BORDA and LEDeG.”
–Stanzin Rabgais
(Executive Officer, MCL)
Establishment of Garima Grihas by Housing and Urban Development Department, Odisha

The case above highlights that challenges faced by sanitation workers are not confined to a particular area. Similar to the intervention by BORDA, the Housing and Urban Development Department (H&UDD), Government of Odisha, in partnership with the Urban Management Centre (UMC) has designed structures called “Garima Grihas,” which provides basic amenities to sanitation workers at their place of reporting (Section Offices). In addition to sanitation infrastructure such as closets, showers, and urinals, these facilities also have changing rooms with personal lockers to store clothes and PPEs. They are also equipped with washrooms, drinking water facilities, and resting areas for recreation and dining. The Garima Grihas incorporate outdoor washing and drying facilities, which enables workers to immediately clean their PPEs upon returning from sanitation sites. Keeping in mind the hot climate in Odisha, the sitting area is designed as a fully air-conditioned space to provide relief for the workers. An interesting feature of these units is the inclusion of IEC material on the use and care of PPE and safety equipment on the wall of the Garima Grihas, to help the workers stay well-informed and updated. The facilities are constructed on government land, and the construction and maintenance cost is borne by H&UDD, Odisha, with UMC providing the technical support for the project. Each Griha sees a footfall of 15–20 workers per day. As of 2022, 31 Garima Grihas have been constructed in Bhubaneswar, Puri, and Cuttack, for the core sanitation workers and two Garima Grihas have been established for SEPs. With its simple design and high utility value, the concept of Garima Grihas can be easily adopted by other states.

References

The intervention was carried out in following stages:

- A detailed study was carried out in consultation with the sanitation workers to prepare a comprehensive list of PPE required, cross-referencing it with the specified standards and with the products available in the market.
- PPEs were procured and distributed through the technical partner, to sanitation workers (400 workers in Telangana, 1549 in Odisha, and 120 in Wai), taking into account gender and size specifications of the users.
- Feedback was collected from sanitation workers on the challenges of using PPE. This was used to modify the designs and customize future procurement patterns in consultation with the manufacturers.
- Illustration-based training handbooks¹ were prepared in the local language to depict the right method of wearing (donning), removing (doffing), maintaining, and disposing of different kinds of PPEs. The same were distributed to all the sanitation workers for future reference.
- Training workshops were conducted on the usage of PPEs with live demonstrations of the correct order for wearing PPEs and their safe disposal after the work.

A positive shift in outlook was observed towards the use of PPEs as workers became more aware of the benefits of doing so. This resulted in increased uptake of PPEs among sanitation workers, especially when provided with good quality and well-fitted PPEs.

Regular and continuous dissemination of information regarding the right way to wear and dispose PPEs, with a regular monitoring system would be necessary to ensure continued usage among the sanitation workers.

¹: https://umcasia.org/what-we-do/training-of-sanitation-workers-on-use-of-ppes-2/; https://www.youtube.com/watch?v=z4EMqblcDmEt=44s
Objective
To improve the overall health and well-being of sanitation workers by conducting regular health camps and providing them with free medical diagnosis, medicines, and treatment.

Intervention
The key components of the intervention are:

- Ensuring all sanitation workers that are exposed to health hazards during work undergo regular health screening by doctors and special medical officers.
- Providing essential medicines and required treatment to the workers free of cost.
- Issuing personalized health cards with medical reports for follow-up with doctors at the health camp.
- Distributing free menstrual hygiene products to all female sanitation workers every month in Warangal.
- Distributing infographic cards with hygiene and health tips to all sanitation workers in Warangal, who undergo health checkups.

Impact
Providing improved and barrier-free access to institutional healthcare to sanitation workers has resulted in early diagnosis of health ailments, leading to reduced critical health risks and increased awareness of hygiene practices.

Challenges
- The ULB faced difficulty in sensitizing sanitation workers on the importance of periodic health checkups and on regularly following good hygiene practices.
- States/ULBs may not have fully enumerated the sanitation workers. In these cases, it might be difficult to identify and issue personalized health cards to them.
CASE 06: MECHANIZATION OF SANITATION SERVICES

Implementing Organizations:
Mysuru City Corporation, Karnataka | Municipal Corporation, Chandigarh

Objective
To ensure that all sewers and septic tanks are cleaned using machines and avoid manual entry, thereby reducing the occurrence of fatal incidences of manual scavengers and improving the work conditions of sanitation workers.

Intervention

<table>
<thead>
<tr>
<th>Implementing Organization</th>
<th>Jetting Machines</th>
<th>Desilting Machines</th>
<th>Rodding Machines</th>
<th>Bandicoot</th>
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<tbody>
<tr>
<td>Mysuru</td>
<td>18</td>
<td>17</td>
<td>23</td>
<td>1</td>
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<tr>
<td>Chandigarh</td>
<td>8</td>
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Mysuru and Chandigarh both have closed sewerage systems in all properties within their jurisdictions. They also have four and six sewage treatment plants (STP), respectively. In a bid to completely move away from manual cleaning, these cities have implemented mechanized cleaning processes and have invested in the procurement of machines for the same. As of June 2022, Mysuru had 18 jetting machines and 17 desilting machines for cleaning sewer lines and maintenance holes as well as 23 rodding and two power rodding machines. They also have a bandicoot machine (a pneumatic semi-robotic device that cleans sewers and maintenance holes), which is particularly useful during monsoons. Similarly, Chandigarh has eight jetting machines and two bandicoots to help with mechanical cleaning. The administrations have also focused on extensive and practical training of sanitation workers and inspectors in using the machines to undertake the cleaning processes.

Impact
As a result of the administration’s efforts, these cities have not needed to undertake manual cleaning since 2015. This has greatly minimized the safety risks faced by sanitation workers.

Challenges
Though mechanized cleaning has been largely successful, the costs of procuring machinery and the expenditures associated with its continued maintenance have proven to be of hindrance to city administrations adopting and scaling up this initiative. With increased municipal budgetary allocations, other administrations will also be able to go down the route taken by these cities.
THE WAY FORWARD
Over the years, sanitation work has been increasingly seen as a critically important sector, with the government undertaking various efforts to fix its existing gaps and challenges. Programmes such as the Swachh Bharat Mission have gone a long way in increasing awareness about good sanitation practices.

However, in spite of these efforts, sanitation workers continue to work in vulnerable conditions following unsafe practices. Despite serving a critical function in the country, sanitation workers also continue to be subjected to economically and socially disadvantageous positions. Stories about their working and living conditions have been the subject matter of numerous media articles and documentaries resulting in increased dialogue and acknowledgment of the problems that persist in this profession. However, various impediments hinder the fulfilment of intended goals of these programmes and policies which aim to financially and socially uplift the sanitation value chain.

In this background, it becomes critical for the state governments and ULBs to be aligned with the larger objectives of the Government of India to uplift the working and living conditions of sanitation workers and champion these causes to provide safer working conditions and access to better economic opportunities for them. This compendium highlights some of the pioneering efforts at the state and ULB level, which has gone a long way in impacting the lives of sanitation workers.

Some of the critical challenges facing the sanitation workers are observed to be a result of long-standing systemic issues existing in the country, which have been further exacerbated by the pandemic. While there is a need for immediate measures in the context of the pandemic as well as long-term measures, the pandemic also presents an opportunity for stronger actions and increased accountability of stakeholders at all levels.

Based on the case studies covered in this compendium, the following measures are suggested as a way forward for all-round upliftment of the sanitation value chain:

**1. Measures to improve health and safety:**

- The working conditions of sanitation workers can be significantly improved by providing them with the appropriate safety gears and infrastructure, and improving their access to mechanised cleaning.
- Medical facilities including regular check-up and insured treatment is necessary given the hazardous working condition and lack of access to medical infrastructure.

**2. Administrative measures**

- States and ULBs have to realise the significant role that they play in this matter and adopt some of the efforts highlighted in this compendium as a policy priority.

- Owing to the largely informal nature of sanitation work, there is often dearth of information about the number of sanitation workers, and proper identification provided to these workers. This makes it challenging to ensure that these workers are benefitting from the government initiatives that they are entitled to. This necessitates accurate identification and reporting of sanitation workers keeping in mind that the sector goes beyond manual scavengers. The identification and registration of sanitation workers must therefore be undertaken on an immediate basis.

- States and ULBs can take inspiration from some of the case studies which cater to the above objectives and replicate it in their own regions.

**3. Capacity Building**

- Under policy and governance, there is need for innovation in not just the designing of policies but also its implementation. It is important to contextualise the training and awareness so that workers see value in adopting them.
- While there are government programmes in place, more often than not the workers are not aware of their rights and incentives. It is therefore imperative to bring awareness amongst the sanitation workers of the risks and the measures to mitigate them, their legal rights, available incentives, etc. Additionally, supplementing the existing programmes with legal aid to be used in case of denial of rights and entitlements is also necessary.
- An underlying issue being social and economic immobility primarily owing to the social stigma attached to this profession coupled with lack of training of sanitation workers, necessitates breaking the nature of intergenerational traps associated with sanitation work. For this, it is important to upskill the workers, provide them with access to education and training and enable them to move up the social and economic ladder by acquiring alternative livelihood opportunities.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AB-PMJAY</td>
<td>Ayushman Bharat Pradhan Mantri Jan Arogya Yojana</td>
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<tr>
<td>AMRUT</td>
<td>Atal Mission For Rejuvenation and Urban Transformation</td>
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<tr>
<td>ASER</td>
<td>Annual Status of Education Report</td>
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<td>BCC</td>
<td>Behaviour Change Communication</td>
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<td>BFSI</td>
<td>Banking, Financial Services, and Insurance</td>
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<td>BMS</td>
<td>Beneficiary Management System</td>
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<td>BORDA</td>
<td>Bremen Overseas Research and Development</td>
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<td>CBO</td>
<td>Community Based Organization</td>
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<td>CeC</td>
<td>Citizen e-Centres</td>
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<td>CMAR</td>
<td>City Managers’ Association Rajasthan</td>
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<td>CSE</td>
<td>Centre for Science and Environment</td>
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<td>CSO</td>
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<td>Core Sanitation Worker</td>
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<td>CWIS</td>
<td>CityWide Inclusive Sanitation</td>
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<tr>
<td>DNT</td>
<td>De-notified Tribal Communities</td>
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<tr>
<td>DRISHYA</td>
<td>Delivering Reimagined and Intellectual Learnings for Holistic Development of Young Children and Adolescents</td>
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<td>EBC</td>
<td>Economically Backward Classes</td>
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<td>ERSU</td>
<td>Emergency Response Sanitation Unit</td>
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<td>FLW</td>
<td>Front-line Workers</td>
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<td>FSSM</td>
<td>Faecal Sludge and Septage Management</td>
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<td>FSTP</td>
<td>Faecal Sludge Treatment Plant</td>
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<td>GO</td>
<td>Government Order</td>
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<td>H&amp;UDD</td>
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<td>IEC</td>
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<td>Indian Institute for Human Settlements</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>LESI</td>
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<td>MLD</td>
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<td>NAC</td>
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<td>NAMASTE</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>NIUA</td>
<td>National Institute of Urban Affairs</td>
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<td>NSDC</td>
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<td>NSKFDC</td>
<td>National Safai Karamcharis Finance &amp; Development Corporation</td>
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<td>NULM</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>OBC</td>
<td>Other Backward Class</td>
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<td>ODF</td>
<td>Open-Defecation Free</td>
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<td>OTCA</td>
<td>One-Time Cash Assistance</td>
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<td>OWA</td>
<td>Odisha Water Academy</td>
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<td>PDI</td>
<td>People Development Initiatives</td>
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<td>PEMSR</td>
<td>Prohibition of Employment as Manual Scavengers and Their Rehabilitation</td>
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<td>PHED</td>
<td>Public Health and Engineering Department</td>
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<td>PM-DAKSH</td>
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<td>SMART Cities Mission</td>
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<td>SEP</td>
<td>Sewer Entry Professional</td>
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<td>Self-Help Group</td>
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<td>Sanitation Workers Health Welfare and Safety</td>
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<td>SM</td>
<td>Sanitary Mart</td>
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<td>Self Employment Scheme for Rehabilitation of Manual Scavengers</td>
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<td>YS</td>
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