



Learning from collective-led sanitation enterprises in two cities of Odisha

Since the Swachh Bharat Mission launch in 2014, more than 66 lakhs (6.6 million) household toilets and more than 6 lakhs (600,000) community and public toilets (CT/PTs) have been constructed across India. Over the years, the government has launched several initiatives to eliminate supply-side barriers in the sanitation ecosystem; however, this increase in infrastructure for better sanitation facilities highlights an increased need for human resources to operate and manage these facilities and the waste generated within them. Without an adequate, skilled workforce, facility upkeep remains a challenge for the government.

The Swachh Bharat Mission and Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (SBM – DAY-NULM) convergence framework and corresponding guidelines provide urban local bodies (ULBs) with a roadmap to create livelihoods – by collectivizing vulnerable groups and engaging them in productive activities. Several states have made

positive strides in working with various collectives to operate and maintain sanitation enterprises and provide service delivery.

The Odisha government employs collectives along the sanitation value chain, including self-help groups (SHGs) comprising women, transgender persons, persons with disabilities, and other marginalized communities. Specifically, collectives are involved in three types of sanitation models: CT/PTs, fecal sludge treatment plants (FSTPs), and solid waste management (SWM).

To understand how these initiatives are performing and draw lessons from their experiences, 3ie, with support from the Bill & Melinda Gates Foundation, conducted a learning study in three states: Odisha, Tamil Nadu, and Telangana. In Odisha, we focused on two cities: Berhampur and Dhenkanal. This brief summarizes its key findings, which can provide insight into Odisha's experience with collective-led sanitation enterprises.

Key findings

- There is a strong state- and city-level intent to engage SHGs in sanitation and SWM-based livelihoods.
- Collectives involved in sanitation enterprises or the provision of sanitation services reported stable income even during the COVID-19 lockdown. However, income from operations and maintenance (O&M) of CT/PTs was reported to be lower than other sanitation enterprise models like FSTPs and SWM (also known as wealth centers). This disparity could be explained by the volume of work in FSTPs, which is full-time and various functions are performed by designated people. However, for members involved in CT/PT work, submission of bills and claiming payment were reported to be cumbersome.
- Disbursement of payments from operation and maintenance of CT/PTs, based on a per-seat basis, were reported to be delayed due to bureaucratic procedures at the ULB. To mitigate this issue, the department has recently established an autopayment process for salaries to be delivered to all collectives on the seventh day of each month. A community participation cell has also been instituted, which operates like a call center and contacts collectives to ensure that remuneration has been timely. Standardized bookkeeping and record maintenance have also helped in streamlining payments. Payment for FSTP work is made monthly, based on the number of working hours and the skills of service providers.
- The collectives were engaged through SHG-friendly model contracts. These were written in a local language to ensure understanding, and they clearly identified the roles and responsibilities of various stakeholders.
- Female collective members involved in FSTP reported an increase in agency and confidence. Transgender participants found that an association with government work (through SWM plants) helped them to gain recognition and respect from the community and acceptance from their family members.
- There is demand for health insurance and retirement benefits amongst collective members, despite the presence of the Biju Swasthya Kalyan Yojana government initiative, which provides universal health coverage to economically marginalized people.
- The training of urban collectives on initiating and managing sanitation enterprises across the sanitation value chain is expected to increase the number of sanitation enterprises and services.
- *Swachh sathis* (Sanitation Workers) and *swachh* supervisors (Sanitation supervisors) are involved in both service delivery and generating demand for sanitation services, which ensures sustainable usage of these facilities.
- The current system of processing and disposing of e-waste and domestic hazardous waste is increasing the operational cost of SWM wealth centers. This has implications for payments made to urban collective members.
- The safety and health of SWM workers is supported by the provision of personal protective equipment, as well as lounges and rest rooms in the wealth centers.
- The caste-based composition of sanitation workers was found to be non-uniform across facilities. A majority of members involved in SWM belonged to different caste groups; however, workers involved in FSTP and CT/PT management mostly belonged to scheduled castes.
- The appointment of prominent local citizens as brand ambassadors of collective-led sanitation enterprises by the Dhenkanal ULB has helped to create community acceptance of the enterprise through information dissemination; it also lends credibility to the work delivered by urban collectives.



Key recommendations

- Update contract guidelines to include provisions for paid sick leave and maternity leave for caretakers and cleaners of CT/PTs and SWM and FSTP workers.
- Design customized personal protective equipment kits for women sanitation workers.
- Raise awareness among sanitation workers on existing health and welfare schemes, and increase awareness regarding the helpline number for payment-related grievance redressal.
- Promote periodic and continued training of collectives on financial management, operations, maintenance of sanitation facilities, and initiating new sanitation enterprises. Additionally, gender-sensitization trainings should be provided to ULB officials and all workers involved in the sanitation value chain.
- Create awareness about contracts among all signatories, including collective members, caretakers, cleaners, and ULB officials.
- Capacitate *swachh sathis* and leaders of the septage treatment plants and SWM plants to become master trainers.
- Devise sustainable systems for efficient and timely processing of e-waste and hazardous waste in SWM wealth centers, which has implications for the well-being and payment of workers. Currently, ULBs have empaneled vendors for e-waste processing. A tendering process is being introduced for the disposal of e-waste when the quantity reaches an optimal level.
- Extend the hardship allowance under the GARIMA scheme – which is presently being provided to grade-one sanitation workers – to sanitation workers involved in CT/PT and women and transgender people in the septage treatment plants and the *swachh karmis* (Sanitation workers) in SWM.
- Following the example of Dhenkanal, other ULBs can appoint local citizens as brand ambassadors of collective-led sanitation enterprises for effective information awareness and dissemination.
- Use existing sanitation subcommittees under the area-level federation, or the slum dweller association under Jaga Mission, for social audits and generation of demand.
- Require regular meetings for all members in SWM and septage treatment plants at least once per week. There is also a need to institutionalize weekly/fortnightly meeting between collectives and ULB nodal officers to discuss any impending issues or challenges.



Background

The Government of Odisha has undertaken several initiatives to promote the urban collective-led sanitation enterprise model.¹ The sanitation-livelihoods ecosystem in the two cities of Berhampur and

Dhenkanal comprises the government, technical support units led by development partners, non-governmental agencies, resources organizations (Ernst & Young and Urban Management Centre Asia),

ULB, and urban collectives, as presented in Figure 1.² There are various models of sanitation service provision in both cities, as summarized below.

Figure 1: Sanitation livelihoods ecosystem

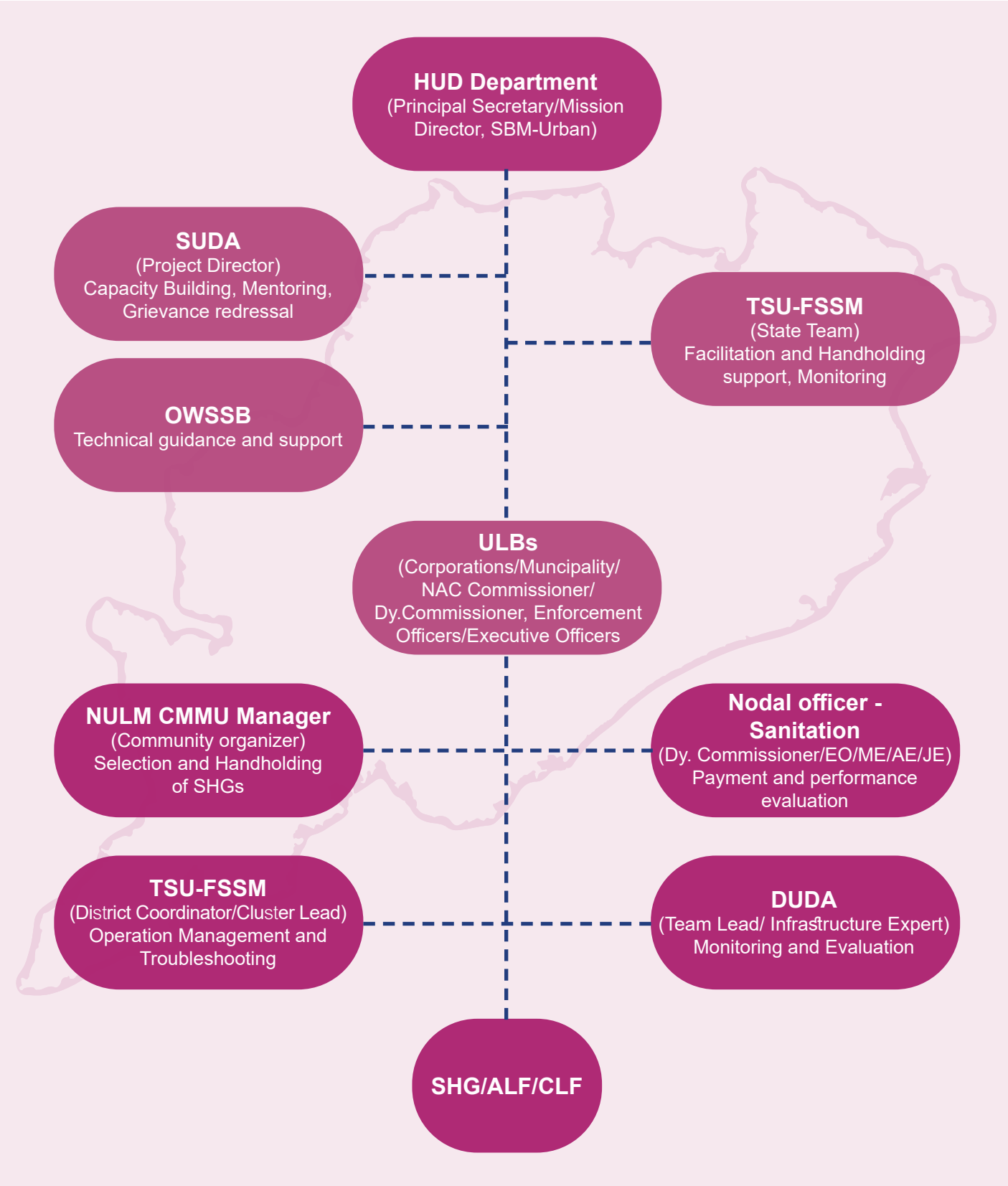


Table 1: Models of sanitation service provision

Enterprise	Management type	Operation and maintenance	Revenue/income	Usage fee
Community toilets / public toilets	Managed by collectives	Collective members or sanitation workers hired by the collective	The ULB pays Rs.1000 and 1500 per seat per month as compensation to the collective	Free use
	Public private partnership - private contractor managed	Caretaker and cleaner deployed by contractor	Revenue is generated through collection of user fees	Pay per use
FSTP	Managed city-level federation in Berhampur and area-level federation in Dhenkanal to SHG members (engagement varies due to number of SHG members, remuneration, etc.)	Collective members supervised by executive members of area-level federation	The ULB pays the cost of human resources (Rs.8,000 per worker per month), and, as per the new contract, the SHG members receive around Rs.10,000 per month	NA
SWM wealth centers (micro composting centers and material recovery facilities)	Managed by area-level federation and assigned to SHG members	Collective members supervised by executive members of area-level federation	The ULB pays the cost of human resources (Rs.8,000 per worker per month)	NA

Our study

We used qualitative research methods including in-depth interviews, focus group discussions, and unstructured observations to understand the feasibility and sustainability of collective-led

sanitation enterprises and service delivery between November 2021 and March 2022. This includes:

- **Forty-six** in-depth interviews with members of urban collectives (and their families), resource organizations

(including Janaagraha), and government officials;

- **Twenty-two** focus group discussions; and
- **Twenty-six** unstructured observations of sanitation facilities.



Detailed findings

Appropriateness and feasibility

Contracting

The study found that the most common factor seen to engage collectives in sanitation enterprises was proximity and inclination to undertake sanitation work, both in CT/PTs and FSTP. Prior to this, collectives were only involved in O&M of CT/PTs. The contract is usually issued for one year and renewed on an annual basis based on the performance of the collective in the O&M of the sanitation facilities. It was observed that while the collective office bearers were aware of the contract and its clauses, other collective members who manage SWM and FSTP, and CT/PT cleaners, were largely unaware of it.

Training

To help equip collectives in the management and operation of sanitation facilities, the ULBs/state governments have established several training programs. These include training on management of supplies, payment, operations, documentation, and recordkeeping. Regular trainings have ensured that

collective members are able to undertake tasks independently. Training modules were customized to suit the needs of members with distinct roles and responsibilities within the SWM and FSTP.

Audio-visual content (including drama-based films and illustrative posters) was used, as most collective members cannot read or write. In FSTP and SWM, classroom training was followed by onsite training for collective members. In the case of FSTP workers, refresher training was provided every six months. However, there was high demand for more training – both from SHG members and some ULB staff, as they perceive some skill gaps. Given this, a needs assessment could be conducted to collect ideas on topics for future trainings.

Monitoring and recordkeeping

Monitoring mechanisms are quite robust in both Berhampur and Dhenkanal. Monitoring is performed through various mechanisms and forums such as field visits, meetings, and WhatsApp® groups. The Berhampur city-level federation representative mentioned that after transferring the plant to the collective,

it was imperative to closely monitor operational activities as per standards to identify any initial problems. This was performed jointly by representatives from the ULB and the Department of Housing and Urban Development, technical support unit members, and the National Urban Livelihoods Mission program team. Bi-monthly review meetings are organized to ensure proper functioning of the FSTP, and for redressal of urban collectives' concerns.

The Dhenkanal ULB has made it mandatory to conduct a monthly meeting attended by ULB officials such as the executive officer, the sanitation head, the municipality engineer, community mobilizers, sanitation inspectors, brand ambassadors, collective members and leaders, and a ward. The meetings provide an important forum within which to discuss and improve upon facility O&M. These meetings are also viewed as regular monitoring and grievance-redressal platforms. Apart from this, regular field visits are also conducted by ULB officials, especially sanitation inspectors, community mobilizers, and the municipality engineer, who monitor facilities' O&M.

Figure 2: Key themes of process documentation

Appropriateness and feasibility	The extent to which an intervention can be successfully carried out within a given context
Fidelity	The degree to which the implementation of the intervention is in line with its design and intent. This includes identifying the barriers and facilitators that inhibit or enable participation in an intervention, or gains to be achieved from such participation
Acceptability and adoption	The perception among stakeholders that an intervention is satisfactory, and the intention to take up the intervention
Sustainability	The extent to which an intervention can continue to be implemented over a period for long-term impact and the potential for scale-up

Detailed findings

Fidelity

Operations and maintenance

The CT/PTs are managed by men- and women-led collectives. Generally, they manage O&M of CT/PTs located in their vicinity (i.e., their wards). Though the ULB performs major repairs and helps to reimburse major repair expenditures (such as pump failure) for FSTP, day to day operations and minor repair expenditures are managed by the collective members themselves. Collectives faced financial difficulties in managing these expenses on a regular basis when they were operating 1–2 community CT/PTs.

In SWM wealth centers (micro composting centers and material recovery facilities) and FSTP, there has been clarity about the roles and responsibilities of every associated community member. The roles, responsibilities, duty stations, and timings of various members – including battery-operated vehicle drivers, plant workers (*swachh karmis*, *swachh sathis*) plant operators, cesspool drivers, and other collective members – have been clearly laid out. This role clarity has helped to build members' confidence, resulting in no conflict or differences between the members.

At the wealth centers, collected solid waste is segregated and processed.

There are few machines installed that help collective members to carry out their activities smoothly and safely. Repair work after a breakdown takes a lot of time; therefore, ULBs have signed an MoU with the government for the engagement of industrial training institutes and apprentices for repair and maintenance work.

Special care has been taken in both Berhampur and Dhenkanal to ensure that all workers are equipped with appropriate personal protective equipment for their safety, and workers were trained to properly wear, remove, clean, and maintain it. Regular monitoring by ULB officials and technical support units has ensured that workers are now habituated to wearing this equipment while working.

Revenue and income

In Berhampur, respondents involved with FSTP agreed that sanitation work has provided them with a stable source of income. The workers received a salary of Rs.8,000 per month. In CT/PTs, collectives did not earn a profitable income from O&M (Rs.1,000–1,500 per month, on average). In some facilities, the collectives have hired a cleaner (to clean the toilet everyday) and a caretaker (to manage the toilet, supervise the cleaner and keep a count of the users). After payment to the caretaker and cleaners, and purchase of other cleaning agents like

phenyl, sanitizer, and soap, there is not much savings left for the members. Their motivation to engage in sanitation work was altruistic rather than an income-generation activity.

In Dhenkanal, the collective members who have been selected, trained, and engaged in various sanitation facilities receive a monthly honorarium of Rs.8,000. Area-level federations that engage the SHGs are also eligible to receive a monthly share of 10 per cent of the income generated by the sale of the processed products of the plants.

Income from sanitation activities is valued, and helpful in managing household expenses. When complemented by other sources of income (e.g., social security and honorarium from the government), it is perceived as sufficient to cover expenses related to children's education, items of sustenance, and household expenses. During COVID-19, sanitation work offered a stable source of income.

With regard to payment delays, the state government's April 2022 circular on the autopayment of salaries (without mandatory submission of invoices and bills) to all collectives managing sanitation facilities on the seventh of every month is a welcome step. A stipulated timeline can be specified for the collectives to submit their bills and invoices.



Detailed findings

Health and labor rights

During the pandemic, members engaged in sanitation work reported that their work was not affected since there was a huge demand for sanitation services. Berhampur Municipal Corporation officials also trained members on COVID-19 safety protocols, and in turn, the members themselves were actively engaged in awareness generation in their families and communities.

Members engaged in sanitation work expressed the need for leave as an important employee benefit; there is also demand for health insurance and retirement benefits amongst collective members. In response to this, the Odisha government has come out with a scheme to provide group accident insurance, which shall be implemented soon. Additionally, Dhenkanal has constructed an air-conditioned lounge for collective members engaged at wealth centers to relax during their breaks, have lunch, wear and remove personal protective equipment, and change clothes. These are also equipped with drinking water and toilets. Their provision has instilled a sense of pride among SHG members.

Acceptability and adoption

Empowerment of collective members

Through our interactions with collective members, we found that their confidence and self-esteem has increased due to their work, which has resulted in willingness to take up more active employment outside their homes. The majority of collective members are the first women in their families to work outside their homes. Further, engagement in sanitation enterprises has strengthened SHG and area-level federation networks. This has resulted in female SHG members collectively working towards addressing social issues and conflicts in their neighborhoods.

Becoming engaged as entrepreneurs has also helped SHG members in their personality development. They are more aware of government programs and their entitlements, and can extend help to other community members. They have also started to

prioritize their children's education and cultivated regular savings habits. Due to contracts obtained through ULBs, SHGs have better access to ULB officials and can present their issues and concerns in a constructive way.

Acceptance by the community and family

Increasingly, workers have witnessed recognition from their communities and support and respect from their families. Some members recounted compliments received from neighbors and communities upon learning that they work with the ULB. However, sanitation work is not perceived to be an aspiration for their children.

Information and awareness campaigns

Swachh sathis (Sanitation changemakers) are involved in behavior change communication activities, seeking buy-in from the local community for the segregation of waste, depositing waste in waste collection vehicles, encouraging the use of CT/PTs, collecting user fees, and generating demand for mechanized desludging.

Thus, they are simultaneously performing service delivery and demand generation, which is the hallmark of a sustainable intervention. The Urban Management Centre (UMC) team, with support from the ULB, has developed various information, education, and communication materials (and provided trainings to ULB officials as well as SHGs) on conducting community awareness around various aspects of sanitation and SWM.

The Dhenkanal ULB has brought together a group of 20 prominent town members – including lawyers, retired civil servants, senior doctors, and professors. They are known as brand ambassadors of the town's sanitation-led livelihood program, acting as a bridge between the public, the ULB, and women's collectives. They are required to attend a monthly meeting at the ULB alongside ULB officials and urban collectives to discuss issues, grievances, and

solutions. During these meetings, the best-performing sanitation workers are also recognized and awarded, which further motivates them. This brand ambassador initiative has been an important means of bringing about a positive mindset among the general public towards the collectives that manage sanitation enterprises.

Sustainability

Unlike other states, Odisha launched the collective-led sanitation enterprises recently, but it has made positive strides due to strong political and administrative will to ensure their effective implementation. The government has institutionalized the initiatives by rolling out advisories for the engagement of SHGs in various enterprises. This step is meant to ensure that the efforts undertaken in these cities are sustained over a longer period. These lessons from the state can also be taken up at the national level to create an enabling environment for convergence activities, with a focus on SHG-led sanitation enterprises.

Further, mentoring resources and awareness-building strategies are needed to ensure sustainable long-term outcomes of the sanitation enterprises and service delivery. There is also a need to address socioeconomic, cultural, and gender barriers through community engagement approaches. Capacity needs of the urban collectives, especially in key topics across the sanitation value chain, must be undertaken. Further, to make the SWM and FSTP model financially sustainable, various products can be made from treated waste, such as in the "Mo Khata" (my compost) initiative, wherein compost and recyclable waste are currently being sold. With adequate marketing and branding, including the use of social media, these enterprises can be made financially viable.

Recommendations

- The state government's recent April 2022 announcement of salary autopayment (without mandatory submission of invoices and bills) to all collectives managing sanitation facilities on the seventh of every month is a welcome development. A community participation cell has also been instituted, which runs like a call center and contacts collectives to ensure their remuneration has been timely. It is important that collectives and their members are made aware of the helpline number so they can reach out to redress any payment-related grievances. In addition, the ULB must monitor the autopayment process closely to make it seamless.
- Installing a security box for the caretaker in CT/PTs provides an incentive for sanitation workers to stay longer hours to monitor the facility. It provides a safe space, especially for women to sit and do bookkeeping work. A security box with proper ventilation can be helpful for the caretaker's well-being and should be introduced outside all CT/PTs. The ULB can update contract guidelines with the provision of paid sick leave and maternity leave to caretakers and cleaners. The need for these benefits was reiterated during the interviews with respondents across the three states.
- *Swachh sathis* and leaders of the septage treatment plants can be capacitated as master trainers. In all cities in Odisha, *swachh sathis* have been appointed and are doing commendable work; many of those doing outstanding work are being congratulated for their performance. They can also perform as resource persons to train others in other districts and towns. This can help to make the program more sustainable by embedding these processes within the existing system.
- It is recommended that the program institute a monitoring task force comprising senior- and middle-level ULB officials for faster redressal of collectives' grievances around repair work and facility O&M. Further, meetings can be organized wherein collective members and common citizens are invited to share their concerns and feedback with the task force. Also, when the district collector is reviewing sanitation programs in the district, the status and issues around collective-managed facilities can be an agenda point.
- To make the SWM and the FSTP model financially sustainable, it is recommended to consider using existing infrastructure for revenue-generation activities. For instance, collectives can create and sell products such as phenyl, soap, and sanitary pads. With adequate marketing and branding, including the use of social media, these enterprises can be made financially viable. Where additional space is available, CT/PTs can sublet the area for businesses such as coaching centers and social gatherings. Wall space may also be leased for advertisements.
- Awareness should be created regarding contracts among all signatories, including the collective members, caretakers, cleaners, and ULB officials. A checklist should also be developed with criteria to guide ULBs on contracting collectives; this can include succinct points on the factors considered for engaging collectives, which can be easier for collective members to comprehend, rather than going through a long document.



About this learning summary

This brief summarizes findings from a formative study conducted in Berhampur and Dhenkanal in Odisha to document the processes of urban collectives engaged in sanitation-linked livelihoods. The study was conducted by the International Initiative for Impact Evaluation (3ie) with the support of

Ernst & Young and the Urban Management Centre and funding from the Bill & Melinda Gates Foundation. For more information, please visit <https://www.3ieimpact.org/our-work/sanitation-linked-livelihoods-program>

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Endnotes

¹ The key initiatives undertaken by the government of Odisha include:

- a. Deendayal Antyodaya Yojana-National Urban Livelihoods Mission and the Swachh Bharat Mission (Urban) (2018): Convergence framework aims to empower urban collectives (groups of women, marginalized communities including transgender people, people with disabilities) through employment opportunities in the sanitation and waste-management value chain, including solid and fecal sludge.
- b. Urban Wage Employment Initiative (April 2020): Aims to create speedy and mass employment opportunities for urban poor, informal and migrant laborers, and those rendered unemployed and vulnerable in the face of COVID-19.
- c. GARIMA (September 2020): A scheme that aims to provide safety and dignity for core sanitation workers dealing with fecal matter in toilets, septic tanks, sewers, and fecal sludge treatment facilities. A key focus of this scheme is to facilitate and regulate safe working conditions, social security benefits, and protective measures for sanitation workers and their dependents.
- d. Mukhya Mantri Karma Tatpara Abhiyan (MUKTA) (February 2021): A state-sponsored scheme that aims not only to provide sustainable livelihood opportunities including sanitation to the urban poor, but also to maintain ecological, sustainable, and climate-resilient community assets that are critical to ensuring inclusive and equitable development.

² An SHG can be a group of 10–12 women, 5–6 transgender persons, or 5–6 persons with disabilities. An area-level federation is a group of 20 SHGs. A city-level federation is a group of 25–35 area-level federations.



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