The Critical Role of Community Based Organizations in Urban Sanitation and Waste Management

A Compendium of Case Studies
February 2019

Ministry of Housing
and Urban Affairs
Government of India

DAY-NULM
Deendayal Antyodaya Yojana-
National Urban Livelihoods Mission

150
YEARS OF
CELEBRATING
THE MAHATMA

स्वच्छ भारत
एक कदम स्वच्छता की ओर

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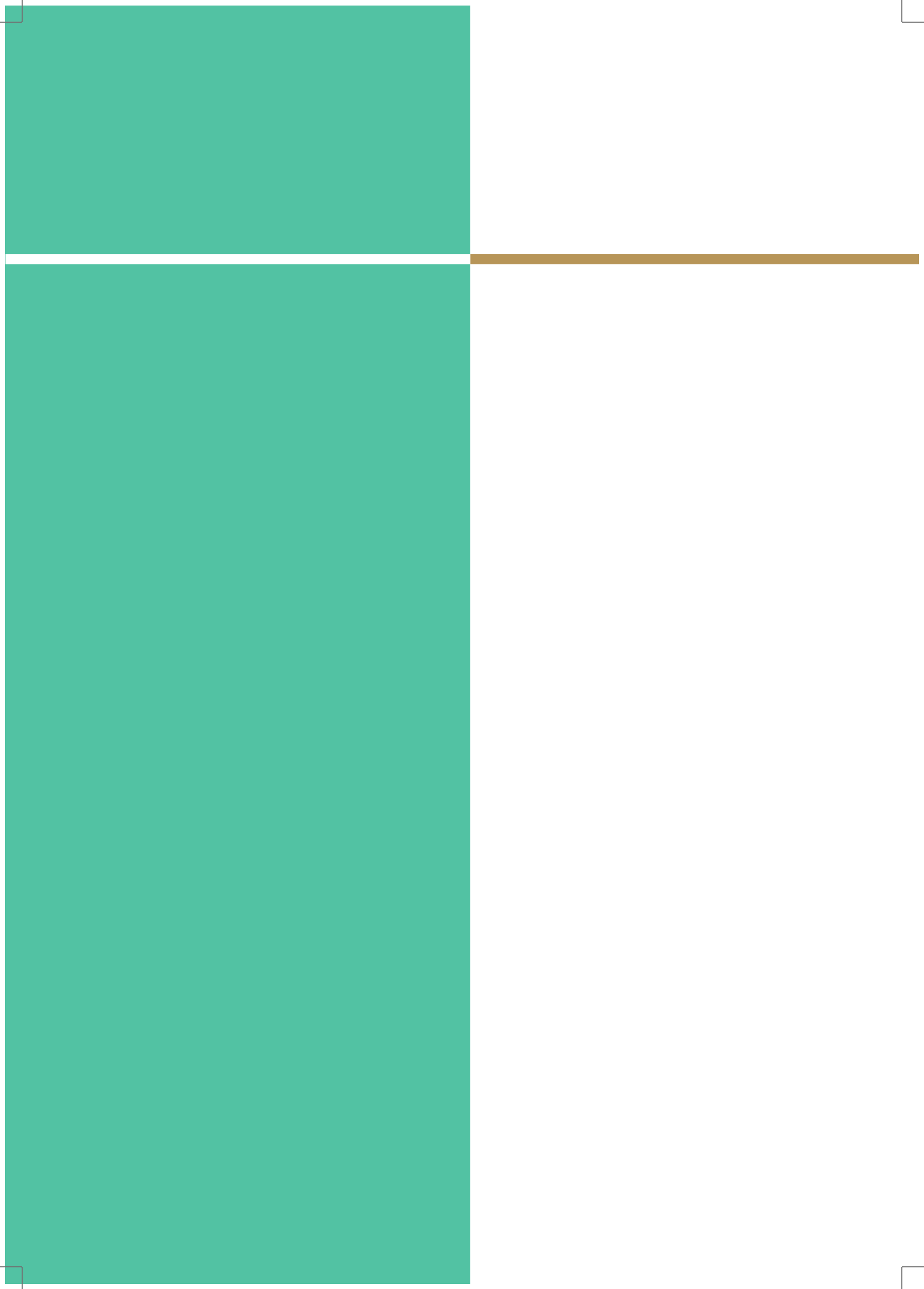
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सत्यमेव जयते

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MESSAGE

Ministry of Housing & Urban Affairs is working towards alleviating urban poverty through community led development, under the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY-NULM). The Ministry is also implementing a nationwide programme to provide access to toilets and sustainable waste management systems for all, through the Swachha Bharat Mission-Urban (SBM-U). Community based organizations of Self-help Groups created by DAY-NULM are supporting SBM–U to achieve behaviour change; an essential component of improving sanitation.

I congratulate the DAY-NULM Technical Support Unit for putting together this compendium of case studies which describes the efforts of these community-based organizations that have had tremendous impact on urban sanitation and waste management.

The combined efforts of Urban Local Bodies (ULBs), civil society organizations and Community Based Organisations have resulted in these success stories. I acknowledge the role of State and City level functionaries in supporting these initiatives and the crucial role of local NGOs as well. I encourage all functionaries of DAY-NULM and SBM-U, state and city officials, and all those working in the sanitation and livelihoods sectors to reflect upon these models and take up such programs to improve livelihoods of marginalized communities.
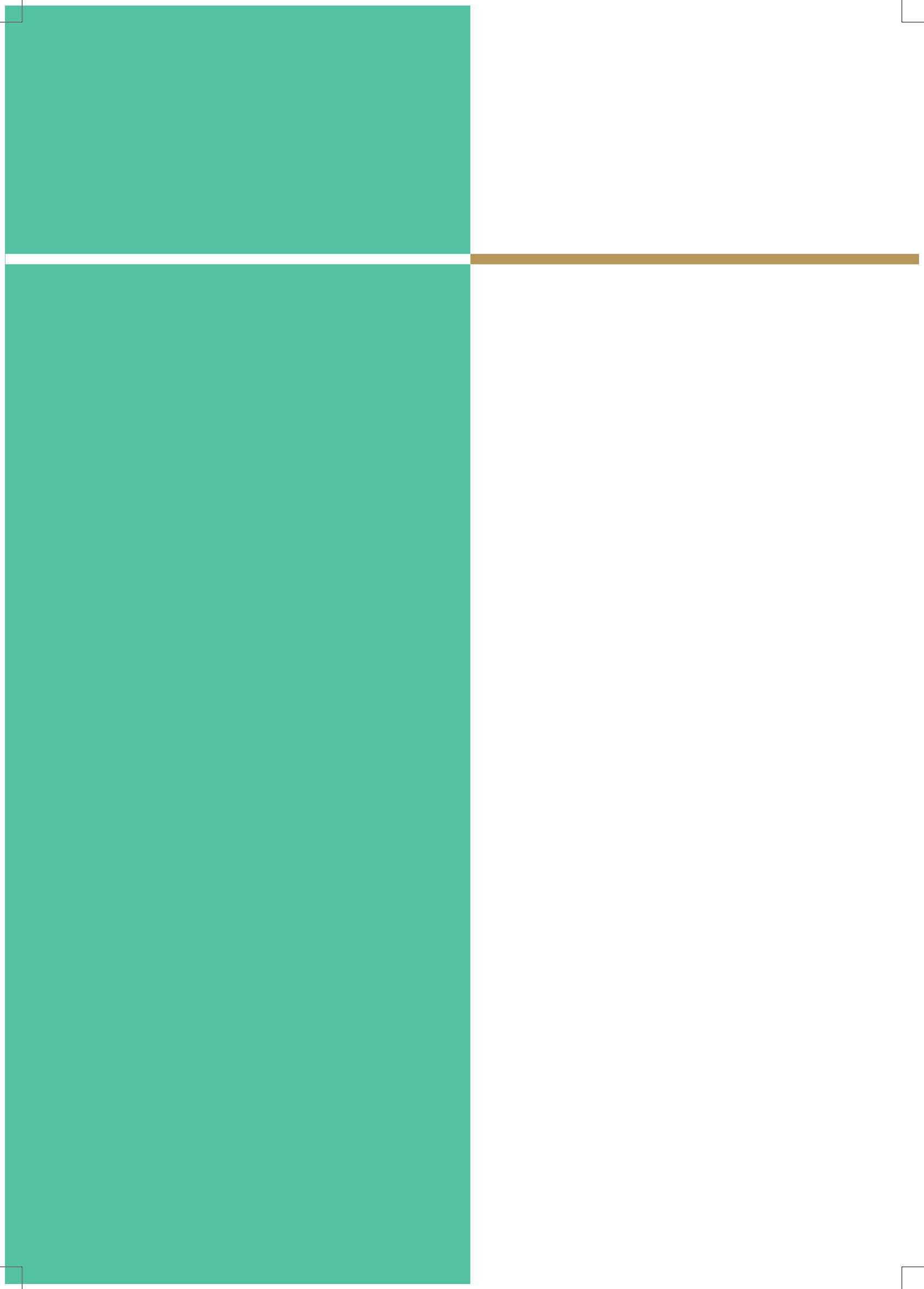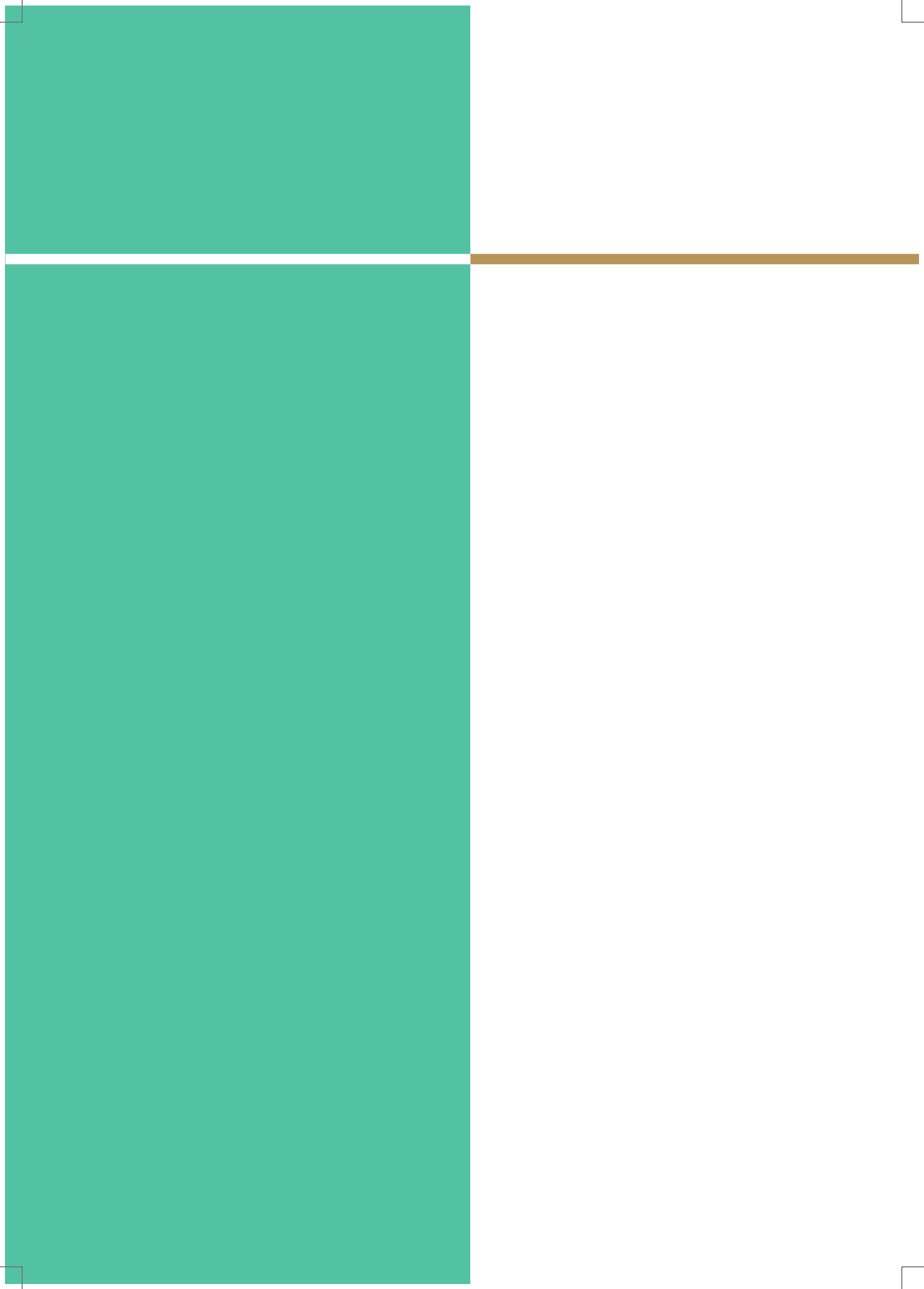
SHRI HARDEEP SINGH PURI

Hon'ble Minister of State
(Independent Charge)
Ministry of Housing and Urban Affairs,
Govt. of India,
New Delhi

MESSAGE

Ministry of Housing & Urban Affairs is implementing various flagship missions to transform the urban landscape on the journey towards New Urban India. Among these, Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM) is providing livelihoods opportunities to the urban poor and Swachha Bharat Mission – Urban (SBM-U) is making cities Swachh through Open Defecation Free (ODF), Solid Waste Management (SWM), and behavioural change. This creates various sanitation infrastructure whose upkeep and operations are expected to augment sanitation based livelihoods. Therefore, it is essential for these two Missions to work together in order to improve the income levels of informal sanitation workers and create dignified livelihoods opportunities in this sector through technology and mechanization.

In continuance of the Ministry's efforts to create synergies between these two Missions, I am pleased to see this compendium of case studies, put together by the DAY-NULM Technical Support Unit set up by Urban Management Center, Ahmedabad, and supported by the Bill & Melinda Gates Foundation. I applaud the efforts made by community groups, many of whom are women's Self-Help Groups formed under DAY-NULM, in urban sanitation and waste management, as documented in this compendium. I hope these successful models are replicated in other cities.

As shown in the documented case studies, the enabling environment created by the Urban Local Bodies and local NGOs to support the community-based organizations provides the necessary impetus for their efforts to succeed. Ministry of Housing and Urban Affairs will continue to support such work and is proud to be working on the mission for developing more inclusive cities by improving the lives of the most vulnerable sections in the urban area.

SHRI DURGA SHANKER MISHRA

Secretary
Ministry of Housing and Urban Affairs,
Govt. of India,
New Delhi

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MESSAGE

The Ministry of Housing & Urban Affairs (MoHUA) has been working on creating synergies between its two flagship missions – Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM) and Swachha Bharat Mission – Urban (SBM-U).

I congratulate Urban Management Centre (UMC), Ahmedabad for bringing out this compendium to showcase replicable models of work done by various civil society organizations, including Community Based Organizations (CBOs) formed under DAY-NULM. UMC, supported by Bill & Melinda Gates Foundation has set a Technical Support Unit to support DAY-NULM and is working in close association with SBM-U.

Community-based organizations (CBOs) are playing a critical role in achieving sanitation outcomes for their communities. This compendium demonstrates that the sanitation sector can be a dependable source of dignified livelihoods and help the marginalized and vulnerable communities in urban areas to go up the aspirational ladder.

Various stakeholders stand to benefit from this compendium, especially practitioners and government agencies who are in a position to replicate such efforts in other parts of the country. I hope that this compendium of case studies serves as a practical educational resource for cities and helps us recognize that the future of urban sanitation in India, stands to gain a lot from effective engagement with the community organizations.

SHRI SANJAY KUMAR

Joint Secretary & Mission Director
Deendayal Antyodaya Yojana –
National Urban Livelihoods Mission,
Ministry of Housing and Urban
Affairs,
Govt. of India, New Delhi

ACKNOWLEDGEMENTS

List of Figures

List of Abbreviations

ALF	Area Level Federation
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
ASHA	Accredited Social Health Activist
BPL	Below Poverty Line
CEO	Chief Executive Officer
CLC	Community Livelihood Centre
CMC	Cuttack Municipal Corporation
CMMU	City Mission Management Unit
CSR	Corporate Social Responsibility
CSTF	City Sanitation Task Force
D2DC	Door to Door Collection
DAY-NULM	Deen Dayal Upadhyay - National Urban Livelihoods Mission
DRCC	Dry Resource Collection Centre
DTH	Direct-to-Home
EPF	Employment Provident Fund
FMCG	Fast-Moving Consumer Goods
FSSM	Faecal Sludge &Septage Management
GVMC	Greater Visakhapatnam Municipal Corporation
IHHL	Individual Household Latrine
KKPKP	Kagad Kach Patra Kashtakari Panchayat
MAS	Mahila Arogya Samiti
MNREGA	Mahatma Gandhi National Rural Employment Act
MSW	Municipal Solid Waste
NGOs	Non-Government Organizations
ODF	Open Defecation Free
PMC	Pune Municipal Corporation
PPP	Public Private Partnership
PWM	Plastic Waste Management
RSBY	Rashtriya Swasthya Bima Yojana
RWA	Resident Welfare Association
SBM	Swachh Bharat Mission
SHG	Self Help Group
SLRM	Solid and Liquid Resource Management
SMID	Social Mobilization and Institutional Development
STP	Sewage Treatment Plant
SUDA	State Urban Development Agency
SWaCH	Solid Waste Collection and Handling
SWM	Solid Waste Management
TMC	Tiruchirappalli Municipal Corporation
ToR	Terms of Reference
TSU	Technical Support Unit
UAN	Universal Account Number
ULB	Urban Local Body
VTO	Vacuum Truck Operator
WoW	Well-being out of Waste
WSC	Ward Sanitation Committee

CONTENTS

Introduction

This compendium documents the critical role played by community based organisations to achieve better sanitation outcomes. Its objective is to disseminate these leading practices for wider replication throughout the country. The practices highlight improvements made in the sectors of sanitation and solid waste management through community engagement processes.

The document helps understand the drivers that led to these processes, how resources were mobilised, how capacity was built and how were institutional reforms induced.

These leading practices were identified based on Urban Management Centre's prior interventions with urban local bodies in sanitation and solid waste management, visits to different cities/NGOs working at grass-root level in this sector, interaction with respective government department officials, and other related stakeholders.

The UMC team prepared a criterion for identifying these leading practices and prepared a comprehensive list of the practices across India through a desk review. Based on this review, a preliminary list of 12 potential practices was identified. These practices were then categorized into three categories, namely (1) Improvements in Sanitation and (2) Improvements in Solid Waste Management and (3) Improvements in both.

Both-Swachh Bharat Mission – Urban (SBM-U), and the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY-NULM) are implemented through Urban Local Bodies (ULBs). SBM's prime focus is on improving sanitation through improving access to toilets and the solid waste management system, but it faces challenges of financial and human resources to manage and maintain this infrastructure. DAY-NULM's strategy is to reduce urban poverty by providing skilled workforce to fulfil the demand being generated in cities.

Convergence between the two national flagship missions is imperative for sustaining sanitation improvements and also improving the quality of life of marginalized groups by empowering them and providing employment opportunities in the growing sanitation and waste management sector. Along with the convergence guidelines[1], this compendium will help state and city governments to achieve the objectives of both Missions.

Each of these practices detail the challenge, the initiative, the modus operandi, lessons learnt and the future course of action. We hope this document will inspire cities and states across the country to promote positive and sustainable sanitation practices.

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[1] The Convergence Guidelines titled "Empowering marginalized groups – convergence between SBM and DAY-NULM", were released on March 2018 by the Ministry of Housing and Urban Affairs, Government of India.
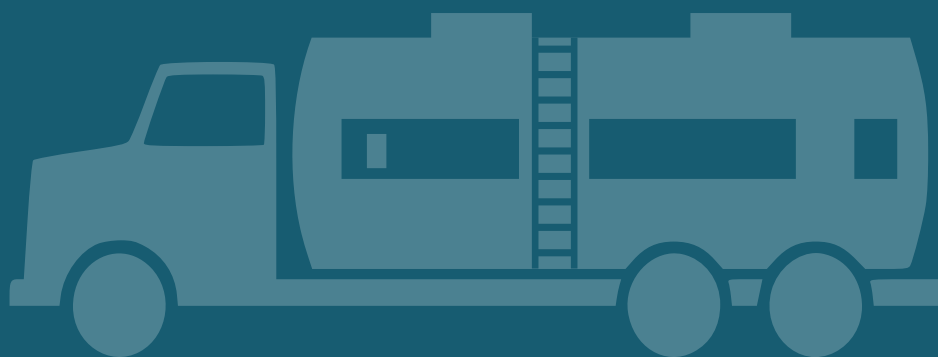
Sector 1

Community led initiatives to improve urban sanitation

Location
Visakhapatnam

Population
20 lakhs (as of 2011)

Wards
81

Lead Agency
Greater Visakhapatnam Municipal Corporation (GVMC)

Partner Organisation
Water and Sanitation for Urban Poor (WSUP) was initially the partner org

Additional Information
Film
youtu.be/bICQdWtplzg

The Challenge

Visakhapatnam— also known as Vizag— is the financial capital and largest city of Andhra Pradesh. Nestled between the Eastern Ghats and the Bay of Bengal, the historical Visakhapatnam port is located on a natural harbour port. Due to rapid expansion of the city, there has been a proliferation of both formal and informal housing. However, nearly 15% of these households do not have access to adequate sanitation like an individual toilet within their premises. Out of the ones who do have a toilet at home, 60% are not connected to the sewerage network and therefore depend on on-site sanitation.

These households require the services of Vacuum Truck Operators (VTO) to empty the septic tanks. Along with the service provided by the municipal corporation, there is a fleet of private VTOs. In Vizag, of the 68 privately owned vacuum trucks, 53 came together to form an association called the 'Septic Tank Owners Union Welfare Association' with over 250 members. The work of the VTOs was largely unregulated and there was no Standard Operating Procedure (SOP) on collection, containment and disposal. The VTOs did not use personal protective equipment (like gloves, masks, etc.) rendering the entire process of disposal unsafe for the workers. Their drivers and workers were not formally trained in de-sludging activities. The vacuum trucks also discharged the untreated sludge into *nalas* (open drains), the sea or on any open plot of land. In absence of regulation, some VTOs charged the customers as much as Rs. 20,000 per one trip when the actual cost was only Rs. 2,500 per trip. The operating time for the VTOs was restricted to daytime, and yet many VTOs operated at night to easily dispose the sludge in the open. The Septic Tank Owners Union Welfare Association didn't maintain any records on emptying activities, financial transactions, or any other administrative records.

The Initiative

As part of its, Faecal Sludge and Septage Management (FSSM) policy, the Greater Visakhapatnam Municipal Corporation (GVMC) decided to hold consultations with VTOs to develop an integrated sanitation solution to the city's problem. This took place in June 2017, after which it was decided to register the VTOs with the GVMC to regulate their operations. The registration entailed capturing the vehicle registration, names and other details of the vehicle owner, cleaner and driver. This information helped the GVMC to issue an authorization that had to be displayed on the truck at all times. It is this registration that has helped the government provide access to insurance and healthcare schemes to the VTOs and their workers.

Implementation

The implementation of this regulatory framework involved the following process -

Identification

The private vacuum truck operators involved in de-sludging were identified. Efforts were made to understand details of their operations.

Consultations

Meetings/Consultations with the identified VTOs were organized by GVMC with the support of an organisation called 'Water and Sanitation for Urban Poor' (WSUP). The overall de-sludging scenario in the city was discussed in these meetings. The FSSM policy, the key improvement areas and action plans were also discussed. VTOs were oriented on the need for registration and linked benefits like business guarantee, health, and social safety net.

Creating a registration system

A standardized registration format and checklist of documents was created to enable the registration of VTOs as approved service providers by the GVMC. Once registered, the GVMC then issued a license for these operators that allowed them to collect, transport and dispose septage. This registration dictated that the VTOs empty the tanks safely and dispose the sludge only at designated collection points.

Training and support

Support was extended to VTOs to fill the registration forms. The registration process is an on-going process. The GVMC staff also helps build capacities of the staff of VTOs in areas of health, hygiene and safety and on the importance and use of personal protective equipment. It also arranges site visits to the sewage treatment plant.

Figure 1- Training and Exposure Visits for VTOs

Recording of trips

Each trip made by a vacuum truck for de-sludging is recorded in a register and tallied with the emptying at the treatment plant. This process ensures that sludge is disposed off only at designated places and not out in the open.

Safety kits

Safety kits comprising of a helmet, overcoat, protective trousers, eyewear, gloves and gumboots, are provided to all registered VTOs by the GVMC.

Figure 2- Experience sharing on de-sludging practices

Work allocation

The licenses provided to the VTOs are valid throughout the city. All de-sludging service calls are received by a person appointed by the Septic Tank Owners Union Welfare Association, and allocates work to VTOs based on a rotation system. Thus, all the VTOs are able to get business and one or two vendors can't monopolize. Eventually all service calls would be routed to an official toll-free number and scheduled de-sludging will be introduced.

Enforcement

GVMC has established a system for penalizing trucks that operate without valid permits/licenses with a fine of Rs. 15, 000 per truck. The pricing for the VTOs that have been registered is currently capped at Rs. 2,500 per de-sludging trip, which will be reduced further once scheduled de-sludging is introduced.

Key Outcomes

 Outreach

40 VTOs have been registered and provided with licences and efforts are on to bring the remaining into the formal registration system. This has resulted in safe sanitation based livelihoods for the 120 persons working with these 40 VTOs.

 Improved service provision

The licensing and training of VTOs has resulted in an improved FSSM value chain for the city, with customers being protected against opportunistic high pricing at the time of collection.

Sustainability

Lastly, this has put an end to the environmentally unsafe practice of dumping of sludge in open grounds and into storm water drains. Out of the 17 waste collection sites, 3 have been designated exclusively for dumping sludge. Some of the sites also have pumping stations. The city government plans to increase their number so that the VTOs are able to dispose sludge in their own vicinity than travelling long distances to the designated spot elsewhere. The city is moving towards introduction of scheduled de-sludging.

Income Generated

Average of Rs. 20,000 to Rs. 30,000 per month per VTO on a regular basis (As of 2018)

Community Empowerment

The licensed VTOs are able to earn an income of Rs. 20,000 to Rs. 30,000 every month after deducting expenses. Their safety condition has improved with the use of safety gear and training on safe practices. Further, the regulated system has led to job security as all VTOs get equal access to the de-sludging business rather than arbitrarily competing against each other.

Livelihoods strengthened

120 (As of Jan 2018)

Learnings

- Regulating the operations of private players in FSSM in the city is crucial to systematize coordination and regulate septage management.

- The imposition of a penalty on a VTO that is not registered deters them from operating arbitrarily with consumers or dumping waste in the open.

- Monitoring the operations of the VTOs regularly proved to be essential for enforcement of safety norms, especially regarding safe disposal of waste.

Way Forward

- GVMC is in the process of geo-tagging registered VTOs and monitoring their performance. The trends from the collected data will help in understanding patterns and frequency of de-sludging. This will assist in real time tracking of scheduled de-sludging services.

- GVMC plans on retrofitting 4 existing Sewage Treatment Plants to convert them into co-treatment facilities to increase the city's capacity for proper disposal of faecal sludge.

- WSUP initially provided monitoring and trainings at regular intervals. GVMC is now in the process of engaging another agency to support the training and registration of VTOs, and to create a database of households that need de-sludging services.

From informality to service providing vendors

Treating the informal VTOs as licensed civic service providers changed the equation they had with the municipal corporation and with the citizens. On one hand, they became accountable as vendors to the corporation; on the other hand, they became service providers to citizens. This fundamentally changed their perception in the eyes of both. It gave them legitimacy, since they had operational licenses provided by GVMC. Their services were now being monitored and tracked. This resulted in accountability in their services and transparency in their operations. They were also now firmly in the social security net. The recognition received with registration and licenses put them in the formal sector of service provision. They could now access government schemes aimed at sanitation workers with their formal recognition.

Location

Nahan, Himachal Pradesh

Population

56,000 (As of 2011)

Wards

13

Lead Agency

Municipal Council, Nahan

Partner Organisation

City Livelihoods Centre (DAY-NULM)

The Challenge

Nahan is a city unique in its contention as the second oldest municipal council in India, (the first being Kolkata). Located in the state of Himachal Pradesh, it's a hill station that also serves as a base to a number of nearby smaller towns frequented by pilgrims. Like most ULBs in India, Nahan had outsourced the task of street sweeping to a private contractor. The contractor typically got a motley group of sweepers— the majority of whom were from the *Balmiki Basti* (settlement) and outsourced the task to them. With daily wages lower than the market rate and no job security, the work was irregular as it depended on the whims of the private contractor. The streets were dusty and littered with garbage. The contractor controlled the attendance and work hours of the sweepers. However, the wages were not paid as per labour laws. The sweepers' provident fund was deducted from their wages, but the contractor did not inform them of their Universal Account Number (UAN). The sweepers were unsure whether the money deducted from their wages was actually deposited to their Provident Fund Account or siphoned off. This resulted in a city that wasn't clean and workers who did not have job security.

The Initiative

In 2015, the Municipal Council of Nahan under DAY-NULM established a City Mission Management Unit (CMMU) comprising of an executive officer, a city manager, two community organizers and two volunteers. The CMMU setup the City Livelihood Centre (CLC) as an independent body registered under the Societies Registration Act 1860 to address livelihood concerns. CLC's role was to facilitate access to institutional credit, social security and to enable the urban poor to access emerging market opportunites through skilling programs . The key purpose of the CLC was to match demand and supply of services. The CLC in Nahan took an interest in the sanitation situation of the city and began training and organisation of street sweepers. Eventually this organized group won the street sweeping contract

Figure 3- Street sweepers of Nahan at work

directly from the municipality creating regular employment. The initiative also had a positive impact on overall street cleanliness.

Implementation

DAY-NULM aims to reduce urban poverty by building strong grass root level institutions for the urban poor. These institutions create an enabling environment for their members to access gainful and sustainable employment opportunities. The CMMU team initiated the social mobilisation process with a needs assessment to identify the pool of beneficiaries and understand the trades they operated in. The team enlisted the street sweepers of the *Balmiki Basti*

Figure 4- Media coverage on opening of CLC, Nahan

2014 — Proposal development and Municipal Council, Nahan identified under DAY- NULM

2015 — City Mission Management Unit established and staff recruitment done

Infrastructure development

2015 - 16 —

Community mobilization

Capacity building and mentoring support

Resource mapping, gap assessment of demand and supply initiated, Action plan developed

CLC's proposal for street cleaning approved

2017 — Registration of service providers/seekers, key service areas identified

Publicity and awareness campaign initiated

2016 — CLC registered under Society Registration Act, 1860

Approval sought from Municipal Council

Figure 5- Timeline for implementation of the initiative

(settlement) and the interactions revealed that they were hired as daily wagers by the contractor and were devoid of employment benefits. They developed an action plan to mobilize and motivate street sweepers and seek registration with the CLC. IEC materials, pamphlets, and awareness campaigns about the role of the CLC were disseminated. A proposal to manage street sweeping in the entire town and achieve SBM-U and DAY-NULM objectives was developed and submitted to the Municipal Council of Nahan. The proposal was approved and CLC, Nahan was awarded the official street sweeping contract. The following procedure was followed to bring about the change

Figure 6- A typical ID card issued to sweeper

Registration

After the identification process, the sweepers underwent police verification. A total of 57 sweepers in Nahan were registered for street sweeping and to manage the waste dumping sites. The registered sweepers were issued Identity cards by the municipality.

Developing scope of work

A scope of work for the sweeper was developed, translated into Hindi and then

Figure 7- ToR between CLC and sweepers

10

read out to the sweepers at the time of registration. This was done in the presence of the Executive Officer of Municipal Council, Nahan. The document highlighted shift timings, payment schedule and the use of safety masks. It also marked out designated spots for dumping of waste.

Managing expectations

Although the scope provided assurance for sustained work, it was emphasized that was contractual and would be renewed yearly.

Issuance of equipment

Each of the sweepers was issued sweeping equipment by the municipal council. The purchase of the equipment was made under SBM-U. Uniforms were issued with a unique jacket number for each worker.

Assigning the work

An area wise action plan was drawn which along with the list of the sweepers and their assigned wards was shared with the ward officers. For every 50 sweepers, 2 supervisors were appointed to lead and monitor the group. As a routine, the sweepers assemble at the municipal council office, and then disperse to their assigned wards for sweeping. Those who stay at distant places or wards report to their supervisor by phone to ensure their attendance.

Regular motivational meetings/ consultations

Regular sessions are conducted with the workers on time management, punctuality and communications. There are also sessions on personal hygiene, sharing of best practices, learning from each other's experiences and financial literacy. In addition, open forums with ward members and local citizens are held to elicit their views, problems faced and to involve them more in the city's civic operations.

Issuance of health cards/check-up

Health cards have been issued to each of the sweepers and quarterly health check-up by a qualified doctor is organised.

Figure 8- Regular meetings with street sweepers

Adopting a gender sensitive approach

Women with younger children in the age range of 0-2 years are assigned light work and in close vicinity to their homes.

Social security

The payment schedule fixed to be on the 7th of every month in accordance with attendance and payment is directly deposited in the bank accounts of the sweepers. For those who do not have bank accounts, the CLC facilitates opening their accounts under the Jan Dhan Yojana. The UAN of Employment Provident Fund (EPF) and the deduction amount is now also shared with the sweepers. As per the labour laws, a rotating weekly holiday is also accommodated.

Key Outcomes

Outreach

148 sweepers are now providing services to ULBs through the Nahan CLC. Of these, 66 are in Nahan, and 82 in the neighbouring town of Poanta Sahib. All the workers have successfully completed one full year on the contract with the CLC, and their contract has now renewed for the second year.

Community Empowerment

Payments to the street sweepers have been regularized with each sweeper now earning Rs. 7,560 per month (Rs. 5,940 as salary and Rs. 1,620 as provident fund) compared to Rs. 4,000 they were earning while hired by the contractor. The sweepers are linked with the *Pradhan Mantri Bima Suraksha Yojana* – the national life insurance scheme. The Below Poverty Line (BPL) families among the sweepers have also been linked with the *Rashtriya Swasthya Bima Yojana* (RSBY) scheme for health insurance. Beyond economic empowerment, health and social security has improved for the workers. More importantly, the transparent contracts have empowered the workers by making them aware of their rights.
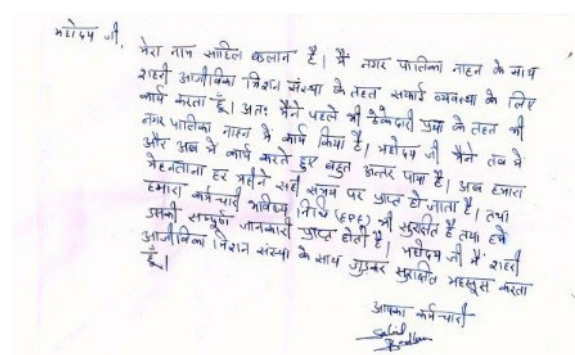
Figure 9- Testimony of a sweeper

Improved service provision

The city is visibly cleaner since the initiative was implemented, as the workers are more accountable, with the citizens involved in monitoring.

Sustainability

The initial establishment of the Nahan CLC was supported by a grant of Rs. 10 lakhs from DAY-NULM, but it has now become a financially self-sustaining institution. The overall revenue of the Nahan CLC has reached Rs 1.25 Cr., of which the street sweeping contract generated nearly Rs 11 lakhs annually as of 2017. The business model of the CLC is based on charging a 10% commission for all services provided, including collective contracts and individual call-based services. The CLC also provides placement assistance to candidates who have completed skill training programs, and charges 10% of the placed candidate's first months' salary as a one-time fee.

A major challenge for sustainability has been finding suitable candidates for the post of CLC managers. Mr Sughar Singh, the person responsible for setting up the initiative in Nahan and scaling it up in Poanta Sahib, has now moved to another city to replicate the process. A community organizer (CO) who is also a DAY-NULM field functionary has been appointed to manage the on-going activities at Nahan.

Income Generated

Rs. 7,560 per month (in 2018) from Rs.. 3000 to Rs. 4000 earlier (2016)
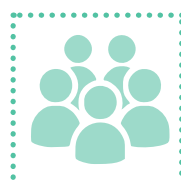
Livelihoods strengthened

148 (As of 2017)

Learnings

- Scope of Work with hours, payment schedule, safety aspects communicated to the workers in their own language is an essential step to empower the workers, formalize their livelihoods and ensure dignified conditions of work.

- Establishing linkages and convergence with existing government schemes facilitates easy expansion of the social security net to the informal workers.

- Service tracking mechanisms like citizens' morning walk meetings and locality based Whatsapp groups are useful for monitoring the quality and regularity of services

- Disappointed by not winning the contract from the municipal council, private contractors attempted to interfere with the CLC's work and tried to mislead workers by spreading rumours that they will not receive payments. The CLC team conducted regular meetings and successfully dispelled those notions.

Way Forward

In order to diversify its portfolio, the Nahan CLC is in the process of getting work orders from other government departments for different projects as well. The aim is to upscale this model in all the *tehsils* of Sirmaur district. The initiative has already been replicated successfully in the neighbouring town of Poanta Sahib through the establishment of a branch office of the Nahan CLC. A pilot to engage 100 persons for door-to-door waste collection has been initiated in the city of Solan as well.

CLC led formalisation of sanitation workers

Initially contractors acted as a barrier between the government and the workers. Although formal contractual services work well, in informal sectors contractors become *'thekedars'* who are able to exploit workers due to their lack of awareness and education.

The CLC in Nahan broke this barrier by educating the workers of their rights, and organizing them into a group. Once the sweepers formed a group, they could negotiate directly with the government and ensure better working conditions, wages and social security. It must be noted that the role played here by the CLC as an independent body was instrumental in getting the workers together.

This authority of the CLC as a quasi representative of the government, with its functional independence helped it to act without delay. As a government created entity, it could then use its good offices to give the workers' group a voice in front of the municipal council and get a formal contract. Once this model was tested, the CLC expanded quickly to the neighbouring town of Poanta Sahib and Solan. The pioneer, Mr Sughar Singh has already replicated this model in another city.

03 Entrepreneurship in the toilet building process – Pune, Maharastra

Location

Pune, Maharashtra

Population

34 lakhs (As of 2017)

Wards

76

Lead Agency

Pune Municipal Corporation (PMC)

Partner Organisation

Samagra Empowerment Foundation (referred to as Samagra henceforth)

Additional Information

Film
youtu.be/2NIDNBu4JNE

The Challenge

Located in the state of Maharashtra, Pune is one of India's fastest growing cities. It is a hub of engineering, automobiles and information technology. In the last two decades, as jobs have expanded in these three sectors, thousands have migrated to Pune, rapidly expanding its population. This has been accompanied by unplanned urbanization, leading to sprawling slums across the city. 40% of the city's population now lives in these slums and nearly 70% of these citizens do not have indivudial household level toilets. 6 lakh people in these slums are dependent on community toilets. The construction and maintenance of toilet blocks is primarily the responsibility of the Municipal Corporation.

Like most cities due to poor operations and maintenance, a large number of these facilities were dilapidated and non functional.. Aiming to providing better sanitation facilities to poor women, Samagra, a non-profit, surveyed 800 community toilets in the slums of Pune. Only 10% of the toilets were found to be usable and functional. Three major issues were identified:

- Lack of appropriately designed toilets

- Lack of user and community engagement

- Lack of sustainable operations and maintenance models

The Initiative

Samagra is a not-for-profit organization that aims to combat open defecation and improve community health by providing better community toilets. Samagra's model was to redesign and refurbish dilapidated community toilets of the PMC and engage women from the community to operate and manage the toilet blocks. The initiative transforms the community toilets from utilities to multifunctional community spaces, where residents access various value added services through an attached "Loo-Kiosk". These include e-commerce services, mobile and cable-TV recharge, payment of electricity bills, banking facilities, and special saving schemes for children. The Samagra team comprises of a *Bachat Sakhi* (a woman who facilitates savings), *Safai Sainiks* (sanitation workers), and office staff. The *Bachat Sakhis* are hired from the community around the toilet block. Apart from managing user charges at the refurbished toilet blocks, they offer various value-added services through the Loo-kiosk.

A user fee is levied for value added services, which added to the revenues and helps make the toilet block financially self-sustaining. High standards are maintained for cleanliness of the toilet block. The *Safai Sainiks* are hired directly by Samagra or through a contractor. *Samagra Swachhta Samitis* i.e. sanitation committees are formed in each community which have representation from men, women and children. Here too, the women play a major role in monitoring and establishing connections with the municipal corporation. Samagra has been based out of Pune since 2013 and in the same year, the Pune Municipal Corporation (PMC) handed over 50 dilapidated community toilet blocks across 15 slums to them for management. PMC provided water and electricity and ensured that the disposal system was in place. No new toilet blocks were constructed. There was no financial transaction between the Corporation and Samagra.

Implementation

Samagra's model has 3 major components. The first is to provide toilets with good design. The second is to trigger and sustain behavioural change amongst the users and finally, to engage the community members in Operations and Maintenance (O&M).
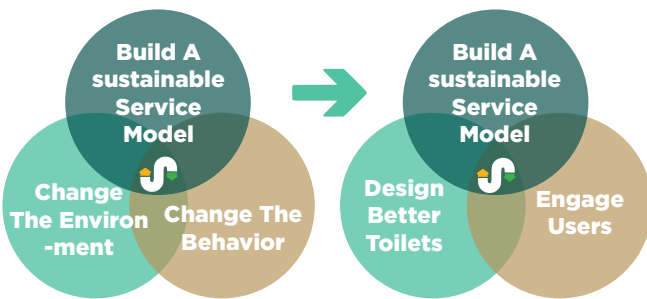
Figure 10- Community toilet management approach by Samagra

Following is the step-by-step process followed to establish the toilet entrepreneurship model

Redesign and refurbishment

Once the PMC hands over the toilets to Samagra, they are redesigned by Samagra's design team. The aim is to make them easy to locate and use, discourage vandalism, theft and lessen the need for constant repairs in these blocks. The design provides for a "Loo-kiosk" adjacent to the block. The community is involved in iterating on the initial design changes. Factors like ventilation and lighting, user experience and universal accessibility are incorporated in the design. The refurbished toilets are equipped with stainless steel fixtures, high-density plumbing, automated flushing, hand washing stations and sanitary waste disposal dustbins. The refurbishment is done by trained subcontracted vendors.
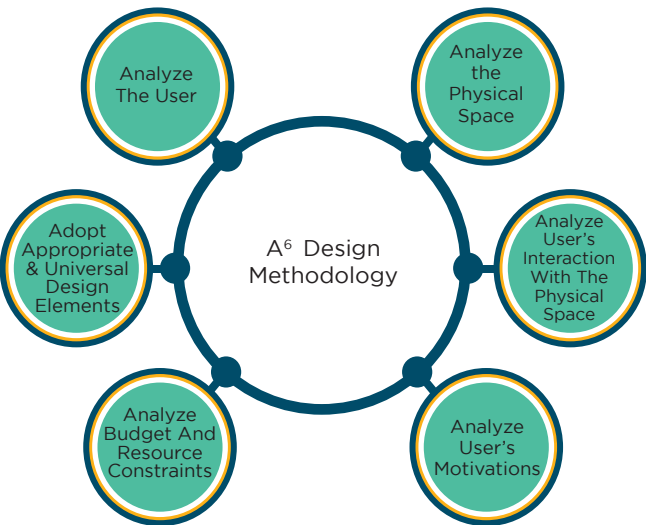
Figure 11- Samagra's A^6 design methodology

Figure 12- Regular cleaning of the toilet blocks by Safai Sainik

Improvements around the toilet block

When Samagra started working in slums, the focus was on providing technology solutions in the community toilets. But soon they realized that behavioural change was crucial, especially regarding notions about using toilets and the spaces inside and around the toilet blocks. To change these notions, Samagra started beautifying the space both in and around the toilets through murals, new coats of paint and potted plants.

Operations and maintenance

The toilet blocks are refurbished, operated and maintained by the *Bachat Sakhis* and *Safai Sainiks*. Mechanical cleaning equipment is used by the *Safai Sainiks* along with the required safety gear, enabling no-touch cleaning. The *Safai Sainiks* are trained to follow a Standard Operating Procedure to maintain and clean the toilet blocks.

Role of bachat sakhis

There are 2 Bachat Sakhis for every toilet block. They are digitally empowered through training in mobile technology and given sound knowledge of financial services. They conduct online surveys, use e-commerce platforms and make online payments. The team in Pune comprises of over 400 *Bachat Sainiks*, 100 *Safai Sainiks*, and 200 office staff.

Figure 13- Training of registered *Bachat Sakhis*

Figure 14- Motivational training for *Safai Sainiks*

Loo-kiosks

The core innovation of this initiative is the bundling of toilet infrastructure with add-on services. The services are available at a one-stop shop/kiosk, named the "Loo-kiosk", located outside the toilet block. Any person can use the toilet, but only those who pay for the toilet usage can access add-on services. Samagra has over time, enabled the provision of the following services:

- Loo-savings where the users can save money through a mobile wallet program called "M-Gullak" run in partnership with the company Mobi-Kwik. M-Gullak enables the users to save very small amounts— as little as 2 rupees per day— and transfer the money to their bank accounts.

- The Loo-kiosks double-up as mobile and cable-TV/DTH recharge shops. Payment of electricity bills is also possible here.

The kiosks serve as a node of e-commerce activity, where anyone can place an order on e-commerce platforms like Amazon, Flipkart or Snap deal with the help of the digitally empowered *Bachat Sakhi*s. The kiosk operator collects data on number of users and enrols them in a reward system. These redeemable reward coupons are linked to their use of the toilet and they can use them to buy any product available at the kiosk. The users are informed about their rewards balance through instant updates on their phones. Focused on improving the health and hygiene of users, the rewards usually entail discounts on washing and sanitation products, water purification systems or nutritional snacks manufactured by local producers. The rewards are also customized to the needs of sub-groups. Adolescent girls for instance, can redeem points for sanitary napkins. Samagra has collaborated with local enterprises so that kiosk operators can procure bulk supplies of quality products at cheaper rates.

Innovations

Samagra has also used several innovative solutions in their toilet block. To save water, grey water is brought from the Gardens' Department of PMC for cleaning purposes. A front-end interface where users can rate the toilet was also planned.

Financials

On an average, the renovation cost per toilet seat is Rs. 32,000. This includes steel fixtures, high-density plumbing, automated flushing and other incidentals. This one-time capital cost is borne by the PMC. The O&M cost per seat is Rs. 1,000 i.e. Rs. 15,000 per month for the average 15-seater toilet block. This includes the expenses of *Bachat Sakhis*, *Safai Sainik*s who clean the toilets, and all operational costs for material and repairs. The revenue comes from the user fees of Rs. 50 per month paid by every family for unlimited use across any of the Samagra toilets. The extra services provided at the Loo-kiosk bolster the revenue further. It takes around 6-8 months for the blocks to financially break-even.

Figure 15- Samagra toilet management model

Key Outcomes

Outreach

Samagra by 2017 manages over 500 toilet seats and serve more than 30,000 users daily with clean sanitation services across more than 20 slums in Pune.

Improved service provision

The emphasis on high standards for cleanliness of not only the toilets but also the beautification of the urban space around it is one of the greatest benefits of the Samagra model.

Figure 16- Before and after Samagra's intervention

Income Generated

Bachat Sakhis earn on an average Rs. 10,000 and Safai Sainiks make Rs. 16,000 per month (As of 2018)

Community Empowerment

Through this model, 100 families have been enabled to save over Rs. 10 lakhs collectively and even avail micro-insurance services. The *Bachat Sakhis* earn between Rs. 5,000 to Rs. 15,000, depending on the number of families using the toilet and the number of products that they sell. The *Safai Sainiks* earn between Rs. 15,000 to Rs. 18,000 per month.

Sustainability

The membership model for user fees, as well as the provision of value-added services ensures that the toilet blocks have a sustainable revenue stream. After reaching the break-even point, toilet blocks can become profitable for the community that manages them. Community ownership of the O&M and a pay-per-use model ensures that even after the Samagra team hands over operations; the cleanliness standards are maintained.

Livelihoods strengthened

500 (As of 2018)

Learnings

- Bundling of value-added services like financial services, Internet connectivity, and access to sanitation related consumables incentivizes usage.

- The initiative has triggered the habit of savings among women and children, showing that the Loo-kiosk model can create impact in areas unrelated to sanitation.

- The longevity of the contract with the corporation for 10 to 20 years, adequate and continuous supply of water and electricity (5,000 litres of water per toilet seat per day) were as positive enablers in the initiative.

Way Forward

- Samagra is currently in the process of collaborating with other municipalities, targeting a 20-year Memorandum of Understanding for replicating its model. It is also working on developing a Smart Loo technology. The SMARTLoo prototypes have automated flushing, choke-up detection, and a data collection platform on toilet usage. The revenue model includes free WiFi access and

advertisements. Their efforts are now focused on driving down the costs of automation for these SMARTLoos.

- Another plan of the organization is to develop a mobile app for on-demand toilet cleaning services. This would make the *Safai Sainiks* entrepreneurs, who can travel around the city and provide freelance cleaning services while maintaining health and safety standards.

- Samagra has launched a health insurance product through the community groups, (which originally came together around the toilet model), with a focus on disease prevention. A network of doctors conducts 4 OPDs per month (free for insurance holders) in the urban poor areas. Besides the OPDs, 8 specialized health camps are organized per year based on the needs discovered during OPDs (e.g. camp on dental issues, cardiovascular issues etc.). Insurance holders get a 24/7 helpline with a doctor on call at all times. The premium is Rs. 1,800 per year for an individual or Rs. 200 per month for a family of 4. There are currently 8,000 members on this health insurance scheme. Members of the health insurance program also get access to the revamped toilets for free.

Note: Samagra was contemplating a Build-Operate-Transfer model or becoming a technical consultant to communities at the time this document went to print. The model is heavily dependent on ULB's and political support without which its sustenance is difficult.

Tragedy of the Commons

Charging for toilet usage turned it into a service provision instead of a free utility. This altered the relationship it had between the communal toilets and the community. Initially as a free service, it suffered from what is popularly known as the "Tragedy of the Commons", wherein an asset whose ownership isn't clear ends up falling into disrepair as no one has an incentive to preserve it. The moment Samagra stepped in, they converted toilet usage into a service, the equation with the community changed. With ownership, the women who ran it and the workers who cleaned it took better care of it. The money they made from user charges and allied services fed into their salaries; this incentive kept them motivated to maintain the toilet blocks and their services. In this context, Samagra saw an opportunity to create a sanitation business model that "monetizes the user engagement" to make community toilets accessible, affordable and aspirational for urban slum dwellers.

On the consumer side, since the community was paying a fee, they not only demanded better service but also respected the service provision more. Accountability for maintainence was clear, especially since women from the community were the managers. The freedom given to the entrepreneurs to innovate ensured that they got creative in their revenue generating activities by setting up Loo-kiosks providing all sorts of online services as well as selling small items of sanitary use. This also dispelled the notion of 'toilets' as a dirty space and turned them into social and commercial centres.

04 People centric approach to Sanitation - Tiruchirappalli, Tamil Nadu

Location

Tiruchirappalli, Tamil Nadu

Population

10 lakhs (As of 2011)

Wards

65

Lead Agency

Tiruchirappalli City Municipal Corporation (TMC)

Partner Organisation

Gramalaya

Additional Information

Film
youtu.be/ezV_hiPitUI

The Challenge

Located on the banks of the river Cauvery, Tiruchirappalli popularly known as Trichy, is an important educational and manufacturing centre in the state of Tamil Nadu. It is also the energy equipment and fabrication capital of India. Since the city was ruled by an array of different kingdoms over a period of two thousand years, it features some of the finest temple architecture in India and hosts 1 to 2 lakh pilgrims annually. The city is also a melting pot of migrants leading to the mushrooming of slum-like colonies across the city. The city has 286 slums collectively housing a quarter of the city's population. During the late 1990s, the urban poor of Tiruchirappalli were victims of frequent epidemics of water borne diseases due to inadequate sanitation facilities and lack of hygiene education. Most of the community toilet complexes in the slums were constructed almost three decades ago. They lacked regular maintenance, did not have regular running water, or appropriate disposal systems. They were abandoned and the citizens had to resort to open defecation. This accelerated the spread of water borne diseases in the city and led to environmental degradation. It became vital to address not only the inadequate sanitation facilities but also to help the community maintain these facilities.

The Initiative

Gramalaya, a non-profit organisation working in the field of water and sanitation in Tiruchirappalli brought the community women together to form self-help-groups (SHGs) of 15-20 members each. The communities received technical support from Gramalaya and other NGOs like Scope, Sevai, and Exnora International, as well as financial support from Water Aid and embarked on a journey of social transformation. Members of different SHGs came together to form larger teams named - SHE (Sanitation, Hygiene and Education) teams. The SHE teams and the associated SHGs then became facility managers of the community toilets in their areas and collected user fees from the
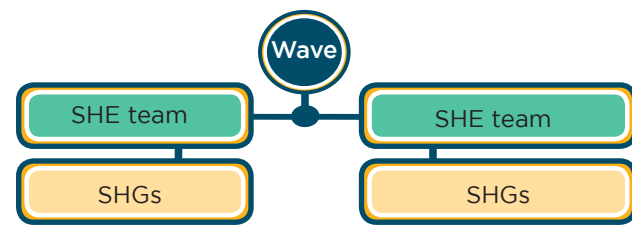
community. These SHE team leaders came together at the city level to form a federation known as Women's Action for Village Empowerment (WAVE). The WAVE federation now guides the SHE teams in maintenance of community toilets and assists other SHGs initiating similar projects. WAVE also takes up issues related to water and sanitation with the city corporation.

Implementation

The following process was undertaken in implementing this initiative -

Collecting Baseline Data

Looking at the sanitation situation in Trichy, Gramalaya started its intervention in the year 2000 by carrying out a needs' assessment survey of the 186[2] approved slums. Field teams were organized to gather information on the location of community toilets, open defecation spots and sanitation needs of slum-dwellers.

Figure 17 - Door-to-door survey for identification of issues and needs of the community

[2] 186 was the number of approved slums as per year 2000

Construction of new toilets

Based on this survey, new toilet facilities – both individual and community based, were built in 8 slums with financial support from Water Aid. The Tiruchirappalli City Municipal Corporation (TMC) provided the land for these facilities and also guaranteed water supply and electricity connections. This initiative included the delivery of a range of water and sanitation options, including the conversion of dry community toilets into modern flush varieties, construction of new toilet complexes, and installation of individual toilets. Alternatives were selected based on demand, status of tenure, and availability of space. Special considerations were included for children and universal accessibility. All the toilets were installed with the required washing facilities.

SHG formation

A three-tier structure of Community Based Organizations (CBOs) was created for operations and management of the community toilets. All SHG members became members of the SHE team. The SHE teams are the key institutions responsible for identifying and addressing sanitation related issues. They are responsible for the overall maintenance of the community blocks and creating hygiene practice awareness.

Opening bank accounts

Two SHE team members are chosen as leaders responsible for operating the team's bank account. These two members also represent the SHE teams at the WAVE federation. The federations are composed of SHE teams and other women SHGs registered under the Tiruchirappalli city Municipal Corporation. The WAVE Federation is a registered society and is headed by a President, a Secretary, a Treasurer and 12 executive members. WAVE gives guidance to the SHE teams for maintenance of community toilets and helps other SHGs take responsibility for the maintenance of community toilets. WAVE also addresses other water and sanitation based issues with the TMC and engages in sanitation related awareness drives in other slums.

Involving entire community

After some initial resistance to the cause, men from the community also became a part of the initiative. Consequently the Association for Water, Sanitation and Hygiene (AWASH) was formed where men and women contribute to water and sanitation improvements within the community. During FY 2017-18, Gramalaya formed 100 AWASH committees. In each AWASH committee, there are 20 members, 10 each of men and women, thereby generating 2,000 volunteers that can serve in 65 Wards of the city.

Figure 18- Awareness campaigns by the SHE team members

Role of TMC

The TMC is responsible for provision of water, drainage and electricity to these facilities. It also renovates the community toilets at periodical intervals and allocates new community toilets to SHE teams. The annual taxes and charges are borne by the SHGs through the user fees so collected.

Child friendly toilets

For children, the community decided to construct a separate toilet adjacent to the 'pay and use' latrines meant for men and women. This toilet is reserved for children below 6 years of age. A children's group is also formed and involved in behavioural change communications in the community.

Figure 19- Child-friendly toilet

Operations & maintenance

Each SHE team and the associated SHGs take responsibility for the toilet in rotation. During their month, each SHG member is made caretaker for a day and is responsible for collecting user fees and maintaining the accounts book. Most SHE teams employ two cleaners. A female security person is employed for protection of the facility and operation of the water pump.

User charges

Initially, the community was reluctant to pay for the toilet. In some cases, local politicians resisted the conversion of free toilets to pay and use community managed toilet blocks. This was addressed through regular household level interaction with the community, to increase their interest in sanitation. The SHE teams decide the user fees generally maintained at around 50 paise for adults for use of the toilet and Rs. 2 to 3 for bathing and washing clothes. Use of toilets for urination by children, the elderly, and by single women is free. On average, a family of 5 pays about Rs. 150-250 per month. Families can also pay

Figure 20- Caretaker collecting user charges

a monthly charge of Rs. 50 per family per month. In this case, each familty is provided with a card. Any family member can access the toilets and bathing facilities by showing the card to the caretaker.

Revenues

Gramalaya and WAVE promote a token system at the pay-and-use toilets. After payment, each user is provided a token. This ensures transparency as it shows how many people use the toilet each day and how much income has been collected against the number of tokens issued. These details are entered into account books kept in the toilet complex. Accounts are presented by the SHE teams to WAVE and by WAVE to Gramalaya and are also vetted by an external auditor. In some toilet complexes, the account books are checked and signed on a monthly basis by a TMC junior engineer. This transparency creates trust in the community. Detailed information on the financial status of each toilet enables WAVE to monitor performance and intervene with advice on tariff structures and loans when necessary.

Banking

After meeting the operational costs every month, the remaining amount is deposited in the SHE team's bank account and the financial statement is presented at monthly SHE team meetings. The members also sell soaps, shampoo and other hygiene goods in the toilet complex for additional income. The members use this money to buy cleaning material, pay cleaners' wages, and other maintenance.

Gramalaya was established	Started Operation in urban slums	1st Integrated Sanitary Complex (ISC) built in Trichy	

1987 · · · · · · **1995** · · · · · · **1999** · · · · · · **2000** · · · · · · **2001** · · · · · · **2002** · · · · · ·

Partial sewer system was put in place by the TMC   WaterAid, Gramalaya & other NGOs begin work on CMTs   India's first slum Kalmandhai as open defecation free slum

Gramalaya formed 100 AWASH teams   Gramalaya awarded the National Urban Award   167 (half of the total) toilets become community managed toilets

FY 2017 -18 · · · · · · **2013** · · · · · · **2010** · · · · · · **2007** · · · · · · **2006** · · · · · · **2005** · · · · · ·

Gramalaya approved as key resource center by the Ministry of Drinking water & Sanitation   Guardian MFI for water and sanitation formed   1st community toilet linked to DEWATS

Figure 23- Timeline for Implementation of the initiative

Key Outcomes

Outreach

Gramalaya has formed women SHGs (two to three SHGs per slum) in all the 186 slums spread across the city. These SHGs are federated into SHE teams taking 4 - 5 members from each SHG. Currently, there are 163 SHE teams with more than 2,768 members federated under the WAVE Federation.

Improved service provision

Gramalaya played an active role in the Kalmandhai slum being declared India's first 100% ODF slum in June 2002. The community members in the slums have adequate toilet facilities at the slum-level, and at the household-level resulting in good toilet coverage in the city.

Sustainability

Trichy bagged the sixth rank in Swachh Survekshan 2017. The Government of India has made Gramalaya one of the National Key Resource Centres of the Ministry of Drinking Water and Sanitation. Gramalaya hasprovided training to government officials in Andhra Pradesh, Karnataka and Tamil Nadu. Currently, Gramalaya is working in five southern states.

Community Empowerment

The revenue varies based upon the population and users of the community toilets. The monthly revenue ranges from Rs. 6,000 to Rs. 60,000. The SHE teams cross-subsidize the maintenance of under-performing community toilets through the excess revenue from the revenue-surplus toilets. The caretaker is paid Rs 100 per day (for an 8 hour shift), the cleaner is paid Rs 100 per day, and the watchwoman is paid Rs 1,000 per month. Each SHE team has opened a bank account to deposit funds collected from the community. A study conducted by Water Aid India showed that the impact of the initiative on the health of the community was dramatic, with incidences of diarrhoea falling from 73% to 10% among children and from 10% to 2% among adults in 2002.

Figure 21- Training of AWASH team

Income Generated

Rs. 3,000 for the cleaner and caretaker and Rs. 3,000 for the watchwoman (As of 2018)

Livelihoods strengthened

800 (approximately in 2017) across 163 community toilet blocks

Learnings

Community participation was the key to the success of this initiative as more than half of the slums were part of the SHGs and took it upon themselves to make sure that the initiative was successful. The process empowered women on two levels:

- Establishing women as sanitation ambassadors who go door to door in persuading people to use toilets and as sanitation managers to manage and maintain the toilet blocks

- Shifting women's status from home makers to key decision makers in the community

Way Forward

Currently, the WAVE Federation is working closely with the city corporation in the Clean City Campaign. They are looking into solid and liquid waste management within the city, maintenance of micro-composting units, pay and use community toilet systems and other WASH related programs. Gramalaya is looking at developing business opportunities by hiring a de-sludging vehicle managed by its member SHE teams to bring in income by servicing septic tanks. They are also exploring the following issues:

- Sanitation services are absent in unapproved slums/non-notified slums and it has not been possible for Gramalaya to work in such slums that are considered illegal.

- Other Backward Caste (OBC) users refuse to share community toilets with scheduled caste (SC) users.

- For community toilet blocks that have less than 500 users, it has proven difficult to achieve financial viability.

Community Ownership

The example of Trichy stands out to illustrate the strength of community ownership. Gramalaya's first task in the slums of Trichy was the formation of self-help groups (SHGs) of women. These groups were consolidated to form Sanitation, Hygiene and Education (SHE) teams. The SHE team had two members from each SHG, and around 90 SHE teams managed the toilets of these 186 slums while over 450 SHGs were formed. The toilets were run by the SHGs and the revenue collected was monitored by SHE. Gradually a need was felt to consolidate even these SHE teams into federations and WAVE (Women's Action for Village Empowerment) was formed which also consisted of other SHGs.

WAVE became the overarching body that regulated the SHE teams spread across the slums of Trichy. When men showed interest, they were also involved and AWASH teams were formed that volunteered to spread awareness. The key learning from the Trichy experiment was the involvement of those who were closest to the toilets and were its biggest beneficiaries. The women, once organised saw themselves as beneficiaries of the service, and had an incentive to maintain it. They also were the best equipped to maintain it as they lived right in the community, understood their needs, and were known within the community. It is their presence that made it safe for other women to use the toilets, leading to increased participation from the community.

Location
Bhubaneswar, Odisha

Population
9 lakhs (As of 2011)

Wards
67

Lead Agency
Centre for Advocacy
Research (CFAR)

Partner Organisation
Bhubaneshwar
Municipal Corporation
(BMC)

The Challenge

The city of Bhubaneswar is the capital of the state of Odisha. Located on the eastern coast of the country, it is one of the country's fastest-developing cities. This growth is also grounded in the city's past when it was the centre of the great Kalinga kingdom of Eastern India. In any fast-developing city, entire colonies of makeshift houses spring up to host migrants who eke out a living in daily wage labour like construction, house help or vendoring. Many of them are also the city's sanitation foot soldiers — keeping the city clean. In Bhubaneswar, these workers have traditionally lived in ghetto and belong to a certain community. Both men and women of this community undertake manual scavenging and sanitation work like sweeping. They often clean and de-silt drains or enter manholes without protective equipment like mask, gloves or boots. Many of them die in sewer lines or while cleaning soak pits and septic tanks. The community has been identified by the government as one of the Scheduled Castes (SC), and they are socially vulnerable and the victims of discriminatory practices. The people are prone to tuberculosis, skin infections, and water borne diseases, due to exposure to human waste and unhygienic environs. Usually they get very less wage and are engaged in this work from early morning to midday without a break or holidays. Very few of them have accessed available government programs for their welfare. These are not the socially vulnerable groups working in urban India; there are also construction workers and face problems such as a lack of work security, low wages, and a lack of social and medical welfare facilities. Most construction workers are not even aware about the Labour Welfare Card, a document that gives them identification and access to government welfare.

A lot of potential beneficiaries are also were excluded from various government schemes and programs because they didn't have Aadhaar identification cards. These varied communities lived together in the city's slums and to target these varied problems, it was important to see the common thread that connected them.
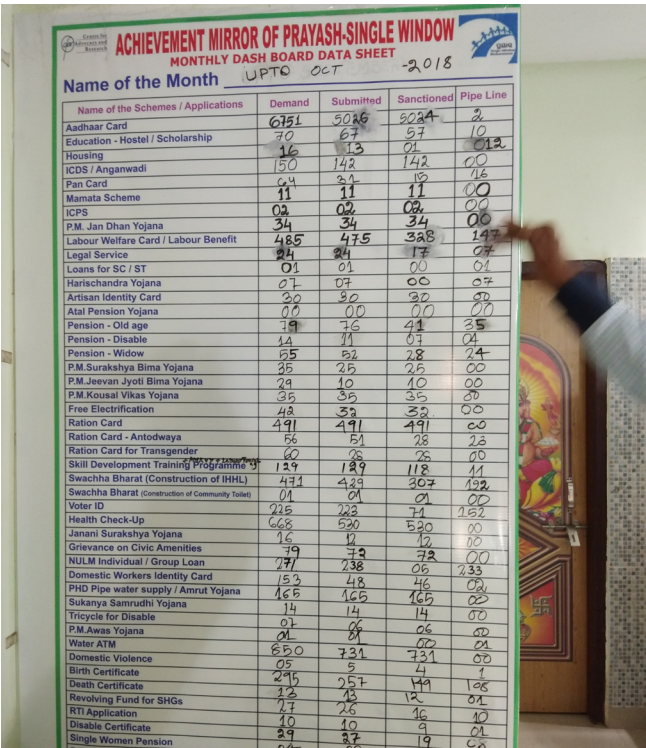
The Initiative

The idea was to create a single solution targeting the problems that affected different segments of the poor population. For this, 15 settlements were chosen in the city covering three zones (North + Southwest + Southeast) and 5 wards (14,46,51,52,53). The total households in these 15 settlements were 3,469 and the total population was 13,158. The following table gives a snapshot of the population distribution according to professions -

House holds	3,469
Total Population	13,158
Construction workers	1,588
Domestic workers	1,132
Petty Vendor	1,184
Sanitary Workers	1,184
Home Based Workers	1,115
Self Employed	964

A Single Window Centre named Prayas was envisioned to leverage flagship government schemes. The schemes covered various issues like sanitation, skill development, integrated child development scheme (ICDS), pension, housing, food security, health and labour welfare to benefit marginal communities. Outreach, education and motivational strategies were employed to help the community members become beneficiaries of schemes and programmes. The entire value chain of scheme delivery including the mechanism of applying, processing demand at the provider level, and back on the end user level was studied. Thereafter, structural and systemic issues— from deep-seated prejudices against the community, to their inability to furnish documentary evidence— were addressed. In almost every settlement, there were grassroots' committees like Slum Development Committees, *Mahila Samiti*

(Women's Committee), or *Mahila Argoya Samithi* (MAS), to address health issues or other issues of women's empowerment. These existing platforms were first identified and strengthened through capacity building training, scheme awareness programmes, and interfacing with officials.

It became easier to approach the community, through the MAS. This was followed by initiatives aimed at strengthening the demand of the community for various welfare schemes through peer driven campaigns. The demand was simultaneously aggregated through a concerted drive seeking to enrol beneficiaries. Every application that was submitted passed through the required due diligence. Those that passed the scrutiny were immediately approved and the Single Window System advised the ones that required further clarifications on the same.

ACHIEVEMENT MIRROR OF PRAYASH-SINGLE WINDOW
MONTHLY DASH BOARD DATA SHEET
Name of the Month ___UPTO OCT -2018

Name of the Schemes / Applications	Demand	Submitted	Sanctioned	Pipe Line
Aadhaar Card	6751	5026	5024	2
Education - Hostel / Scholarship	70	67	57	10
Housing	16	13	01	012
ICDS / Anganwadi	150	142	142	00
Pan Card	64	31	15	16
Mamata Scheme	11	11	11	00
ICPS	02	02	02	00
P.M. Jan Dhan Yojana	34	34	34	00
Labour Welfare Card / Labour Benefit	485	475	328	147
Legal Service	24	24	17	07
Loans for SC / ST	01	01	00	01
Harischandra Yojana	07	07	00	07
Artisan Identity Card	30	30	30	00
Atal Pension Yojana	00	00	00	00
Pension - Old age	79	76	41	35
Pension - Disable	14	11	07	04
Pension - Widow	55	52	28	24
P.M.Surakshya Bima Yojana	35	25	25	00
P.M.Jeevan Jyoti Bima Yojana	29	10	10	00
P.M.Kousal Vikas Yojana	35	35	35	00
Free Electrification	42	32	32	00
Ration Card	491	491	491	00
Ration Card - Antodwaya	56	51	28	23
Ration Card for Transgender	60	06	26	00
Skill Development Training Programme	129	129	118	11
Swachha Bharat (Construction of IHHL)	471	439	307	132
Swachha Bharat (Construction of Community Toilet)	01	01	01	00
Voter ID	225	223	71	152
Health Check-Up	648	530	530	00
Janani Surakshya Yojana	16	12	12	00
Grievance on Civic Amenities	79	79	79	00
NULM Individual / Group Loan	271	238	06	233
Domestic Workers Identity Card	153	48	46	02
PHD Pipe water supply / Amrut Yojana	165	165	165	00
Sukanya Samrudhi Yojana	14	14	14	00
Tricycle for Disable	07	06	06	00
P.M.Awas Yojana	01	01	00	01
Water ATM			00	01
Domestic Violence	850	731	731	00
Birth Certificate	05	5	4	1
Death Certificate	295	257	149	108
Revolving Fund for SHGs	13	13	12	01
RTI Application	27	26	16	10
Disable Certificate	10	10	9	01
Single Women Pension	29	27	19	08

Figure 22- Single Window Centre - Prayas

Implementation

The following was the process for execution of this system -

Easing Identification

Community access to Aadhar was strengthened by collaborating with the Department of Information Technology and Communication and the Odisha Computer Application Centre (OCAC). The latter opened a dedicated Aadhar Registration Centre at the Single Window which led to the Single Window being recognized officially by the OCAC on its website. This recognition made it possible for the community to have children enrolled in schools, obtain ration cards that were on hold, be included in government pension programs and secure bank loans for the SHGs that were formed.

Formation of SHGs

102 SHGs were formed or reviewed in the 15 settlements. Out of these, 16 received Rs 1 lakh each as a revolving fund under the National Urban Livelihood Mission (NULM).

Strengthening Existing Infrastructure

Janch (Search) and *Matru* (Mother) Committee members were strengthened to monitor the service delivery under ICDS. The committee ensured regular attendance of school children in ICDS run pre-schools and monitored quality and quantity of food served there. A social audit was conducted and it strengthened transparency in the service delivery.

Sanitation

6 Community Management Committees (CMC) were formed for monitoring, addressing and implementing sanitation services (settling grievances related to Individual Household Latrine – IHHL, availability of dustbins and maintenance of drainage). 10 Community Advocates were trained by the Bhubaneswar Municipal Corporation (BMC) for geo-tagging newly built and existing IHHLs. The Single Window team and CMC members facilitated construction of drainage and concrete roads in the settlements. Every household now has gotten a water connection for the toilets under the *Piyashu Yojana*.

Building Bridges

A cadre of 52 Community Researchers (CR) were trained to use community tools such as Citizens' Report Cards. Of these, 4 were provided an in depth

orientation on Sanitation, Social Security (Pension), Labour Welfare and National Food Security Act (NFSA). These CRs are now leading advocacy initiatives and dialogues with concerned departments. They have also established a community led methodology to assess and rate a scheme using women's *bindis* (a mark made on the centre of one's forehead by women in India) as a marker. They use green, red and orange *bindis* to mark progress on maps, and correspondingly, the same coloured *bindis* are placed on the households to help surveyors to track progress. This is a functional and easy to implement low-cost method of colour-coded geo-tagging.

Other Issues

52 community leaders have been trained on addressing gender-based violence. They have created a settlement mechanism to prevent and curb domestic violence.

Figure 23- Addressing gender-based violence

Key Outcomes

Outreach

The Single Window System has been recognized by the National Urban Health Mission (NUHM) as a tool to strengthen MAS Members. NUHM has adopted the community need assessment tool – the *Bindi* Map — for progress tracking on government programs.The Jagruti MAS of Rickshaw colony was awarded the title of Best MAS of Odisha by the NUHM for their intervention in health and sanitation. Across all settlements, institutional delivery has now become a norm with women insisting on using hospital services.

Sustainability

The system has used existing government monitoring mechanisms to ensure that it remains sustainable. They have activated 4 *Ward Kalyan Samiti* (WKS) members to resolve issues at ward level. The WKS members raise issues to the BeMC. 338 MAS members have been trained to support institutional delivery and ensure immunization of newborns. They are also trained to conduct health camps, surveys, and sanitation & resource mapping. Through this, these groups have demonstrated a working model of inclusive and participatory governance for the urban poor.

Improved service provision

By using Social Audit, the Single Window System has been able to enhance social and public accountability and responsiveness from service providers.

Community Empowerment

Two transgender groups formed SHGs as part of this intervention. These are the first of its kind in Bhubaneswar under DAY-NULM. Thematic experts on NFSA, pension schemes, Labour Welfare Schemes and SBM schemes are bridging the relationship between community and the government.

Learnings

By actively engaging the community, the single window system has created a one-stop solution to the for the problems of many. One of the ways it did can be replicated in other urban areas is by creating community workers in different capacities. The following gives a snapshot of the same

Type	Description	Trained
Community messengers	Community messengers are experts on social security schemes and entitlements. They are trained and educated by the respective government officials on scheme architecture, criteria, process of application and follow up. Community messengers are engaged in all single window activities like enrolment camps, collecting necessary documents from the beneficiaries, submitting them to the concerned department or online portals, and grievance redressal	15
Community reporters	Community reporters conduct media advocacy activities to better implement a program	27
Community Volunteer	Work with the single window system to mobilize the community during meetings, conduct community level assessment and create awareness on various schemes. Generate demand for a particular scheme in the community and also link it with the Single Window System	52
Community Researcher	Engage in research, and evidence building	52
Community Advocate	Engage in department-level dialogue with concerned officials to share the gaps in the schemes in terms of process and outreach	15

Way Forward

Capacity Building workshops will be conducted on tools related to 'Prevention and Redress of Gender and Domestic Violence', 'Right to Information', 'Social Audit', and 'Public Hearings'. Besides these, training will be conducted on participatory urban appraisal to strengthen the skill set of community researchers. The Single Window System will be expanded to eight wards across the South East, South West and North of Bhubaneswar with a total population of a little over hundred thousand of which the total the number of targeted beneficiaries is 14,454.

Finding Common Ground

The root cause of the problems faced by the slum dwellers was the asymmetry of information on the benefits that were due to them from the government. Bridging this information was only the first step, what the single window system established was a route through which livelihood and health related problems of the slum dwellers could be addressed. Various government programs give loans, insurance, education and health related benefits to the urban poor. However, in the absence of specific information and inability to furnish documents and fill the paperwork, they can't access the programs. The Single Window system was useful because the procedure for accessing a particular benefit is similar for all beneficiaries but doing so in isolation is difficult for each one of them. When it was done together for a few families at once, they could benefit from the common knowledge and send in their application together with the others. This route also got legitimacy with the Odisha Computer Application Centre (OCAC) operating its own centre at the single window system. It proved to be a windfall of sorts once the OCAC started to clear ration cards, issue Aadhar cards and educate the slum dwellers on what schemes they could apply for and how. The strength of the solution was in bridging the common divide of information, easing access by handholding during the application process and following up continuously with the government till the benefit reached them.

Sector 2

Community led initiatives to improve waste management

Location

Ambikapur, Chhatisgarh

Population

1.14 lakhs (As of 2011)

Wards

43

Lead Agency

Ambikapur Municipal Corporation

Partner Organisation

Indian Green Services

Additional Information

Films
youtu.be/WEMSuqpqkro
youtu.be/nq12b02Cq0g

The Challenge

Located in the hilly and forest-rich state of Chhattisgarh, Ambikapur is the divisional headquarter of the Surguja district. Solid waste management was one of Ambikapur's biggest challenges. Open dumping of household garbage and littering were rampant, with overflowing community bins and drains jammed with waste.

Mixed waste was collected from dumps with the help of front-end loaders; dumped on tractors, trucks and tippers, and off loaded out of town at the dumping site. Frequently, the solid waste was set on fire and the foul smell and toxic smoke were carried into the town by the wind.

The Initiative

The District Collector of Surguja and municipal officials resolved to work for a breakthrough to improve the sanitation situation of the city.

A meeting was held in early 2015 and an in-depth discussion of the city's sanitation situation was carried out. Based on the lessons learnt from the failures of Public-Private Partnership (PPP) model in larger cities, Ambikapur set the following parameters for a solution.

- Simple to implement and not requiring high technology investment

- Environmentally and financially self-sustainable

- Driven by community-based structures, ideally led by local women and not contractors

- Supports livelihood of the urban poor, especially women

With these principles, it was decided to rope in Mr. C. Srinivasan of Indian Green Services, Vellore, as a resource person.

The Collector was inspired by the television show 'Satyamev Jayate', an episode which featured Mr Srinivasan presenting solutions to solid waste management issues.

This was the inspiration behind the vision for Swachh Ambikapur Mission. Mr Srinivasan was engaged in the project for conceptualization and for technical guidance.

The primary objectives of the mission were to:

- Set-up a door-to-door collection (D2DC) system of solid waste from houses and commercial establishments

- Practice scientific and environmentally safe disposal system of solid waste
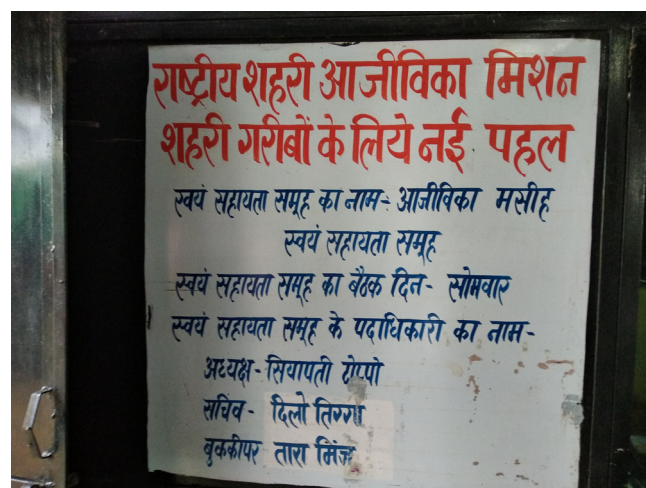
Figure 24- Formation of SHGs

Implementation

The following steps were taken for project implementation -

Mobilization of women to form SHGs

With the decision to involve community women in the solid waste management process, it was decided to start with the formation of Self Help Groups (SHGs). This would be the first SHGs of sanitation workers in Chhattisgarh. The city officials started mobilizing local women, who could help with 'D2DC' and also manage the Solid and Liquid Resource Management (SLRM) centres.

Nearly 600 women from the city were enlisted for orientation and training. The first hands-on training by Indian Green Services was completed within a week. More than 500 women, including 120 supervisors were trained in 15 days and the first Centre was brought into action in just 44 days.

Orientation and training of women

The trainings focused on inculcating two ideas. First was that managing city's solid waste was an honourable and dignified job. Secondly, the job was not about handling filthy garbage at the dumpsite but about recovering 'resources' in an industrial work shed.

The master trainers from the groups were taught the concept of primary segregation at source and secondary segregation at the SLRM centre. The training content included the following:

Segregation
Understanding and identifying the different categories and sub-categories of waste. From the mixed waste collected from houses, the women were trained to pick, judge and classify various items and segregate them into different tubs at the shed.

They were trained to differentiate Polypropylene Plastic (PP) from High Density Poly Ethylene (HDPE). Similarly, from the organic waste, they were trained to segregate fruit peels, such as orange and sweet lemon, wash them and then dry them under the sun.

Pricing
The indicative market price of each item was shared with them. These prices have now been fixed and have since been displayed on the walls of each SLRM centre.

Composting
They were taught about composting organic waste. The women encouraged to tether cows at the centre so that the cows could consume fresh kitchen waste and convert it into milk and cow dung.

Soft Skills and Safety Aspects
Apart from technical skills, the women were also trained in soft skills. For example, trainings were held on importance of using safety gear such as masks, gloves, gumboots, and importance of punctuality and teamwork.

Collection of user-fees
The women were trained to collect beneficiary charges or user-fees from the serviced houses and commercial establishments. For this, they were taught to operate a compact e-receipt generator.

Figure 25- Hands-on training to registered women on waste segregation

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Formation of community-based structures

After enlisting and training, around 300 women were initially included into a federation of SHGs, with each SHG having 10 women members. Women from common localities were grouped together and assigned a SLRM centre close to their residence. Each SHG had an appointed core member. Any woman who was literate and possessed leadership qualities was identified as a core member. The core member represented the SHG and managed bookkeeping. Each SLRM centre also had a Supervisor. They led the teams for 'D2DC' rounds.

The Core Members were also supervisors and active workers in collection and segregation work. The SHGs were federated into a registered Society called "*Swachh Ambikapur Mission Sahakari Samiti Maryadit*". The society entered into an agreement with the Municipal Corporation that gives them the legal mandate of managing the city's solid waste.

Setting up of infrastructure the SLRM centre

Initially, mapping excercise of unauthorized occupation of government land was conducted. About 7,000 sq. ft of land, was recovered for the construction of SRLMs. The centres were housed in industrial work-sheds.

The shed area is around 1,500 sq.ft. The SLRM shed consists of a cemented floor, with each Centre occupying a storeroom, a change room, a tap water connection, and the required number of tubs for segregation, forks and other accessories. Each Centre has two vehicles. One of these is a manual tricycle and the other is a battery-operated rickshaw.

Figure 26- Two compartment manual tricycle with workers

The rickshaws are equipped with two containers for organic and inorganic waste. The State Government provided the initial funding to set up this infrastructure. The Corporation pays for the recurring monthly expenditure of Rs20 to 25lakh per centre.

Collection and segregation process

The women start their collection activity at 7am every day. After marking their biometric attendance at the respective centres, they leave for their designated wards.

Waste is collected from households, commercial establishments, hostels, hotels, schools, colleges, and Residential Welfare Associations (RWAs). Each collection rickshaw is operated by three workers and headed by a supervisor.

A bell with a distinct ring signals the homeowners to come out to give their waste. Each tricycle covers around 300 houses. Each household and commercial establishment is provided with two bins, a red bin for inorganic and green for organic waste.

After collecting the waste from their ward, the workers return to the SLRM Centre by 12 noon. Garbage is then segregated into dry and wet waste.

Figure 27- Secondary waste segregation at SLRM centre

37

Scientific processing of segregated waste

The dry segregated waste is weighed and stored in the warehouse / shed after compressing it in an electrically operated machine. The recyclable waste is evaluated and sold to recycling units at Ambikapur and Raipur.

This includes plastic bottles, wrappers, cardboard, metal, rubber, glass, electric wires, etc. The local scrap dealers are linked with SLRM centres by the District Industries Centre, Ministry of Industries and Commerce.

Figure 28- Dry waste segregation

Composting

After the marketable items are segregated, the residual wet waste is composted. Composting involves mixing the organic waste with cow dung, piling it, and covering it with a gunny sack to dry in the sun. After 45 days, the compost is ready to be used. This process is now being replaced with onsite composting units. 14 out of the 17 centres have these composting units.

Based on the amount of residual organic waste collected in the Centre, the initiative can also include a biogas plant. Segregated orange peels are dried to make powder, and this is used to make make a range of scientifically approved products. A duck shed for waste from the meat market has also been established where fresh meat waste is consumed by the ducks. The organic waste collected from fish markets and hotels by the workers helps in animal husbandry. Essentially, this system enables 100% processing of collected waste.

Income from user charges and sale of recyclables

Initially, a grant of Rs. 1.8 Cr was given by the State government as viability gap funding. The monthly user charges are fixed at Rs. 50 per household, Rs. 100 for shops and commercial establishments, and Rs. 500 to Rs. 5,000 for bulk waste generators.

The solid waste is distributed amongst the workers and they earn between Rs. 5, 000 to Rs. 8, 000 per month. This includes a fixed monthly salary of Rs. 5, 000 from user charges (with the Corporation covering any shortfall, as needed), and up to Rs. 3, 000 from the sale of recyclables.

Monitoring

The Municipal Corporation has established a central control room to monitor real time activities. All 17 SLRM centres have CCTV cameras installed, which are visually monitored from the control room, for which special software has been designed in-house.

At the District Data Centre, a separate desk was set up and the data of households and commercial establishments in each ward digitized. All vital information, such as daily routes, attendance, quantity of waste sold, wages paid, and quantities of recovered items at each Centre is recorded.

The *Swachh Ambikapur Mission Sahakari Samiti Maryadit* also meets regularly to discuss and monitor the various groups in charge of different centres.

Figure 29- Central control room to monitor real time activities

The Collector monitors performance on a weekly basis. The Corporation also maintains an online Solid Waste Management System, which displays an overview of garbage collection. This is updated daily.

The operationalization of this initiative owes its success to Indian Green Services for providing technical assistance to the community, and the Corporation for providing required infrastructure and resources such as land, electricity, water supply, waste collection tricycles, tools, safety gears and viability funding.

Healthcare

Prior to joining, proper health check-ups and vaccination programs were conducted for the SHG workers by the Ambikapur Corporation. From the start, health check-

ups and health camps have been a regular feature of this initiative and are being conducted on a monthly basis at the nearest Urban Health Centres.

Figure 30- Health checkup at Urban Health Centers

Key Outcomes

Outreach

Initially, D2DC was launched in only 17 out of 48 wards of Ambikapur. In the other wards, private contractors continued to collect mixed waste from secondary bins placed at strategic roadside points. Gradually, D2DC has been extended to the other wards. Currently, 32 SHGs comprising of 447 members are engaged in this initiative.

In addition, over 12,500 school children have been sensitized through street plays and enlisted as volunteers for promotion of the initiative. Over 1,000 wall paintings and inscriptions have been painted across the city to support the project. Around 6,500 to 7,000 SHG members have been sensitized and trained. Bike rallies; ward *sabhas*, cleanliness competitions and RWA meetings are some of the initiatives being undertaken to generate awareness.

Looking at the success of this initiative, the Chhattisgarh Urban Development Department has supported similar models across the state. As of 2018, 348 SLRM centres and 104 compost sheds were functioning across Chhattisgarh.

Sustainability

The initiative has resulted in huge savings in solid waste management costs for the Municipal Corporation. The major part of the cost saving is due to the elimination of larger vehicles for collection of waste from the streets and putting in place a system of smaller tricycles.

Another significant cost saving is in decreased use of chemical disinfectants for disinfecting putrefied solid waste, as the waste is now timely processed. After the SLRM centres became functional in August 2015, the user charge recovery rate rose from 42.31% in the first month, to 68% in November 2015. The current rate of recovery is 93% (as of January 2018).

Improved service provision

Ambikapur has become the first municipal corporation in Chhattisgarh State to make the city free from garbage dumping sites, along with scientific processing of both, organic and inorganic waste. The 17 acre dumping ground has been converted into a botanical garden and unchecked dumping at other sites has been reduced. This has contributed to improved public health in the city.

The segregated waste received from source that was just around 25% at the beginning has now become 90-100%. The local scrap dealers have also developed a keen interest in fair trade practices.

Since April 2015, the city's toll-free number for complaints (related to water supply, electricity and sanitation) has also incorporated the waste collection service.

Figure 31- Increased willingness to pay user charges

Community Empowerment

The income earned by the SHGs has enhanced the status of the women in the family/society and in the decision-making processes. By changing the system from wage-labour to a community-managed structure, the initiative has increased work efficiency significantly. The aesthetically pleasant SLRM centres have changed the perception of solid waste management as a socially despised occupation.

Income Generated
Rs. 6,000 - Rs. 8,000 per month (includes fixed user charges and income gained from sale of recyclables as of 2019)

Livelihoods strengthened
447 women (As of 2019)

Learnings

The initiative focused on identifying locally relevant solutions rather than making heavy capital investments.

Financial sustainability was built in from the start and a win-win situation was created for waste managers. The fixed wages combined with variable returns from sale of segregated items proved to be financially motivating for the women involved in waste management.

One of the key challenges was to organize land for the SLRM centres across the city. The process was tedious but with the Corporation's support, it was resolved by mapping and utilization of illegally occupied government land.

Initially, there was a lot of resistance from the residents when D2DC with user charges was introduced. The local residents refused to give the waste, as they had to pay charges to the waste collector. This was tackled by mass awareness campaigns.

The women workers were not willing to participate and work in the sector of solid waste management, as they perceived it to be unhygienic. This taboo was broken when they were given not only the right equipment to tackle the waste but trained to see it as a resource.

Way Forward

The initiative is expected to cover houses and commercial establishments in all 48 wards of the city. There is also discussion on management of liquid waste. The corporation now plans to promote literacy, healthcare and better financial management among the women workers.

Figure 32- Women workers at SRLM

From Trash to Treasure

The key initiative here was to change the perception of what waste is. Through awareness sessions, the women realized the potential of waste post segregation. When they started working at the decentralized Solid and Liquid Resource Management (SLRM) centres, they saw this first hand as they used liquid waste for composting, meat waste as feed, citrus peels as raw material for other products and scrap as fungible. This enhanced their incomes and changed the perception of garbage from 'waste' to a 'resource'.

As their incomes went up with the sale and processing of waste, so did their confidence. They knew the work that they were doing was meaningful and respectable. Collecting montly user charges from households and commercial establishments also added to their legitimacy as service providers.

07 Cooperative model for urban waste management service - Pune, Maharashtra

Location
Pune, Maharashtra

Population
34 lakhs (As of 2011)

Wards
76

Lead Agency
Pune Municipal Corporation

Partner Organisation
Kagad Kach Patra Kashtakari Panchayat (KKPKP)

Additional Information
Films
youtu.be/ycx7w0h2-wU
youtu.be/lbNZtHte7k4
youtu.be/VkS965kxJEE

The Challenge

Pune is the second largest city in the state of Maharashtra after Mumbai. It emerged as an administrative and educational centre during the colonial period and has since remained a prominent educational hub in the region. Pune was ranked 10th in the Swachh Survekshan survey in 2018. Prior to 2005, Pune had very limited door-to-door waste collection. Over 80% households in the city were dependent on community bins for waste disposal. The containers were not emptied or cleaned regularly, with garbage overflowing onto the roads. The Pune Municipal Corporation (PMC) is the urban local body responsible for administration of the city. The collected mixed waste from the community bins and open plots was carried by the PMC staff in a *Ghanta Gadi* (bell truck) to an open dumpsite. In some areas, garbage was dumped along roads, open plots, storm water drains and *nallas* (open drains). Further, there was no dedicated Solid Waste Management (SWM) Department within the PMC and so the work fell within the purview of the Public Health and Conservancy Department. Waste segregation was not institutionalized but instead informally conducted by waste-pickers. The waste-pickers would rummage through the garbage for plastics, glass, paper and other recyclables in community bins and on open dump sites, and then sell them to informal scrap dealers. Their work reduced the amount of municipal waste being taken to the landfills, saving transportation costs for the PMC and protecting the environment. Their contribution however, went entirely unrecognized. The waste pickers worked in unsanitary conditions, suffered from poor social status, had frequent health issues, and were often harassed by the police and local authorities.

Figure 33- Waste pickers in unsanitary conditions

The Initiative

Kagad Kach Patra Kashtakari Panchayat (KKPKP) was set up as a trade union for the waste pickers in the city of Pune. Since 1993, KKPKP has implemented solid waste management saving waste handling costs for the PMC. An initiative to institutionalise this organisation was implemented through a pilot project in partnership with SNDT Women's University. 1,500 waste pickers were identified and tasked with providing services to 1.25 lakh households in exchange for a user fee. The pilot project continued ran from 2006-2008, following which the PMC decided to scale up and cover the entire city. The members of KKPKP came together to form SWaCH, a cooperative of self-employed waste pickers. In the year 2008, PMC signed a Memorandum of Understanding (MoU) with SWaCH for five years. The MoU authorized SWaCH to collect segregated waste from households and commercial establishments and charge a user fee. SWacH thus created a sustainable mechanism for institutionalized door-to-door collection of segregated waste and transformed the lives of informal waste pickers of Pune. Waste collectors started earning better incomes by charging user fees and from the sale of recyclables. SWaCH also established a direct helpline, where citizens could register their complaints about any issues related to the waste collection service.
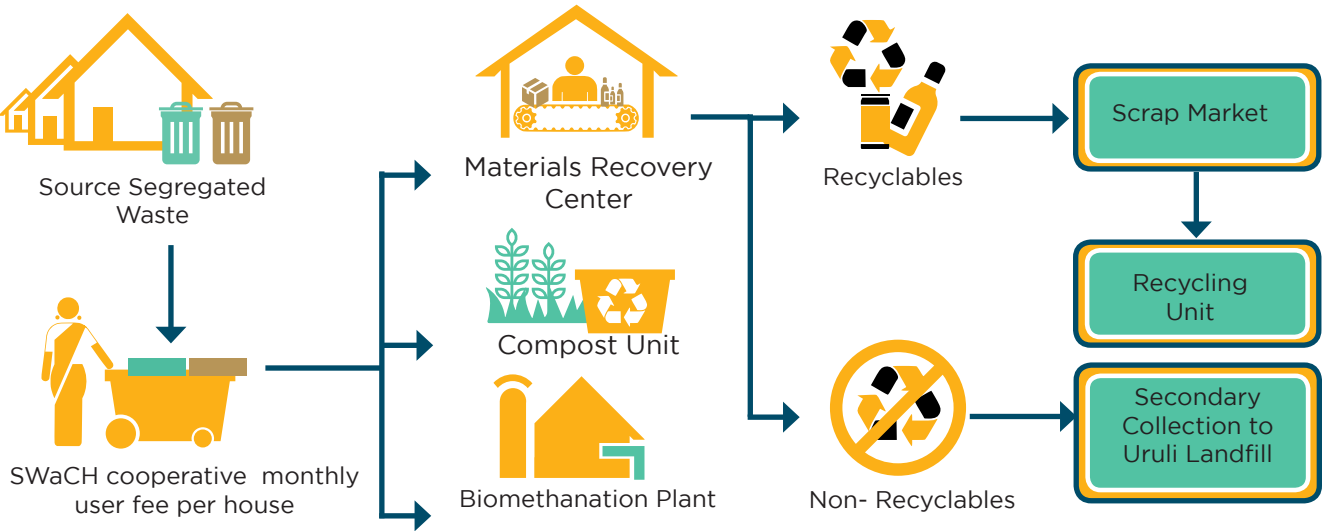

Figure 34- SWaCH initiative

Implementation

Figure 35- SWaCH waste value chain

Government side

Currently, the Health and Solid Waste Management Department of PMC is in charge of all functions concerned with municipal waste collection, transportation, treatment and disposal of sewage and is headed by a Joint Municipal Commissioner. At the zonal level, the Zonal Deputy Commissioners are supported by the Ward Officers (Assistant Municipal Commissioners) in administering SWM systems. Each Ward Officer has a team of Divisional Sanitary Inspectors, Sanitary Inspectors, *Mukadams* (facilitator or assistant) and *Bigaris* (workers who carry load) to work on sanitation related tasks.

Partner side

The central office of SWaCH is responsible for the overall operations and management of the organization. It comprises of an Operations Manager, Data Manager, Outreach Manager, Administrative Manager, Accounts Manager and allied staff who work under the direction of the Chief Executive Officer. The field staff comprises of *Prabhag*[3] Coordinators (Two coordinators per *Prabhag*), and Ward Coordinators (15 per ward) who manage teams of waste pickers on ground in coordination with the PMC staff. The coordinators are largely women from economically and socially marginal backgrounds who have received

some formal education and are able to perform basic accounting and managerial functions. Children from the waste pickers' community are prioritised for integration as SWaCH staff. An internal monitoring framework is implemented to track day-to-day operations in the field and to carry out administrative and managerial functions such as account keeping, data monitoring, reporting, and training .

Collection structure

Each team of two waste collectors collects segregated waste from 150-400 households, offices and commercials establishments daily, using separate buckets and manual pushcarts. A total of 3,025 waste pickers— all SWaCH members— provide door-to-door waste collection. The PMC bears the

Figure 36- SWaCH member collecting waste from households

[3]Prabhag : Electoral ward, the definition of which changes every five years depending on the local situation

equipment and management cost. The workers spend 4 hours per day, on average collecting waste from households. Sorting, transportation and sale, can take up to another 3-4 hours. All workers are entitled to a weekly holiday. SWaCH makes alternative arrangements to compensate for the absence of a waste collector.

Segregating waste

The waste is sorted in sorting sheds provided by the PMC or in areas designated by Resident Welfare Associations (RWAs). There are about 70 small and large sorting sheds, used by about 250 waste pickers each. The waste collectors retrieve recyclables such as papers, glass and plastic. They retain the income from the sale of these materials.   The wet waste and the non-recyclable dry waste is handed over to PMC's collection vehicles at designated feeder points.

Figure 37- SWaCH member segregating the collected waste

User Charges

Convincing residents to segregate waste and pay collection fee to the waste collectors was difficult due to lack of trust between the residents and waste collectors. PMC's *Ghanta* trucks servicing citizens without any user fees made it even harder to implement the user-fee based initiative. This was gradually implemented with negotiations and meetings with communities. When the initiative started, the waste pickers collected a monthly user charge ranging between Rs. 10 - 40 per household for waste collection. Currently the monthly user fee charged is Rs. 60 per household, Rs. 40 for houses in slum areas and Rs 120 for commercial establishments. The PMC partially subsidizes the cost of collection from declared slums to the tune of Rs. 10 per household per month. Approximately 1 lakh declared slum households are being covered by SWaCH waste-pickers as of 2018.

Additional income

SWaCH members also have private service contracts with RWAs and institutions to compost the wet waste on site and provide housekeeping services. A few also provide housekeeping services, facility management and waste processing services.
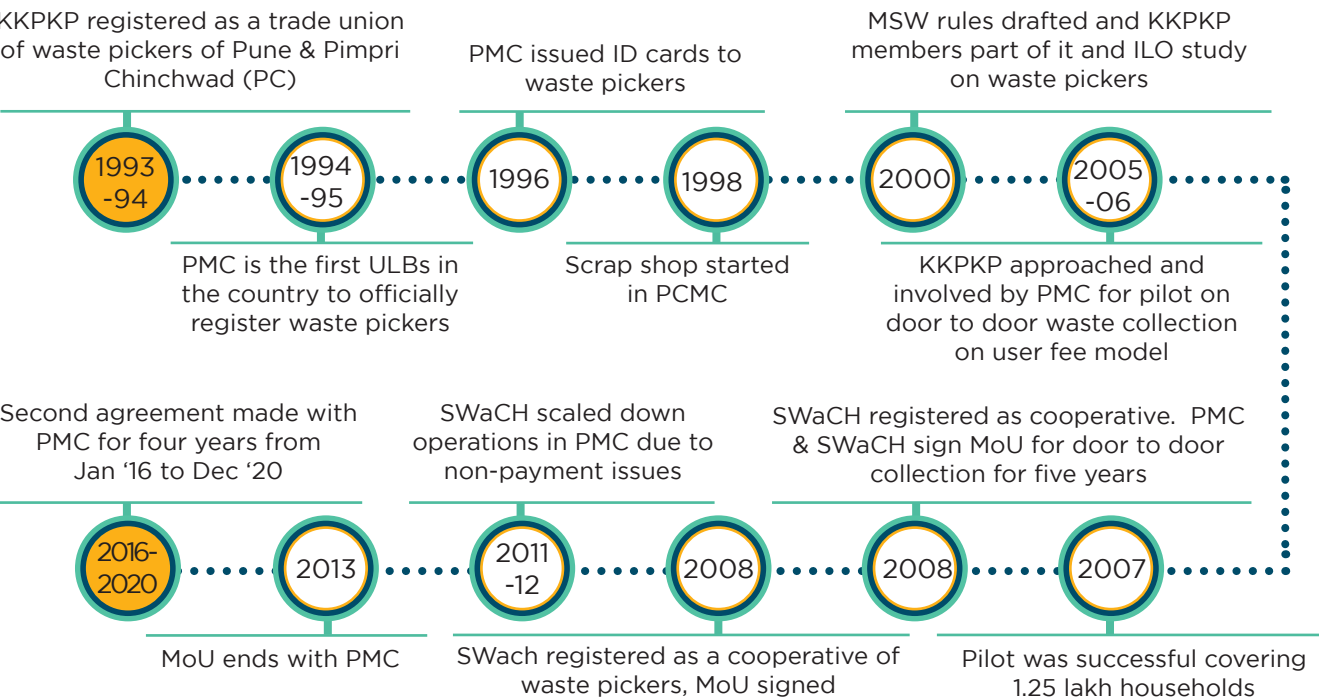
KKPKP registered as a trade union of waste pickers of Pune & Pimpri Chinchwad (PC)

PMC issued ID cards to waste pickers

MSW rules drafted and KKPKP members part of it and ILO study on waste pickers

1993 -94 • 1994 -95 • 1996 • 1998 • 2000 • 2005 -06

PMC is the first ULBs in the country to officially register waste pickers

Scrap shop started in PCMC

KKPKP approached and involved by PMC for pilot on door to door waste collection on user fee model

Second agreement made with PMC for four years from Jan '16 to Dec '20

SWaCH scaled down operations in PMC due to non-payment issues

SWaCH registered as cooperative. PMC & SWaCH sign MoU for door to door collection for five years

2016- 2020 • 2013 • 2011 -12 • 2008 • 2008 • 2007

MoU ends with PMC

SWach registered as a cooperative of waste pickers, MoU signed

Pilot was successful covering 1.25 lakh households

Figure 38- Timeline for the initiative

Key Outcomes

Outreach

An estimated 6.6 lakh households are covered and over 3,000 waste pickers have been integrated for door-to-door waste collection.

Improved service provision

The SWaCH initiative has allowed for higher segregation and decentralized waste management, which has been the foundation for establishing ward wise biogas and composting units. They have also successfully demonstrated in-situ composting, leading to reduction of wet waste in the municipal stream. Municipal Solid Waste (Management and Handling) Act 2000 and Solid Waste Management Act 2016 are also being complied with. Direct accountability by the waste collectors' union to citizens has resulted in improved service provision.

Community Empowerment

The initiative has resulted in better work conditions for waste pickers and an increase in their incomes due to the levying of user charges. Transparency introduced by the contractual arrangements, wherein bulk payments are made directly to waste pickers by the citizen has created a steady flow of income every month.

Income Generated

Incomes for the waste pickers has increased five fold while their working hours have reduced from 12 hours a day and 7 days a week to 6 hours a day for 6 days a week

Sustainability

The SWaCH door-to-door collection has saved PMC waste handling and transportation costs and also contributed to saving environmental costs by reducing carbon emissions.

About Rs. 65 Cr. in labour costs is estimated to be the saving for PMC by engaging SwaCH in the year 2017, with another Rs. 14 Cr. reduction in transportation and management costs in the same year.

Further, as per the environmental impact calculations by SWaCH – about 3.5 lakh trees were through the recycled paper, 1.3 lakh MT CO_2 emissions were reduced, and 5.5 Cr. litres of petrol consumption were avoided by heavy vehicles making multiple trips.

The initiative is also designed to emerge as a financially self-sufficient model over time. For two years from September 2013 to January 2016, the PMC was not in a contract with SWaCH. But SWaCH was able to sustain on the strength of its revenue model without any administrative fees from the PMC.

Livelihoods strengthened

3,500 (As of 2018)

Learnings

- PMC provides an annual operational grant to SWaCH, and welfare benefits to waste pickers and ensures their access and right to the waste collected. The initiative has evolved as a result of more than 20 years of consistent dialogue and deliberations between the PMC and the KKPKP, which is an important learning for ULBs willing to work with waste pickers to improve solid waste management in their cities.

- Charging user fee has been a positive change towards more responsible and sustainable waste management practices as it promotes a direct, accountable relationship between the user and the service provider.

- Due to delays in receipt of administrative charges, SWaCH had to cut down its operations, and downsize staff in 2011-12. With the new MoU with PMC in 2016, the staff strength was increased again. However even in recent years SWaCH faced challenges in getting payments released from the PMC in time, hampering planning and activities of the organisation.

- Clarity on roles and responsibilities helped the collaborative partnership between SWaCH and PMC to work successfully to manage waste collection, transportation, processing and disposal.

Way Forward

SWaCH's successful operation has helped it diversify and extend its service delivery to other cities. SWaCH has also introduced initiatives on e-waste collection and disposal, as well as making and selling disposable bags for safe disposal of sanitary napkins.

SWaCH today provides door-to-door waste collection services to over 60% of all households in the city. All the 42 electoral *Prabhags*, are serviced by SWaCH.

India's Human Recyclers

Kagad Kach Patra Kashtakari Panchayat started in 1993 as a collective of waste pickers. The waste pickers didn't see value in the work they did. To them, it was merely rummaging through waste to find something worth selling. In 1995 Pune became the first city in India to formally register waste pickers. The registration of waste pickers led to the formation of the cooperative.

Informal recycling in India exists in many other forms, including the scrap dealers (colloquially called pastiwalas) waste pickers and resellers. They are the unsung heroes of the solid waste management story of India, but in the absence of unionisation, their work doesn't get the recognition it deserves. Through the formation of a collective that increases their bargaining power and enables them to negotiate for better and more regular incomes and dignity of work. Other cities can learn from this example of collectivisation for those that fair compensation and gratitude for the service they perform. The contract between the PMC and SWaCH is a good example of a pro-poor public private partnership. DAY-NULM also recognized the importance of including groups of sanitation workers into the SHG fold. SHGs of men engaged in vulnerable occupation can also be formed under DAY-NULM.

Location

Madukkarai, Tamil Nadu

Population

30,357 (As of 2011)

Wards

18

Lead Agency

Madukkarai Town
Panchayat

Partner Organisation

ACC Ltd

Additional Information

Film
youtu.be/VNgFXvL9ZH8

The Challenge

Madukkarai is a Special Grade Town Panchayat in Tamil Nadu. The town is situated 12 km from Coimbatore and serves as an entryway into the city. The Town Panchayat has jurisdiction over 8,500 houses to which it supplies basic amenities like water and sewerage. One of the biggest threats to the community has been the unsafe disposal of garbage. The people of Madukkarai are habituated to throwing waste outside their houses and onto the streets, leading to choked and overflowing drainage lines and unhealthy living conditions

The Initiative

The collection, transportation and disposal of solid waste are obligatory functions of the Madukkarai Town Panchayat. The Health Department of the Town Panchayat, headed by a sanitary supervisor, is responsible for the solid waste management of the town. There are two sanitary supervisors and 29 sanitary workers in this Town Panchayat. The town is divided into two sanitary divisions covering all the 18 Town Panchayat wards. To address this issue, the 'Clean and Green Madukkarai' initiative was launched in 2012 with the following objectives:

• 100% door to door collection of waste

• 100% source segregation of waste

• 80% reduction of landfill waste

• 75% reduction of the usage of plastic waste

A sustainable mechanism for institutionalizing door-to-door waste collection was created in Madukkarai town while simultaneously improving the working conditions of waste pickers. ACC Limited— the cement company based out of Madukkarai— in collaboration with local NGOs took the initiative to identify 50 local women. These women were trained as *Green Friends* for door-to-door collection of waste. They started with a week long workshop to understand how to segregate waste as biodegradable, recyclable and non-biodegradable. These women were then actively involved in door-to-door garbage collection, mass cleaning in the community, waste segregation, maintenance of a garbage yard, the creation of vermicomposting pits, and production of organic manure.

Apart from day to day activities, they were also involved in creating public awareness on effective solid waste disposal, educating households in waste segregation, community campaigns, and tree plantation drives.
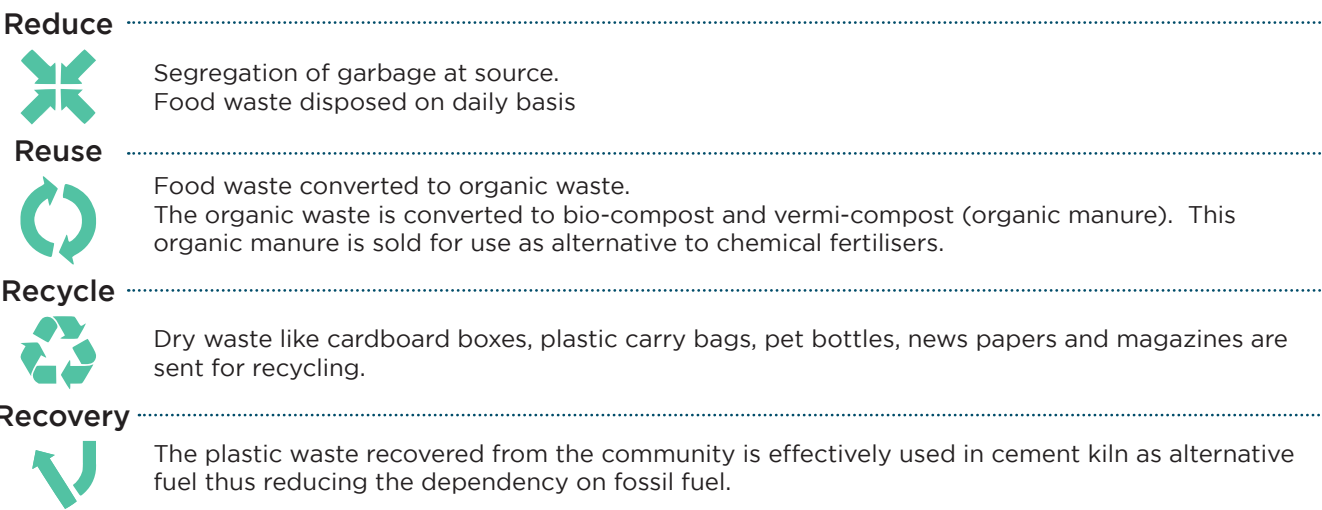
Reduce

Segregation of garbage at source.
Food waste disposed on daily basis

Reuse

Food waste converted to organic waste.
The organic waste is converted to bio-compost and vermi-compost (organic manure). This organic manure is sold for use as alternative to chemical fertilisers.

Recycle

Dry waste like cardboard boxes, plastic carry bags, pet bottles, news papers and magazines are sent for recycling.

Recovery

The plastic waste recovered from the community is effectively used in cement kiln as alternative fuel thus reducing the dependency on fossil fuel.

Figure 39- 4 Rs of the Clean and Green Madukkarai initiative

Implementation

The following steps were undertaken to implement the multi-stakeholder plan:

Training and Group Formation

ACC Limited played the role of enabler and facilitator in training the Green Friends and providing them with safety jackets and gloves.

Waste Collection and Separation

The SHG members collect waste in community dustbins. Then, the community bins are shifted to dump yards where the wet waste is put into vermi-compost pits and turned into organic fertilizer. This organic fertilizer is made available to farmers at a nominal cost (Vermicompost @ Rs. 10 per kg and Biocompost @Rs. 5 per kg).

The recyclable waste such as plastics, paper, cloth, metals, batteries etc. are sold to recyclers. The remaining non-recyclable plastic is segregated from other material. This material is known as the "Segregated Combustible Fraction" and is sent to the ACC Ltd. plant for co-processing and are used in the construction of roads.

The balance material containing leather, rubber, soiled clothes, soiled paper is dumped or landfilled in the normal course of operations.

Figure 40- Waste collection by the women in Madukkarai

Awareness drive

Implementing the following activities generates enthusiasm among the community members.

- Door- to-door awareness drives, street plays, campaigns on Solid Waste Management and safe disposal.

- Mass rallies and human chains.

- Provision of segregation baskets to each household.

- Awarding communities and wards that meet the standards for cleanliness with a symbolic certification recognizing their effort.

Figure 41- Oath ceremonies and rallies

Equipment

Madukkarai Town Panchayat provides pushcarts, land for resource recovery centres and supports transportation, waste recycling, and disposal. All the waste is collected and transported to a resource recovery park through public health vehicles.

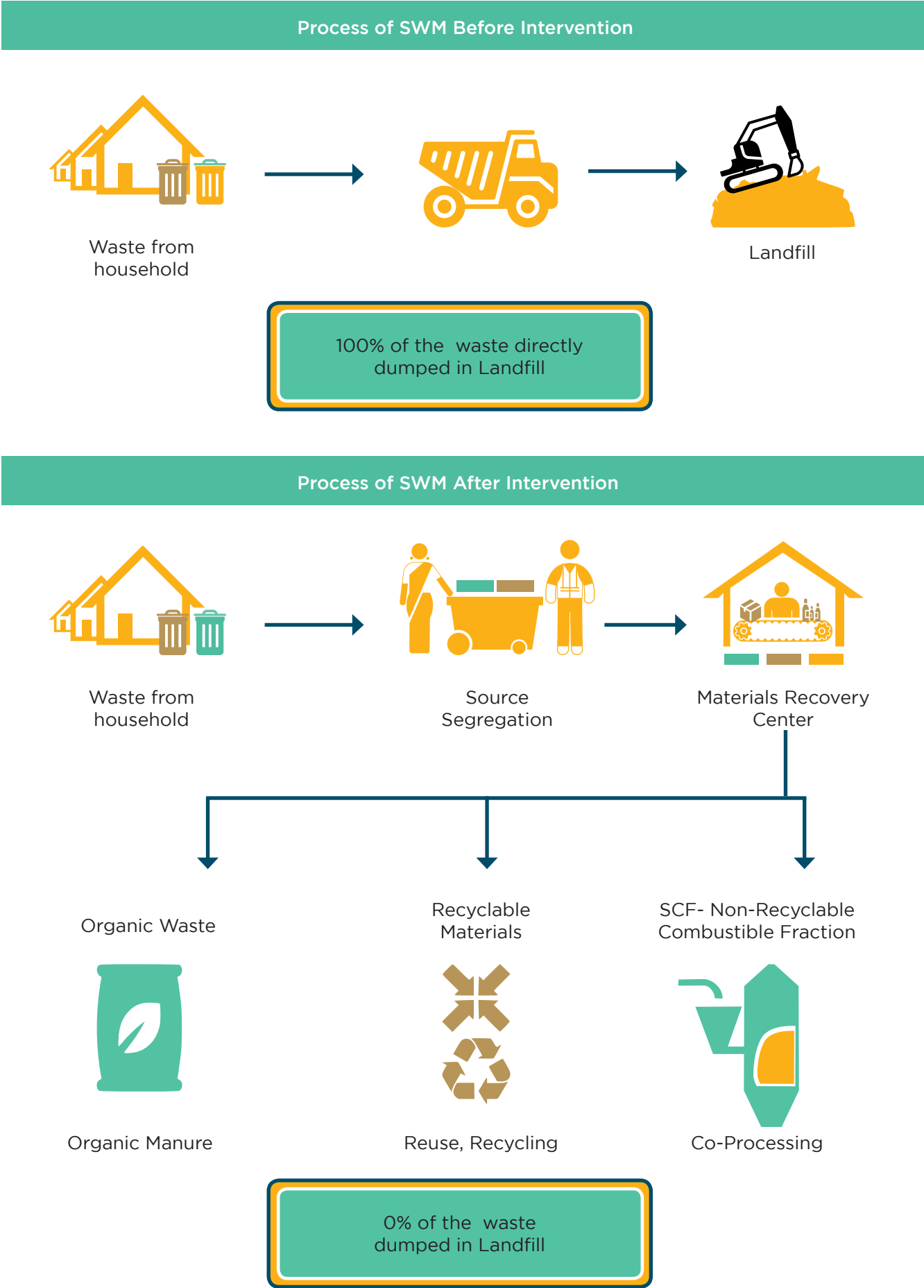[4] Co-processing means use of waste material as raw material or as a source of energy or both.

Process of SWM Before Intervention

Waste from household

Landfill

100% of the waste directly dumped in Landfill

Process of SWM After Intervention

Waste from household

Source Segregation

Materials Recovery Center

Organic Waste

Recyclable Materials

SCF- Non-Recyclable Combustible Fraction

Organic Manure

Reuse, Recycling

Co-Processing

0% of the waste dumped in Landfill

Figure 42- SWM process before and after intervention

Key Outcomes

Outreach

100% door-to-door waste collection and 100% source segregation has been achieved in the town, with the deployment of 50 SHG members known as '*Green Friends*'.

Community Empowerment

The initiative has helped ensure the community's active engagement in cleanliness. The 50 SHG women members earn an average salary of Rs. 225 per day i.e. Rs. 6, 750 per month for their efforts.

Improved service provision

Within a span of six years, 100% door-to-door waste collection and 100% source segregation has been achieved. The Town Panchayat now regulates waste collection from commercial establishments. There has been a reduction in vehicle movement as well as the quantum of waste. Plastic use has also reduced across the town. Of the 7.3 tons of waste that is generated per day, 3.4 tons is recycled and 1.1 tons goes into landfills.

Sustainability

One of the key features of the initiative was co-processing of non-recyclable waste as an alternative energy source for the cement factory.

Plastic waste can replace up to 15% of normal fossil fuel in cement kilns. As cement kilns operate at 1,500°C or more, there is no risk of generation of any toxic emission due to the burning of plastic waste.

A 10-lakh ton capacity cement plant can consume about 10,000 MTs to 30,000 MTs of plastic waste annually and recover the embodied energy to produce cement. This reduces overall greenhouse gas emissions.

Income Generated

Rs. 6,750 per Green Friend (As of 2018)

Livelihoods strengthened

80 (As of 2018)

Learnings

- The ideal waste disposal process varies based on the local conditions. The presence of a cement factory near Maddukarai for example, makes it possible to collect and utilize non-recyclable waste, which is typically sent to landfills.

- Even in towns with a small population, community led solid waste management can be established and the existing market to extract value from waste can be tapped.

Way Forward

Towards sustaining this model, future plans include implementing user fee charges on the local citizens and commercial establishments for waste collection, and ultimately making Madukkarai a zero waste town with a drastic reduction in waste that goes to landfills.

A Guinness Record in Recycling!

Madukkarai in Coimbatore district, Tamil Nadu, India, with an estimated population of 42,000 has found a mention in the Guinness Book of World Records in 2015 as the "Largest Recycling Lesson in the World". The Coimbatore City Municipal Corporation organized a recycling event on 5th August 2015 where 12,994 participants including school and college students attended. The company ACC Limited as well as community members and Green Friends participated in the event. The aim of the event was to reach local households with messages on waste segregation, reduction in dumping, and recovering it for recycling and composting.

Now, the town is known for its efficient waste management drive, which is implemented by ACC Ltd. under its Corporate Social Responsibility (CSR) initiative. Through funding and its institutional capacity, this cement giant is contributing to solving the city's waste problem.

Figure 43- Certificate of participation in the Guinness World Records

Location

Various cities, Telangana state

Population

3.5 crores (As of 2011)

Wards

551

Lead Agency

ULB's of various cities

Partner Organisation

ITC

Additional Information

Film
youtu.be/SHLBxsnPrX0

The Challenge

Telangana, has seen a coexistence of its rich history with a rapidly expanding IT industry. The Telangana region was part of the erstwhile Hyderabad state before independence and then merged to form the State of Andhra Pradesh. After decades of movement for a separate state, Telangana separated and again became an independent state with Hyderabad as its capital in 2014. Telangana, like a lot of Indian states sees valuable recyclable materials like paper, plastic, glass and other recyclable materials going into the landfills where they are lost forever. The annual consumption of paper in India is 85 lakh tonnes out of which only 14 lakh tonnes is recycled. Almost 70 lakh tonnes of waste finds its way into dumpsites. ULBs in India are facing the challenging task of handling enormous amounts of Municipal Solid Waste (MSW) generated every day. Many ULBs in major cities and towns have not yet adopted scientific waste management practices. They still collect and transport the MSW to the outskirts to dump it creating huge landfills and consequent problems to public health and environment.

The Initiative

Creating "Well-being out of Waste" (WoW) was an initiative jointly led by the Paperboards & Specialty Paper business of ITC Limited and Department of Municipal Administration, Government of Telangana. ITC, a company known for its production of FMCG goods has also diversified into businesses such as paper products and stationery. Under Swachch Bharat – Swachch Telangana, the ULBs in Telangana established Dry Resource Collection Centres (DRCCs), in collaboration with ITC Limited. The initiative started with one DRCC in 2007, and then grew into 46 DRCCs across eight cities in South India, including Bengaluru, Chennai, and Coimbatore and 5 cities in Telangana. On average, 38,000 MT waste was collected at these DRCCs in the year 2017-2018. The initiative also helped generate livelihoods for over 2,100 waste pickers. Similar programs in Bihar, UP, and West Bengal for waste collection and recycling along with composting of organic waste are supporting an additional 300 livelihoods.

Implementation

ITC Limited decided to address waste management by starting the Well-being Out of Waste (WOW) initiative. It was an attempt to collaborate with the ULBs to implement scientific solid waste management practices. The following process was followed to run the initiative -

Making official partners

The signing of the MoU between ITC and the local ULB set the stage for a common understanding on operationalizing the model. Though the initiative started in 2007, it gathered momentum only after the launch of the Swachch Bharat Mission in 2014. The alignment of the initiative with the national agenda helped generate momentum.

Training

A comprehensive waste management program was designed, and all the key stakeholders such as the ITC sponsored NGOs, the ULB teams, Resident Welfare Associations (RWAs), schools, colleges, corporate entities and other commercial enterprises were trained.

Figure 44- Orientation training of RWA on making compost out of wet waste

Figure 45- Orientation of Waste loaders by WOW team at DRCC

Figure 46- Waste loading at DRCC

Establishing decentralized Dry Resource Collection Centres

The ITC assumed management of the DRCCs allotted by the ULB. A DRCC typically occupies 46.5 square meters. Necessary infrastructure was created and provisions to receive, weigh, handle, sort and store dry recyclable waste were made. The collection centres were established as a nodal point for waste collection and related activities such as parking, maintenance etc.

DRCC management

To help the community assume ownership of the program the DRCCs were managed by SHGs functioning in that vicinity. Tasks like buying, sorting, baling, loading, transportation, and selling of dry resources like paper, plastic, metal, glass, and other recyclables were allocated to them. They are also trained in book keeping, stock maintenance, fund management, working capital management, costing, health safety, and environment sustenance.

Swacch Doots

Community Resource Persons from existing SHGs, known as *Swachch Doots* (Messengers of cleanliness) were trained to communicate with the households through interactive methods, role-plays, and group discussions. A monthly nominal amount is paid to the *Swachch Doots* to incentivize them and reward their awareness activities. A team of 2 *Swachch Doots* are assigned one ward with 800-1,000 households. Each team reaches out to about 40-50 households per day, educates them about the importance of source segregation and motivates them to practice it. The team distributes bags to each household to store dry recyclables. Every household that gets enrolled in the segregation process is marked with a sticker.

Segregation

The waste collectors collect dry recyclable waste separately from households once a week using tricycles/push carts and brings them to the DRCC. There, it is further sorted into separate categories, and packaged and sold at market rates to ITC or other vendors. They continuously educate households on segregation at source to ensure strict compliance and impose a penalty on non-abiding households. The municipality undertakes the responsibility for disposal of remaining waste material once a week from the DRCCs.

Key Outcomes

Improved service provision

While the program started with the collection of just 10 MT of recyclables in 2007, collections have now increased to 38,000 MT in 2017-18.

Sustainability

By creating an income stream for waste collectors from resource recovery, and by achieving scale up, the initiative has become sustainable over time.

Outreach

At present, the WOW initiative is operational across 7 states (Telangana, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Bihar and Delhi), and 30 cities. These include 551 wards and 19.3 lakh households. 102 DRCCs have been made operational, 8,000 schools have been covered under the initiative, and about 35 lakh school students have been educated about waste management. The initiative has created sustainable livelihoods for 14,500 waste collectors. Encouraged by its success, ITC plans to take the 'Well-being out of Waste' (WOW) program across the country.

Income Generated

Rs. 10,000 per month (As of 2018)

Community Empowerment

The initiative has helped create employment opportunities for waste collectors and develop entrepreneurs among the SHGs. After the implementation of the initiative, the municipal waste collectors earn Rs. 80 to Rs 100 per day versus the Rs. 20 to Rs 30 per day they were making before. The recovered recyclables— paper, plastic, metal, and glass— are sold to the respective industries at competitive prices. ULBs convert wet waste into compost and make it available to farmers at reduced rates. The initiative has reduced the space consumed in landfills.

Livelihoods strengthened

14,500 (As of 2018)

Learnings

- Behavioural change is a slow process and rigorous follow-up needs to be done at every level to introduce source segregation of solid waste.

- With WASH (Water, Sanitation and Hygiene) implementation in schools, government should introduce source segregation, solid waste management and its importance in the curriculum. This could influence a generational change in the attitude towards waste.

- Dry waste segregation centres should be standardized and replicated at multiple locations, with room for cost savings from economies of scale.

Way Forward

- In Hyderabad, ITC plans to cover all 60 wards under the WoW program in the coming years.

- About 127 DRCCs are going to be set up under the Swachh Telangana Mission in all 73 ULBs of the state.

Using corporate expertise for a social cause

ITC manufactures paperboards, stationery and other paper related items in India. The company began as a tobacco distributor (Hence the Indian Tobacco Company or formerly Imperial Tobacco Company - ITC under the British). Instead of supporting an unrelated cause as part of its Corporate Social Responsibility, ITC decided to support the recycling of paper and associated waste, which would provide raw material for the company. This way the company could use its expertise to help cities manage their waste better and generate raw material to feed back into the system.

Scale-up of this initiative was easier due to the establishment of a Standard Operating Procedure for recycling and engaging with ULBs. ITC could spread itself across South India rapidly and implement the same model, and tweak it as needed. As a large corporate house was also seen in this rapid expansion since existing infrastructure of the company could be utilized to set-up the same model in different locations.
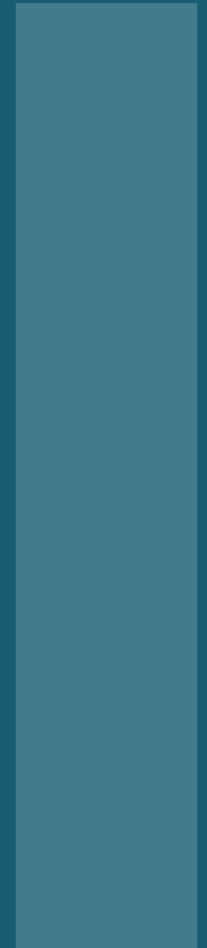
Initiatives led by Area Level Federations (ALFs) of Self-Help Groups (SHGs)

10 Community monitoring to improve usage of toilets - Khunti, Jharkhand

Location

Khunti, Khunti district, Jharkhand

Population

36,390 (As of 2011)

Wards

16

Lead Agency

City Mission Management Unit (CMMU), Khunti Nagar Panchayat

Partner Organisation

Sri ALF

The Challenge

Khunti is the headquarters of Khunti districtin the state of Jharkhand. The district is known for its perennial waterfalls and forests, and is host to several tribes, including the dominant tribe, the *Munda*.

Their main economic activities are collecting forest produce, and agriculture. Ancillary activities like poultry, piggery, and goat rearing are also prevalent. The region faces open defecation on a widespread scale.

The Initiative

Founded in 2015, Sri Area Level Federation (ALF) is a federation of 10 SHGs with a total of 120 members. The journey for the Sri ALF started with a door-to-door survey, followed by construction of toilets, and finally monitoring usage, and grading the households accordingly. Their contribution to sanitation and solid waste management in the city led them to win the National Swachhta Excellence Award by DAY-NULM in 2018. Khunti was ranked the 61st cleanest (out of 468) in the East Zone and 16th in Jharkhand during the Swachh Survekshan survey of 2018.

Implementation

Structure of ALF

All members of the ALF contribute Rs 200 per month to the corpus. The ALF accumulated a corpus of about Rs 40,000 through internal savings. An eleven member team was formed and each member was engaged for 12 days to conduct the household level survey. ALF members are given an honorarium of Rs 300 per day by the ULB under SBM for their time and support in conducting door to door surveys and grading of households and community toilets.

Door-to-Door Survey

The ALF members conducted a facility survey to assess the present situation and practices in 7,245 households including 3 slums across 16 wards. Of the 7,245 houses, a total of 3,213 households without toilets were identified. To monitor the usage of toilets, the members developed a grading system.

A stamp was developed to mark and grade households that did not use toilets for whatever reason. For each lane, one SHG member took the responsibility of monitoring the use of existing toilets. Even the neighbours were given responsibility to monitor toilet usage.

Figure 47- Monitoring of OD spot and fine collection

Monitoring Open Defecation spots

A monitoring team of 15 SHG members was deployed to regularly monitor 6 open defecation (OD) spots and collect fines from defaulters. A fine of Rs 100 was imposed upon for any person spotted.

Motivating families for construction of IHHLs

Regular meetings, door-to-door visits and interpersonal communication helped motivate families to construct toilets. Of the 3,213 families without IHHLs identified

in the survey, 2,300 agreed to construct a new toilet through funding support received from the Urban Local Body under SBM-U. In the remaining 913 households, the families constructed toilets independently or renovated unsanitary toilets into sanitary ones. A few households that did not have space for toilet construction were connected to community toilets. The members helped generate new IHHL applications from such households.

Grading of community toilets

The ALF members supported the grading of 6 community toilets, evaluating their level of cleanliness and maintenance. Based on the grading, the maintenance and cleanliness of these community toilets is now being undertaken by the ULB.

Awareness generation activities

*Mahila chaupal*s (women's meeting in an open space) are organized every fortnight in each ward. The objective is to raise community awareness on personal hygiene, keeping the surroundings clean, encourage construction of individual toilets, listen to community issues, and to facilitate grievance redressal by ULB officials. The ALF office bearers, SHG members, SBM officials, City Mission Management Unit (CMMU), and Executive Officers, all participate in the *Mahila Chaupals*. So far, 22 *Mahila Chaupals* have been organized. In addition, ward wise camps, school awareness camps, ceremonies to pledge for hygiene, rallies, and cleanliness drives have been undertaken by the ALF.

Key Outcomes

	Outreach

The ALF's mass awareness campaigns reached out to all 7,245 households in Khunti. At the end of the intervention, Khunti was declared ODF and all the households in the slums had access individual household toilets. OD spots were eliminated and the O&M of community toilets was regularized.

	Community Empowerment

The participatory community meetings in the form of *Mahila Choupals* played an important role in empowering women ALF members. The ALF members helped the ULB promote awareness on health entitlements and participated in the Pulse Polio Campaign.

Income Generated

3 supervisors earn Rs. 7,696 per month and 12 sanitation workers earn Rs. 6,916 per month (As of 2018)

Livelihoods strengthened

15 (As of 2018)

Learnings

- High potential for replication owing to easy group formation, organization, and revenue generation from within the group.

- Grading of community toilets helped the ULB understand the needs of each community toilet and thus plan for refurbishments accordingly.

Regular *Mahila Choupals* kept the group together, as voluntary groups are hard to sustain unless there is regularity in meetings and motivation from within.

Way Forward

Khunti was declared ODF in the year 2017. Sri ALF and Navratan ALF organized the first health camp in a slum in coordination with the Health Department, where over 130 community members underwent a health check-up. Future plans also include organizing quarterly health camps in each of the wards. Sri ALF plans to adopt a village named Dumargari; a rural *panchayat* block to conduct similar cleanliness drives.

Neighbourhood Vigilance

The Khunti model can be easily replicated in smaller towns with a population of less than 50,000 where proximity and familiarity within the community can help members monitor behaviour. Khunti had groups that used simple markings to identify the houses without toilets and spots where open defecation was rampant.

The groups conducted strict vigilance of toilet behaviour and monitored the nuisance spots. This resulted in a turnaround in behaviour. The ALF could keep tabs on changes faster than any top-down method. Monitoring was easier due to the highly decentralized nature of the SHGs and their own interconnectivity with neighbours in passing information for action.

Location

Thiruvananthapuram, Kerala

Population

17 lakhs (As of 2011)

Wards

1

Lead Agency

Thiruvananthpuram Municipal Corporation

Partner Organisation

Kudumbshree Kazhakuttom

The Challenge

The city of Thiruvananthapuram lies at the tip of India, in the state of Kerala. The city is the capital of the state and an educational hub with the presence of some prestigious educational and research institutions. It has seen breakouts of disease at sporadic times, mainly due to a lack of sanitary disposal of waste. Kazhakuttom is a ward in Thiruvananthapuram and has gained significance because of its proximity to the Vikram Sarabhai Space Centre.

The Initiative

Formed in the year 2003, the Kudumbshree Kazhakuttom Area Level Federation (ALF) is a federation of 76 SHGS with a total of 1,200 members. The ALF in collaboration with the Health Department of Thiruvananthapuram took necessary action to prevent the spread of dengue fever in their ward. The federation also worked towards creating awareness on waste management in their community and campaigned against plastic usage. The intervention wards are now cleaner and healthier than before. Kazhakuttom ALF won the Swachhta Excellence Award 2018 for their sanitation related initiatives and for making their ward epidemic free.

Implementation

Survey and repair of household toilets and public toilets

The ALF members conducted door-to-door surveys to assess the availability and condition of toilets. The survey was funded by the ULB, and the ALF acted as a facilitator, ensuring that the provisions under SBM-U reached the beneficiaries.

The survey of 3,000 households in the Kazhakuttom ward revealed that 10% of the IHHLs needed minor repair. Regular meetings, door-to-door visits and inter-personal communication motivated the families to keep their household toilets clean and maintained.

Initiatives for waste management

The ALF members helped families set up composting units. A total of 113 pipe compost units and 23 biogas plants were set up.

The ALF members educated the community on segregation at-source, and effective disposal of non-bio degradable waste like plastics, leather bags, footwear etc. The ALF was instrumental in constructing two community toilets constructed with support of the ULB; one each for males and females near the Kazhakuttom market.

Door to door waste collection

With support from the Municipal Corporation, the ALF members were involved in monitoring door-to-door waste collection and ensuring that the waste collection van came regularly to designated pick up points.

The members also intiated collection of plastic and other recyclable waste on fixed days of the month. Three units producing cloth and paper bags were started and promoted by the Kazhakuttom ALF as an alternative to plastic bags.

Cleanliness drive for prevention of dengue

The Kazhakottam ward was facing a huge challenge tackling the spread of dengue fever in the area. The ALF therefore initiated a project called *Dengue Nivaran* (Eradicate Dengue) and took the following measures to contain the spread of dengue in their ward:

- House visits and public health education; each house was visited a few times to create awareness on preventing dengue

- Spraying and fogging through the Thiruvananthpuram Municipal Corporation (TMC)

- Chlorinating and covering public wells

- Cleanings streets and roads especially during monsoon season

- 24-hour control room for the ward

Key Outcomes

Outreach

Owing to the efforts of the ALF members, each of the 3,000 households now has access to clean individual or community toilets. The efforts of the ALF have also resulted in significant behavioural change among the members of the ward.

Community Empowerment

The ALF involved multiple stakeholders such as school students, voluntary workers, and members of the National Service Scheme (NSS) and National Cadet Corps (NCC) to achieve their goals. As a result, the ALF members also received recognition as change makers in their communities.

Improved service provision

Two new community toilets were built in Kazhakuttom market. Dengue epidemic was brought under control due to the efforts of the ALF under their *Dengue Nivaran* project.

Sustainability

The ALF is currently collecting plastic from 3,500 households and will soon start a plastic recycling unit for their ward.

Income Generated

Rs. 4,000 a month (As of 2018)

Livelihoods strengthened

18 (As of 2018)

Learnings

The ALF sets a model for other wards to take upon themselves to bring about change in their surroundings without expecting the ULB to participate in a large-scale intervention

Way Forward

The ALF wants to make the town 100% plastic free in the coming years. They have already started conducting awareness campaigns regarding alternative materials and harmful effects of plastic.

Ward Level Empowerment

What this project successfully displayed is the spirit of community that can result in problem solving at the level of the ward. Normally most large-scale changes are assumed to be top-down with the government issuing an order and then using city machinery to implement it.

Here, the change was driven at the grassroot and it showed what is possible in every ward of any city, if the citizens work together, form groups and invest in building partnerships. This can also lead to the creation of social enterprises run by women resulting in their empowerment.

Fast tracking Sanitation – Siddipet, Telangana

Location
Siddipet, Telangana

Population
1.14 lakh (As of 2011)

Wards
34

Lead Agency
Siddipet Municipality

Partner Organisation
Sri Sai Teja Slum Samakhya

The Challenge

Siddipet city is the headquarters of Siddipet district in Telangana. The city is a special grade municipality formed in the year 1952. Prior to the launch of Swachh Bharat Mission, open defecation was prevalent in Siddipet, there was no system of waste segregation, and all waste was dumped in landfills.

The Initiative

Sri Sai Teja Slum Samakhya, is one of 62 Area Level Federations (ALF) in Siddipet city. In 2009, members of the Sri Sai Teja Slum Samakhya joined hands with other ALFs in the city and the Siddipet municipality to make the city ODF within a span of two years.

Implementation

Door-to-Door Survey for IHHLs

The ALF members helped the Siddipet Municipality identify households (HHs) without toilets through a door-to-door survey in all the 34 wards of the city. The survey was jointly conducted by senior SHG members of the ALF who were also engaged as Community Resource Persons (CRPs) and officials of the respective wards. The CRPs received an honorarium of Rs 1,200 per month for their services. A total of 2,800 HHs without toilets were identified, out of which 125 HHs were in the 4 municipal wards where Sri Sai Teja Slum Samakhya operated.

Figure 48- Door to door survey

Facilitating construction of Individual Household Latrines (IHHLs)

Following the survey of households, the ALF facilitated the application process for households accessing government subsidies to construct toilets in the 4 intervention wards. They submitted a report along with photographs to an engineer, who after verification, approved the report and forwarded it to the municipal commissioner. Based on this, the municipal commissioner approved the construction of toilets in the 125 households.

Often, there is a delay in the release of funds from the government for toilet construction or incorrect paperwork on part of the beneficiary, due to which momentum is lost even after mobilization of beneficiaries. Therefore, to fast track the process of toilet construction in the identified 125 HHs, a resolution between the households and the ALF was passed. ALF made an advance payment from their revolving fund for the construction of the household toilets, a copy of which was shared with the municipal commissioner. As per the terms of the agreement with the government, repayment of advance was credited to ALF's account upon receipt of phase wise reports of toilet construction. These reports had details of identification, progress made and completion of construction with photographic proof as well as geo-tags of their location.

Following the example of Sri Sai Teja Slum Samakhya, resolutions were passed by all Area Level Federations (ALFs) in the city for construction of IHHLs through this process. In addition, the City Level Federations were convinced by the municipal corporation to lend advance amount to its ALF members for construction of toilets.

O&M of Community Toilets (CT) and Public Toilets (PT)

Following a circular inviting community groups participating in operations and maintenance of community and public toilets, the ALF members met the municipal commissioner and O&M of newly constructed CT/PTs was handed over to SHG members. In each public toilet, 2 SHG members were engaged in this activity. The SHG members charged a user fee of 1 rupee per use; their monthly collection averaged at around Rs. 5, 000. The profits were equally shared among the workers who managed the public toilet block. In Siddipet, the ALF members were also instrumental in generating demand for an additional 2 public toilets near the city bus stand.

Source Segregation and distribution of bins

The ALF played an active role in implementing the Solid Waste management Rules 2016. The members visited households to create awareness on source segregation and distributed bins (one for dry waste and one for wet waste along with a bag) in the community.

The CRPs and *Swachch Doots* were trained to communicate with the households through interactive methods, role-play and group discussions. The *Swachch Doots* were paid Rs 1,000 per day by the Indian Tobacco Company (ITC) to conduct these activities as part of their CSR initiatives.

Management of Dry Resource Collection Centre (DRCCs)

2 DRCCs have been set up in Siddipet with support from ITC. The waste collectors collect waste from households, public places and from commercial establishments, segregate and bring it to the DRCC, which is managed by SHG members. The SHGs invested an initial capital amount of Rs. 50,000 from their corpus for payments to the waste collectors and O&M of the DRCC. This amount is recovered through sale of recyclables.

Each DRCC is earning a profit of Rs. 1.2 lakhs per month through the sale of these recyclables post clearing the salaries to the waste collectors. *(For details of the same, please refer to Case 9 in this compendium - Recycling at scale – various cities, Telangana state)*

Key Outcomes

Improved service provision

All these initiatives have resulted in increased level of hygiene in the city.

Community Empowerment

From distributing the profits made by the DRCCs, the SHG members now earn Rs 10,000 to Rs 12,000 per month. The *'Leave no one behind'* policy was implemented by the ALF wherein new residents and migrant population were also included in the door-to-door survey to ensure 100% coverage and making the ward ODF.

Income Generated

Rs. 10,000 to Rs. 12,000 per month (As of 2018)

Livelihoods strengthened

10 (As of 2018)

Learnings

This is a model that can be replicated across cities where ALFs are functioning especially due to its strength of facilitating construction of IHHLs by acting as a guarantor and advancing loans.

Way Forward

Siddipet was declared ODF in the year 2016 and ranked 45th in the Swachh Survekshan survey of 2017. In the 2018 Swach Survekshan survey, the city was declared the cleanest city out of the 1,050 cities in South Zone (among cities with a population of less than 1 lakh).

Ward Level Empowerment

The model of Siddipet, wherein the ALF accelerated the toilet construction process using its corpus fund through a tripartite agreement between the ALF, beneficiary and the municipality can be replicated in other cities. It's an innovative way to bypass the labyrinthine process of applying for and getting a subsidy or a loan for building a toilet.

The ALF becoming the bridge between the government and the citizen not only fast tracks the process but also increases accountability. ALF advances the finance needed to build a toilet and using the proof of the structure and other documental proof, receives a refund from the government. It is a boon for the local population of the city to be able to access the funds and build toilets without having to make multiple trips to government offices and be delayed by process. It is also easier for the government to coordinate with one ALF and route multiple applications through it.

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Key Lessons for
mainstreaming Community
based Organizations in
Urban Sanitation and Waste
Management

Key Lessons

Based on the case studies discussed in this compendium, a few key lessons emerge for mainstreaming community-based organizations in urban sanitation and waste management. Distilled below, are some of the common success factors that played a role in driving the initiatives across various cities –

I. Registration and identity documents for sanitation workers

Sanitation workers often reside in urban poor settlements and face lack of security of land tenure alongside socio-economic insecurity. In this context, having state recognized identification cards can provide some legitimacy to their livelihoods and enable them to access various entitlements. Further, their registration as service providers is the first step for the ULB to monitor and regulate services, such as septic tank de-sludging, which are typically provided by informal private contractors. The initiatives documented in the compendium show how registration of informal sanitation workers, and provision of proper identity cards to them by the concerned ULB, goes a long way in assuring their rights and breaking them out of the vicious cycle of exploitation. From licensing of VTOs in Visakhapatnam, to registration and provision of identification documents to street sweepers in Nahan through the City Livelihoods Centre, registration and identity documents played a critical role in many of the cases, in mainstreaming sanitation-based livelihoods.

II. Community led monitoring mechanisms

Monitoring of service provision by community members creates a sense of ownership and yields better results compared to top-down monitoring mechanisms. For example, the *Bachat Sakhis* deployed by Samagra in Pune and the SHE teams deployed by Gramalaya in Tiruchirappalli, had mechanisms to engage women from within the community in the monitoring of usage and in operations and maintenance of community and public toilets. In places where this monitoring is the responsibility of some externally contracted or government agency, community and public toilets often fall into disrepair and disuse. Hence devising community led monitoring mechanisms can go a long way in ensuring that public sanitation infrastructure is used and maintained sustainably.

III. Critical role of a facilitating organization/ local champion:

In most of the cases described in this compendium, the initial catalyst for the initiative has been a locally grounded NGO or a local champion in the form of a district collector or a non-profit. It has been observed that the role of a local champion individual or organization has often been crucial to bring all the relevant stakeholders together, and provide the drive and persistence to carry out the pilot or demonstrate the first successful model. However, for any initiative to be sustained in the long run, the reins have to be handed over to the community – as demonstrated in the case of Nahan, where the CLC manager was the initial champion of the initiative. Once the initiative was running well, he moved to a nearby town to replicate it. In his absence, a community organizer took over operations under whose leadership the Nahan program continues to run.

IV. Empowerment through group formation and federation

From the point of view of both empowerment and sustainability, the formation of Self-Help Groups (SHGs) and their federations has been critical in many of the initiatives described. These community-based local institutions give a voice to the urban poor and create a platform through which the demand for basic urban services

can be articulated, and communities can collectively negotiate with Urban Local Bodies (ULBs). At the same time, the SHG structure provides a continuum to many of the initiatives, so that they can be sustained even after the exit of the initial catalyst. SHG and federation structures have been scaled up nationally in urban poor areas through the DAY-NULM and continue to play an increasingly relevant role in urban governance. These groups are provided additional impetus by the Swachhata Excellence Awards instituted by the Ministry of Housing & Urban Affairs (MoHUA), as described in the three case studies of ALFs in Khunti, Thiruvananthapuram and Siddipet.

V. Fair contractual and other Institutional Arrangement with the ULB

As urban sanitation and waste management are core municipal functions, Urban Local Bodies (ULBs) can formally engage community-based organizations in managing some of these activities. The nature of contracts issued by the Municipalities in this context becomes crucial to ensure that the conditions are fair for the workers. It is also important that the workers understand what they are signing up for, as demonstrated in the Nahan CLC case, where the contracts were read out to the workers in their language before they signed them. It was ensured that the sanitation workers understood what was written in the contracts and there was a consultative process through which their rights and responsibilities were clarified.

VI. User fees and user incentives

The case studies demonstrate that appropriate design and communication of both fees and incentives for users are critical to ensure usage of sanitation infrastructure. In nearly all the cases where user fees were introduced, for door-to-door collection or for public/community toilets, there was initially resistance from the communities. It was consistent communication that led them to be convinced, as in the case of Ambikapur in Chhattisgarh where a user fee was introduced on households for waste collection. Incentives for users can also go a long way when designed as per local needs. In Pune, bundled value-added services provided at toilet kiosks incentivized users to pay for toilet usage.

Way Forward

For cities across India to replicate and scale up the solutions presented in this compendium, an enabling policy environment is required. DAY-NULM-SBM Convergence Guidelines issued on 23rd March 2018 by the Ministry of Housing & Urban Affairs were the first step in this direction.

Under the Swachh Bharat Mission, sanitation infrastructure in the form of individual household toilets, community and public toilets has been constructed across the country.

The convergence guidelines identify the potential of marginalized groups to maintain this infrastructure and create livelihoods in the process.

There is a need to create an institutional framework for jobs and a skills ecosystem for the sanitation and waste management sector.

The DAY-NULM convergence guidelines also suggest a framework for promoting livelihood options for both men's and women's Self-Help Groups (SHGs). Following the guidelines, a number of pilot programs are being implemented by the DAY-NULM-SBM (U) convergence cell in three Urban Local Bodies of Odisha namely - Bhubaneswar, Berhampur and Dhenkanal.

Their details are described briefly in the following boxes -

Recognition of Prior Learning in Dhenkenal

Recognition of Prior Learning (RPL) is a system created under the Ministry of Skill Development & Entrepreneurship, to recognize those who have informally acquired skills across sectors.

Majority of the workers in the sanitation sector in India have not undergone any formal skill training, and hence fall in this category. An RPL program was implemented on a pilot basis in Dhenkanal for 50 informal sanitation workers. The program was conducted with the support of the Municipal Office Dhenkanal, Green Jobs Sector Skill Council and local skill-training partner Innodust and Urban Management Centre.

The Sector Council for Green Jobs (SCGJ) provided legitimacy to the process and conducted the RPL assessment and certification. Innodust provided trainers and delivered the training. The 5-day bridge training program focused on enhancing the skill set of the *safai karamcharis* (sanitation workers). Training module design focused on developing understanding of

- Health and safety standards;

- Manual scavenging act;

- Entrepreneurship opportunities in the FSSM sector;

- De-sludging process and

- Soft and communication skills.

Both theory and practical training delivery methods were used to impart training. A field trip was conducted to demonstrate the correct usage of a vacuum truck for de-sludging a septic tank, and different types of mechanical cleaning machines were demonstrated during the training.

The RPL certificates were distributed to the trainees along with a kit including safety masks, gloves, jackets and hats. All trainees claimed that they are now using the safety gear, and that the RPL certificate helped them get some recognition

Sanitation Sub-Committees at Area Level Federations

Under DAY-NULM, a three-tier structure of community-based organizations is created – Self-help groups (SHGs) comprising of about 10-12 individuals, Area/Slum Level Federations (ALFs) of SHGs and City Level federations (CLFs) that reign over the ALFs.

One of the key objectives of this structure is to empower the SHGs and create a platform to raise issues relevant to the community at a larger scale – i.e. at the ward and city level. Thematic subcommittees at the ALF level play the role of anchoring these issues. For example, ALFs might have a sub-committee on maternal health, on livelihoods, on loan recovery etc.

The State Urban Development Authority (SUDA) of Odisha with the support of the SBM-NULM convergence cell deployed by Urban Management Centre, is working on setting up sanitation sub-committees at the ALFs, with pilots under way in 5 ALFs each in Bhubaneswar, Dhenkanal and Berhampur.

The process followed for establishing sanitation sub-committees at ALFs is as follows –

- Triggering meeting in which the ALF representatives discuss sanitation related issues plaguing their neighbourhoods, usually related to drainage, drinking water availability, community toilets and faecal sludge management

- A resolution is passed by the ALF designating 2-3 office bearers the responsibility of anchoring the sanitation sub-committee

- Household and street wise survey is conducted by the respective SHG members to create a long list of sanitation issues

- The issues are discussed and voted on at the next ALF meeting after the completion of the survey

The shortlisted issues are presented by the ALF sanitation sub-committee to the ULB officials at a public meeting/ ward meeting/ J*ansampark divas/ Shehri Sahbhagita* Manch or other such platforms
This process not only makes the community aware, but also empowers them to raise their sanitation issues as a collective, hold the ULB accountable, and take action wherever they can to resolve the identified issues

Handover of O&M contracts for Community and Public Toilets to SHGs

The Berhampur Municipal Corporation (BMC) has been making efforts to improve the condition of public toilets and community toilets in the city, by engaging SHGs. The process started with an assessment and mapping of the Community Toilets/Public Toilets (CT/PT) to identify the gaps in terms of infrastructure and maintenance. The assessment report was presented to the city commissioner and executive engineer of BMC, who subsequently fast tracked the restoration work for the toilets. Thereafter, major repairs needed were carried out, the CT/PTs were cleaned up to an acceptable standard, and connections to essential utilities like water and electricity were ensured.

Following this, the Urban Management Center (UMC) team conducted capacity building of the selected SHGs was done on the standard operating procedures for managing a community toilet, managing books of accounts, protocols for cleanliness and maintenance, monitoring usage, etc. The groups were also trained on benchmarks of cleanliness to be maintained in toilets, responsibilities and obligations of SHGs and ULB in a contract, and managing inventory of materials. These efforts led to 21 SHGs being awarded contracts for operations

and maintenance (O&M) of community toilets. The UMC team continues to provide handholding support to the SHGs to help them become financially viable.

Figure 49- Work Order and Key for CT at Ambapura Crematorium ground given to Sri Sri Maa Jagadamba SHG

Figure 50- O&M training at Berhampur for SHGs

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U-LEARN (Urban Livelihoods e-Learning and Resource Network)

The Urban Livelihoods e-Learning and Resource Network (U-LEARN), is first of its kind online e-learning portal developed by the MoHUA which will benefit urban poor and marginalized communities. This portal will support in training and capacity building for DAY-NULM mission functionaries like NMMU, SMMU, CMMU, Community Organizers, Community Resource Persons, Resource Organizations, members of Area Level Federations and Self-Help Groups. The e-learning portal is available on the web as well as a mobile application. This will support the DAY-NULM workforce who are on field most of the time.

The U-LEARN app has learning contents in the form of videos, tutorials, case studies on leading practices and various reference documents. Once successfully completed, participants will receive certificates from Ministry of Housing and Urban Affairs.

You can access the U-LEARN portal on:
www.U-LEARN.in
On Android app at U-LEARN NULM
On iOS app at U-LEARN NULM

Financial Literacy Module

Sanitation Workers have been one of the most marginalized segments of the society. While today, there is large focus on sanitation in our lives, the huge army of people that is at the background of bringing this quality to our life are these "unsung heroes."

To address the issues of financial inclusion a financial module has been developed to bridge this gap - "Pragati Didi's Tips – Financial Prosperity for Sanitation Workers". This Financial Literacy module will support the DAY-NULM functionaries to help make the beneficiaries improve their money management skills. This module is developed specifically for the urban poor to understand the financial requirements throughout their life and entitlements available under various government schemes. A special focus on the financial entitlements for the sanitation workers is undertaken in this document.

The purpose of financial literacy training is to teach understanding and how to manage money wisely. It offers the opportunity to learn basic skills related to personal financial management, savings, loan management, investment, insurance, planning for old age/retirement and financial service providers.
The financial literacy activities under DAY-NULM are expected to catalyse mainstreaming the SHGs and individuals who are from most vulnerable sections of the population into the livelihood ecosystem.

The financial literacy module is divided in 4 parts:

Module 1: Understanding the language of Money
Module 2: Towards Prosperity - A Life of My Dreams
Module 3: Know Government Entitlements
Module 4: Becoming Money Smart

The modules are available in English and Hindi. These modules will be circulated to each State Mission Management Unit for translation in the local language and can be used for the DAY-NULM beneficiaries in the local language.

Pragati Didi's Tips
Financial Prosperity for Sanitation Workers
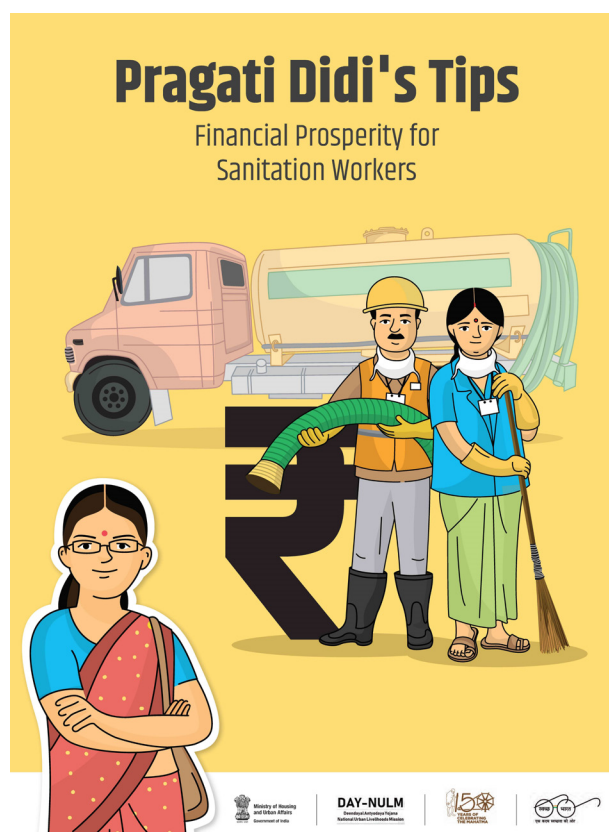
Sanitation and Livelihoods – Mobilising Community Groups for Sanitation Livelihoods

Deendayal Antyodaya yojana – National Urban Livelihoods Mission (DAY-NULM) aims to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities, on other hand Swachh Bharat Mission- Urban (SBM-U) aims to make India free of open defecation and eradicated the practice of manual scavenging. As part of the SBM-U, various kinds of sanitation-related infrastructure are getting created which will have to be maintained properly to enjoy its benefits in the future. This way SBM-U is creating sanitation-based livelihood opportunities which the DAY-NULM should address to attain its vision.

In this context, a convergence between DAY-NULM and SBM-U has been undertaken by the Ministry of Housing and urban Affairs (MoHUA) which is supported by Bill and Melinda Gates Foundation by providing technical Support Unit through Urban management Centre to DAY-NULM.
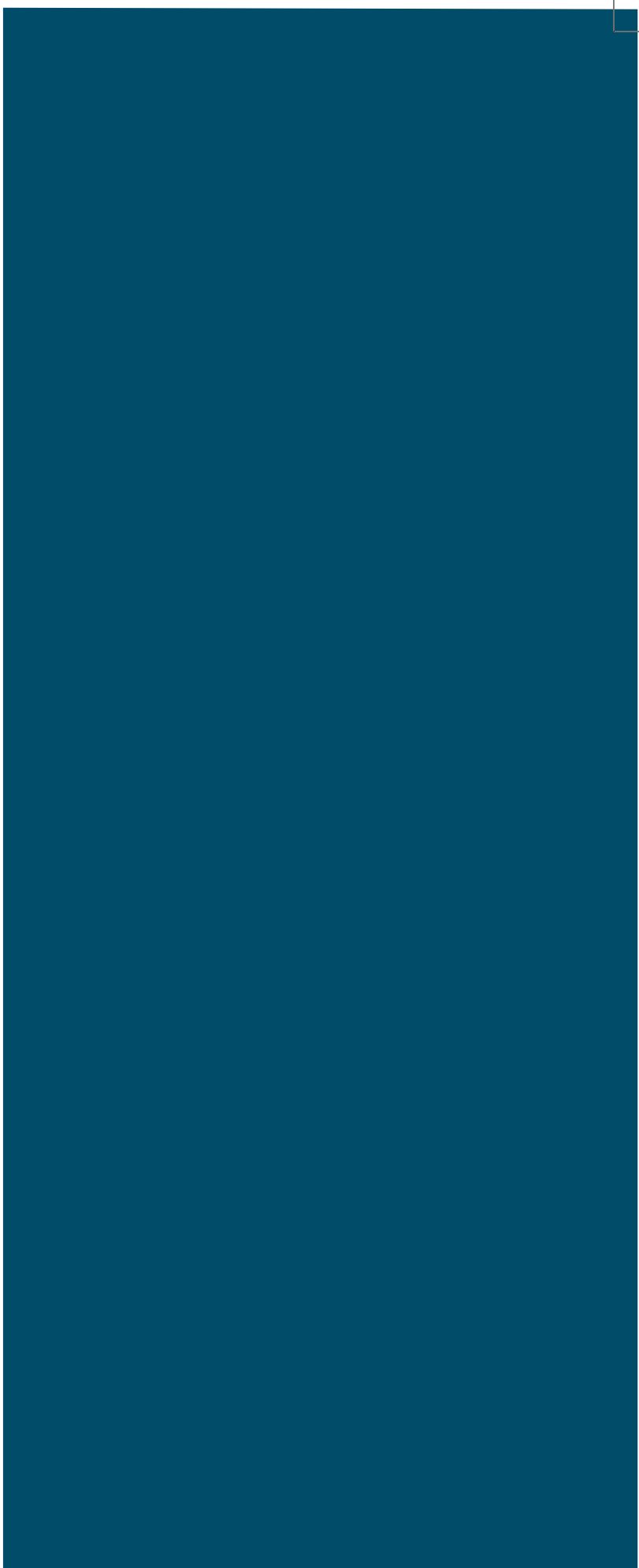
The capacity building and training module for functionaries of state and urban local bodies on "Sanitation and Livelihoods - Mobilising Community Groups for Sanitation Livelihoods" explains various livelihood options and opportunities in sanitation sector. These newly emerged opportunities could be harnessed for providing livelihoods to sanitary workers. For this, the module explores and explains various business models of sanitation-based microenterprises.

This module will help in enhancing the effectiveness and outreach of DAY-NULM in skill development and promote employment generation in sanitation sector.

Sanitation & Livelihoods
Mobilising Community Groups for Sanitation Livelihoods

Ministry of Housing and Urban Affairs
Government of India
सत्यमेव जयते

DAY-NULM
Deendayal Antyodaya Yojana-
National Urban Livelihoods Mission

150 YEARS OF CELEBRATING THE MAHATMA

स्वच्छ भारत
एक कदम स्वच्छता की ओर