



Impact Assessment Report

Swachh Sundar Sikanderpur Project – SBI Card



Disclaimer

- This report has been prepared solely for the purpose set out in the Memorandum of Understanding (MoU) signed between Renalysis Consultants Pvt. Ltd. (CSRBOX) and SBI Cards and Payment Services Limited (SBI Card) to undertake the Impact Assessment of their Corporate Social Responsibility (CSR) project implemented.
- This impact assessment adheres to the Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021, notification dated 22nd January 2021.
- This report shall be disclosed to those authorised in its entirety only without removing the disclaimer. CSRBOX has not performed an audit and does not express an opinion or any other form of assurance. Further, comments in our report are not intended, nor should they be interpreted to be legal advice or opinion.
- This report contains an analysis by CSRBOX considering the publications available from secondary sources and inputs gathered through interactions with the leadership team of SBI Card, project beneficiaries, and various knowledge partners. While the information obtained from the public domain has not been verified for authenticity, CSRBOX has taken due care to receive information from sources generally considered to be reliable.
- In preparing this report, CSRBOX has used and relied on data, material gathered through the Internet, research reports, and discussions with personnel within CSRBOX as well as personnel in related industries.
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With Specific to Rapid Assessment (FY 2022–23):

- Has neither conducted an audit nor due diligence nor validated the financial statements and projections provided by SBI Card.
- Wherever information was not available in the public domain, suitable assumptions were made to extrapolate values for the same.
- CSRBOX must emphasise that the realisation of the benefits/improvisations accruing out of the recommendations set out within this report (based on secondary sources) is dependent on the continuing validity of the assumptions on which it is based. The assumptions will need to be reviewed and revised to reflect such changes in business trends, regulatory requirements, or the direction of the business as further clarity emerges. CSRBOX accepts no responsibility for the realisation of the projected benefits.
- The premise of an impact assessment is the objective of the project, along with output and outcome indicators pre-set by the programme design and implementation team. CSRBOX's impact assessment framework was designed and executed in alignment with those objectives and indicators.

Ethical Practices for Consideration

- **Ethical Considerations in Data Collection:** As part of the qualitative and quantitative data collection process for the current project, team members adhered to essential ethical protocols by obtaining informed consent from respondents before gathering their responses. Respondents were clearly informed about the purpose of the study, the expected outcomes of data collection, and how their testimonials would be recorded accurately.
- **Sensitivity in Handling Personal Information:** Given that the data collection tools involved gathering personal information that could potentially affect respondents' sentiments if not handled with care, the team took proactive measures to prevent any such issues. A sensitisation session was conducted for all enumerators and team members involved, guiding them on the appropriate procedures for data collection.
- **Assurance of Confidentiality:** Respondents were assured that their personal information would remain confidential and that the data collected would be used strictly for research purposes.

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Abbreviations

Abbreviation	Definition
BRSR	Business Responsibility and Sustainability Report
ESG	Environment Social Governance
FGD	Focus Group Discussions
IDI	In-Depth Interview
KAB	Knowledge, Attitude and Behaviour
KII	Key Informant Interview
SDG	Sustainable Development Goals
SEBI	Securities and Exchange Board of India

Table 1: List of Abbreviations

Chapter 1:

Project Background and Overview

1.1 About the Project

SBI Card, in partnership with **SAAHAS**, had designed an initiative to minimise the negative impacts and risks of waste on the environment by enhancing sustainable waste management practices in **Sikanderpur Ghosi Village, Gurugram (Haryana)**. The **Sustainable Solid Waste Management in Sikanderpur** by the name **“Swachh Sundar Sikanderpur”**, which aimed to raise awareness about source segregation and waste management while implementing a three-way source segregation system.

The site for the project was selected due to its **high migrant population, lack of municipal attention, and visible waste-dumping issues**. The baseline survey revealed that the study location had around **6052 households**, with **70-75% of residents being migrants**, many employed in domestic work. The strategy was to use Sikanderpur Ghosi **as a model village**, demonstrating successful interventions that could be replicated in other urban villages.

1.2 Need of the Project

The **“Swachh Sundar Skanderpur”** initiative aimed at mitigating waste-related environmental risks and enhancing sustainable waste management practices in **Sikanderpur Ghosi Village, Gurugram (Haryana)**. The need for this project arose due to the following factors:

Unregulated waste disposal - open waste dumping leading to health and environmental hazard

High migrant population (70-75%), lack of awareness, and informal waste management system

Absence of consistent municipal attention due to urban village set-up and need for decentralized model

Establishing a model village for scalability and sustainable waste management in other villages.

Findings from the Field

Based on the assessment, the following observations supplement the need for the intervention

- **Daily Waste Generation** - A consistent pattern of daily household waste generation highlighted the urgent need for a reliable and systematic collection mechanism to avoid waste build-up, support segregation at source, and mitigate related health risks.
- **Types of Waste Generated** - Almost all households generated both wet and dry waste, with a significant proportion also reporting hazardous waste. This reinforced the need for structured three-way segregation systems and targeted awareness of safe handling and disposal.
- **Prevalence of Open Dumping** - Before the intervention, 65% of households in control areas and 29% in treated areas resorted to open dumping, highlighting the absence of proper disposal infrastructure and a lack of community adherence to safe waste management.

- **Unawareness of Waste Types** – Over 52% of respondents lack awareness of the different waste categories revealing a major gap in knowledge that limited effective sorting, recycling, and processing.
- **Unawareness of Waste Segregation** – About 44% of households had a limited understanding of segregation practices, leading to mixed waste disposal, inefficient recycling, and fewer income opportunities for waste collectors handling dry waste.

1.3 Project Objectives

The project was launched to establish a sustainable, decentralised waste management system in the village. Its primary objectives included –

- Ensuring source segregation and community awareness.
- Establish a decentralised composting unit to process organic waste.
- Formalising informal waste workers by integrating them into the structured waste collection system.
- Improving visual cleanliness to enhance the urban landscape.

1.4 Project Implementation

The process of the implementation of the project is being highlighted below –

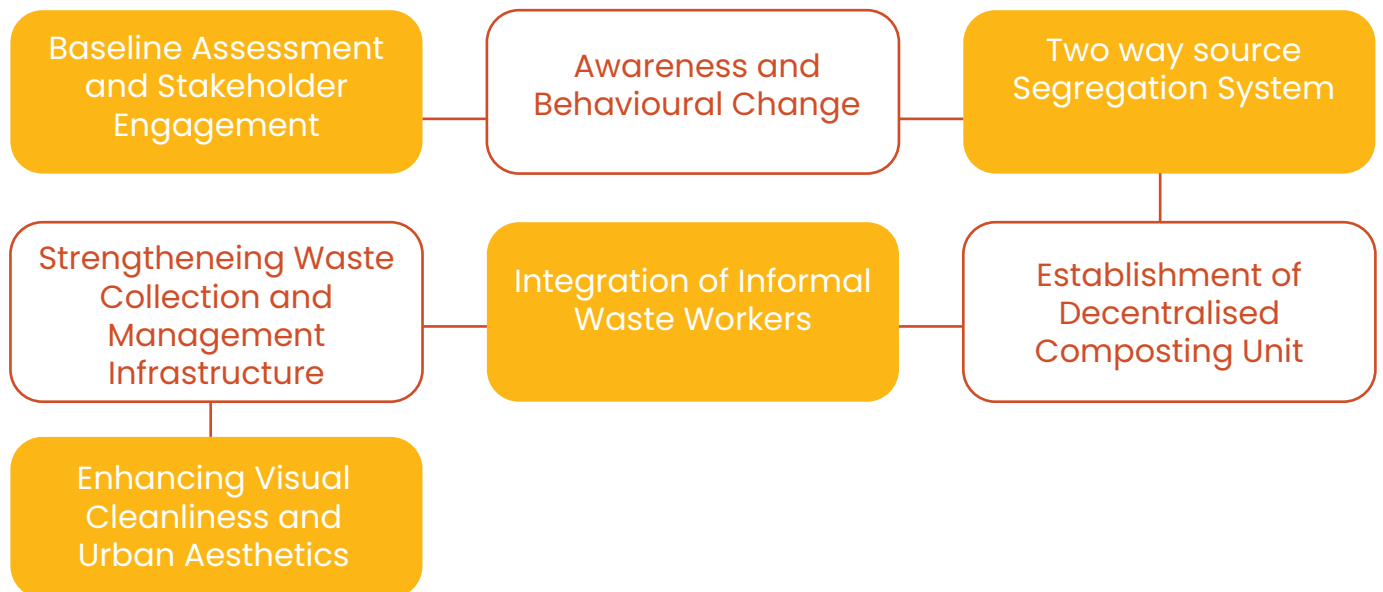


Figure 1: Segregation Awareness in the Village



Figure 2: Waste Collection from Household

Chapter 2:

Design and Approach for Impact Assessment

This section outlines the study objectives, framework and methodologies employed while conducting the assessment. It details the data collection methods and sampling techniques utilised to gather comprehensive insights into waste generation, segregation practices, infrastructure, and community perceptions.

2.2 Approach and Evaluation Frameworks

Given the objectives of the study and the key areas of inquiry, the method of evaluation focused on learning as the prime objective.

To measure the impact, a **pre-post programme evaluation approach** was used for the study. Under this approach, the beneficiaries were enquired about conditions before the programme intervention and after the programme intervention. The difference helped in understanding the contribution of the programme in improving the intended condition of the beneficiary. This approach assessed the programme's contribution to improved living standards, while acknowledging that positive changes may also be due to external factors.

For the assessment of the programme, the study employed a **two-pronged approach** to research and data collection and reviewed secondary data sources, literature and primary data obtained from quantitative and qualitative methods of data collection. The figure illustrates the study approach used in data collection and review.



The **secondary study** involved reviewing annual reports, project documents, and research studies from reputable organisations available in the public domain to gain insights into the area's prevailing conditions. The project implementation documents detailing the activities conducted, processes followed, and the number of beneficiaries reached were thoroughly reviewed. The **primary study** comprised qualitative and quantitative approaches to data collection and analysis. The qualitative interactions involved the inclusion of **in-depth interviews (IDIs)** and **focused group Discussions (FGDs)** with key stakeholders.

In addition to primary data collection, various project documents like project proposals, project log-frame, baseline, project cost and other variables, project implementation timelines, activity details, beneficiaries reached, communication and documentation products, and other relevant reports/literature related to the projects were studied.

2.2 Sampling Approach

2.2.1 Quantitative Sampling

A simple random sampling approach was used to ensure that the sample was representative of all the strata and divisions. The sample size was determined using a statistically significant methodology.

Primary Stakeholder	Location	Universe	Sample Proposed	Sample Achieved	Rationale	Mode of Data Collection
Treatment Group						
Households	Sikanderpur, Gurugram (Haryana)	Infinite	385	388	95% Confidence Level ¹ and 5% Margin of Error ²	On-Field
Control Group						
Households	Sikanderpur, Gurugram (Haryana)	Infinite	40	54	10% of the number of samples covered for treatment group	On-Field
Total			430	442		

Table 2: Quantitative Sampling

2.2.2 Qualitative Sampling

S No.	Stakeholder	Qualitative Tools	Mode of data collection	No. of Interactions
Primary Stakeholders				
1	Community Leaders	FGD	On Field	1
Secondary Stakeholders				
2	Informal Waste Collectors, School students, SAAHAS Project Management Team	FGDs	On-Field	4
3	Composting Unit (Technical Supervisor), School Headmaster, Local Small Shop Owners, Temple Priest	IDI		6
Total				11

Table 3: Qualitative Sampling

²The confidence level is the probability that a statistical estimate lies within a specified range of the true population parameter. It represents the degree of certainty in a sampling method

³The margin of error (MoE) is the range within which the true population parameter is expected to lie, given a certain confidence level. It quantifies the uncertainty in survey or statistical results due to sampling variability.

Chapter 3:

Findings of Impact Assessment

The following report section indicates key findings and insights drawn from the impact assessment study based on field interactions and the **IRECSS** standard parameters outlined in the study framework.

IRECSS Mapped Impact Findings

IRECSS Framework Indicator	Impact Area	Measured Outcome
Inclusiveness	Age Profile	64% women and 36% men in the age group of 21-45 indicating active participation and behavioural changes in the community
	Educational Profile	46% received no formal education emphasising the need for visual and local-language materials
	Household Primary Occupation	58% engaged in informal labour affecting consistent participation in the project
Relevance	Waste Generation Frequency	90% reported daily waste generation highlighting the need for a reliable and efficient waste management system.
	Types of Waste Generated from Households	98% and 97% of wet waste and dry waste produced respectively require safe disposal systems to mitigate health and environmental risk.
	Unawareness of Waste Segregation and Types	55% of the beneficiaries were unaware of the types of waste and methods of waste segregation before the project.
	WASH and Waste Management-Related Challenges Before the Project	Pre-intervention , challenges related to waste disposal include foul odour, poor hygiene, clogged drains, mosquito breeding, waterborne diseases, skin infection, and injuries to waste collectors.
Expectations	Resolution of Waste Disposal Challenges at Panghat Chowk	99% of respondents felt the resolution of waste issues at Panghat Chowk and community level as a result of improved waste management system, and awareness programmes.
	Improved Frequency of Waste Collection	95% of households now receive daily waste collection
	Waste Management Awareness	Beneficiaries rated 4.3 out of 5 towards increased waste management awareness and 3.9 towards health awareness.

IRECSS Framework Indicator	Impact Area	Measured Outcome
	Increased Awareness about Waste Types	50% rise in awareness among residents regarding different types of waste
	Increased Waste Segregation Practice	43% increase in correct waste segregation practices
Convergence	Alignment with SDG Goals	
	Alignment with National Priorities	 
Service Delivery	Improved Sanitation and Hygiene Conditions	4.4 rating by beneficiaries towards strong approval of the project's impact on improving local hygiene and sanitation.
	Modes of Training and Awareness Sessions	97% of awareness sessions were through door-to-door supported by visuals like wall paintings, and group engagement.
Sustainability	Waste Collection Fee	59% of households pay for waste collection, showing support for formal systems.
	Waste Collection Frequency	95% receive daily waste pickup, reflecting strong service efficiency.
	Utilisation of Wet Waste	82% feed wet waste to stray animals, showing local reuse practices and long-term change.
	Future Training and Awareness Sessions	87% favour future awareness sessions, showing continued interest

Table 4: IRECSS Mapped Findings

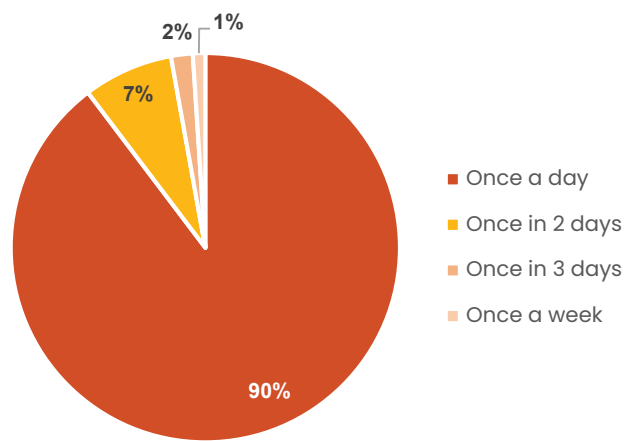
3.1 Demographic Profile of the Beneficiaries

Indicators	Findings
Gender and Age Profile	64% were women while 36% were men; the majority were aged 21–45. Indicates involvement of active participation from a key demographic for driving behavioural change in communities.
Educational Profile	With 46% participants having no formal education, the programme successfully reached underserved populations, reflecting inclusive outreach irrespective of literacy levels.
Marital Status	82% were married. Highlights that key household decision-makers were reached, increasing chances of family-level behavioural change.
Primary Occupation	With 58% in informal or daily wage labor, the programme included economically vulnerable groups, though financial constraints may limit consistent engagement.
Nature and Duration of Residence	High rates of home ownership (89%) and long-term residence (77%) point to community stability, supporting sustained practice adoption and inclusive impact.

Table 5: Inclusiveness

3.2 Relevance

Frequency of Waste Generation (n = 388)

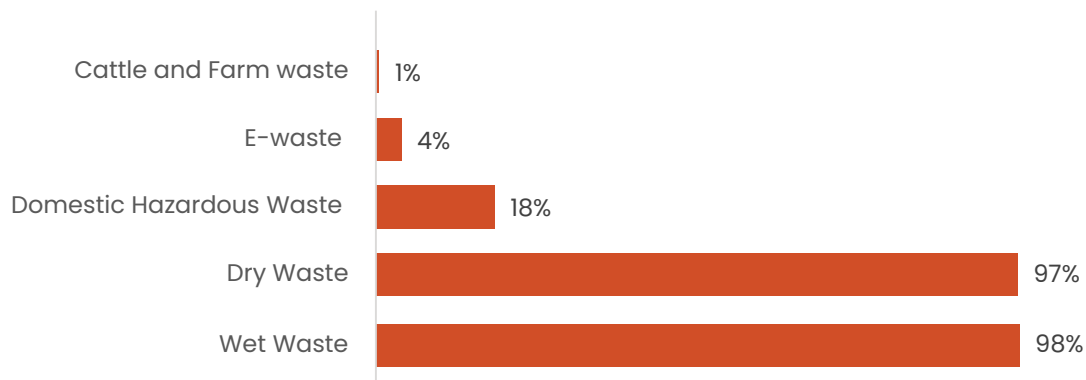


Graph 1: Frequency of Waste Generation by the Households

Frequency of Waste Generation

The consistent pattern of daily waste generation highlights the need for a reliable and efficient collection system to prevent accumulation, support segregation, and minimise health risks.

Types of Waste Generated from Households (n = 388)

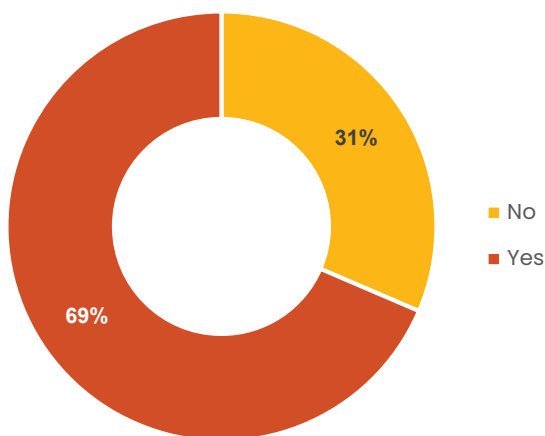


Graph 2: Types of Waste Generated from Households

Types of Waste Generated from Households

The generation of both wet and dry waste by nearly all households highlights the importance of structured segregation systems, while the presence of hazardous waste necessitates targeted awareness and safe disposal measures to mitigate health and environmental risks.

Presence of Common Open Dumping Grounds Before the Project (n = 388)

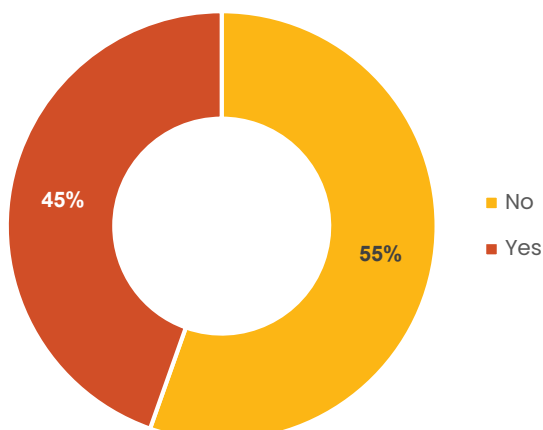


Graph 3: Common Open Dumping Grounds

Common Open Dumping Grounds Before the Project

The high incidence of open dumping prior to the project indicates insufficient waste management infrastructure and a lack of community adherence to proper disposal methods, highlighting the need for improved systems and awareness.

Awareness on Types of Waste Before the Project (n = 388)

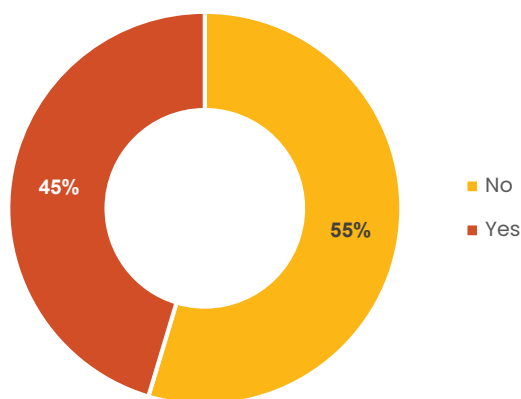


Graph 4: Awareness on Waste Types

Unawareness of Types of Waste Before the Project

The lack of awareness about waste types among over half of the respondents highlights the need for robust waste management initiatives to prevent improper disposal and enhance recycling and processing efficiency.

Awareness on Waste Segregation Before the Project (n = 388)



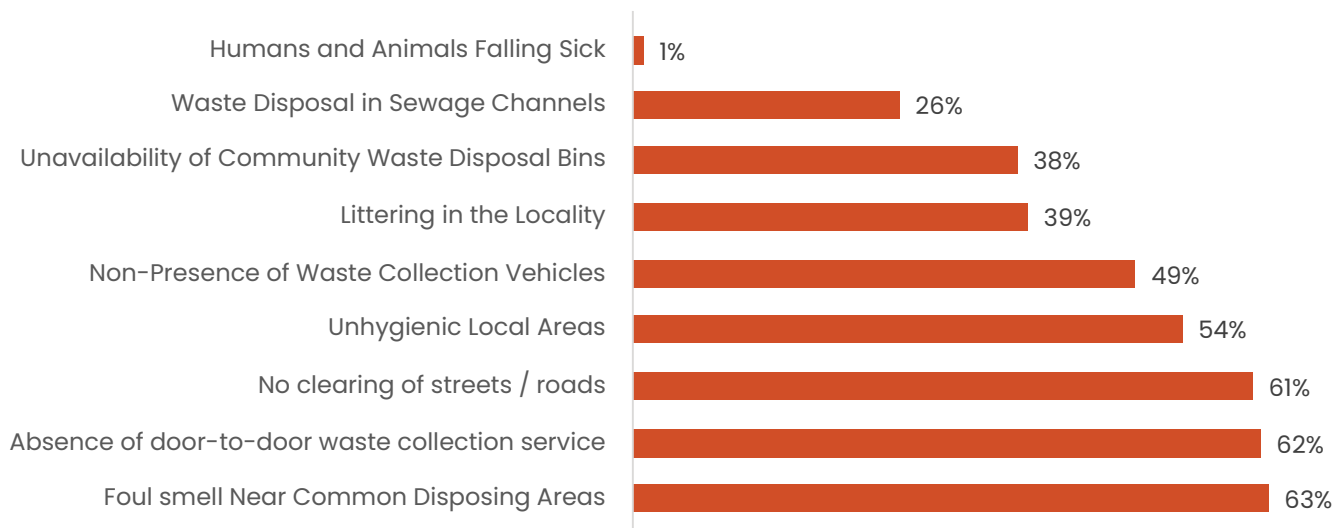
Unawareness of Waste Segregation Before the Project

The lack of understanding of waste segregation among over half of the respondents resulted in inefficient recycling and disposal, complicating composting plant operations and hindering waste collectors' ability to generate income from segregated dry waste.

Graph 5: Awareness on Waste Segregation

Waste Disposal-Related Challenges at Panghat Chowk Before and After the Project

Perceived Waste Disposal Related Challenges at Panghat Chowk Before the Project (n = 388)



Graph 6: Perceived Waste Disposal-Related Challenges at Panghat Chowk

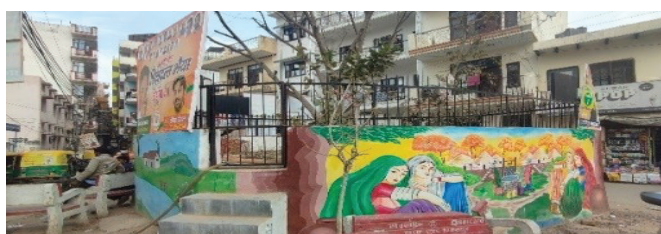


Figure 3: Panghat Chowk Before (Left) and After (Right) the Intervention

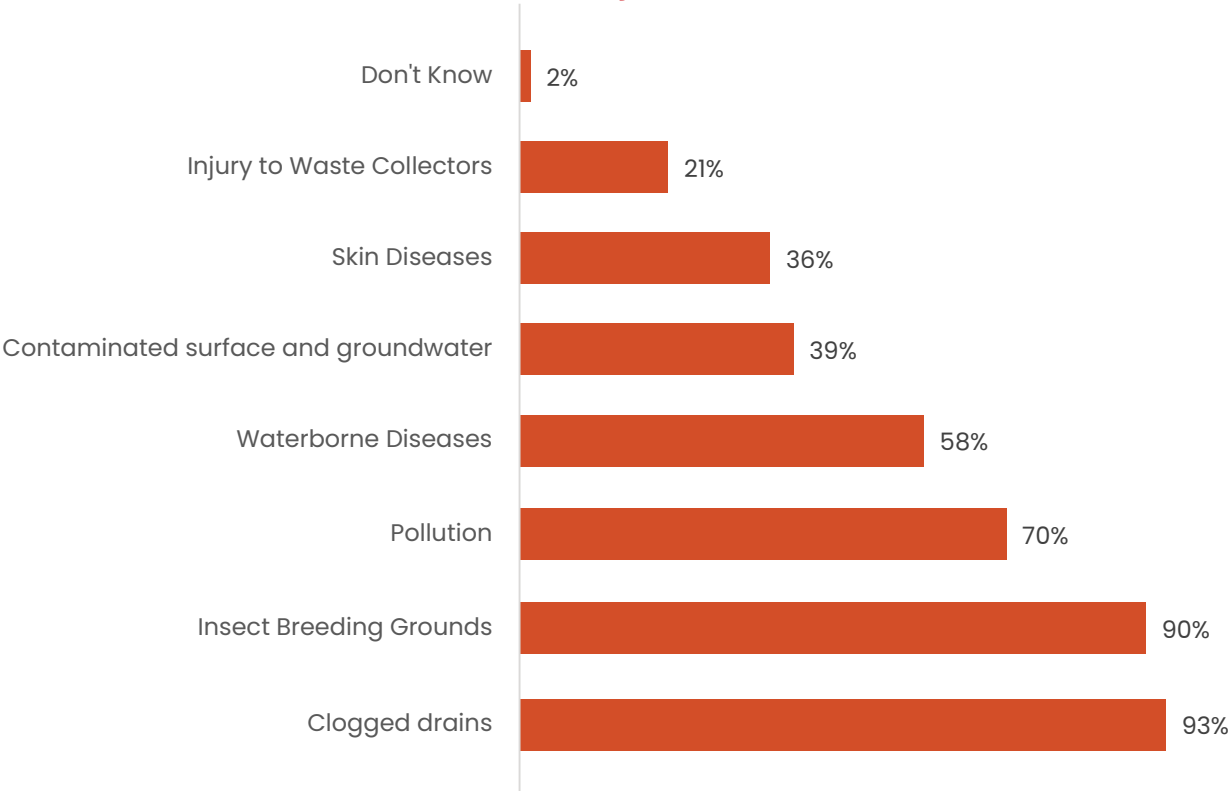
Before the intervention, key pre-project challenges included **foul odour near disposal areas**, **inadequate door-to-door collection** and **street cleaning**, and **poor hygiene in localities**—pointing to systemic gaps in municipal waste services. Additional issues such as littering, lack of disposal points, and waste dumped in sewage channels highlighted the need for improved infrastructure and environmental safeguards.

Pre-project challenges included **clogged drains, mosquito breeding, and widespread pollution**—largely driven by improper waste disposal and poor maintenance.

However, after the intervention, the community believes that the waste management challenges at Panghat Chowk have been addressed and there has been significant improvement in waste collection, disposal infrastructure, and sanitation. This improvement highlights the project’s effectiveness in enhanced segregation, timely collection, awareness

WASH and Waste Management–Related Challenges Before the Project

Perceived WASH and Waste Management–Related Challenges Before the Project (n = 388)



Graph 7: Perceived WASH and Waste Management–Related Challenges

Pre-project challenges included **clogged drains, mosquito breeding, and widespread pollution**—largely driven by improper waste disposal and poor maintenance.

Health concerns such as **waterborne diseases, skin infections, and injuries** to waste collectors highlighted the urgent need for hygienic conditions, protective gear, and improved waste management practices.

3.3 Expectation

Community Involvement and Behavioural Change

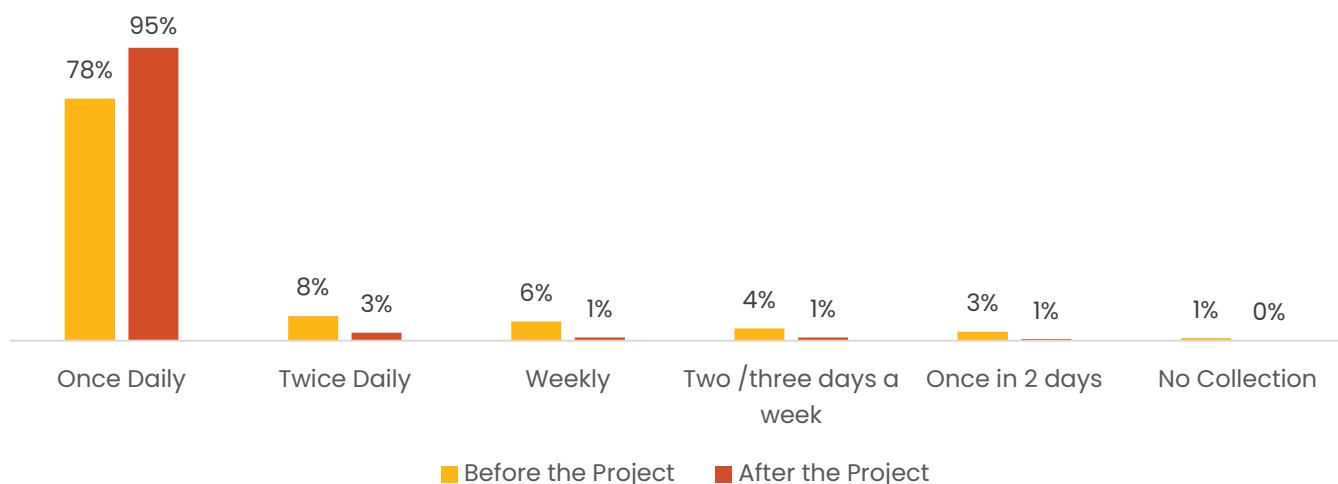
The Community Leaders conveyed that the waste management project has made notable progress, with significant contributions from residents. Initially, there was resistance, especially from landlords who were reluctant to adopt the system. However, consistent engagement and the provision of free dustbins helped overcome these barriers.



Figure 4: Community Interactions

Improved Frequency of Waste Collection

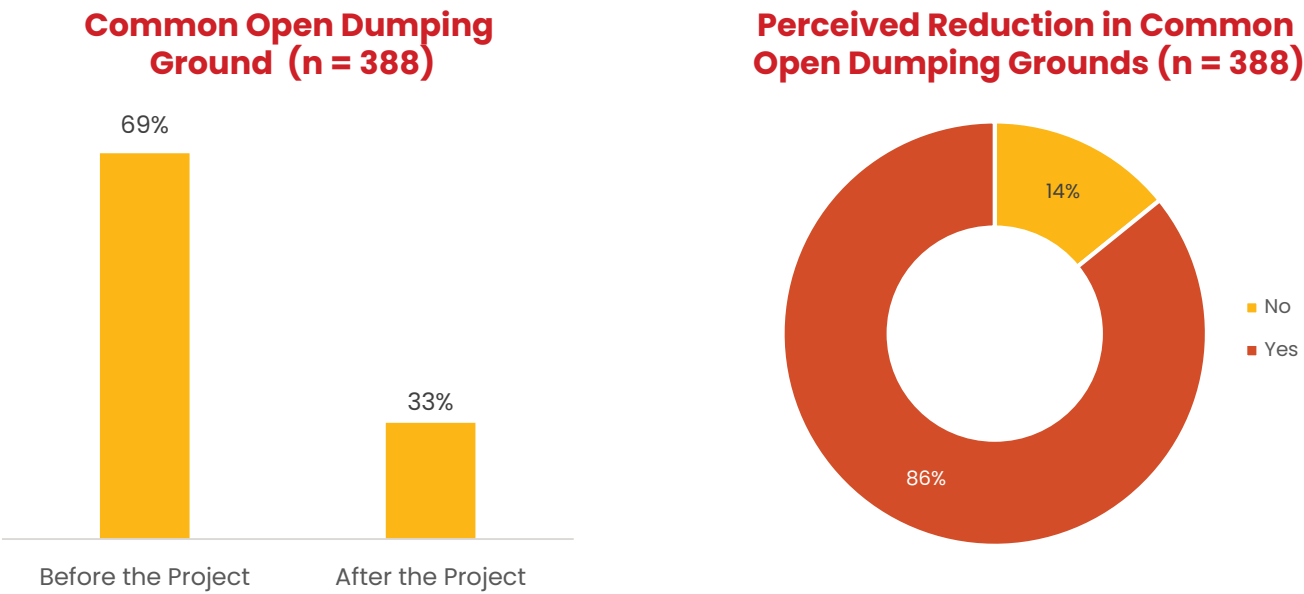
Improved Frequency of Waste Collection (n = 388)



Graph 8: Improved Frequency of Waste Collection

The increase in households receiving daily waste collection reflects a significant improvement in service reliability, demonstrating the project's success in enhancing waste management coverage and promoting a cleaner, healthier community environment.

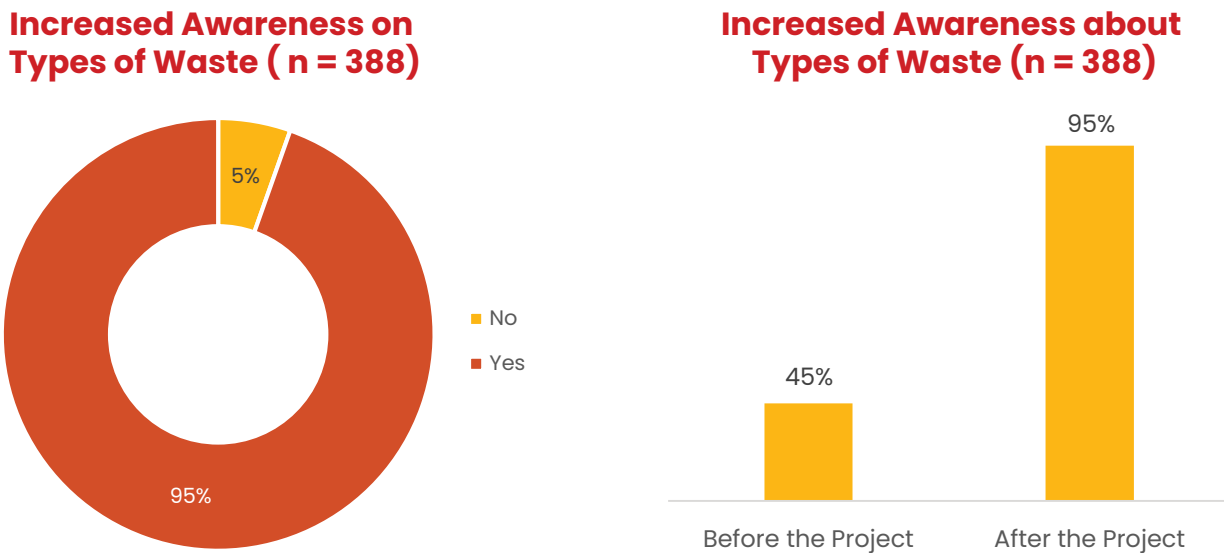
Reduction in Common Open Dumping Grounds



Graph 9: Perceived Reduction in Common Open Dumping Grounds in the Village

The perceived reduction in open dumping grounds post-intervention indicates improved systematic waste collection and heightened community awareness around proper disposal, reflecting the project's effectiveness in addressing unmanaged waste accumulation.

Increased Awareness of Types of Waste



Graph 10: Increased Awareness of Types of Waste

The post-intervention awareness of different waste types demonstrates the effectiveness of community engagement and training efforts, reinforcing the importance of knowledge as a foundation for proper segregation and disposal practices.

The Project Management Team felt that the project has successfully built foundational awareness of waste types, creating an opportunity to strengthen long-term waste management habits in the community.



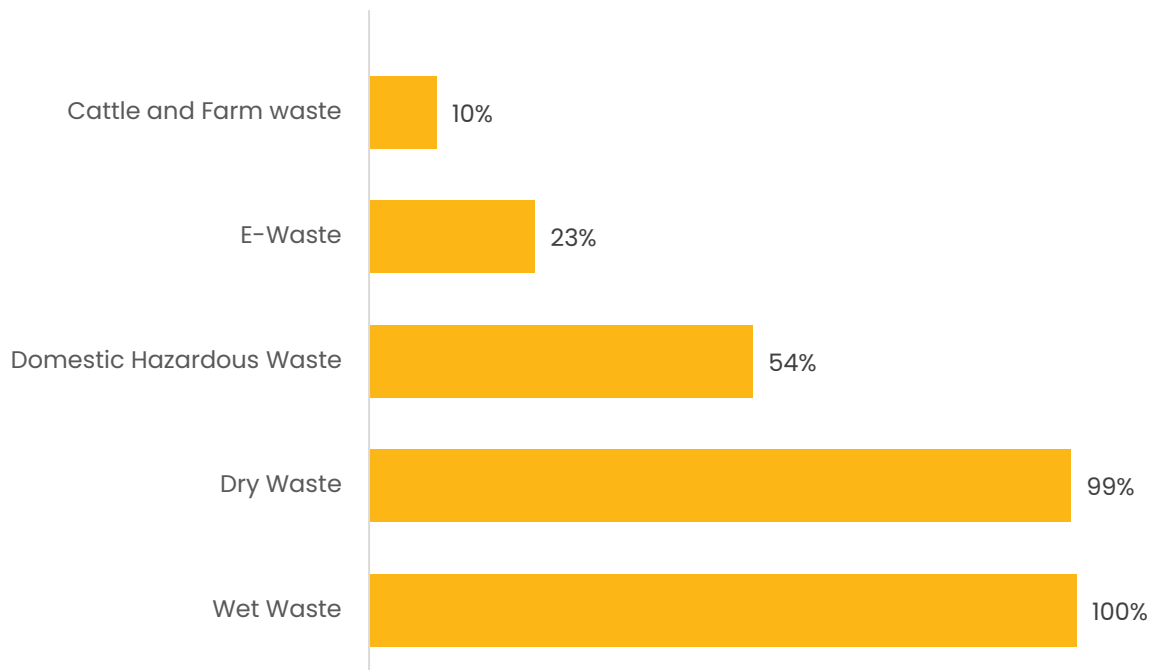
Figure 5: Community Cleanliness Drive

"Before this project, waste was everywhere. We never thought about where our garbage went. Now, not only do we separate our waste, but we also teach others. I have seen my children remind me to put wet and dry waste in the right bin. This project has changed our habits for the better, and I hope this change stays forever."

– Community Member from Village

Awareness about types of Waste

Awareness about types of Waste (n = 367)

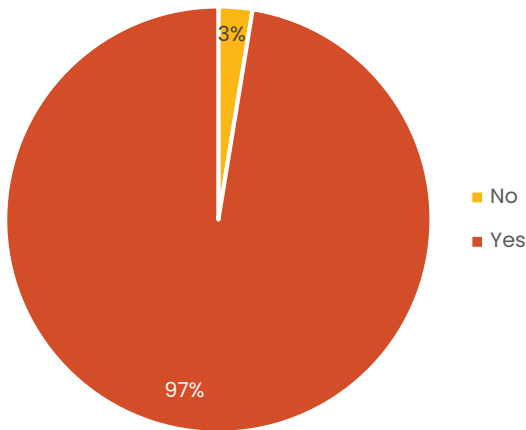


Graph 11: Awareness about Waste Types

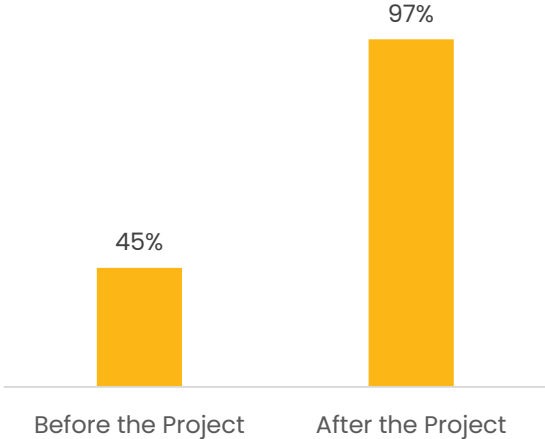
Post-intervention, awareness of wet and dry waste was nearly universal, indicating successful communication of basic segregation concepts. However, moderate awareness of domestic hazardous waste and low awareness of e-waste highlight critical knowledge gaps, reflecting the need for focused education on safe disposal of hazardous and electronic waste.

Increased Awareness of Waste Segregation

Improved Awareness on Waste Segregation (n = 388)



Increased Awareness on Waste Segregation (n = 388)

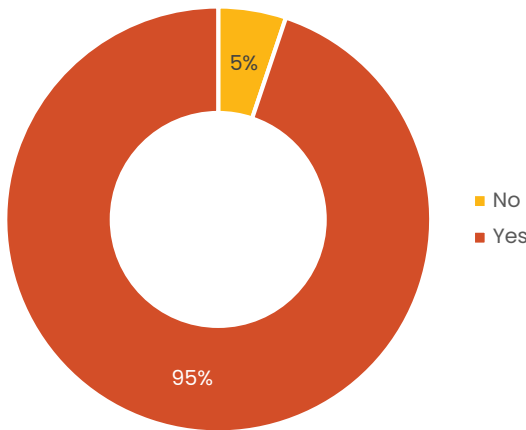


Graph 12: Increased Awareness of Waste Segregation

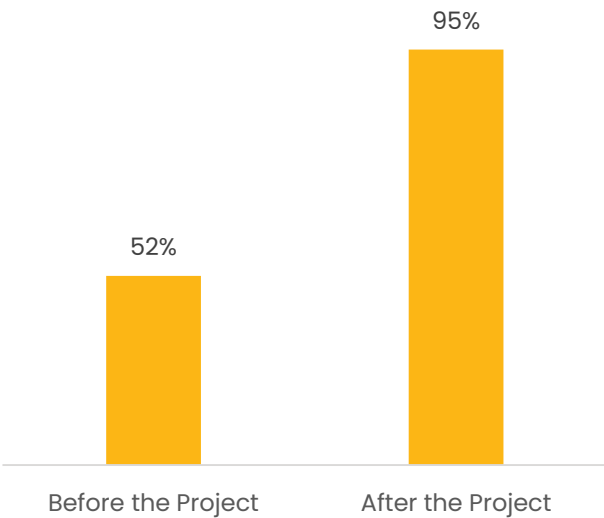
The high levels of awareness about waste segregation post-intervention suggest that the training, community outreach, and behavioural change initiatives were effective. The notable increase in awareness further highlights the impact of door-to-door campaigns, workshops, and visual aids in educating residents.

Improved Waste Segregation Practice

Improved Waste Segregation Practice (n = 388)



Increased Waste Segregation Practice (n = 388)



Graph 13: Improved Waste Segregation Practice

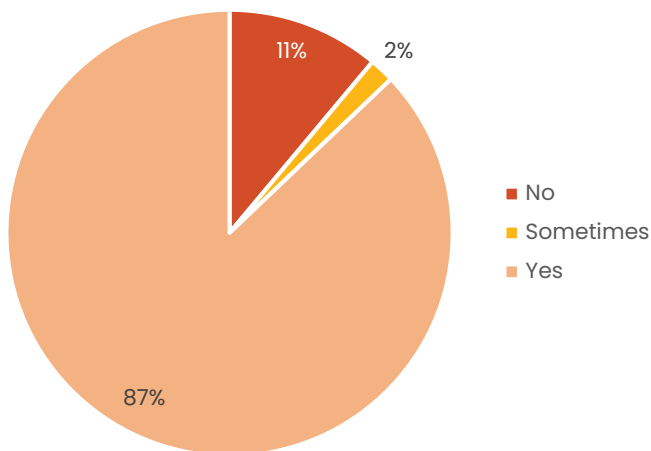
The significant improvement in waste segregation practices post-intervention highlights the initiative’s success in promoting better household waste management. The notable increase in segregation practices can be attributed to enhanced awareness, knowledge dissemination, and behavioural change efforts.



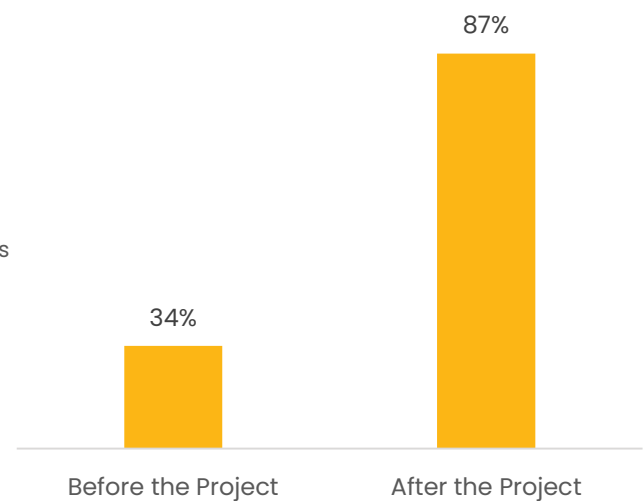
Figure 6: Community Interactions

Improved Practice of Covering the Waste Collection Vehicle

Improved Practice of Covering the Waste Collection Vehicle (n = 388)



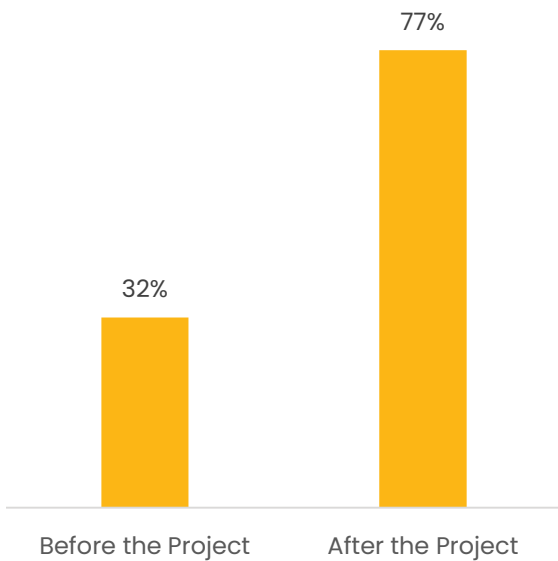
Increased Practice of Covering the Waste Collection Vehicle (n = 388)



Graph 14: Improved Practice of Covering the Waste Collection Vehicle

The widespread belief that waste collection vehicles are consistently covered post-intervention reflects improved safety and hygiene in waste transportation, preventing spillage, odour, and pollution. The increase in awareness among waste collectors underscores the effectiveness of training, awareness initiatives, and regulatory enforcement in promoting best practices.

Increased Practice of Wearing Safety Kits by the Waste Collectors (n = 388)



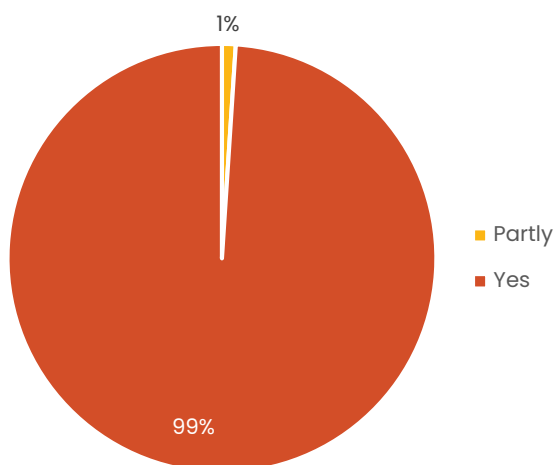
Graph 15: Increased Practice of Wearing Safety Kits

Increased Practice of Wearing Safety Kits by the Waste Collectors

The significant improvement in adherence to occupational health and safety practices post-intervention highlights the effectiveness of awareness campaigns, training, and protective equipment in ensuring safer working conditions for waste collectors. The use of safety kits is essential in reducing exposure to hazardous waste and minimizing health risks.

Resolution of Waste Disposal Challenges at Panghat Chowk

Resolution of Waste Disposal Challenges at Panghat Chowk (n = 388)



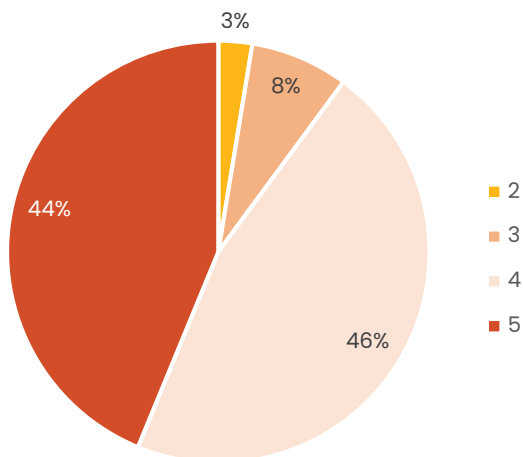
Graph 16: Resolution of Waste Disposal Challenges



Figure 7: Panghat Chowk After the Project

The community's belief that the waste management challenges at Panghat Chowk have been successfully addressed reflects the effectiveness of the intervention in improving waste collection, disposal infrastructure, and sanitation. This success highlights the impact of enhanced segregation, timely collection, awareness programmes, and improved facilities.

Perception Ratings on Waste Management Awareness (n = 388)



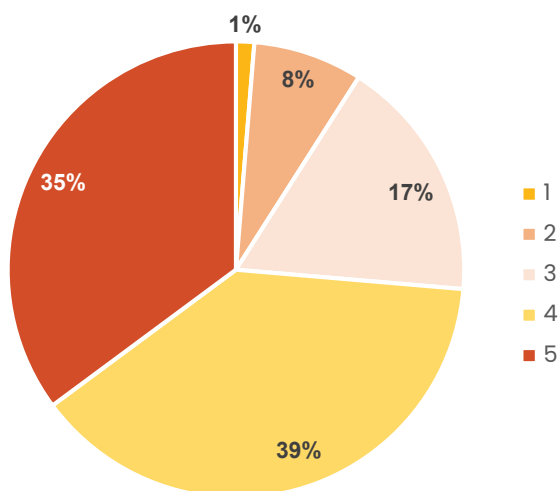
Graph 17: Beneficiary Perception Ratings on Waste Management Awareness

Perception Ratings on Waste Management Awareness

The community's rating of **4.3** for the project's effectiveness in building waste management awareness reflects its success in educating and engaging residents on proper waste practices.

In the shown graph, perception ratings are spread across a scale of 1 to 5 where 1 is the lowest and 5 is the highest level of response.

Perception Ratings on Health Awareness (n = 388)



Graph 18: Beneficiary Perception Ratings on Health Awareness

Perception Ratings on Health Awareness

The community's rating of **3.9** for the project's impact on building health awareness reflects the success of outreach and engagement efforts in promoting better health practices.

In the shown graph, perception ratings are spread across a scale of 1 to 5 where 1 is the lowest and 5 is the highest level of response.

3.4 Convergence

Alignment with SDG Goals

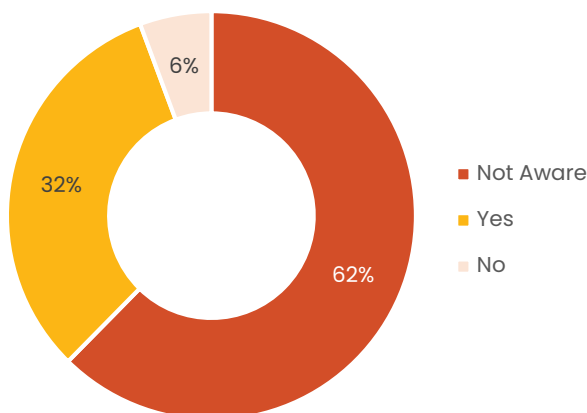
SDG Goal	SDG Target	Alignment
 1 NO POVERTY	End poverty in all its forms everywhere	The onboarding of compost workers in composting plants is creating a reliable job and source of income for the workers. Additionally, the improved segregation of dry waste from the project is enabling informal waste collectors to sell more efficiently, thereby generating additional income for them.
 3 GOOD HEALTH AND WELL-BEING	Ensure healthy lives and promote well-being for all at all ages.	Proper waste management reduces health hazards associated with open burning and dumping, resulting in improved public health and well-being. This is supported through increased awareness and training sessions on improving sanitation and hygiene.
 6 CLEAN WATER AND SANITATION	Ensure the availability and sustainable management of water and sanitation for all.	Effective waste management prevents the contamination of water sources, ensuring access to clean water and sanitation facilities for rural communities.
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.	The Composting Facilities are helping in recycling and effective management of waste through the creation of a sustainable 'waste to wealth' model.
 11 SUSTAINABLE CITIES AND COMMUNITIES	Make cities and human settlements inclusive, safe, resilient and sustainable.	By establishing a sustainable waste management model, the project contributes to creating cleaner and more resilient communities, enhancing living conditions, and promoting inclusivity and sustainability.

SDG Goal	SDG Target	Alignment
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns.	The project promotes resource efficiency and waste reduction through initiatives like segregation, collection, and composting, thereby encouraging responsible consumption and production patterns.
 13 CLIMATE ACTION	Take urgent action to combat climate change and its impacts.	By reducing open burning and landfill emissions, the project reduces greenhouse gas emissions and supports climate change adaptation and resilience.
 15 LIFE ON LAND	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	Through the adoption of the Socio-Technical Model, the project helps in the conservation and preservation of life on land.
 17 PARTNERSHIPS FOR THE GOALS	Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.	Collaboration between SBI Card, SAAHAS, local authorities, and community stakeholders highlights the importance of partnerships in achieving sustainable development goals, fostering collective action, and facilitating knowledge sharing.

Table 6: Project Alignment with SDG Goals

3.5 Service Delivery

Awareness about the Presence Composting Leaf in Temple (n = 388)

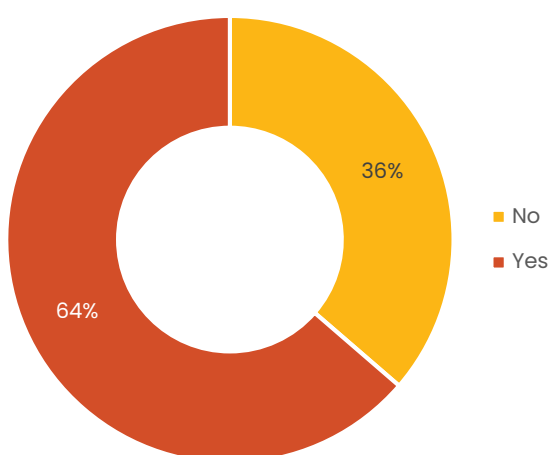


Graph 19: Awareness on Composting Leaf

Presence of Composting Leaf in the Temple

The low community awareness about the composting leaf at the temple highlights the need for stronger communication and engagement to promote composting initiatives. Enhancing visibility and education could encourage greater participation in sustainable waste practices.

Distribution of Dustbins to Households (n = 388)

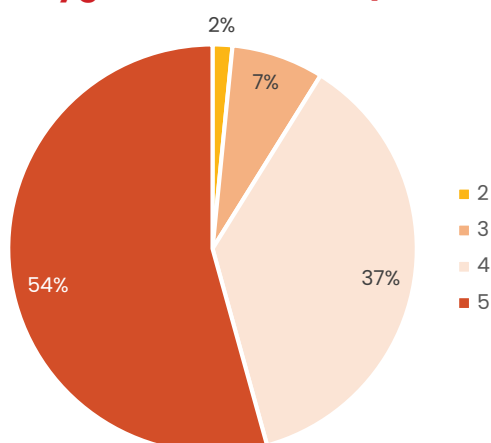


Graph 20: Distribution of Dustbins to Households

Distribution of Dustbins

The distribution of dustbins to a majority of households reflects the project's commitment to promoting proper waste disposal practices. This initiative supports improved household-level waste management and encourages responsible behaviour.

Perception Ratings in Improving Sanitation and Hygiene Conditions (n = 388)



Graph 21: Beneficiary Perception Ratings in Improving Sanitation and Hygiene Conditions

Perception Ratings in Improving Sanitation and Hygiene Conditions

The community's rating of 4.4 indicates strong approval of the project's impact on improving local sanitation and hygiene, reflecting its overall success in enhancing living conditions.

In the shown graph, perception ratings are spread across a scale of 1 to 5 where 1 is the lowest and 5 is the highest level of response.

Awareness and Training Initiatives

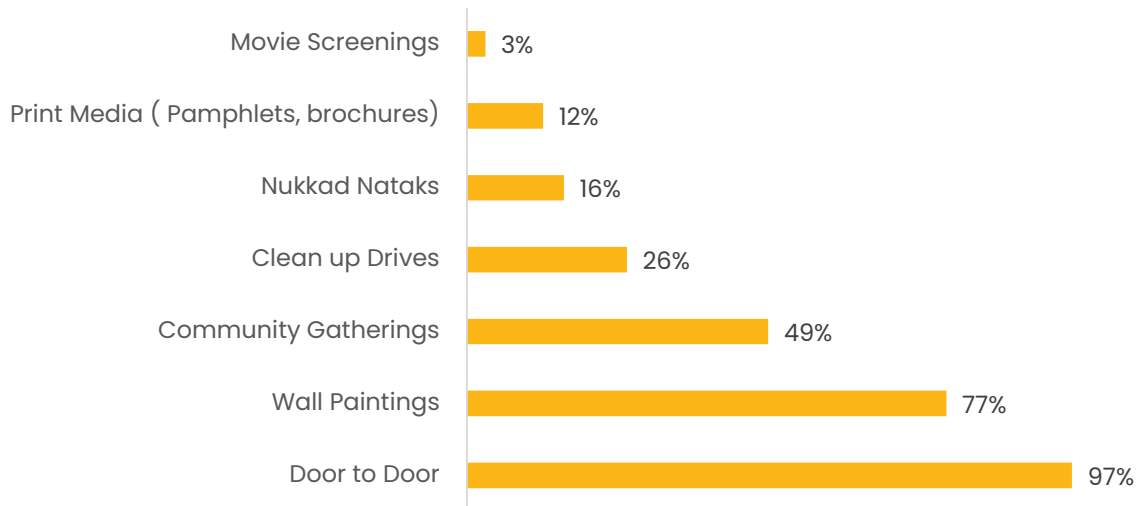
The Project Management Team highlighted that community awareness and training were central to the project, using street plays, training sessions, and school campaigns to promote responsible waste practices. Children's active participation strengthened the initiative, fostering early adoption of sustainable habits. These efforts reinforced key messages on segregation, composting, and reducing single-use plastics.



Figure 8: Waste Awareness Wall Paintings on Village Streets

Modes of Hosting Training and Awareness Sessions

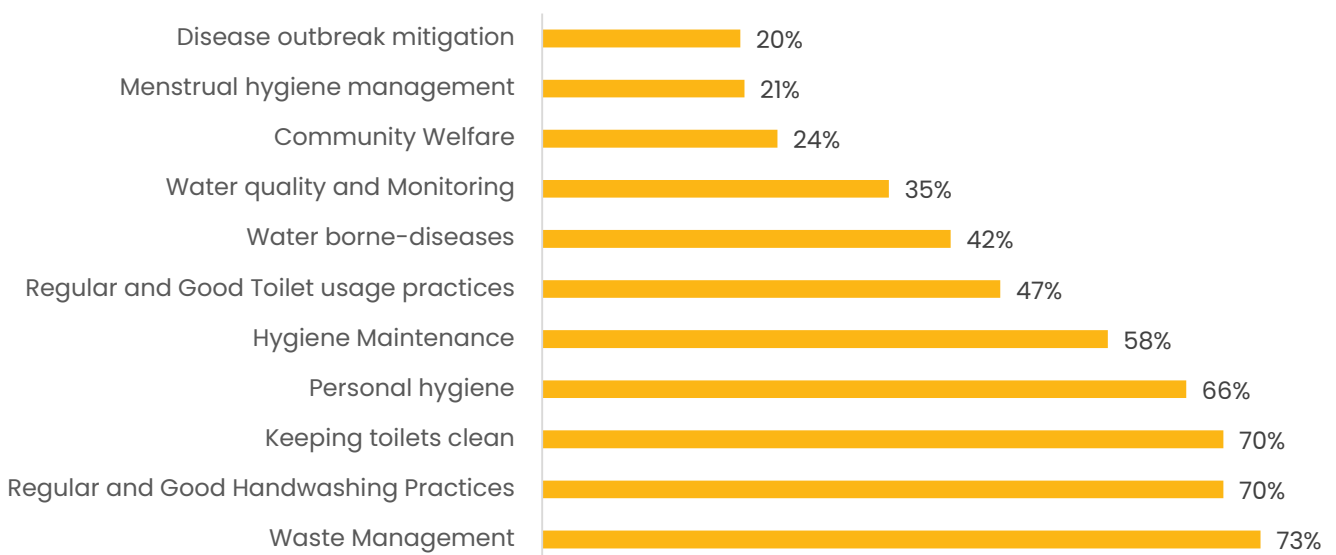
Perceived Modes of Hosting Training and Awareness Sessions (n = 237)



Graph 22: Modes of Hosting Training and Awareness Sessions

The project primarily relied on personalised door-to-door sessions, supported by visual tools like wall paintings and group engagement through community gatherings. Interactive methods such as clean-up drives and Nukkad Nataks were also employed, though to a lesser extent.

Training and Awareness Sessions Topics (n = 237)



Graph 23: Training and Awareness Sessions Topics

The awareness sessions strongly focused on waste management and hygiene practices, with a key emphasis on handwashing, toilet cleanliness, and personal hygiene. Sanitation awareness and water quality were also addressed, though to a lesser extent.

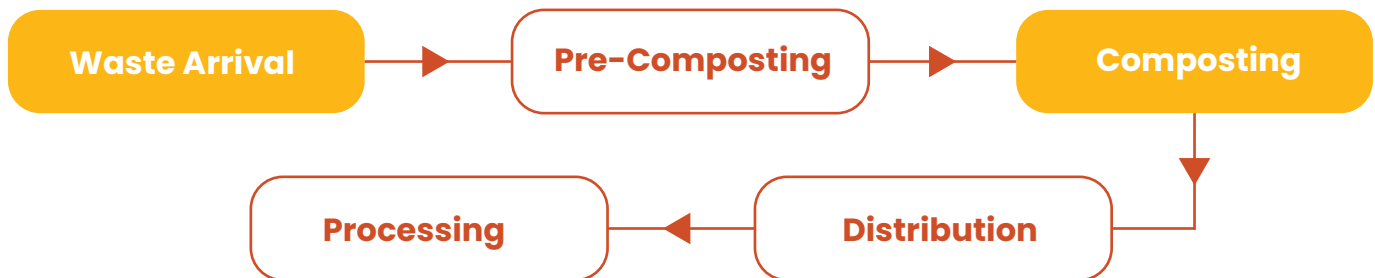
Composting Plant Operations

The composting plant unit efficiently converts wet waste into compost, reducing landfill dependency while supporting environmental sustainability.



Figure 9: Workers working in Composting Unit

Technical Process



Waste Arrival : From **7,000 households** where excessive moisture content is separated.

Pre-Composting : Wet waste processed in a **pre-composting machine**, converting about **1.5 tonnes** of food waste into approximately **700–750 kg of pre-processed waste**.

Composting : Once dried, the waste is placed in composting tanks following a structured layering method. The mixture is flipped every seven days to enhance decomposition.

Processing : The final stage involves processing the compost through a **shredder**, refining the material into nutrient-rich manure.

Distribution : The compost is then distributed back to the village households, where households with gardens use it for plant nourishment.

Outcomes

- The composting unit provides stable employment opportunities, with workers witnessing a **salary increase from ₹5,000–6,000 to ₹15,000–16,000 per month**, significantly improving their livelihoods while ensuring the dignity of labour and strengthening the waste management ecosystem.
- With current technology, the unit can efficiently handle the **processing of 1.5 tonnes of wet waste per day**.
- Waste Collectors' Workers reported **earning an additional ₹200–300 per day** from segregated dry waste, which is sold to scrap dealers.
- A significant benefit introduced through the project was **the issuance of ID cards** to waste collectors as an important step towards their recognition and dignity in their profession. These ID cards helped **legitimise their work**, ensuring **they were not stopped or harassed by authorities** while performing their duties.

"I used to think no one cared about the work we did. But after this programme, I have realised that our job is important—not just for us, but for the entire community. Now, people respect us. The SAHAS team treated us like family, ate with us, and made us feel seen. I no longer feel ashamed of my work. I feel proud."

– Seema Devi, Informal Waste Collector

Impact on Schools

The following section presents detailed qualitative insights gathered from interactions with the School Principal and Students.

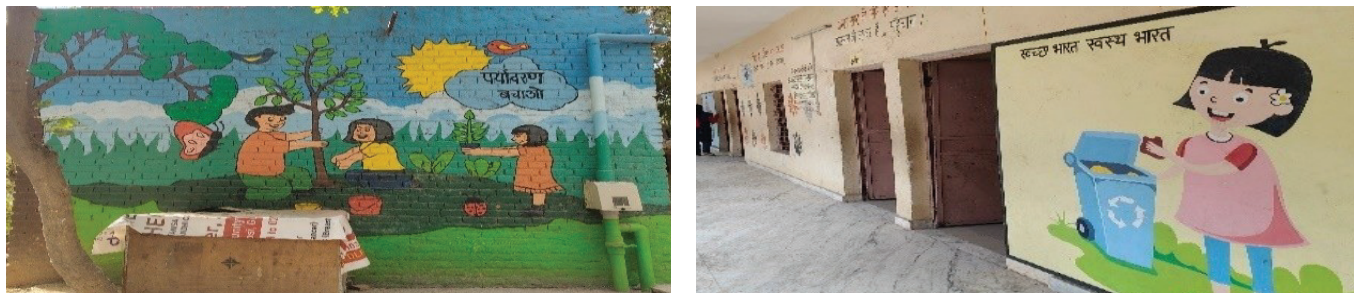


Figure 10: School Wall painting for Awareness

- **Awareness and Training:** Students were trained in organic composting, learning to convert dry leaves into manure through interactive sessions including games, quizzes, and competitions to reinforce practical application and environmental awareness.
- **Experiential Learning:** Summer camps included visits to composting plants, giving students and teachers hands-on experience to bridge theory with practice.
- **Menstrual Hygiene Education:** Sessions for adolescent girls included sanitary pad distribution and promoted better hygiene practices. Schools emphasized the need for sustained, female-led engagement and curriculum integration.
- **Visual Communication:** Posters, wall art, and standees effectively conveyed key hygiene and waste management messages, particularly in areas with low literacy.

Impact on Students

- **Waste Segregation and Recycling:** Students demonstrated strong knowledge of waste segregation identifying wet waste as organic and compostable, and dry waste as recyclable materials like plastic and polythene. Their understanding was reinforced through quizzes, drawings, and games that encouraged practical application.
- **Behavioural Change:** The programme's impact extended beyond schools, with students practicing segregation at home and educating their families. Many reported correcting their parents and promoting better waste disposal, highlighting the initiative's broader community influence.

"At first, I wasn't sure if children would take an interest in waste segregation. But when I saw them making compost, drawing posters, and even correcting their parents at home about waste disposal, I knew we had created something meaningful. This programme has not just changed the way our school handles waste, it has changed the way our children think about their future."

– Headmaster, School

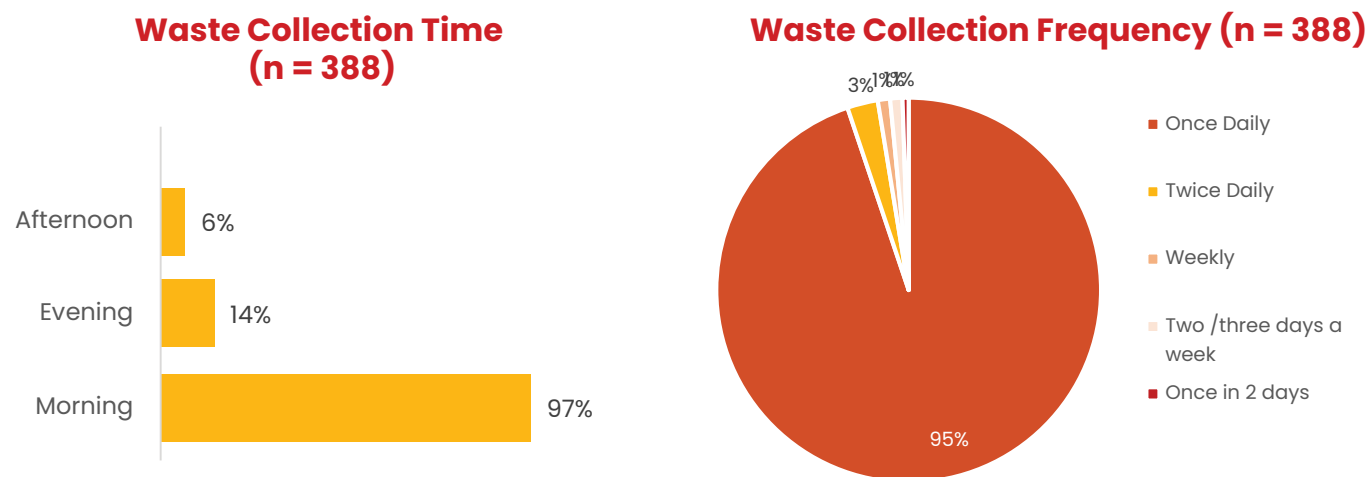
3.6 Sustainability

This section addresses the extent to which the benefits of the intervention are likely to be sustained and continue over time.

Informal Waste Collectors – Operations and Team Size

Informal Waste Collectors play a key role in diverting recyclables from landfills by collecting, segregating, and transporting waste. Around **50–100 collectors** service over **5,000 households**, following structured routes daily. They work early mornings to afternoons, averaging 6–8 hours a day. Despite high volumes, they maintain standard segregation practices. Waste quantities peak on Mondays due to weekend consumption with the workers highlighting the need to manage fluctuating loads.

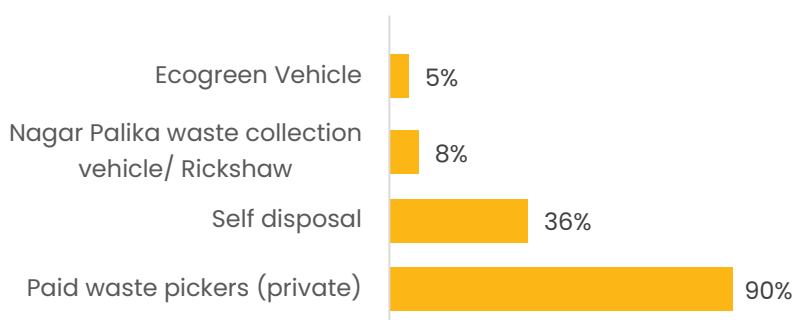
Waste Collection Time and Frequency



Graph 24: Waste Collection Time and Frequency

The strong preference for morning waste collection reflects its effectiveness in maintaining daily cleanliness and preventing waste build-up. Coupled with the widespread daily collection, this indicates a well-established and efficiently functioning waste management system in the community.

Waste Collection Mechanisms (n = 388)



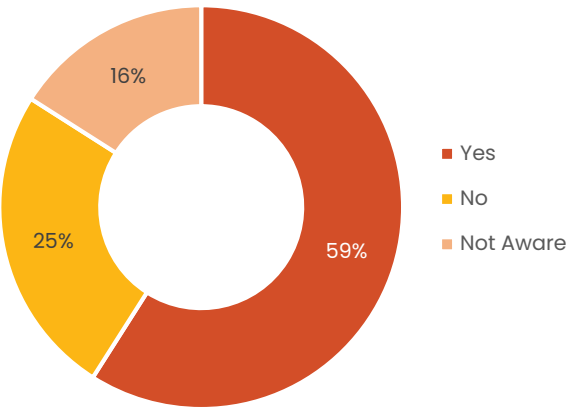
Graph 25: Waste Collection Mechanisms

Waste Collection Mechanisms

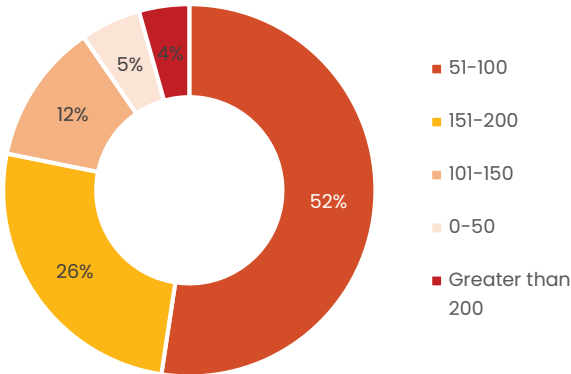
The community's high reliance on private waste pickers and self-disposal points to gaps in municipal waste services. Strengthening public waste collection systems could enhance accessibility, reduce informal burdens, and ensure more standardised and sustainable waste management practices.

Waste Collection Fee

Waste Collection Fee Payment by the Households (n = 388)



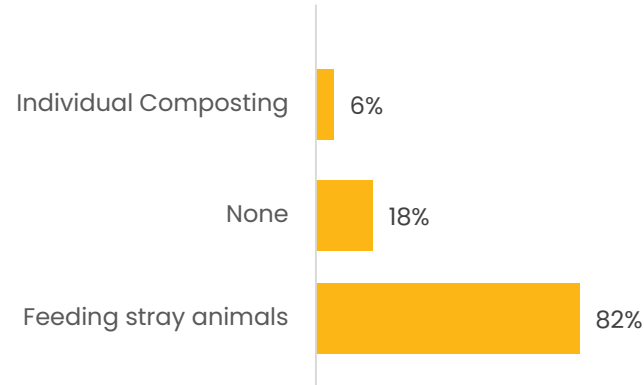
Waste Collection Fee Paid by the Households (INR/Month) (n = 388)



Graph 26: Waste Collection Fee Payment by the Households

A notable portion of the community participates in formal waste management services by paying the waste collection fee, reflecting recognition of its importance. The tiered fee structure, based on household area, ensures affordability for different income groups while supporting the sustainability of waste management systems.

Utilisation of Wet Waste by the Households (n = 388)

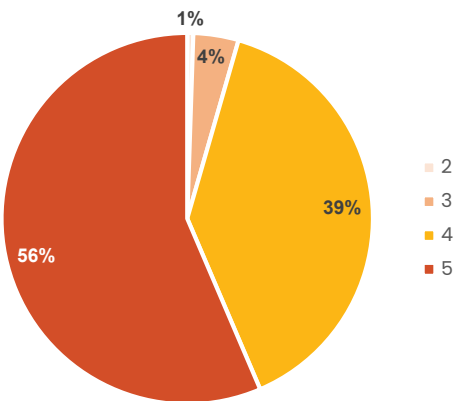


Graph 27: Utilisation of Wet Waste by the Households

Utilisation of Wet Waste

The widespread practice of feeding stray animals indicates a community-driven approach to managing food waste, which helps reduce waste volumes. However, the underutilisation of wet waste composting suggests a need for increased awareness and accessible composting facilities to further enhance sustainable waste management practices.

Perception Ratings on Sustainable Waste Management Practice (n = 388)

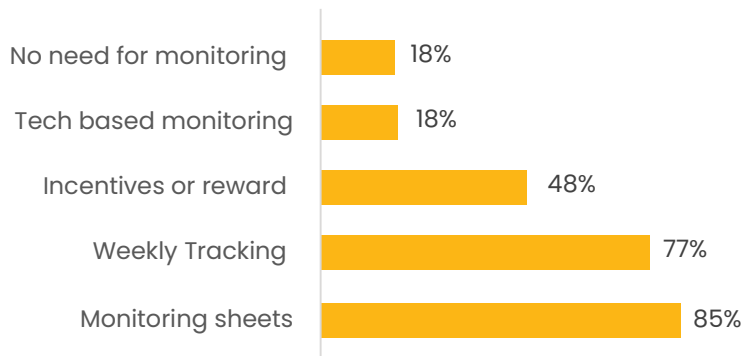


Perception Ratings on Sustainable Waste Management Practice

The community's high rating of the project in promoting sustainable waste management practices reflects strong acceptance and demonstrates the project's effectiveness in fostering long-term waste management behaviours.

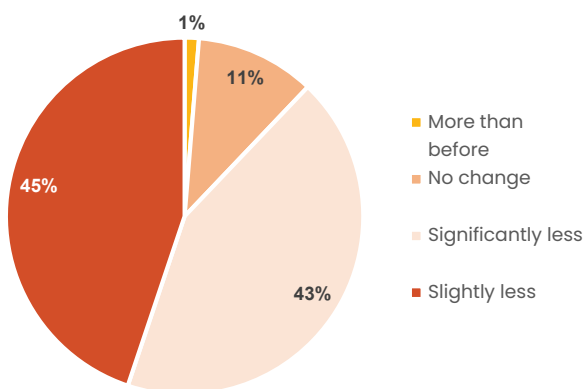
Graph 28: Perception Ratings on Sustainable Waste Management Practice

Perceived Scope of Waste Segregation Monitoring (n = 388)



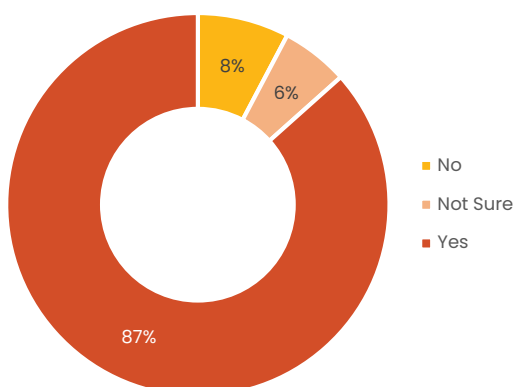
Graph 29: Scope of Waste Segregation Monitoring

Reduction in usage of single-use plastic items (n = 388)



Graph 30: Reduction in usage of single-use plastic items

Perceived Future Requirement of Awareness and Training Programmes (n = 388)



Graph 31: Perceived Future of Awareness and Training Programmes

Scope of Waste Segregation Monitoring

Monitoring sheets are the preferred method for tracking waste segregation, indicating a strong reliance on manual documentation. Weekly tracking highlights the community's emphasis on consistent monitoring, while incentives or rewards suggest that motivating individuals could enhance participation in waste segregation practices.

Reduction in usage of single-use plastic items

The Cutlery Bank Initiative has successfully encouraged the majority of beneficiaries to reduce single-use plastics during events and community gatherings, reflecting a positive shift in environmental awareness and behaviour.

Future of Training and Awareness Sessions

The strong support for future awareness and training initiatives highlights the community's recognition of the continued need for education. Tailoring programmes to address specific knowledge gaps could further enhance engagement and impact.

"I have always used paper trays instead of plastic because I believe the temple should remain clean. But I never thought my small habit would inspire others. Now, more shopkeepers are doing the same, and the temple surroundings are much cleaner. It feels good to know that even a small step can make a big difference."

– Flower Vendor, Near Temple

3.7 Comparison between Treatment and Control Villages

To check the exact attributes of the intervention, a comparison study was conducted during the impact assessment study by surveying people from villages where there was no intervention. This approach facilitated an assessment of the differences and impact introduced by the intervention within a similar geographic context. Both the treatment and control villages were located in the Sikanderpur Region of Gurugram.

Control vs Treatment Village

Key Factors for Comparison	Control Village	Treated Village	Inference
Daily Waste Collection Frequency	59%	95%	Regular waste collection is significantly higher in treated villages.
Availability of Common Dustbins for Waste Disposal	14%	80%	Infrastructure for disposal was greatly enhanced in the treated village.
Awareness of Waste Segregation	44%	97%	Awareness campaigns had a high impact on providing segregation knowledge in treated villages.
Waste Disposal in Sewage Channels	14%	0%	Absence of Waste Disposal in Sewage Channels of treated villages the project's success in protecting community health and the environment in Treated Village.
Waste Burning	14%	1%	The significantly lower proportion of waste burning in the treated village demonstrates the project's effectiveness in encouraging safer and more sustainable waste disposal methods and the environment in Treated Village.
Awareness of Types of Waste	52%	95%	Strong improvement in knowledge and classification of waste in the treated village.
Waste Disposal on Common Dumpsites	29%	65%	Open dumping was reduced but still present in treated villages.
Perceived Practice of Covering Waste Collection Vehicle	46%	87%	Better compliance with hygiene and transport standards in treated villages.
Perceived Wearing of Safety Kits by the Waste Collectors	35%	77%	.Notable improvement in worker safety practices in the treated village.



Positive Indicator



Negative Indicator

Table 7: Control vs Treatment Summary

Treated Village is the area where the 'Swachh Sundar Sikanderpur' initiative was implemented. It reflects the outcomes and improvements resulting from the intervention, such as better waste collection, increased awareness, and behavioural changes.

Control Village refers to an area with similar socio-economic conditions, where no intervention or project activity was implemented. It serves as a baseline to understand the status of waste management practices and community behaviour without external influence.

Chapter 4:

Social Return on Investment (SROI)

The Social Return on Investment (SROI) estimation for this project was undertaken to assess the social and economic value generated through key interventions. The methodology involved the development of a detailed impact framework using primary (and, where applicable, secondary) data to estimate benefits, followed by appropriate adjustments for drop-off, deadweight, displacement, and attribution. These adjustments ensure that the net impact reflects only the value genuinely attributable to the project. The applied assumptions are described below:

Indicator	Population Proportion
Cost savings by the temple	NA
Additional income of informal waste workers	100% of the 18 informal waste collectors engaged in the project
Salary increments for formal waste workers	100% of the 3 formal waste workers employed through the project
Healthcare cost savings	6% of the 363 surveyed households
Cost savings on the purchase of household dustbins	64% of the 3,853 households that received bins through the project
Social cost savings from carbon emission reduction	NA

Drop-Off

Drop-off refers to the gradual decline in benefits over time. For certain outcomes where the effect is expected to diminish annually – such as cost savings from the use of reusable cutlery, healthcare-related savings, and reductions in household expenditure on dustbins – a **drop-off rate of 33%** was applied, reflecting diminishing marginal value across three years.

Conversely, indicators such as the **additional income of informal waste workers, salary increments for formal workers at composting units, and GHG emission reductions through composting** are projected to yield consistent or increasing returns year-on-year. Accordingly, a **drop-off rate of 0%** was applied to these indicators.

Deadweight

Deadweight accounts for the portion of impact that would have occurred even in the absence of the project. Based on detailed stakeholder consultations and a review of contextual data, there was no strong evidence to suggest that the observed benefits – particularly the behavioural shifts in waste segregation, health outcomes, or financial gains – would have emerged organically. Hence, a **deadweight value of 0%** was applied to all indicators.

Displacement

Displacement assesses whether the benefits generated by the project have come at the cost of reducing benefits elsewhere. In this case, none of the outcomes – including increased income for informal workers, cost savings at the household or institutional level, or environmental benefits – appeared to displace pre-existing value. Stakeholder responses and project documentation confirmed the absence of such trade-offs. As a result, the **displacement rate was taken as 0%**.

Attribution (by others)

Attribution considers how much of the benefit can be credited to actors outside the project. Given the implementation model – where project-led efforts (including awareness drives, infrastructure like composting units, and the cutlery bank system) were directly responsible for the observed outcomes – it was concluded that the **project was the principal driver of change**. Consequently, an **attribution rate of 0%** was assigned across all indicators.

SROI Calculation

Social Return on Investment			
Year	FY 2022–2023	FY 2023–2024	FY 2024–2025
Inflation Rate in India (IMF, 2024) ⁶	6.70%	5.40%	4.40%
Discounted Rate Considered	5.50%		
Total Input Cost	₹ 1,48,44,920.00		
Total Net Impact	₹ 9,51,77,356.67		
Net Present Value (NPV)	₹ 9,02,15,503.96		
SROI	6.08		

Table 8 : SROI Calculation

INR 6.08 social value generated on investment of INR 1

An SROI ratio—such as **6.08**—means that for every ₹1 invested in the project, ₹6.08 worth of social value was generated with a **total project cost of ₹1.48 crore** and a **Net Present Value (NPV) of ₹9 crore**. This metric has helped to understand the true value and effectiveness of the investment in terms of community well-being, environmental improvement, and long-term sustainability

A drop-off of 3 years is considered for certain indicators considering their diminishing effect.

³World Economic Outlook (October 2024) – Inflation rate, average consumer prices

Chapter 5: Recommendations

- **Further strengthening of the Decentralised Waste Management** – Installation of Aero-bins in strategically located community spaces to promote on-site composting and significantly reduce the burden on landfills.
- **Capacity Enhancement** – Increase the frequency of mass awareness campaigns in schools and communities—such as eco-club initiatives, composting demonstrations, and creative tools like wall murals—to foster long-term behavioural shifts towards responsible waste segregation.

Chapter 6: Impact Stories

From Waste Collector to Community Leader

For years, Reema* and her family worked as **informal waste collectors**, navigating the streets of Sikanderpur before dawn to collect garbage from households. The job was harsh—exposure to unhygienic conditions, lack of protective gear, and **no formal recognition**.

“When the SAAHAS team first approached us, we didn’t understand why they wanted us to separate wet and dry waste,” she recalled. “It felt like extra work for nothing.”

Reema, like many others, initially resisted the idea of segregation. However, **SAHAS introduced an incentive system** where waste workers who segregated waste properly received **household essentials like pressure cookers, blankets, ration kits, and PPE**. More than the material rewards, she noticed something deeper—their work was now being **acknowledged and respected**.

“For the first time, people looked at us as more than just waste pickers. The SAHAS team even sat with us and had a meal together. No one had ever done that before.”

Today, Reema has become **a key advocate for proper waste management**, ensuring that both households and fellow waste collectors **follow segregation rules**. With improved earnings from **selling segregated recyclables**, her family’s financial situation has stabilised, and she now dreams of **providing her children with an education she never had**.

“This is more than just work. It is about our dignity and our future. And I am proud to be part of it.”



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