

Dabur

Activities to Support

PLASTIC WASTE MANAGEMENT

Impact Assessment Report 2025-26

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An initiative by

JIVANTI Welfare and Charitable Trust

Assessment done by

impactDash

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The photographs included herein reflect the on-ground realities observed during the assessment. Finally, we offer our heartfelt thanks to the Safai Saathis and stakeholders across all project locations for generously sharing their time, perspectives, and lived experiences. Their insights were indispensable to the integrity, depth, and credibility of this study.

Assessment Agency:
ImpactDash (EveryULB Technologies Pvt. Ltd.)
www.impactdash.com

Author:
Navya K A, PhD Scholar in Social Science,
TISS Hyderabad

Advisor:
Dr Gurmeet Kaur, PhD,
Panjab University, Chandigarh

Support Team:
Vaibhav Rathore,
M.B.A. DAVV

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Activities to Support Plastic Waste Management

EXECUTIVE SUMMARY



About the Project: The project, led by Dabur India Limited under its CSR (Corporate Social Responsibility) mandate, was implemented through Jivanti Welfare and Charitable Trust as the nodal coordinating agency, along with multiple NGO (Non-governmental organisations) collaborators across 19 states and 57 districts. The intervention adopts a multi-stakeholder model integrating corporate oversight with decentralised NGO-led execution to strengthen plastic waste management systems.

It focuses on capacity building of Safai Saathis, community and school-based sensitisation, and welfare support for Safai Saathis households, including PPE distribution, health services, nutrition support, and educational mainstreaming. Dabur structured the programme to advance behavioural change, enhance livelihoods, and promote environmental sustainability through coordinated institutional engagement.

Through this report, the impact assessment systematically examines the implementation and outcomes of Dabur India Limited's Plastic Waste Management Programme. It evaluates the programme's effectiveness in advancing livelihood security, behavioural change, and environmental sustainability across its multi-state operational footprint.

Assessment Methodology

01 Research Design

The assessment adopted a mixed-methods approach combining quantitative and qualitative methods.

02 Data Collection Methods

- **Quantitative:** 294 respondents (155 Safai Saathis; 139 community members).
- **Qualitative:** 56 participants through:
  - Focus group discussions (FGDs) - 5
  - In-depth interviews (IDIs) - 3
  - Key informant interviews (KIIs) - 5
  - Semi-structured interviews (SSIs) - 43

03 Sampling Technique

Purposive sampling ensured inclusion of stakeholders directly engaged with programme activities, enabling analysis across livelihood, behavioural, and institutional dimensions.

Assessment Objectives

- **Capacity Building Effectiveness:** Assess the effectiveness of capacity building initiatives for waste collectors in improving segregation, collection, and recycling practices
- **Community Awareness and Behaviour:** Evaluate changes in community awareness and behaviour regarding plastic waste management, particularly through the "My 10 Kg Plastic" campaign
- **Ragpicker Welfare Improvements:** Measure improvements in ragpicker welfare across health, livelihood, dignity, and welfare scheme access dimensions
- **School Programme Reach:** Assess the reach and effectiveness of awareness programmes in schools and their influence on household behaviour
- **Implementation Quality:** Document implementation quality and identify best practices across NGO partners for programme strengthening



HEADLINE IMPACT: WHAT THE PROGRAMME ACHIEVED

Socio-Demographic Profile



Safai Sathis

- **37%** aged 31–40 years
- **50%** female respondents
- **57%** with no formal education
- **55%** working at dump sites



Community Members

- **32%** aged 36–45 years
- **62%** female respondents
- **41%** graduates or above
- **6%** with no formal education



Children of Safai Saathis

- **65%** aged 5–10 years
- **51%** girls (gender balanced)
- **26%** enrolled in Class 4
- **21%** enrolled in Class 5







Significant Impact Outcomes Documented Across Stakeholder Groups:

Across livelihood, health, safety, social recognition, behaviour change, and education dimensions

1

Livelihood Transformation

Income Stability More Than Doubled

Stable income reporting rose from **26%** to **63%** post-intervention. Safai Saathis' earnings above ₹10,000/month increased from **16%** to **43%**, reflecting meaningful upward income mobility.

2

Workplace Safety & Health

Occupational Vulnerability Significantly Reduced

89% received PPE; **90%** reported a reduction in work-related injuries and illnesses; **91%** now know where to seek medical care – a baseline condition of high vulnerability substantially addressed.

3

Occupational Skill Strengthening

Training Translated into Daily Practice

93% reported increased plastic collection efficiency; **94%** demonstrated improved segregation quality; **92%** consistently applied skills learned during training in daily work.

4

Children's Education & Well-Being

Inter-Generational Vulnerability Addressed

100% school enrolment among children of Safai Saathis; **100%** receiving remedial support; **97%** reported academic improvement – welfare support effectively breaking the cycle of educational exclusion.

5

Environmental Literacy in Schools

Awareness Embedded, Spillover into Homes

Teachers reported programme effectiveness with visible plastic waste reductions on school premises. Students documented influencing parental segregation practices – confirming the household-level spillover effect.

SOCIAL DIGNITY RESTORED

91% Improved social standing

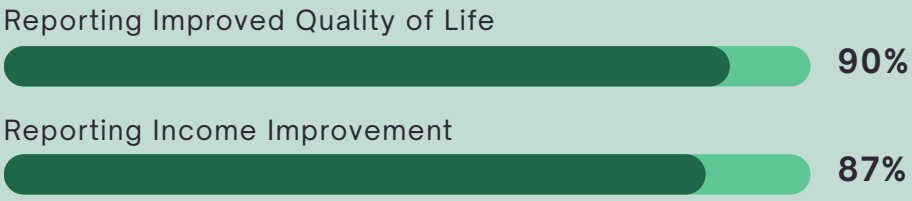
87% Expressed pride in their occupation

85% Confidence in social and institutional interactions

Pre- and Post-Assessment: Community Respect for Safai Saathis

64% to 90%

OVERALL LIFE IMPROVEMENT



COMMUNITY BEHAVIOUR CHANGE AT SCALE



STRATEGIC INSIGHTS

Dignity and Income Are Mutually Reinforcing

- Simultaneous gains in social recognition, occupational pride, and income stability confirm that dignifying the labour of Safai Saathis directly enables livelihood outcomes. Dignity must be treated as a development goal in its own right.

Behaviour Change Is Established, Not Yet Habitual

- While 96% report practising segregation, structural barriers persist -- convenience and limited alternatives constrain full adoption. The programme has created awareness; the next phase must convert adoption into an embedded, system-supported habit.

Children Are an Under-utilised Sustainability Lever

- School interventions showed the strongest spillover evidence -- children influencing parental waste behaviour at home. This intergenerational transmission pathway is the most cost-effective route to long-term community sustainability.

FORWARD-LOOKING RECOMMENDATIONS

Institutionalise Rather Than Conclude

- Simultaneous gains in social recognition, occupational pride, and income stability confirm that dignifying the labour of Safai Saathis directly enables livelihood outcomes. Dignity must be treated as a development goal in its own right.

Address the Supply Side of Behaviour Change

- Persistent single-use plastic reliance reflects limited availability of affordable alternatives. Engage local vendors and community groups to supply reusable alternatives at neighbourhood level.







INTRODUCTION

Plastic pollution has emerged as a defining environmental crisis of the twenty-first century, driven by rapid growth in consumption and systemic mismanagement. An estimated 225 MT of plastic waste was generated globally in 2025, of which nearly one-third remains mismanaged, leading to significant leakage into terrestrial and marine ecosystems (OECD, 2024). The plastic life cycle is further associated with rising greenhouse gas emissions and mounting public health risks (The Pew Charitable Trusts, 2020).

India too represents a critical locus of concern, generating approximately 9.3 MT of plastic waste annually and contributing nearly one-fifth of global mismanaged plastic waste (Jambeck et al., 2023). Official statistics from the Central Pollution Control Board report 3.9 MT per annum for 2022–23; however, evidence suggests underestimation due to gaps in rural reporting and exclusion of informal recovery systems (CPCB, 2023; OECD, 2024). Karnataka, Tamil Nadu, and Telangana are among the highest waste-generating states, with major urban centres recording elevated per capita consumption. Despite regulatory measures, including the Plastic Waste Management Rules (2016, amended in 2022) and the Extended Producer Responsibility framework, recycling rates remain near 60%, and household-level waste segregation remains limited (NITI Aayog, 2023)



The socio-economic dimensions of plastic waste intensify this crisis. India has an estimated 5 million waste collectors, many in the informal sector, who work under precarious and hazardous conditions with limited social protection (ILO, 2023). High prevalence of respiratory ailments, musculoskeletal disorders, and occupational injuries has been documented among waste workers (WHO, 2023).

At the community level, plastic waste obstructs drainage systems, aggravates urban flooding, and contributes to microplastic contamination in river systems such as Ganga and Yamuna (UNEP, 2023). Although awareness initiatives have expanded, behavioural compliance and segregation practices remain uneven across states, reinforcing the need for rigorous impact assessments of plastic waste management programmes

225
Million tonnes of global plastic waste generated

31%
Global plastic waste that is mismanaged

<20%
Indian households practising waste segregation

Up to 95%
Waste workers reporting respiratory health issues

About the Project

In response to persistent governance deficits in plastic waste management -- weak source segregation, limited municipal capacity, uneven community awareness, and the exclusion of informal waste workers – **Dabur India Limited, under its CSR (Corporate Social Responsibility) commitment to environmental sustainability, initiated a multi-partner Plastic Waste Management programme. Implemented in FY 2023-24 through Jivanti Welfare and Charitable Trust and multiple NGO partners, the programme was operational across 19 states and 57 districts, reaching 1,44,820 beneficiaries**, spanning schools, RWAs, and Safai Saathi households through a differentiated engagement architecture oriented towards behavioural compliance, community institutionalisation, and livelihood-linked inclusion.

Within this consortium-based delivery arrangement, the programme was implemented through affiliated partner organisations, including Jivanti Welfare and Charitable Trust, FFCP (@Rekart), Mishra Memorial Trust (@Ecoex), IPCA, IDM (@Recircle), Sarthak Welfare Society (@Mishra), Bal Vikas Dhara, and Nepra Foundation. The programme's spatial footprint -- from Delhi-NCR, Ghaziabad, Gautam Buddh Nagar, Mumbai, Ahmedabad, Ambikapur, and districts in Jammu & Kashmir -- reflects a purposive national strategy enabling context-specific implementation across diverse urban and peri-urban waste ecosystems, while also strengthening cross-site learning and scalability.

The intervention is structured around three linked objectives:



Capacity building of waste collectors and promotion of segregation, recycling, and reuse practices



Welfare support for Safai Saathis' families through PPE distribution, health services (Ayurvedic and Allopathic), nutrition support, and children's educational mainstreaming



Community sensitization through the "My 10 Kg Plastic" campaign covering 300+ RWAs and institutions

Monitoring is anchored in key indicators – trainings conducted, Safai Saathis supported, awareness sessions held, plastic collected, and sustainable alternatives distributed.



Objectives

The study therefore sought to provide a systematic, field-grounded evaluation of programme performance, outcome trajectories, and its contribution to strengthening inclusive and sustainable plastic waste management systems.

01. Capacity Building Effectiveness

Assess the effectiveness of capacity building initiatives for waste collectors in improving segregation, collection, and recycling practices

02. Community Awareness & Behaviour

Evaluate changes in community awareness and behaviour regarding plastic waste management, particularly through the 'My 10 Kg Plastic' campaign

03. Ragpicker Welfare Improvements

Measure improvements in ragpicker welfare across health, livelihood, dignity, and welfare scheme access dimensions

04. School Programme Reach

Assess the reach and effectiveness of awareness programmes in schools and their influence on household behaviour

05. Implementation Quality

Document implementation quality and identify best practices across NGO partners for programme strengthening

Assessment Frameworks

The impact assessment was guided by the Sustainable Livelihoods Framework, the Behaviour Change Framework, and the OECD-DAC Evaluation Criteria to ensure a comprehensive and structured evaluation of programme outcomes. Together, these frameworks facilitated systematic analysis of livelihood improvements, behavioural transformation processes, and alignment with broader policy and institutional objectives.

Multi-Framework Impact Evaluation

Sustainable Livelihoods Framework

The Sustainable Livelihoods Framework is applied to assess changes in Safai Saathis' welfare, examining transformations across five livelihood capitals:

- **Human Capital:** Access to health services, use of safety equipment, and improvement in knowledge and skills
- **Financial Capital:** Income stability, enrollment in welfare schemes, and savings behaviour
- **Social Capital:** Enhanced dignity, community recognition, and reduction in social stigma
- **Physical Capital:** Availability and use of safety gear, work tools, and access to supporting infrastructure
- **Natural Capital:** Cleaner working environments and reduced occupational and environmental hazards

Behaviour Change Framework

The Behaviour Change Framework is applied to assess community and RWA-level outcomes, particularly in relation to plastic waste segregation and disposal practices. The framework traces the awareness-to-action pathway through the following stages:

- **Knowledge Acquisition**
- **Attitude Formation**
- **Practice Adoption**
- **Sustained Behaviour Change**



OECD-DAC Evaluation Criteria

The OECD-DAC evaluation criteria further guide the assessment to ensure relevance and policy alignment:

- **Relevance:** Alignment of the programme with the plastic waste crisis and Safai Saathis' vulnerabilities
- **Effectiveness:** Achievement of intended awareness, behaviour change, and welfare outcomes
- **Efficiency:** Quality of programme delivery and utilisation of resources
- **Impact:** Broader and longer-term changes in Safai Saathis welfare and community practices
- **Sustainability:** Durability of behaviour change and institutional capacity building
- **Coherence:** Alignment with the Swachh Bharat Mission and national plastic waste management policies

Framework	Focus	Components	Application
Sustainable Livelihoods Framework	Livelihood transformation assessment	Human, Financial, Social, Physical, Natural Capital	Assesses multi-dimensional changes in Safai Saathis' welfare across five livelihood capitals.
Behaviour Change Framework	Behavioural change pathway	Knowledge, Attitude, Practice, Sustained Behaviour	Evaluates shifts in community hygiene practices from awareness to sustained behaviour change.
OECD-DAC Evaluation Criteria	Programme performance evaluation	Relevance, Effectiveness, Efficiency, Impact, Sustainability, Coherence	Measures programme relevance, effectiveness, efficiency, impact, sustainability, and coherence.

Table 1: Analytical frameworks guiding the impact assessment












0.730
0-10kg: d=5g
10-50kg: d=10g


SARTHAK WELFARE SOCIETY
सूखा कचरा प्रबंधन पर कार्यशाला





Assessment Indicators

Assessment Objectives	Framework Components	Assessment Indicators
1. Capacity Building Effectiveness	OECD-DAC: Effectiveness, Efficiency Sustainable Livelihoods Framework: Human Capital, Physical Capital	Knowledge gained; use of safety equipment and tools; improved waste handling practices; access to infrastructure and work-related resources; perceived improvement in skills and occupational safety.
2. Community Awareness and Behaviour	Behaviour Change Framework: Knowledge → Attitude → Practice → Sustained Behaviour OECD-DAC: Relevance, Impact	Awareness of segregation practices; participation in campaign activities; reported behaviour change at household/RWA level; adoption of plastic segregation and disposal practices; continuity of behaviour change.
3. Ragpicker Welfare Improvements	Sustainable Livelihoods Framework (Five Capitals): • Human Capital • Financial Capital • Social Capital • Physical Capital • Natural Capital OECD-DAC: Impact	Health service access; income stability and livelihood security; perceptions of dignity and social recognition; access to safety gear and work environment improvements; reduced occupational risks.
4. School Programme Reach	Behaviour Change Framework OECD-DAC: Effectiveness, Sustainability	Student awareness of plastic waste management; school engagement; diffusion of awareness to households; observed behaviour changes influenced by children; continued practice beyond programme period.
5. Implementation Quality	OECD-DAC: Efficiency, Coherence, Sustainability	Delivery mechanisms across partners; coordination with RWAs, schools, and communities; alignment with Swachh Bharat Mission and waste policies; operational challenges and enabling factors; scalability and continuity potential.

Table 2: Assessment indicators











ASSESSMENT METHODOLOGY



Study Design

The assessment adopted a mixed-methods evaluation design, integrating quantitative and qualitative approaches to generate a comprehensive understanding of programme processes, reach, and outcomes. This design enabled triangulation of findings by combining perception-based survey data with in-depth narratives from key stakeholders. The approach was primarily cross-sectional, capturing programme status and stakeholder experiences at the time of assessment, while also reflecting on changes perceived over the implementation period. Criteria to ensure a comprehensive and structured evaluation of programme outcomes. Together, these frameworks facilitated systematic analysis of livelihood improvements, behavioural transformation processes, and alignment with broader policy and institutional objectives.

Data Collection Methods

A combination of quantitative and qualitative methods was employed to provide a holistic understanding of programme outcomes.

Quantitative Component: Structured surveys were administered to Safai Saathis and community members to gather standardised information on participation, awareness, access to services, and perceived changes associated with the intervention.

Qualitative Component: Semi-structured interviews with children of Safai Saathis explored welfare support received due to their parents' occupation, including healthcare, education, and related assistance. Focus Group Discussions with Safai Saathis and school-going children examined awareness levels and shared experiences. Key informant interviews with programme stakeholders provided insights into implementation processes and delivery mechanisms.

Mixed-Methods Integration: The study employed methodological triangulation by integrating findings from quantitative and qualitative methods, enabling validation of trends and strengthening interpretation of results.

Sampling Approach

A purposive sampling strategy was adopted across all components of the study. Respondents were selected based on their direct engagement with the programme and their ability to provide contextually relevant insights aligned with the study objectives.

Sample Size

The study covered both quantitative and qualitative respondent groups. The final sample sizes will be inserted in the tables below.

Quantitative Sample

Respondent Category	Method	Sample Size (n)
Safai Saathis	Survey	155
Community Members	Survey	139
Total Sample Size		**294**

Table 3: Quantitative sample size

Qualitative Sample

Respondent Category	Method	Sample Size (n)
Children of Safai Saathis	SSI	43
Community Members	FGD	3
School Children	FGD	2
Safai Saathis	IDI	3
Teachers	KII	2
NGO staff	KII	3
Total Sample Size		**56**

Table 4: Qualitative sample size

The assessment was conducted approximately two years after programme implementation. By this time, a portion of the original Safai Saathis cohort was no longer accessible or actively engaged with the programme. Tracing all original beneficiaries was therefore not feasible, and the sample was limited to those who remained contactable during fieldwork.

Data Collection Plan

Stakeholder Group	Data Collection Tool	Key Themes Covered
Safai Saathis	Structured Survey	Awareness of programme, access to services, occupational conditions, perceived benefits
Community Members	Structured Survey	Community awareness, programme relevance, perceived community-level change
Safai Saathis	Case Studies	Lived experiences, occupational realities, programme impact
Children of Safai Saathis	Semi-Structured Interviews (SSI)	Educational access and continuity, healthcare access, welfare support, perceived changes
Community Members	Focus Group Discussions (FGDs)	Collective perceptions, community-level change, programme relevance
School-going Children	Focus Group Discussions (FGDs)	School engagement, learning experiences, observed outcomes
NGO Staff	Key informant interviews (KII)	Programme implementation, delivery mechanisms, operational reflections
Teachers	Key informant interviews (KII)	School-level engagement, observed changes among participating children

Table 5: Data collection plan



Data Analysis

Quantitative data were cleaned to address missing values, data entry errors, and inconsistencies, followed by validation checks to ensure accuracy and completeness of the dataset. The cleaned data were then analysed using Microsoft Excel, applying descriptive statistical techniques such as frequencies and percentages to summarise participation, awareness levels, and perceived outcomes across respondent groups. This provided an empirical basis for interpreting programme reach and response patterns.

Qualitative data were derived from audio recordings, which were transcribed and translated where required, and subsequently cleaned to ensure clarity and consistency. The refined transcripts were then coded using Atlas.ti following a thematic analysis approach. Codes were organised into thematic categories aligned with the study objectives, enabling identification of recurring patterns, contextual factors, and stakeholder experiences.

Integration of quantitative and qualitative findings was undertaken through triangulation. Convergences between datasets were used to validate outcomes, while variations were examined to understand contextual nuances, ensuring that quantitative trends were substantiated by experiential narratives.



Data Quality Assurance

Standardised protocols ensured data completeness, accuracy, and consistency. Field teams received training and supervision, while validation, cleaning, and periodic audits maintained reliability. All procedures were documented, with safeguards for confidentiality and anonymity.



Ethical Consideration

The participants were informed about the study and provided verbal consent, with assurances of confidentiality and the right to withdraw. Sensitive topics were avoided, and permission was obtained for recordings and photographs, in line with UNICEF (2021) ethical guidelines.

Data Collection Limitations

Sample Attrition: The assessment was conducted approximately two years after programme implementation. By this time, a portion of the original Safai Saathis cohort was no longer accessible or actively engaged with the programme. Tracing all original beneficiaries was therefore not feasible, and the sample was limited to those who remained contactable during fieldwork. This attrition reflects normal changes in participant availability over time rather than programme disengagement, and findings should be interpreted accordingly.

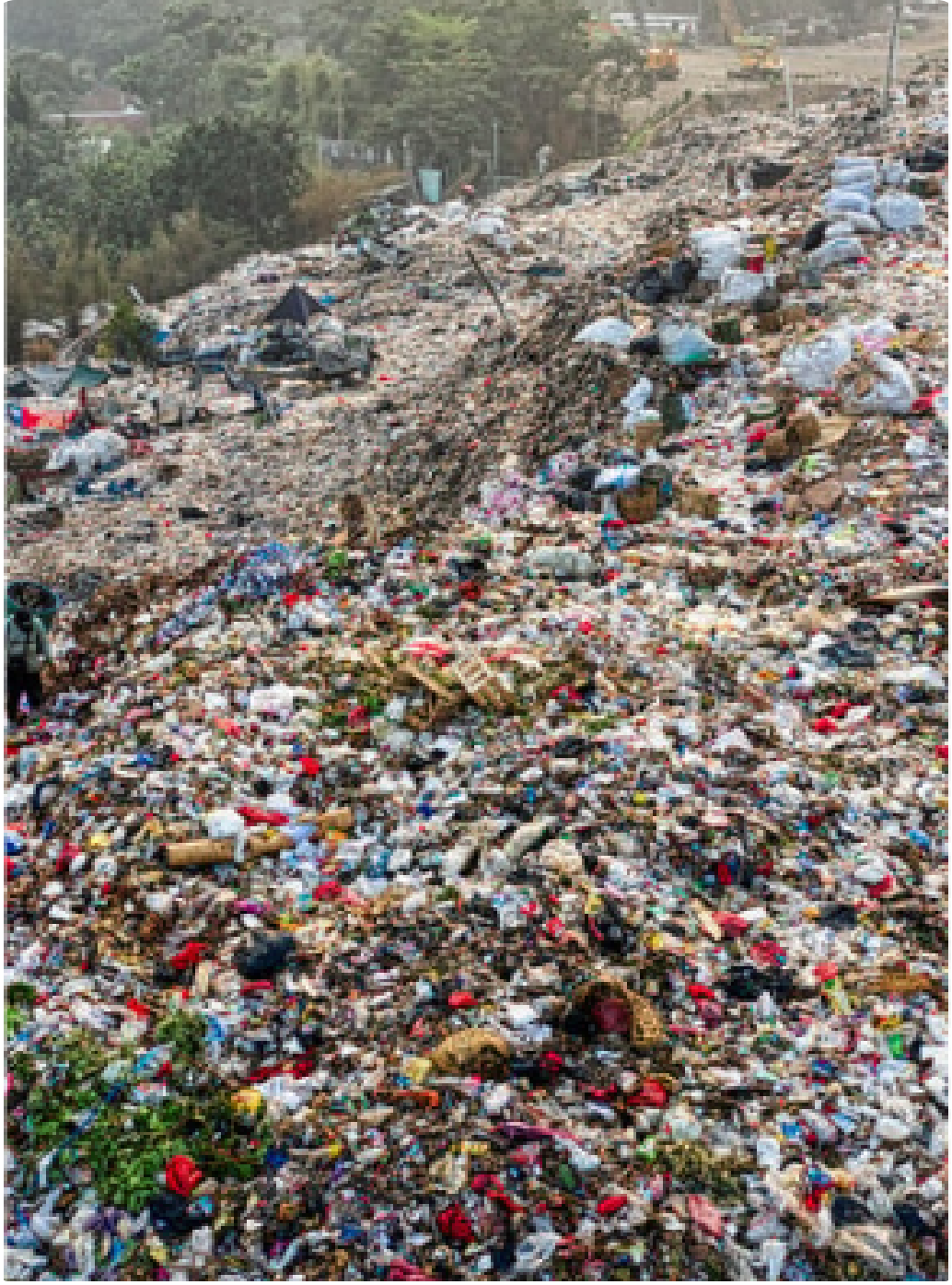
Potential recall bias: Given the retrospective nature of the assessment, findings relied on respondents' recollection of programme experiences. The time elapsed since implementation may have affected the accuracy or completeness of responses for some participants, thereby introducing the possibility of recall bias.

















Activities to Support Plastic Waste Management

FINDINGS

This chapter presents the findings of the impact assessment across the key stakeholder groups engaged in the Plastic Waste Management Programme, as detailed in the Inception Report. The primary focus is on Safai Saathis -- examining changes in livelihood security, health, income stability, and social recognition. Findings among children of Safai Saathis address educational continuity and well-being. School-based initiatives are assessed for knowledge gains and influence on household practices. The assessment examined community members to evaluate shifts in segregation behaviour, cooperation with waste workers, and perceived improvements in local cleanliness.

Socio-Demographic Profile

Profile of Safai Saathis Respondents	
Age Group	The majority of Safai Saathis (**37%**, n = 58) fall within the 31–40 years age group, followed by **27%** (n = 42) aged 21–30 years. Together, these two cohorts reflect strong representation from economically active, mid-career workers.
Gender	Gender distribution is nearly equal, with **50%** female (n = 77) and **50%** male (n = 78), reflecting balanced participation in waste work activities.
Education	Educational attainment remains low. **57%** (n = 88) reported no formal schooling, and **28%** (n=44) completed only primary education. Only **4%** (n = 6) reached undergraduate level or above. This underscores limited formal educational access within the workforce.

Table 6: Profile of Safai Saathis

Overall, Safai Saathis predominantly belong to the prime working-age population and show balanced gender representation. However, low formal educational attainment remains a defining characteristic of the workforce. This highlights structural vulnerabilities that persist within this occupational group.

A substantial majority (**79.4%**, n = 123) reported working as Safai Saathis for 1–10 years, indicating relatively recent or mid-term engagement. A smaller proportion has longer tenure: **11%** (n = 17) have worked for 11–20 years, and **7.1%** (n = 11) for 21–30 years.

Primary Work Location of Safai Saathis

55% Dump Site

41% Street Work

34% Society-Based

16% MRF Centre

Safai Saathis reported working across multiple locations depending on waste availability and collection patterns. The findings indicate that **55%** work at dump sites, **41%** of Safai Saathis reported street-based collection and while **34%** operate in residential societies. Only **16%** reported working at Material Recovery Facilities (MRFs), suggesting relatively low engagement with formalised waste management infrastructure.

Profile of Children of Safai Saathis	
Age Group	The majority of children (**65.12%**) fall within the 5–10 years age group, followed by **32.56%** aged 11–15 years, indicating that programme support largely reaches children in early and middle childhood. Only **2.33%** are aged 16–20 years.
Gender	Gender distribution is balanced, with **51%** girls (n = 22) and **49%** boys (n = 21), reflecting equitable representation in programme engagement.
Education	In terms of educational level, most children are enrolled in primary grades, particularly Class 4 (**26%**) and Class 5 (**21%**), suggesting strong participation at the foundational schooling stage. Overall, the profile reflects early-stage educational engagement among children of Safai Saathis.

Table 7: Profile of Children of Safai Saathis

Overall, the socio-demographic profile indicates that the programme predominantly supports children in primary school age groups with balanced gender representation.

Profile of Community Members	
Age Group	The largest proportion of respondents (**32%**, n = 44) falls within the 36–45 years age group. This is followed by **27%** (n = 37) aged 26–35 years and **26%** (n = 36) aged 46–60 years. Together, these groups indicate that community perceptions are largely represented by middle-aged adults.
Gender	Women constitute the majority of respondents at **62%** (n = 85), while men account for **38%** (n = 53), indicating stronger female participation in discussions related to household waste management.
Education	Educational attainment is relatively high, with **41%** (n = 56) reporting graduate-level education or above. Only **6%** (n=8) reported no formal schooling, reflecting a comparatively educated respondent base.

Table 8: Profile of community members

Overall, the community respondent profile reflects predominantly middle-aged, educated individuals, with strong female representation. The occupational distribution, particularly the high proportion of homemakers.



Plastic Identification and Segregation Practices

Building on the training and capacity-building initiatives, this section examines participants' knowledge, confidence, and practical application of plastic waste identification and segregation.

Knowledge and Confidence in Plastic Identification

The data indicate high levels of self-reported confidence in identifying different types of plastic waste. **89%** of Safai Saathis (n = 139) reported confidence in distinguishing plastic categories. Only **7%** (n = 10) expressed disagreement, and **4%** (n = 6) remained neutral.

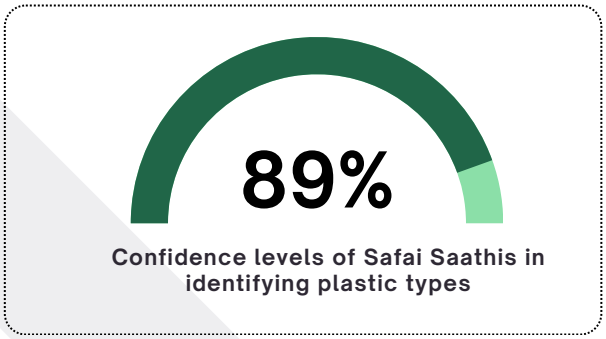


Fig 1: Confidence levels of Safai Saathis in identifying plastic types

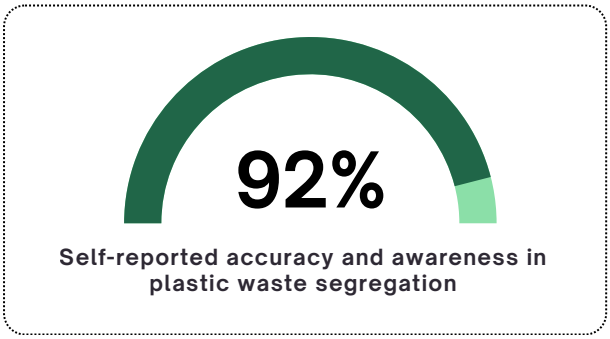


Fig 2: Self-reported accuracy and awareness in plastic waste segregation

Similarly, correct segregation during collection was widely reported. **92%** of Safai Saathis (n = 143) reported correct segregation during collection. Only **2%** disagreed, and **6%** were neutral. Awareness of the environmental importance of segregation was equally strong as **94%** (n = 146) affirmed its importance, with negligible disagreement (**1%**).

In Their Own Words

> I collect plastics separately, sort them by category, and ensure they are free from food waste and contamination.
>
> - Safai Saathi, Uttarakhand

> Manual segregation of the plastic waste, use of a machine for segregation, use of the conveyor belt and the baling machine.
>
> – Safai Saathi, Mumbai

> Yes, I used to do segregation. My work was to separate different materials – plastic, wood, metal, and glass. Later, I worked with paper, cloth, and white materials. After that, I handled plastic, and now I work with PET.
>
> – Safai Saathi, Mumbai

Work Practices and Occupational Changes

The programme included training sessions to improve collection efficiency, strengthen plastic segregation practices, and enhance occupational skills among Safai Saathis.

Perceived Increase in Collection Efficiency: A substantial majority of respondents (**93%**) reported that the quantity of recyclable plastic collected has increased since the training (**79%** agree; **14%** strongly agree). Only **1%** expressed disagreement, while **6%** remained neutral. These findings suggest a strong perceived improvement in collection efficiency.

Improvement in Plastic Segregation Quality After Training: The findings indicate a strong positive impact of the training programme on plastic segregation quality. A substantial majority of respondents (**94%**) either agreed (**74%**) or strongly agreed (**20%**) that their segregation practices improved following the training. Only a minimal proportion expressed disagreement (**3%**) or strong disagreement (**1%**), while **3%** remained neutral.

Integration of Training into Daily Work Practices: A total of **92%** of Safai Saathis (**73%** agree; **19%** strongly agree) reported regularly applying the skills learned during training in their daily work. Only **2%** disagreed, while **6%** neither agreed nor disagreed. The findings indicate a high degree of skill adoption and practical integration into routine occupational activities.

Training Impact on Work Practices

- **93%** reported increased plastic collection
- **94%** reported improved segregation quality
- **92%** regularly use learned skills

The qualitative data suggest that the training substantially enhanced participants' technical competencies, particularly in plastic segregation and waste-sorting practices. A significant proportion of Safai Saathis reported acquiring new skills through training. These included identifying plastic types and grades, segregating wet and dry waste, and differentiating plastic from materials such as glass, iron, cardboard, and paper. Several Safai Saathis also indicated gaining familiarity with equipment such as conveyor belts and baling machines, reflecting exposure to more systematic waste-processing operations. Narrative accounts also pointed to improvements in safe handling, workplace hygiene, teamwork, and time management. A minority reported no new learning. Overall, the qualitative evidence indicates meaningful skill acquisition consistent with the programme's capacity-building objectives.

In Their Own Words

> Segregation of plastic waste and non-plastic waste, like cardboard, glass, iron, and paper. Even the plastic varies like hard plastic and soft plastic, are segregated.
>
> - Safai Saathi, Mumbai

> I have learned safe waste handling, teamwork, time management and improved communication with the public.
>
> -Safai Saathi, Uttarakhand

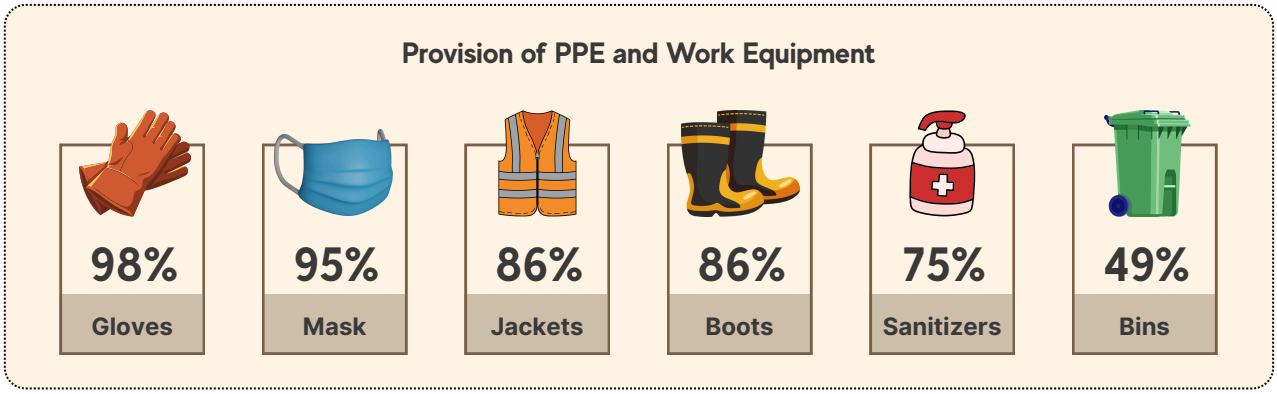


> I learned teamwork, time management, safe lifting, problem-solving, route planning, environmental awareness, reliability, communication, and maintaining health and safety standards.
>
> -Safai Saathi, Uttarakhand

Access to PPE and Improvement in Work Environment

The Dabur-supported programme provided Safai Saathis with PPE, workrelated items, and training on proper use. The intervention aimed to improve workplace safety, operational efficiency, and working conditions. The following analysis covers distribution, perceived usefulness, and tool access.

Distribution of PPE and Work-Related Items: A majority of Safai Saathis (n = 138, **89%**) reported receiving PPE or work-related items, while 17 Safai Saathis (**11%**) did not. Among recipients:



This distribution reflects comprehensive coverage of essential protective items, ensuring Safai Saathis were adequately equipped to perform tasks safely and efficiently. Only a small proportion (n = 5, **4%**) received other items specified by respondents.

Perceived Effectiveness of PPE in Ensuring Safety: 87% of respondents (n = 138) reported that the PPE enhances their safety – **76%** agreed and **11%** strongly agreed. Only **6%** disagreed, and **7%** were neutral. The near-universal positive response reflects strong confidence in the protective value of the equipment provided.

Access to Tools and Equipment for Work Performance: 84% of respondents (n = 130) reported access to the tools and equipment needed for their work – **70%** agreed and **14%** strongly agreed. However, **9%** disagreed, indicating a residual gap. Overall resource access is adequate, though consistency in equipment provision warrants further attention.

Improvements in Working Environment: 89% (**74%** agreed and **15%** strongly agreed) of Safai Saathis (n = 138) reported a cleaner and safer working environment post-intervention, compared to pre-programme conditions, where **50%** reported frequent occupational health problems, and PPE access was non-existent for a majority of the cohort. Only **11%** reported no noticeable change in working conditions, indicating near-universal perceived improvement.

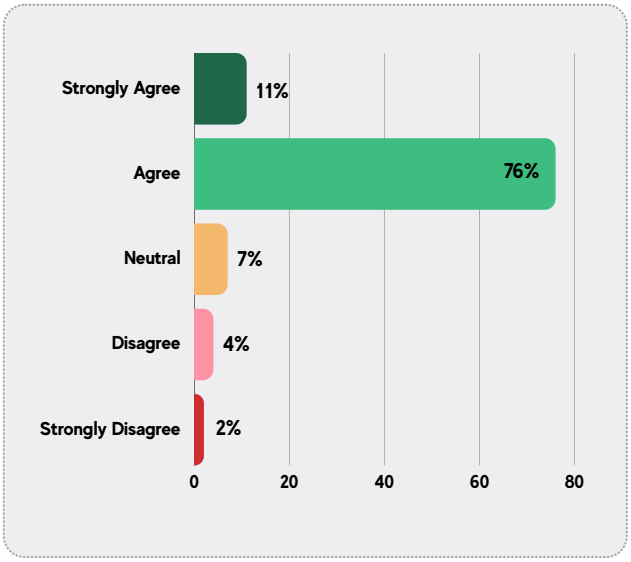


Fig 3: Perceived effectiveness of PPE in ensuring safety

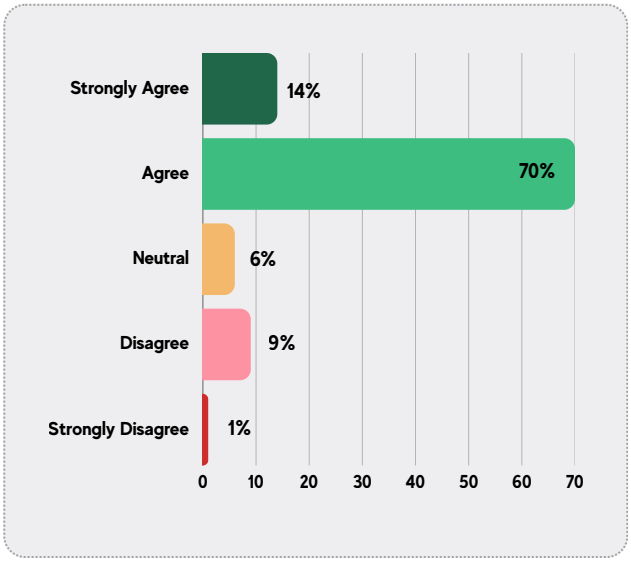


Fig 4: Access to tools and equipment for work performance

The Dabur-supported programme effectively enhanced participants' access to PPE and essential tools, resulting in improved workplace safety, operational efficiency, and cleaner, safer working conditions. The findings indicate that targeted provision of equipment, coupled with practical training, successfully addressed resource gaps and strengthened occupational practices.

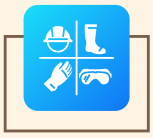
> Now, I am working here as a cleaner. When I wear a cap, jacket, hand gloves, mask, and shoes, and go out of the house in a proper cleaner's uniform, people see me in a good light. Now, I am respected in society. People even greet me.
>
> - Safai Saathi, Madhya Pradesh

Safai Saathis identified specific gaps in tools, PPE, and working conditions. The most frequently cited concerns were durability and timely replacement of PPE (raised by a majority of respondents highlighting improvement needs), followed by requests for additional equipment such as hand rakes, shovels, and carts. Financial support – including emergency advances and salary increments – was cited as a priority by a substantial proportion, while improvements to workplace safety infrastructure (safer collection points, cleaner sorting areas) were mentioned by a smaller but consistent subset.

Key Areas for Improvement



Financial Support: Emergency advances, loans, and salary increments.



PPE & Tools: More durable and well-maintained gloves, boots, masks, jackets, and kits.



Additional Equipment: Hand rakes, shovels, carts, boxes, and baling machines.



Workplace Safety: Safer collection points, clear safety markings, and better route planning.



Hygiene: Cleaner, organised sorting and collection areas.



Health and Well-Being

The programme supported participants' health and well-being through medical interventions and awareness initiatives. Not all Safai Saathis received direct medical support — but those who did reported notable improvements in health outcomes and knowledge of medical resources. This section covers work-related health challenges, support received, and post-programme health outcomes.

Work-Related Health Challenges Before the Programme: At baseline, work-related health concerns were substantial. Half of the respondents (n = 77; **50%**) agreed or strongly agreed that they frequently experienced health problems due to their work. In contrast, **42%** (n = 66) disagreed or strongly disagreed, while **8%** (n = 12) remained neutral. These findings indicate a considerable burden of occupational health risks before programme implementation.

Access to Health Support

Partner NGOs integrated health support components into the programme in selected locations where such services formed part of the agreed project scope. In locations where health services formed part of the aligned activities, support was provided; in others, it was outside the defined scope of implementation.

Overall, 86% of Safai Saathis (n = 133) reported receiving some form of health-related assistance. Among these, support included medical camps (**92%**), distribution of medicines (**84%**), OPD consultations (**57%**), and health advice or counselling (**68%**). The remaining Safai Saathis (**14%**) did not report receiving direct health support, reflecting variation in programme design rather than a service gap. Medical support was delivered selectively through partner NGOs, not universally.

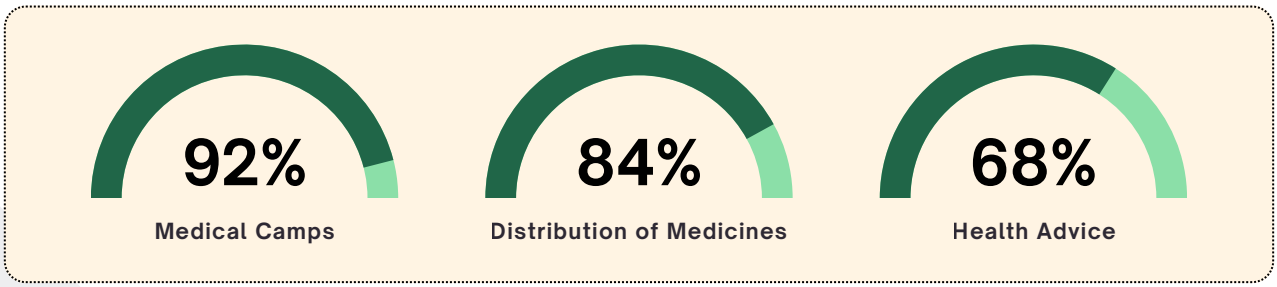


Fig 5: Access to health support

Post-Programme Health Outcomes

Post-programme health outcomes show a marked improvement relative to baseline vulnerability. At baseline, **50%** of Safai Saathis (n = 77) reported frequent work-related health problems. Post-intervention, **90%** (n = 140) reported a reduction in work-related injuries or illnesses, and **77%** (n = 120) reported improved overall health – representing a substantial positive shift from the elevated occupational health burden documented before the programme.

In Their Own Words

> Earlier, there were problems, but now there are improvements. I am getting facilities. Earlier, I had no facilities; now I get them from here, so my health is good.
>
> – Safai Saathi, Satna

> Yes, there used to be problems. I had to go to different doctors for medicines, and I had no money. I was helpless. But now I have the right medicine because I have the job.
>
> – Safai Saathi, Satna

> For health, they have received two cards. One for ESIC and one for Ayushman Bharat. Ayushman Bharat was given to them last year... Apart from this, they have ESIC, PF, and government welfare schemes. And they have an account – they have a life insurance of ₹12,000 and risk coverage of ₹2 lakhs.
>
> – NGO Staff, Mumbai

> I get medicines. I get everything – iron supplements. I get everything. I also get a dastan [apron/protective cloth] to wear.
>
> – Safai Saathi, Satna

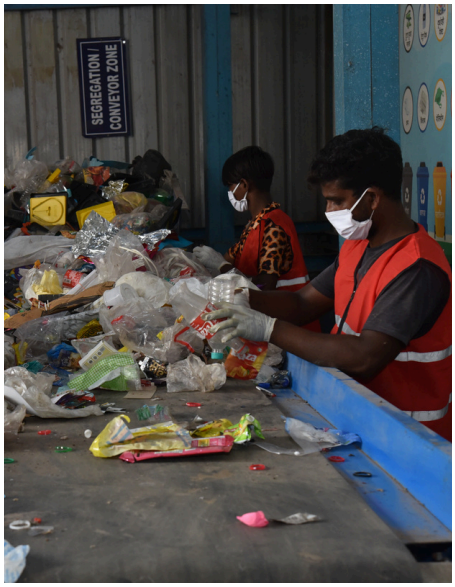
Social Recognition and Professional Dignity of Safai Saathis

This section examines changes in community attitudes, perceived respect, and self-efficacy among Safai Saathis – covering both external social validation and internal confidence outcomes.

Perceived Respect: Baseline vs. Current Status

Community respect for Safai Saathis increased by **26%** points – from **64%** (n = 99) at baseline to **90%** (n = 140) post-programme. Equally significant is the collapse in negative and neutral responses: those who disagreed or were neutral fell from **36%** (**18%** neutral + **18%** disagreement) to negligible levels, indicating a broad attitudinal shift rather than movement at the margins.





Pride in Work

Consistent with the **26%** point improvement in perceived community respect, occupational pride and confidence indicators are also strong post-programme. **87%** of Safai Saathis (n = 134) reported feeling proud of their work, with only **4%** disagreeing.

Confidence in Social and Institutional Interactions

Confidence levels were similarly strong, with **85%** of Safai Saathis (n = 133) agreeing or strongly agreeing that they feel confident interacting with community members and authorities. Only **3%** reported low confidence, while **11%** remained neutral. This suggests improved communication capacity and greater institutional comfort – outcomes likely reinforced by training and enhanced community recognition. Stronger confidence in stakeholder engagement may also contribute to improved service delivery over time.

Perceived Change in Social Recognition

A large majority (**91%**; n = 141) reported that their social recognition had improved following programme participation. Very few respondents expressed disagreement (**1%**). This indicates a perceived elevation in social standing and public acknowledgement. Pride, confidence, and perceived respect all improved consistently. Together, they demonstrate that the programme's impact extends beyond operational gains to measurable social empowerment.

Qualitative responses provide contextual depth to the quantitative finding that **91%** of Safai Saathis (n = 141) reported improved social recognition post-programme. Across qualitative data, a large majority of participants described experiencing greater respect from community members, citing specific interpersonal changes: being greeted respectfully, having their work acknowledged, and feeling valued in public spaces. These narratives corroborate the **26% point increase** in perceived community respect documented quantitatively (**64% baseline → 90% post-intervention**).

A recurring theme – cited by a majority of respondents who discussed social change – was the direct linkage between improved professional conduct and enhanced social recognition. Visible improvements in professional conduct and hygiene appear to have redefined how Safai Saathis see their own occupation – reinforcing dignity and legitimacy. Several respondents connected this to a stronger personal identity, describing themselves as now feeling '**valued**', '**recognised**', and '**confident**'. In some cases, respondents linked improved socio-economic conditions to better societal perception – pointing to a reinforcing dynamic between economic stability and social status.

In Their Own Words

> When someone talks to us politely, we feel it with love. Earlier, people used to think that we only did dirty waste work and did not look at us with respect. But now, when they see us, we start receiving respect. It is a good thing.
>
> – Safai Saathi, Satna

> People used to laugh at us. They used to ask where we were going and how we were getting there. But now we go to collect the earnings, and we are doing the right thing.
>
> – Safai Saathi, Satna

> While working, I gained recognition, and now I have a good identity.
>
> – Safai Saathi, Delhi

> Received recognition in the community for working with cleanliness.
>
> – Safai Saathi, Delhi

> There is a lot of change from before; people recognise us.
>
> – Safai Saathi, Delhi

> People now recognise and value the work we do, showing more respect and appreciation for keeping the community clean.
>
> – Safai Saathi, Uttarakhand

> The programme helped people recognise our role, making us feel valued and respected.
>
> – Safai Saathi, Uttarakhand



Economic Stability and Income Outcomes

This section presents baseline-to-post-intervention changes in income stability, earnings distribution, and financial security among participants.

Baseline Income Vulnerability:

Before the programme, income stability was limited. A majority of respondents (n = 96; **62%**) disagreed or strongly disagreed that their income from waste work was stable, while only 41 participants (**26%**) agreed or strongly agreed. Eighteen participants (**12%**) were neutral. These findings indicate significant baseline income insecurity.

Income distribution further reflects this vulnerability. Before the intervention, 107 participants (**69%**) earned ₹7,500 or below per month, including 34 participants (**22%**) earning below ₹5,000. Only 25 participants (**16%**) reported earning above ₹10,000, highlighting concentration in lower income brackets.

Post-Programme Income Stability, Growth:

Post-intervention, income stability improved. A combined 98 participants (**63%**) now report stable income (agree/strongly agree), compared to 41 participants (**26%**) at baseline. Those reporting instability reduced to 30 participants (**19%**), while 27 participants (**17%**) remained neutral.

Income distribution shows upward movement across brackets. The proportion earning below ₹5,000 declined from 34 participants (**22%**) to 10 participants (**6%**). Meanwhile, those earning above ₹10,000 increased from 25 participants (**16%**) to 66 participants (**43%**). The ₹7,501-₹10,000 category now includes 67 participants (**43%**), representing a shift from the lowest income bands.

Indicator	Pre-Programme	Post-Programme
Reporting stable income	26% (n = 41)	63% (n = 98)
Reporting income instability	62% (n = 96)	19% (n = 30)
Earning above ₹10,000/month	16% (n = 25)	43% (n = 66)
Earning below ₹5,000/month	22% (n = 34)	6% (n = 10)
Earning ₹7,500 or below/month	69% (n = 107)	14% (n = 22)

Table 9: Income mobility and livelihood stability– Baseline vs. Post-Intervention



Programme Perception and Overall Life Improvement

Participant responses indicate a strong, consistent positive perception of the programme. Around **91%** (n = 141) reported that the programme improved their quality of life; only **3%** (n = 4) disagreed. These gains extend beyond income – participants reported improvements in dignity, household stability, and daily living conditions.

87% of participants (n = 136) reported income improvement compared to pre-programme levels. Income stability increased from **26%** (n = 41) to **63%** (n = 98); those earning above ₹10,000/month nearly tripled, from **16%** (n = 25) to **43%** (n = 66); and those earning below ₹5,000/month declined sharply from **22%** (n = 34) to just **6%** (n = 10). Income instability correspondingly fell from **62%** to **19%**, confirming that the perceived gains reflect measurable upward movement across income brackets.

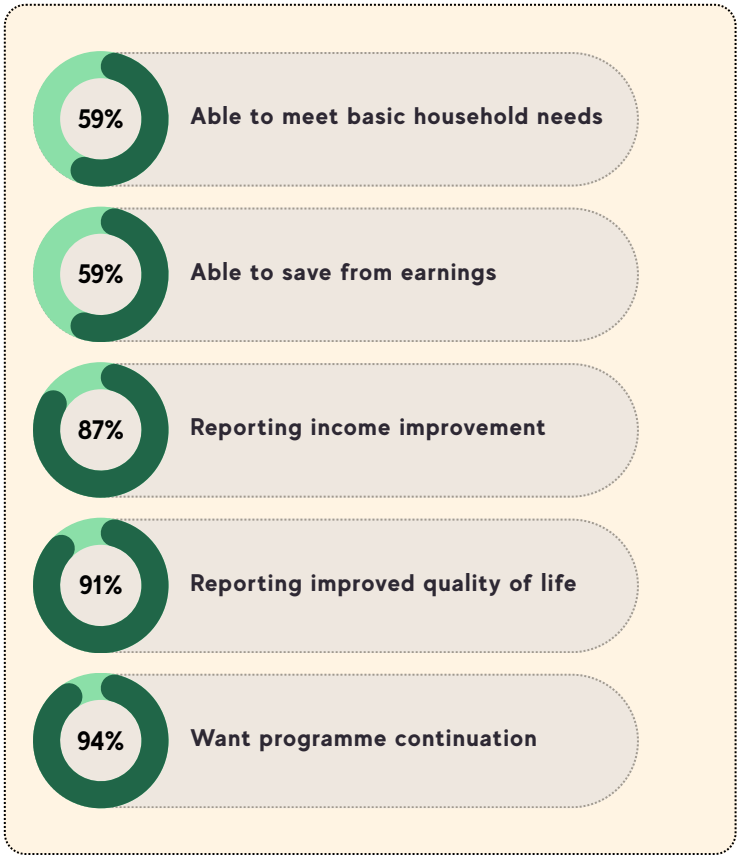


Fig 6: Programme perception and overall life improvement





Programme endorsement is notably strong. An overwhelming 146 participants (**94%**) expressed their desire for the programme to continue in their community. Such high continuation support reflects beneficiary satisfaction, perceived relevance, and trust in the programme's long-term value. Sustainability perceptions are similarly positive. A total of 119 participants (**77%**) reported confidence in their ability to continue this work in the future. This suggests strengthened occupational security and forward-looking stability.

Qualitative narratives affirm that income improvement was the most significant and consistently experienced positive change. Participants described tangible shifts in household stability and detailed how higher and more reliable earnings transformed daily life. These accounts reinforce the quantitative finding that 87% (n = 136) reported increased income, including a shift from 22% earning below ₹5,000/month at baseline to 43% earning above ₹10,000/month post-intervention.

Skill development emerged as another key outcome. Respondents described adopting structured segregation practices, improved hygiene standards, and safer handling methods, aligning with the quantitative result that **94%** reported improved segregation quality.

Dignity and social recognition were also prominently articulated. Participants reported feeling "respected" and "recognised" within their communities, attributing this shift to visible professionalisation – including uniforms, cleaner practices, and formalised work structures. These narratives substantiate the finding that **91%** (n = 141) experienced improved social recognition.

Regarding workplace safety, participants emphasised reduced exposure to injuries and hazardous materials, expressing greater confidence in their work environment. The provision of PPE was repeatedly cited as transformative, reinforcing both physical protection and professional identity. This aligns with the quantitative finding that **89%** (n = 138) reported cleaner and safer working conditions post-intervention.







Case Studies

Case Study - 1: Strengthening Livelihood Stability and Social Recognition – Satna, Madhya Pradesh

A Safai Saathi from Satna, Madhya Pradesh, previously earning approximately ₹5,000 per month through low-volume waste collection, reported limited savings and financial strain. With programme-linked aggregation support, training in segregation quality, and access to tools, monthly income increased to nearly ₹15,000. Savings rose to ₹7,000-8,000. Improved safety practices contributed to better occupational health. The respondent noted enhanced community respect and strengthened self-worth associated with income growth.

Case Study 2: Incremental Livelihood Security and Health Access – Satna, Madhya Pradesh

A female Safai Saathi from Satna, Madhya Pradesh, described earlier conditions of irregular work, constrained earnings, and difficulty accessing medicines or schooling support for her children. Current monthly earnings average ₹4,000, enabling modest savings of approximately ₹1,500. Access to PPE, iron supplements, and medical assistance reduced work-related health vulnerabilities. Stable income has supported children's education and essential household expenditures. The participant reported greater autonomy in continuing work and improved social acceptance.

Case Study 3: Household Resilience and Welfare Improvement – Satna, Madhya Pradesh

A Safai Saathi from Satna, Madhya Pradesh, previously experienced food insecurity, irregular employment, and inability to afford healthcare or educational expenses. With programme engagement, monthly income increased to approximately ₹9,000, allowing savings of ₹2,000-3,000. Regular work opportunities and health outreach services improved both financial and human capital indicators. Children's school attendance has stabilised, reflecting strengthened household security. The respondent indicated a gradual shift from stigma toward greater community respect.

Case Study 4: Occupational Mobility and Skill Diversification – Mumbai, Maharashtra

A 21-year-old Safai Saathi from Mumbai, Maharashtra, initially engaged in basic segregation activities with limited growth prospects. Through structured training and supervisory mentorship, he transitioned into truck driving and marketing roles. Current earnings are approximately ₹15,000 per month, alongside access to ESIC, Ayushman Bharat, PF, insurance coverage, and salary advance facilities. Enhanced skills and formal entitlements have strengthened financial stability and workplace confidence. The respondent reported improved household well-being and greater professional recognition.



Welfare of Safai Saathis Families

Educational, Health, and Psychosocial Outcomes among Children

The welfare component addresses multi-dimensional vulnerabilities among children of Safai Saathis families. It focuses on five areas: educational continuity, academic performance, health access, hygiene practices, and psychosocial confidence. Findings are presented across each of these dimensions below.

Educational Access and Continuity

School participation among respondents is universal, with **100%** (n = 43) currently enrolled in school. A majority, **88%** (n = 38), reported that they had never discontinued schooling, while **12%** (n = 5) indicated temporary interruption. Reported reasons for discontinuation were primarily health-related (e.g., severe pneumonia, medical emergencies) and family circumstances.

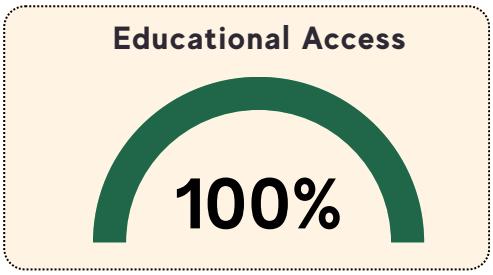


Fig 7: Educational access

Remedial Learning Support and Academic Outcomes

All respondents, **100%** (n = 43), reported receiving remedial or supplementary academic support. Among them, **56%** (n = 24) receive support from Nepra Foundation, while 44% (n = 19) receive support from Bal Vikas Dhara (Asha Ki Kiran). Perceived academic improvement is highly positive: **97%** (n = 42) reported that their studies improved because of the support received. This comprises **60%** (n = 26) who strongly agreed and **37%** (n = 16) who agreed. Only **2%** (n = 1) expressed strong disagreement.

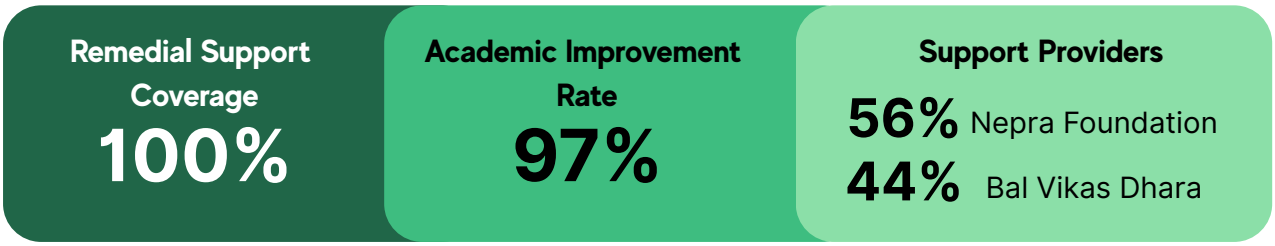


Fig 8: Remedial learning support and academic outcomes

Qualitative responses indicate improvements in Hindi, English, Mathematics, Science, and Computer studies, alongside faster homework completion and increased confidence in classroom participation. The findings suggest that remedial support is contributing to measurable academic gains.

Confidence, Participation, and Psychosocial Development:

Confidence indicators demonstrate substantial psychosocial strengthening. **86%** of children (n = 37) expressed positive confidence levels when speaking in class – comprising **42%** (n = 18) who felt very confident and **44%** (n = 19) who felt confident. The remaining **14%** were either neutral (**12%**, n = 5) or not confident (**2%**, n = 1). Participation in co-curricular activities is high, with **81%** (n = 35) reporting involvement in programmes, dances, speeches, or events, while **19%** (n = 8) reported no participation. This level of engagement suggests exposure to platforms that foster communication skills and social integration.

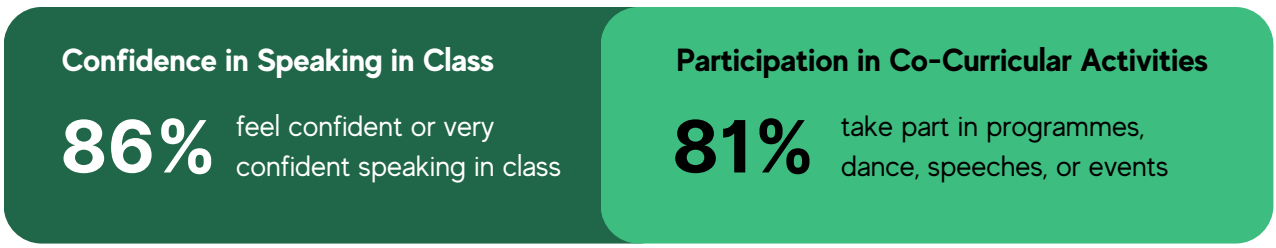


Fig 9: Confidence, participation, and psychosocial development among children

Health and Nutrition Support:

Bal Vikas Dhara (Asha Ki Kiran) implemented all health and nutrition interventions. All beneficiaries under this partner (**100%**, n = 20) reported receiving support for health check-ups, medicines, or nutrition. The Nepra Foundation did not include a health or nutrition component in its programme scope. The resulting sample distribution reflects this design choice, not unequal access. Among supported respondents, **95%** (n = 19) explicitly identified Bal Vikas Dhara as the provider. Reported outcomes include reduced frequency of illness, improved energy levels, and increased regularity in school attendance. Hygiene adherence is strong: **93%** (n = 40) always follow hygiene practices, **5%** often, and **2%** sometimes. This near-universal adoption reflects effective internalisation of preventive health behaviours.

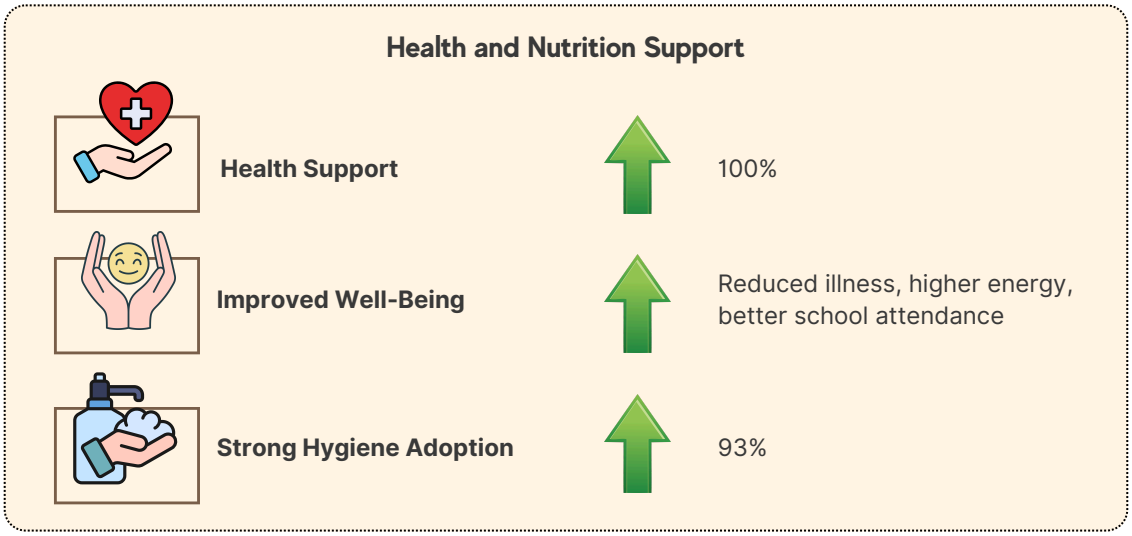


Fig 10: Health and nutrition support for children

Household Responsibilities and Educational Balance:

A majority, **58%** (n = 25), reported helping their families with work after school, while **42%** (n = 18) reported not engaging in such responsibilities. Despite domestic contributions, school enrolment remains universal, and perceived academic improvement remains high. This suggests that structured academic support may be helping to buffer the potential negative effects of household responsibilities.

Aspirations and Perceived Life Improvement:

Perception of overall life improvement is overwhelmingly positive. **95%** of children (n = 41) reported that their life is better because of the support received – **58%** (n = 25) strongly agreed, and **37%** (n = 16) agreed. Only **5%** (n = 2) were neutral. Children view the intervention not merely as educational assistance but as broader life-enhancing support that has improved their well-being and confidence.

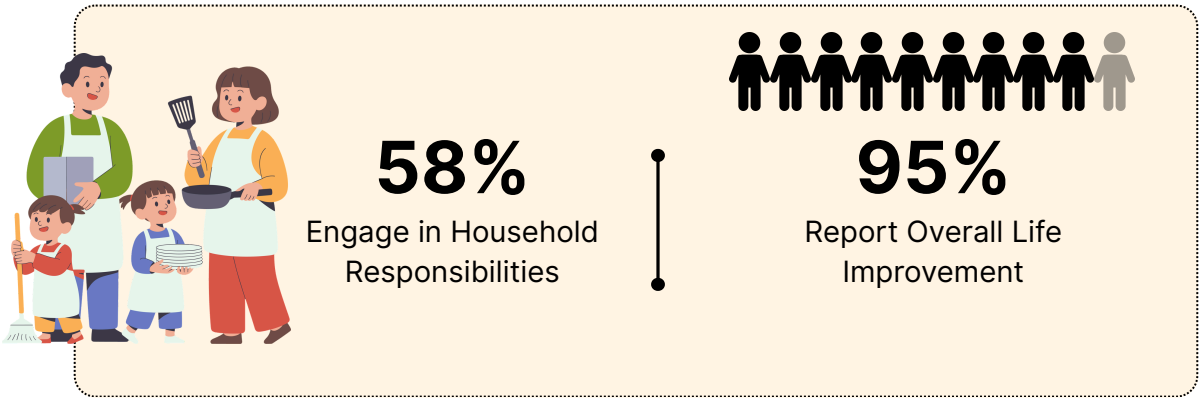


Fig 11: Household engagement and perceived life improvement among children











COMMUNITY MEMBERS | Awareness & Behavioural Transformation

Dabur has prioritised community and school-level awareness generation as a key strategy for advancing environmental sustainability. The initiative sensitises RWAs, households, and educational institutions on plastic waste segregation, responsible disposal, and the reduction of single-use plastics. A key delivery vehicle is the My 10 Kg Plastic campaign.

Pre-Programme Waste Management Practices

This section presents the baseline scenario of household waste management practices before the implementation of the programme.

Household Waste Disposal Systems at Baseline

The baseline findings indicate a predominance of informal and environmentally unsound disposal practices. **55%** of households (n = 76) reported open dumping as their primary disposal method before the programme, the most commonly cited practice at baseline. Additionally, **46%** of households (n = 64) reported disposing of waste in mixed form without segregation at source. The absence of separation between wet, dry, and plastic waste reflects limited awareness and/or a lack of enabling systems for responsible waste handling.

Burning of waste was practised by **33%** of households (n = 46), reflecting reliance on environmentally hazardous disposal methods. In contrast, only **25%** (n = 35) reported access to door-to-door collection before the intervention, highlighting limited municipal or organised service coverage. Disposal through other methods was negligible (**1%**; n = 1). Overall, the baseline disposal profile demonstrates low penetration of formalised waste management systems, with a substantial proportion of households dependent on informal or unsafe practices associated with environmental and public health risks.

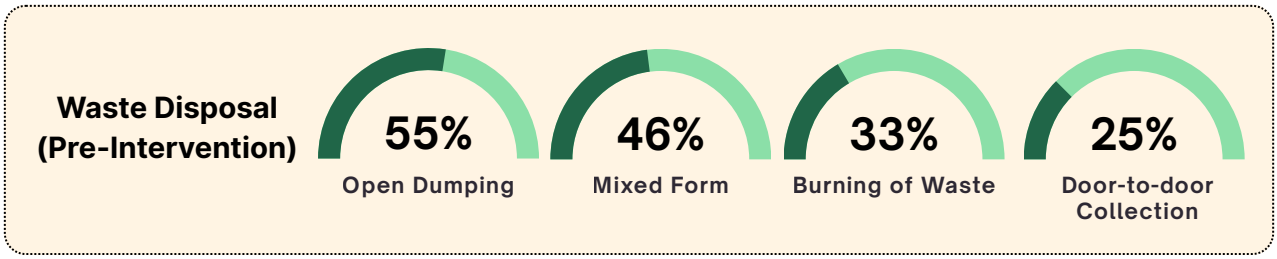


Fig 12: Household waste disposal among community members- Baseline

Baseline Perception of Neighbourhood Cleanliness

Survey data indicate that only **35%** of respondents (n = 48) perceived their neighbourhood as clean at baseline. In contrast, **38%** (n = 52) disagreed with this view, while **28%** (n = 38) reported neutral perceptions, establishing a modest pre-programme cleanliness baseline.

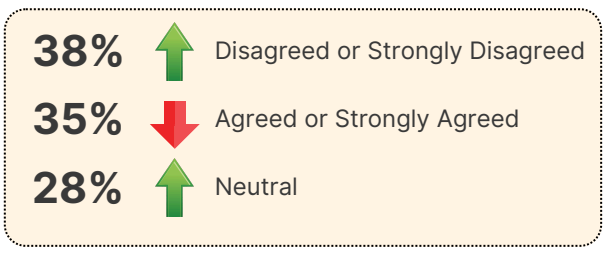


Fig 13: Perception of neighbourhood cleanliness - Baseline



The near-equivalent distribution between positive and negative perceptions indicates variability in environmental quality across the community. The sizeable neutral segment may suggest normalisation of suboptimal cleanliness conditions or limited expectations regarding waste management standards.

Community Engagement in Awareness Initiatives:

Programme outreach demonstrates extensive penetration. Around **97%** of respondents (n = 134) reported awareness of waste awareness activities in their area. Participation rates are strong: **77%** (n = 106) attended awareness meetings, and **59%** (n = 81) participated in campaigns. IEC-based interventions reached **31%** (n = 43), while **17%** (n = 24) took part in drives.

In terms of frequency, **59%** (n = 82) indicated that awareness activities occur often or always; **33%** reported they occur sometimes, and only 2% said never. This pattern reflects sustained, repeated engagement – not one-time exposure.

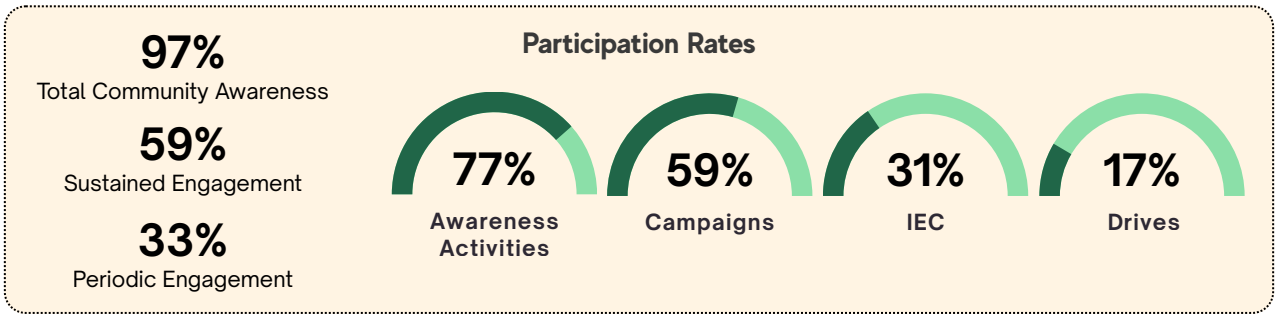


Fig 14: Participation rates among community members in awareness initiatives

Post-Programme Scenario

Post-Intervention Awareness and Environmental Literacy

Findings indicate a substantial strengthening of environmental literacy within the community. A large majority of respondents (**89%**; n = 123) either agreed or strongly agreed that they understand the problems caused by plastic waste, with only **10%** expressing disagreement. This demonstrates a high level of conceptual awareness regarding the environmental and health implications of plastic mismanagement.

Awareness of Differentiated Plastic Handling

Around **56%** (n = 77) knew that different plastic types require different management approaches. While this indicates progress beyond general awareness, **44%** (n = 61) remain unaware. Continued reinforcement is needed to deepen technical knowledge across the community



Operational understanding of segregation practices was evident in a majority of qualitative responses, where participants described concrete behaviours – use of separate bins for wet, dry, and plastic waste, and submission of specific recycling materials – rather than general awareness statements. This reflects translation of programme messaging into practical action, consistent with the quantitative finding that **96%** (n = 132) reported currently segregating waste at home and **75%** (n = 103) specifically separate wet and dry waste.

Adoption of Household Waste Segregation Practices

Post-intervention behavioural adoption appears significantly high. A substantial **96%** of households (n = 132) reported that they currently segregate waste at home, indicating near-universal compliance at the declarative level.

Regarding segregation type, 75% (n = 103) reported segregating wet and dry waste, while 60% (n = 83) indicated that they separate plastic waste specifically. Only 2% (n = 3) reported not segregating any waste, suggesting minimal non-compliance.

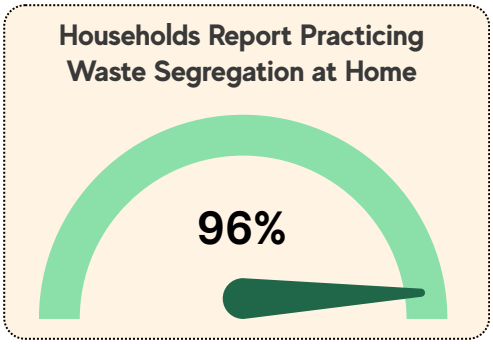


Fig 15: Community members report practicing waste segregation at home

Frequency analysis further indicates behavioural shift. Around **66%** of households (n = 91) reported always or often segregating plastic waste. Only **7%** (n = 9) rarely or never practise segregation. This distribution reflects a strong movement towards consistent behavioural adoption. Regarding the consequences of non-segregation, **56%** (n = 77) reported that waste is collected in mixed form, while **36%** (n = 49) indicated that it is dumped. Only **7%** reported instances of waste collector refusal. For households that do not segregate, **56%** (n = 77) reported their waste is collected in mixed form, and **36%** (n = 49) said it is dumped. Only **7%** reported collector refusal. While household-level awareness is high, systemic enforcement and collection-level alignment remain inconsistent.

Changes in Plastic Consumption Behaviour

Behavioural shifts are also evident upstream in plastic consumption patterns. A total of **90%** of respondents (n = 125) agreed or strongly agreed that their use of single-use plastic has reduced after the programme, indicating perceived behavioural change. Adoption of cloth bag alternatives is also notable: **70%** (n = 97) reported always or often using them, and only **5%** indicated rare usage. Sustainable substitution practices appear to have gained meaningful traction.

However, structural and behavioural barriers persist. **53%** of respondents (n = 73) cited habit as a key constraint in reducing plastic use. Availability and convenience were each identified by **57%** (n = 78 and n = 79, respectively), highlighting supply-side and access-related limitations. Total **25%** of respondents (n = 34) identified cost as a barrier – a lower share than those citing habit or availability, suggesting affordability is a less significant constraint than behavioural inertia and market access.

Behavioural Indicator	Leading Response Category	%	n
Frequency of Plastic Segregation	Always/Often	66%	91
Reduction in Single-Use Plastic	Agree/Strongly Agree	90%	125
Adoption of Cloth/Cotton Bag Alternatives	Always/Often	70%	97

Table 10: Changes in plastic consumption behaviour among community members

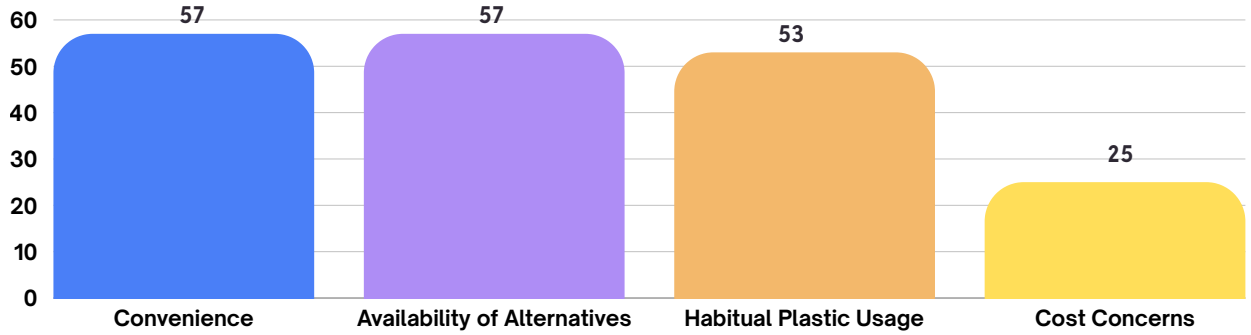


Fig 16: Challenges in reducing plastic use

Effectiveness of Awareness Interventions

Perceived effectiveness of awareness activities is strongly positive. Total **94%** (n = 130) agreed or strongly agreed that awareness activities were useful. Similarly, **95%** (n = 131) reported that they clearly understand the actions households should take after attending such sessions. Importantly, **97%** (n = 134) stated that awareness activities helped change how they manage plastic waste at home.



Community-Level Environmental and Social Outcomes

The programme generated visible environmental and social shifts across communities. Around **98%** (n = 135) reported increased respect for waste workers, and **95%** (n = 131) indicated improved household cooperation with waste workers.

Perceived cleanliness in the community improved substantially: **95%** (n = 131) reported improved cleanliness in their area – compared to a baseline where only **35%** (n = 48) had considered their neighbourhood clean and **38%** (n = 52) actively disagreed with that assessment.

A substantial **95%** (n = 131) also reported that open dumping or burning of plastic has reduced. Additionally, **84%** (n = 116) agreed or strongly agreed that the environment is safer for children now.

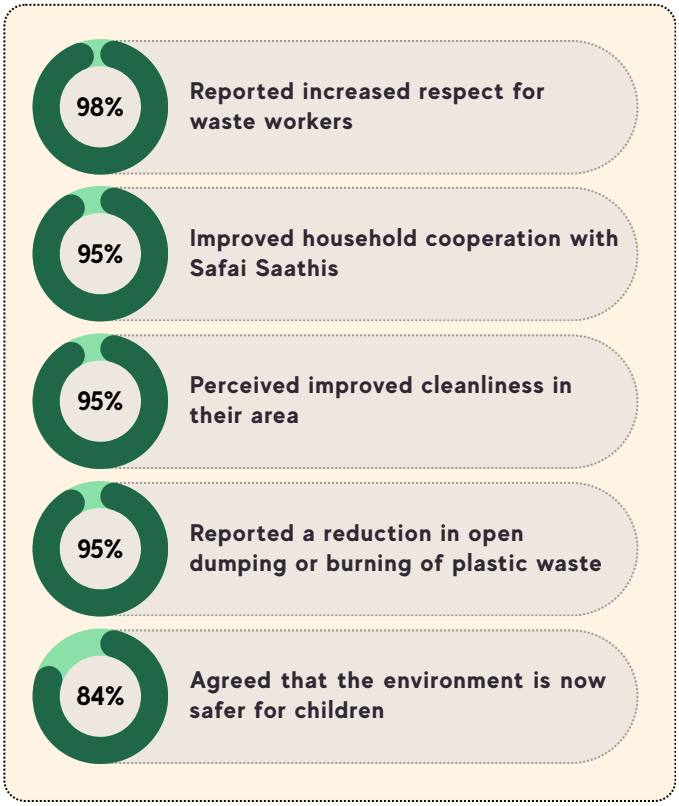


Fig 17: Community-level environmental and social outcomes

In Their Own Words

> Now that Lohri was celebrated, we gave them peanuts, gave them money, whatever we could manage. And the ladies who come – when they have weddings, they give cards, so we give them shagun.
>
> – Community Member, Himachal Pradesh





> The first step is to reduce, then reuse, and last is recycle. I think awareness should be there. It's not that if you get a bin, you increase your waste.
>
> – Community Member, Gautam Budh Nagar

Sustainability of Waste Management Practices

Total **95%** of households (n = 131) expressed confidence that current waste management practices will continue. This indicates strong expectations of sustained behavioural adherence. When identifying factors necessary to maintain these practices, **86%** (n = 118) cited continued awareness as the most critical enabler. **41%** (n = 57) identified enforcement mechanisms as necessary, while **36%** (n = 50) emphasised the importance of collective community action. Household-level adoption is firmly established. But respondents are clear: sustained awareness efforts and institutional reinforcement are essential for long-term continuity.



Fig 18: Sustainability of waste management practiced among community members

Qualitative responses indicate a strong emphasis on sustained awareness reinforcement, with participants advocating periodic workshops, door-to-door sensitisation, and continuous community outreach to maintain behavioural gains. Respondents highlighted three additional priorities: reducing plastic consumption, strengthening enforcement mechanisms, and expanding segregation and recycling infrastructure. Overall, the feedback reflects community readiness to sustain improvements – provided awareness efforts and institutional support continue.




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WHO CAN PARTICIPATE?

SCHOOL CHILDREN | Environmental Education and Impact

Children's awareness under the Plastic Waste Management programme represents a critical pathway for long-term behavioural change and intergenerational impact. School-based interventions were designed not only to build conceptual understanding of plastic waste but also to foster practical adoption of segregation behaviours and influence household practices. Qualitative findings from FGDs and Teacher IDIs indicate that children have internalised key environmental concepts and are actively translating learning into everyday action. This section analyses the depth of knowledge acquisition, behavioural shifts, and enabling factors within school ecosystems.

Environmental Knowledge and Conceptual Clarity

Qualitative findings indicate that children demonstrate strong conceptual understanding of plastic waste, including its environmental, health, and ecological consequences. Students articulated cause-and-effect linkages between plastic misuse and pollution, disease, and harm to animals – reflecting genuine internalisation rather than rote recall. They accurately differentiated wet and dry waste and described segregation processes in practical terms. Awareness also extended to safer alternatives, indicating that knowledge transfer covered both problem identification and solution orientation. Overall, the data indicate that the programme has effectively strengthened foundational environmental literacy among school participants.



In Their Own Words

> It causes pollution. People will get sick, right?
>
> – Student, Nalchha, Dhar, Madhya Pradesh

> We were taught to separate dry and wet garbage. Dry garbage is like paper; wet garbage is vegetable waste, milk, etc.
>
> – Student, Baddi, Himachal Pradesh

> Put the wet waste in one container and put the dry waste in another container. Easy.
>
> – Student, Nalchha, Dhar, Madhya Pradesh

> We were told that water should be stored in plastic, but now we are told to use steel instead.
>
> – Student, Baddi, Himachal Pradesh

Behaviour Change and Household Spillover

The data indicate that knowledge has translated into measurable behavioural shifts within both school and household settings. Students reported transitioning from plastic carry bags and containers to steel alternatives and cloth bags. Households that did not previously practise segregation have now adopted it as a regular routine at home. Teachers confirmed that children are influencing parental behaviour, demonstrating spillover beyond the school environment. Peer accountability mechanisms further reinforce compliance, contributing to visible reductions in plastic waste within school premises.

In Their Own Words

> We used to bring roti in plastic bags. Then we started bringing food in steel containers. And we also take cloth bags to carry vegetables and fruits.
>
> – Student, Baddi, Himachal Pradesh

> Earlier, we used to have a plastic bin and put wet and dry waste together. Now we don't do that.
>
> – Student, Baddi, Himachal Pradesh

> We can see that plastic wrappers have decreased. Not completely, but it is decreased.
>
> – Teacher, Baddi, Himachal Pradesh

> They tell their mother that vegetable waste should be thrown separately, and dry garbage should be thrown separately.
>
> – Teacher, Nalchha, Dhar, Madhya Pradesh



Implementation Effectiveness and Enabling Mechanisms

Findings highlight the role of participatory, activity-based pedagogy in strengthening retention and compliance. Teachers cited experiential demonstrations – such as sorting activities – as highly effective in reinforcing waste classification. Teachers rated programme effectiveness highly, observing substantial behavioural adherence and a visible reduction in plastic waste on school premises.

In Their Own Words

> In the classroom, some green papers and white papers are scattered separately, and students are told to put them in separate dustbins. Students understand through this activity
>
> – Teacher, Nalchha, Dhar, Madhya Pradesh

> About 90%, we can say the programme is effective. The children are following it. You will find plastic waste almost nil here.
>
> – Teacher, Baddi, Himachal Pradesh






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steps together create big change for all
Let's Plant Trees, Let's Plant Hopes
Save Trees

CONCLUSION

SUMMARY OF FINDINGS

Comprehensive Welfare for Safai Saathis

- Survey data confirm livelihood strengthening: **87%** reported income improvement and **91%** reported enhanced quality of life.
- Occupational capacity improved following training, with strong reporting of enhanced segregation quality (**94%**) and increased collection efficiency (**93%**).
- Provision of PPE and equipment contributed to safer working environments, with **89%** indicating improvements in workplace safety and cleanliness.
- Work-related health vulnerabilities declined, with **90%** reporting reduced illnesses.
- Social dignity outcomes strengthened, as **90%** reported improved community respect and **87%** expressed pride in their occupation.
- Educational support to Safai Saathis children demonstrated strong outcomes, with reports of academic improvement and enhanced classroom confidence.

Community Awareness and Behavioural Transformation

- Awareness outreach achieved high community penetration (**97%** awareness), indicating extensive programme visibility.
- Household-level waste segregation is now mainstream, with **96%** reporting adoption of segregation practices.
- Behavioural change is reflected in reduced single-use plastic usage (**90%**).
- Perceived environmental improvements are substantial, with **95%** reporting cleaner surroundings and reduced open dumping.
- Social cohesion strengthened, with **98%** reporting increased respect for Safai Saathis.
- Sustainability outlook remains strong, with **95%** indicating that waste management practices are likely to continue.

School Children Reach and Environmental Sensitisation

- Students demonstrate clear conceptual understanding of wet and dry waste segregation and the environmental impacts of plastic misuse.
- Teachers reported observable behavioural shifts within school premises, including reduced plastic usage and improved compliance with segregation practices.
- Students articulated personal responsibility toward environmental protection, reflecting internalisation of programme messaging rather than superficial awareness.
- Evidence of spillover effects emerged, with children influencing household waste practices and encouraging segregation at home.
- Schools functioned as reinforcing platforms for environmental norms, strengthening intergenerational transfer of sustainable behaviours.

Alignment of Findings with the Frameworks

Framework	Core Components	Key Findings from Assessment	Analytical Interpretation
Sustainable Livelihoods Framework	Human Capital	• **93%** reported increased plastic collection efficiency • **92%** applied learned skills in daily work • **90%** reported reduction in work-related illness • Enhanced knowledge of segregation and safety practices	Capacity-building interventions strengthened occupational competencies, health awareness and technical skills, indicating measurable enhancement in worker capabilities.
	Financial Capital	• Stable income increased from **26%** (pre-programme) to **63%** (post-programme) • Proportion earning above ₹10,000 rose from **16%** to **43%**	Programme participation contributed to improved livelihood security and upward income mobility among Safai Saathis
	Social Capital	• Perceived respect increased from **64%** to **90%** • **91%** reported improved social recognition • Strong occupational pride (**87%**)	Formalisation of roles and visibility of safety practices enhanced dignity of labour and community legitimacy
	Physical Capital	• **89%** received PPE • **84%** reported access to required tools • Improved workplace safety and cleaner work environments	Provision of protective equipment and operational resources strengthened working conditions and reduced occupational vulnerability
	Natural Capital	• High awareness of environmental importance of segregation (**94%**) • Improved segregation quality reported by **94%**	Behavioural adoption contributed to environmentally responsible waste handling and reduced contamination risks

Table 11: Alignment of findings with the frameworks

Framework	Core Components	Key Findings from Assessment	Analytical Interpretation
Behaviour Change Framework	Knowledge Acquisition	• **89%** confident in identifying plastic categories • Strong awareness generated through trainings and school/community sessions	Awareness-building effectively translated technical knowledge to frontline actors and households
	Attitude Formation	• Positive perception of segregation importance (**94%**) • **91%** reported programme improved quality of life	Environmental responsibility increasingly internalised as a value rather than compliance behaviour
	Practice Adoption	• **92%** reported correct segregation during collection • Increased application of learned skills in routine work	Behavioural shifts moved beyond awareness into operational practice
	Sustained Behaviour	• **77%** expressed confidence in continuing waste work • **94%** wanted programme continuation.	Indicators suggest emerging durability of behavioural change, though long-term institutionalisation remains dependent on continued support

Table 11: Alignment of findings with the frameworks



Framework	Core Components	Key Findings from Assessment	Analytical Interpretation
OECD-DAC Evaluation Criteria	Relevance	• Programme addressed gaps in segregation • Worker safety, and community awareness in diverse urban contexts	Intervention design aligned with sectoral needs of informal waste ecosystems
	Effectiveness	• Reported improvements in skills, income stability, health access, and segregation practices across stakeholder groups	Outputs translated into intended livelihood and behavioural outcomes
	Efficiency	• High utilisation of PPE, trainings, and awareness activities • Resource inputs directly linked to operational improvements	Delivery mechanisms demonstrated functional conversion of inputs into measurable benefits
	Impact	• Enhanced dignity, income mobility, improved occupational health, and community-level cleanliness perceptions	Programme generated multidimensional socio-economic and environmental effects beyond immediate outputs
	Sustainability	• Strong beneficiary endorsement (**94%**) and continued livelihood engagement (**77%**)	Behavioural and livelihood gains show potential for continuity, though partial dependence on institutional support persists
	Coherence	• Alignment noted with national waste-management priorities and community-based implementation structures	Intervention complemented broader policy frameworks and local governance efforts

Table 11: Alignment of findings with the frameworks


Nilkamal


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CHALLENGES & RECOMMENDATIONS

Thematic Area	Challenges Identified	Recommendations
Sustained Household Segregation	Segregation practices are not yet fully habitual across all households and require continued reinforcement.	Introduce periodic follow-up visits and practical demonstrations to support routine adoption of segregation behaviours.
Continued Use of Single-Use Plastics	Convenience and easy availability of disposable plastics limit behaviour change.	Promote accessible and low-cost alternatives (e.g., cloth bags, reusable containers) through community-level distribution and messaging.
Access to Sustainable Alternatives	Limited local availability of eco-friendly substitutes constrains transition away from plastic use.	Engage local vendors and self-help groups to supply reusable materials within neighbourhood markets.
Risk of Behavioural Relapse	Behaviour improvements indicated during the programme may decline without ongoing engagement.	Institutionalise regular awareness sessions and community activities to reinforce practices over time.
Service-Level Gaps in Waste Collection	Inconsistent collection systems weaken household motivation to segregate waste.	Strengthen coordination with local authorities to ensure reliable door-to-door collection and visible waste management systems.

Table 12: Challenges and Recommendations





Thematic Area	Challenges Identified	Recommendations
One-Time Awareness Exposure	Standalone campaigns are insufficient for long-term behaviour change.	Shift from event-based awareness to continuous engagement through schools, RWAs, and community platforms.
Limited Community Ownership	Waste management is often perceived as the responsibility of Safai Saathis rather than a shared responsibility.	Facilitate community-led initiatives such as cleanliness drives and participatory monitoring mechanisms.
Occupational Support for Safai Saathis	Continued access to PPE and tools is necessary to maintain improved work practices and safety standards.	Ensure periodic replenishment of protective equipment and integrate workers into awareness and recognition events.
Translation of Awareness into Daily Practice	Knowledge of environmental issues does not always translate into consistent action.	Use visual prompts (labelled bins, signage, reminders) to support daily practice at household and community levels.
Long-Term Programme Sustainability	Communities require structured guidance to maintain outcomes after programme completion.	Develop a phased transition strategy enabling local institutions to lead awareness, monitoring, and practice reinforcement.

Table 12: Challenges and Recommendations



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LIST OF ABBREVIATIONS

Abbreviation	Full Form
CSR	Corporate Social Responsibility
FGD	Focus Group Discussion
IDI	In-Depth Interview
KII	Key informant interview
NGO	Non-Governmental Organisation
MRF	Material Recovery Facility
PPE	Personal Protective Equipment
RWA	Resident Welfare Association
SHG	Self Help Groups




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Dabur India Limited

8/3, Asaf Ali Road,
New Delhi - 110002

corpcomm@dabur.com

www.dabur.com

Project Implemented by: JIVANTI

Assessment done by: impactDash

Report Designed by: PARCOZI