BHARAT FORGE | KALYANI

IMPACT ASSESSMENT REPORT

"MY WASTE, MY RESPONSIBILITY" DECENTRALIZED HOME COMPOSTING PROJECT

Implementing Partner: Know How Foundation



SoulAce
Path to Sustainability

SOULACE CONSULTING PVT. LTD.

ACKNOWLEDGEMENT

SoulAce Consulting Private Limited has carried out CSR impact assessment of the project supported by Bharat Forge under their CSR initiative in the financial year of 2024-25. The project was implemented in Pune and focused on thematic area of waste management.

SoulAce Consulting Private Limited wishes to express its sincere gratitude to Bharat Forge for trusting us with this assignment. We are obliged to the beneficiaries and stakeholders for extending their support and providing valuable insights to accomplish this impact assessment study.

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ABBREVIATIONS

CSR	Corporate Social Responsibility
SDGs	Sustainable Development Goals
OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee.
CPCB	Central Pollution Control Board
CP	Composter Planter
NITI	National Institution for Transforming India
FY	Finacial Year
AMRUT	Atal Mission for Rejuvenation and Urban Transformation

01. EXECUTIVE SUMMARY

Bharat Forge Ltd., under its Corporate Social Responsibility (CSR) mandate, implemented a household-level waste management and composting initiative across Hadapsar and Keshavnagar in partnership with Know How Foundation. The programme aimed to promote sustainable waste practices by encouraging source segregation and decentralized composting at the household level.

The intervention primarily targeted residential households, particularly those with suitable space for composting, and focused on promoting simple, manageable waste management practices. Awareness generation and community mobilisation were led by field coordinators and supported through community-level engagement. The project focused on capacity building through awareness sessions, hands-on training, and continuous monitoring. As a result, households widely adopted daily composting and practiced waste segregation at source, indicating strong behavioural change and consistent adoption of sustainable practices.The initiative has contributed to reducing household waste, improving sanitation, and promoting environmentally responsible practices. It reflects a shift towards decentralized waste management and supports long-term sustainability through community participation and behavioural change.



BENEFICIARY INTERACTION

Project Details

Project Duration
FY 2024-2025

Assessment Year
FY 2025-2026

Implementing Partner
Know Your Foundation

Project Locations
Hadapsar and Keshavnagar

Total Beneficiaries
600

Sample Size
330

SDG Goals



Alignment with the National policies

- Swachh Bharat Mission Urban
- Solid Waste Management Rules 2016
- National Action Plan on Climate Change
- AMRUT Mission

Project Activities

- Installation of composter planters (CPs) at the household level
- Door-to-door demonstrations on waste segregation and composting practices
- Continuous guidance and training to households for improved composting practices
- Periodic supply of compost cultures and solutions to support the process
- Community-level corner meetings for awareness, issue resolution, and peer learning
- Upskilling and capacity building of field coordinators to strengthen implementation and support

Key Findings



Near-universal adoption of waste segregation at source (99.1%) and daily composting (98.2%)



Training and demonstrations were highly effective, with 99.4% finding them very helpful and all respondents understood the process



Field coordinators played a key role in awareness (61.8%) and ensured strong monitoring support (98.8% regular follow-up)



Significant environmental improvements observed, including reduced household waste (99.4%) and cleaner surroundings (99.4%)



High adoption of composting inputs and practices (100% use of compost culture; 98.2% daily usage)

Key Impact



Sustained behavioural change reflected in continued practice, with 99.4% households willing to continue composting independently



Strengthened household capacity and self-reliance, evidenced by 56.4% of respondents resolving issues independently



Improved programme sustainability and engagement, contributing to 100% willingness to recommend the initiative to others



Reduced dependence on municipal systems (98.5%) and improved local sanitation outcomes over time



Enhanced resource circularity, with 61.8% households utilizing compost for plants/gardening, promoting long-term sustainable practices

CHAPTER 2
INTRODUCTION



Discussion with stakeholders

BACKGROUND AND NEED OF THE PROGRAM

Solid waste management has emerged as a critical urban challenge in India, with rapid urbanisation leading to a steady rise in household waste generation. According to the Central Pollution Control Board (CPCB), India generates over 1.5 lakh tonnes of municipal solid waste per day, of which a significant proportion is biodegradable. However, improper segregation and limited processing capacity result in a large share of waste being disposed of in landfills, contributing to environmental pollution and greenhouse gas emissions.

Despite policy emphasis under the Solid Waste Management Rules 2016, segregation at source and decentralized waste processing remain inadequately adopted at the household level.

Reports by the NITI Aayog highlight that inefficient waste collection and low awareness continue to hinder effective solid waste management in urban areas. The need for the programme arises from these persistent gaps in awareness, behaviour, and infrastructure. Many households lack the knowledge and tools required to manage organic waste sustainably, leading to overdependence on municipal systems. There is, therefore a pressing need to promote source segregation and decentralized composting through community-driven interventions.

Recognising this, Bharat Forge Ltd. initiated the programme to strengthen household-level waste management through awareness, training, and composting solutions, contributing to improved sanitation, reduced landfill burden, and long-term environmental sustainability.

ABOUT BHARAT FORGE LTD.

Bharat Forge Ltd. is a global engineering and manufacturing company headquartered in Pune, India, and is a flagship company of the Kalyani Group. It is widely recognized as a leader in the production of high-performance, safety-critical components and solutions for a diverse range of industries. The company has evolved from a single-location forging enterprise into a diversified, multi-product global conglomerate, driven by strong engineering capabilities, advanced manufacturing technologies, and continuous innovation.

Bharat Forge operates across multiple sectors including automotive, aerospace, defence, railways, marine, oil & gas, construction, and power, providing end-to-end solutions from design and engineering to testing and validation. With a strong global footprint spanning multiple countries, the company is known for its cutting-edge R&D, metallurgical expertise, and integrated manufacturing capabilities. Its facilities include some of the world's most advanced forging and machining operations, enabling it to deliver high-quality products to leading global OEMs.

Bharat Forge continues to expand into emerging areas such as e-mobility, lightweighting technologies, and defence manufacturing, reinforcing its position as a key player in global engineering and innovation-driven industries.

ABOUT KNOW HOW FOUNDATION

Know How Foundation is a not-for-profit organisation based in Pune, working in the fields of waste management and sustainable agriculture. The foundation focuses on promoting environmentally responsible practices through scientific and community-driven approaches.

The organisation's work is rooted in decades of research in soil microbiology and composting science, enabling it to develop practical solutions for converting organic waste into useful resources. It actively promotes home composting, organic farming, and sustainable waste management systems across households, communities, and institutions. Know How Foundation has implemented multiple initiatives aimed at reducing waste, improving soil health, and supporting circular economy practices. Its interventions include training households in composting, supporting farmers with sustainable agriculture techniques, and building a network of eco-entrepreneurs to create livelihood opportunities.

With over three decades of grassroots experience, the foundation has benefited more than one lakh households through in-situ composting solutions and has partnered with urban local bodies and municipal corporations to strengthen waste management systems.



WASTE COLLECTION

CHAPTER 3
RESEARCH METHODOLOGY



Interactive session

Bharat Forge Ltd. commissioned a study to SoulAce to assess the impact of its household-level waste management and composting initiative implemented across Hadapsar and Keshavnagar. This study, conducted by SoulAce, critically analyses the effectiveness, impact, and overall performance of the programme. The study focused on evaluating key aspects such as the adoption of waste segregation practices, the usage of composter planters, the effectiveness of training and awareness sessions, and the role of field-level support mechanisms. In addition, the study examined the extent to which the intervention contributed to behavioural change, reduced dependence on municipal waste systems, and long-term sustainability of composting practices. Qualitative insights from beneficiaries were included to understand their experiences, challenges faced, and overall perception of the initiative, providing a comprehensive assessment of its outcomes at the community level.

OBJECTIVE

To assess the effectiveness of the household-level waste management initiative in promoting waste segregation, composting practices, behavioural change, environmental outcomes, and beneficiary satisfaction.

RESEARCH DESIGN

A mixed-method approach was adopted, integrating both quantitative and qualitative techniques to provide a comprehensive understanding of the project's outcomes. This enabled a holistic assessment of adoption levels, behavioural change, environmental impact, and effectiveness of training and support mechanisms.

APPLICATION OF QUANTITATIVE TECHNIQUES

The study employed structured surveys with 330 beneficiary households, selected through a simple random sampling method. The quantitative analysis focused on indicators such as household profile, awareness levels, adoption of waste segregation and composting, usage of composter planters, frequency of composting, and utilisation of compost. It also assessed outcome indicators such as reduction in household waste, improved cleanliness, and satisfaction with the initiative.

APPLICATION OF QUALITATIVE TECHNIQUES

The qualitative methodology included in-depth interviews and beneficiary feedback, along with community interactions and discussions with field coordinators. These provided insights into behavioural change, challenges faced, effectiveness of training, and overall perception of the initiative, complementing the quantitative findings.

ENSURING TRIANGULATION

Triangulation was adopted by integrating quantitative survey data with qualitative insights to enhance the reliability and validity of findings. This helped validate outcomes such as high adoption of composting, improved waste management practices, and sustained behavioural change.

SAMPLING FRAMEWORK

The study covered 330 households across project locations, representing diverse residential types and family sizes, ensuring a comprehensive understanding of beneficiary experiences.

DATA COLLECTION

Primary data was collected using structured questionnaires and interviews, capturing information on demographics, awareness, practices, challenges, and perceived impact. Standardised tools ensured accuracy and consistency.

STAKEHOLDERS

The study incorporated perspectives of beneficiary households, field coordinators, and implementing partners, enabling a well-rounded assessment of implementation and outcomes.

COMMITMENT TO RESEARCH ETHICS

The study adhered to ethical standards, ensuring informed consent, confidentiality, voluntary participation, and respectful engagement with all respondents, thereby maintaining the credibility and integrity of the research.



BRIGHT SPOT

CHAPTER 4
MAJOR FINDINGS AND ASSESSMENT OF IMPACT

This chapter presents the key findings and assesses the overall impact of the household-level waste management intervention, highlighting its effectiveness in promoting waste segregation and composting practices, improving environmental sanitation, and fostering sustainable behaviour and self-reliance among beneficiary households.

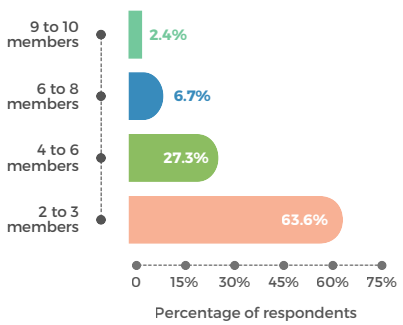
HOUSEHOLD PROFILE OF RESPONDENTS

TABLE 1: TYPE OF RESIDENCE

Type of Residence		
Type of Residence	**No. of Respondents**	**% of Respondents**
Independent house	265	80.3
Apartment	65	19.7
Total	330	100

The table indicates that a significant majority of respondents (80.3%) reside in independent houses, while only 19.7% live in apartments. This suggests that the intervention has largely reached households with independent housing, which may offer greater space and flexibility for setting up composting systems.

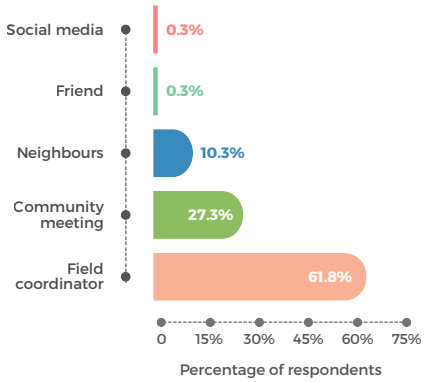
CHART 1: NUMBER OF MEMBERS IN THE FAMILY



The chart shows that most respondents (63.6%) belong to small families with 2–3 members, followed by 27.3% with 4–6 members. A smaller proportion includes 6.7% with 6–8 members and 2.4% with 9–10 members. This indicates that the project predominantly covers smaller households, which may influence manageable waste generation and ease of adoption of composting practices.

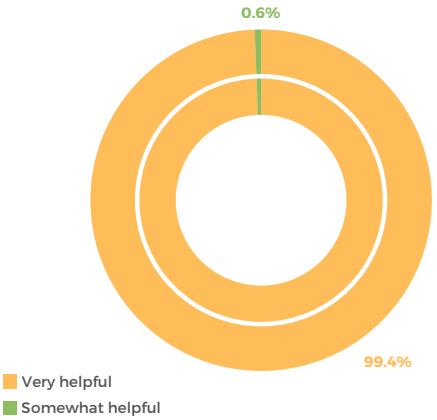
AWARENESS AND CAPACITY BUILDING

CHART 2: SOURCE OF AWARENESS ABOUT THE PROJECT



The chart suggests that the primary source of awareness was field coordinators, accounting for 61.8% of respondents, followed by community meetings (27.3%) and neighbours (10.3%). Minimal awareness was generated through friends and social media (0.3% each), highlighting the critical role of direct field engagement in outreach.

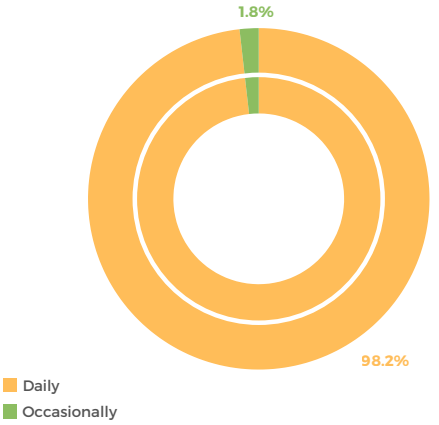
CHART 3: HELPFULNESS OF TRAINING AND DEMONSTRATIONS



The chart indicates that an overwhelming majority of respondents (99.4%) found the training and demonstrations very helpful, while only 0.6% found them somewhat helpful. This reflects the high effectiveness of capacity-building efforts, further supported by the fact that all respondents reported a clear understanding of waste segregation and composting processes.

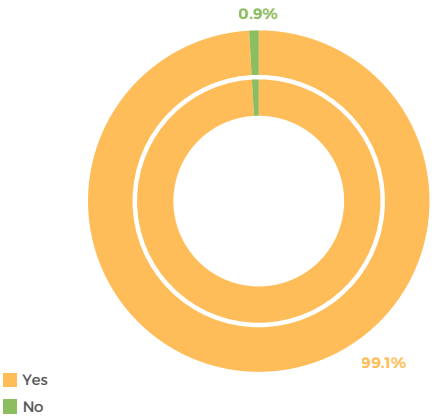
ADOPTION OF COMPOSTING AND WASTE MANAGEMENT PRACTICES

CHART 4: FREQUENCY OF USING THE COMPOSTER PLANTER



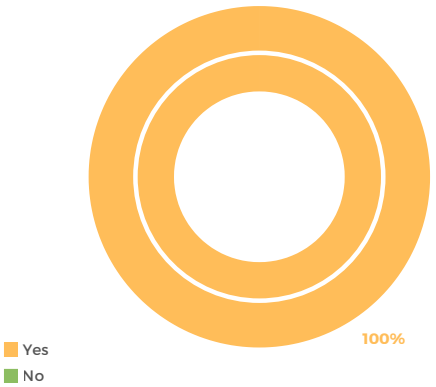
The chart shows that nearly all respondents (98.2%) use the composter planter daily, while only 1.8% use it occasionally. This indicates strong and consistent adoption of composting practices at the household level. Additionally, most households compost between 0.5 kg to 1 kg of wet waste daily, reflecting moderate but regular waste processing.

CHART 5: PRACTICE OF WASTE SEGREGATION AT SOURCE



The chart indicates that 99.1% of respondents practice waste segregation at source, with only 0.9% not following the practice. This demonstrates near-universal behavioural adoption, indicating the success of awareness and training interventions.

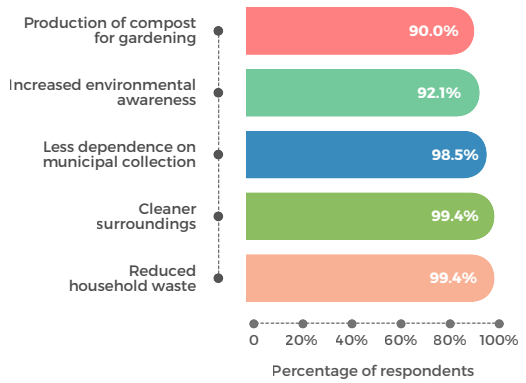
CHART 6: USAGE OF COMPOST CULTURE AND IVEM SOLUTION



The chart shows that 100% of respondents use compost culture and IVEM solution, indicating complete adoption of the recommended composting inputs and techniques across all beneficiary households.

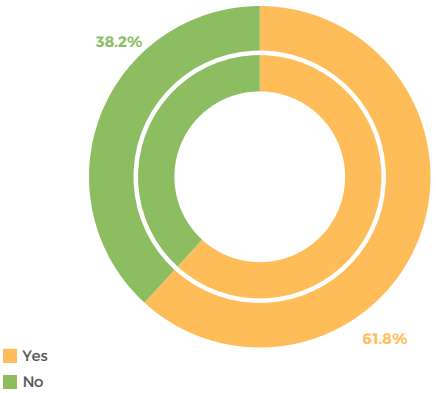
OUTCOMES AND BENEFITS OF COMPOSTING

CHART 7: CHANGES OBSERVED AFTER ADOPTING HOME COMPOSTING



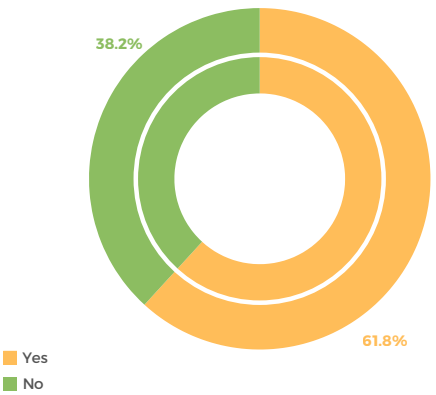
The chart suggests that almost all respondents reported reduced household waste (99.4%) and cleaner surroundings (99.4%), followed by reduced dependence on municipal waste collection (98.5%). A large proportion also reported increased environmental awareness (92.1%) and production of compost for gardening (90.0%). This indicates significant environmental and behavioural benefits resulting from the intervention.

CHART 8: UTILIZATION OF COMPOST GENERATED



The chart indicates that 61.8% of respondents utilize the compost generated, while 38.2% do not. This suggests that although composting is widely practiced, there is scope to enhance utilization of the output.

CHART 9: USE OF COMPOST FOR GROWING VEGETABLES/PLANTS



The chart shows that 61.8% of respondents use compost for growing plants or vegetables, while 38.2% do not. This aligns with compost utilization trends, indicating moderate adoption of end-use practices.

CASE STUDY 1
UMESH CHAWAK, ARUNODAY SOCIETY, HADAPSAR

Arunoday is a bungalow society where each home has a backyard. Umesh uncle lives alone, as his wife resides with their son at her workplace in another location. He manages the house and garden entirely by himself.

In 2022, a society meeting was organised on the topic of composting. Uncle attended and was immediately interested to install a CP on the spot. Of the 28 total members in the society, 26 installed CPs in 2022–23. BFL provided the CP free of cost, along with liquid, powder, a mixing tool, and gloves.

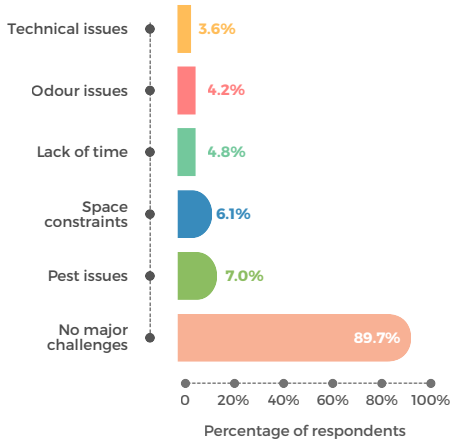
In his backyard, he has planted curry leaves, guava, red and pink hibiscus, and jasmine. He regularly grow jasmine and hibiscus saplings and distributes them to neighbours and anyone who wishes to want it. He has removed manure from his CP two to three times so far and applied it to his garden trees.

His large curry leaf trees has become the foundation of a small enterprise, he dries the leaves, processes them into powder, and sells them to a trader. The powder is reportedly exported to the United States and Dubai, and he also has customers in Mumbai. He started this business two years ago.

"This project is excellent, in our society, almost all members are using it. This project needs to reach more people. I insist that the government make it compulsory for all citizens so we can truly make a difference." - Umesh Chawak, Arunoday Society

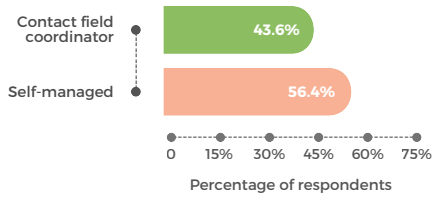
CHALLENGES AND ISSUE RESOLUTION

CHART 10: CHALLENGES FACED IN USING COMPOSTER PLANTER



The chart indicates that a majority of respondents (89.7%) faced no major challenges. Among those who did, the most common issues included pest problems (7.0%), space constraints (6.1%), lack of time (4.8%), odour issues (4.2%), and technical issues (3.6%). This suggests that challenges are relatively limited and manageable.

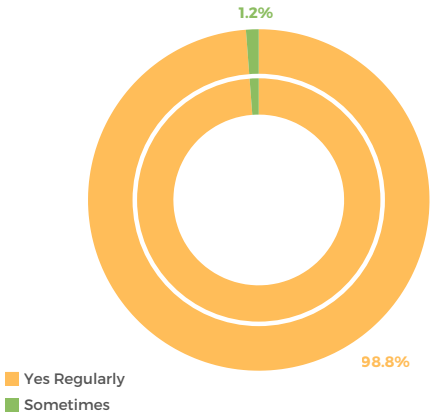
CHART 11: METHODS USED TO RESOLVE ISSUES



The chart shows that among respondents who faced issues, 56.4% resolved them independently, while 43.6% sought support from field coordinators. This indicates a reasonable level of self-reliance among beneficiaries, complemented by accessible support systems.

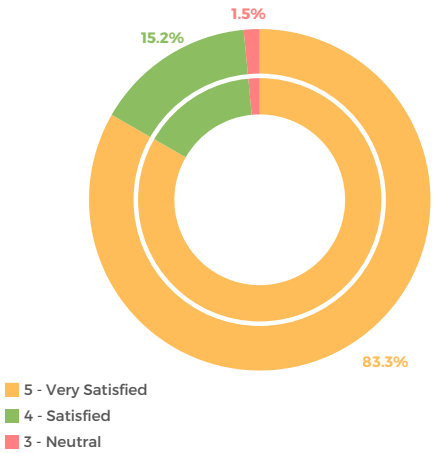
MONITORING, SATISFACTION, AND SUSTAINABILITY

CHART 12: SUPPORT AND MONITORING BY FIELD COORDINATORS



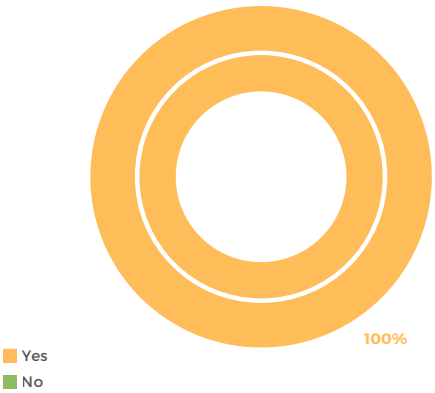
The chart indicates that 98.8% of respondents reported receiving regular support and monitoring from field coordinators, while 1.2% reported occasional support. This reflects strong implementation support and consistent follow-up.

CHART 13: SATISFACTION WITH THE PROJECT



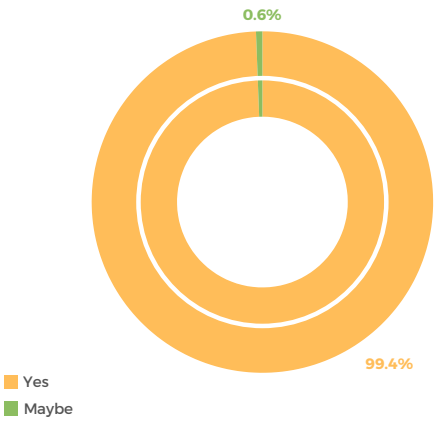
The chart shows that a majority of respondents (83.3%) are very satisfied with the project, followed by 15.2% who are satisfied and only 1.5% who are neutral. This indicates a very high level of beneficiary satisfaction.

CHART 14: WILLINGNESS TO RECOMMEND THE INITIATIVE



The chart indicates that 100% of respondents are willing to recommend the initiative to others, reflecting strong endorsement and positive perception of the project.

CHART 15: WILLINGNESS TO CONTINUE COMPOSTING WITHOUT EXTERNAL SUPPORT



The chart suggests that 99.4% of respondents are willing to continue composting even without external support, while only 0.6% are uncertain. This demonstrates strong sustainability and long-term behavioural change.



SEGREGATION BINS

CASE STUDY 2
PUSHPA SHYAMRAV SALUNKHE, GONDHALENAGAR, HADAPSAR

Pushpa got to know about the project through Mr. Sunil Bankar, a social activist in her area. She installed her CP in 2022 and has since removed manure three times, applying it to her terrace garden. She spoke with pride about how manure helps her plants to grown well.

Her terrace garden includes a variety of fruit trees like mango, papaya, guava, and pomegranate as well as vegetables such as curry leaves, sweet potatoes, green chillies, and eggplants, along with several flowering plants. Last year, her papaya tree alone bore 40 to 50 papayas.

"I wrote an article which was published in the Lokmat newspaper, about how I composted wet waste right at home to grow vegetables on my terrace garden." — Pushpa Salunkhe, Gondhalenagar

CASE STUDY 3
REKHA AJNALKAR, AMAR COTTAGE, BANGLOW SOCIETY

The initiative in Rekha's society was first introduced through a meeting organised by Anjali Yadav from Bharat Forge. Initially, 42 CPs were installed across the society. She remember the date on 22 Aug 2022 they installed our CP. I feel so good to compost out wet waste at home itself, I use manure for our garden. By composting wet waste right at home, I also realised how much waste we actually generate. Such project should be implemented on a large scale, as this will lead to the closure of waste depots/dumping grounds. I read in the newspaper that the young men in Urali area (dumping ground in Hadapsar) are unable to get married. Their marriages will take place. A major social issues will be reduced. If ech of us, as citizens, reduces our waste, such garbage depots will be shut down, the local residents of dumping area will no longer face any inconvenience.

"Such projects should be implemented on a large scale. This will lead to the closure of waste depots and dumping grounds and with that, a major social issue will also be resolved."

IMPACT CREATED ACROSS MULTIPLE LEVELS



INDIVIDUAL LEVEL

- Households have adopted waste segregation and daily composting practices as part of their routine.
- There has been a noticeable reduction in household waste generation along with improved cleanliness within homes.
- Beneficiaries have developed increased environmental awareness and more responsible waste management behaviour.
- Households are utilising compost for gardening, promoting sustainable and resource-efficient living practices.



COMMUNITY LEVEL

- The initiative has contributed to cleaner surroundings and improved sanitation conditions within communities.
- There has been a reduction in the dumping of mixed waste, leading to lower waste accumulation in common areas.
- Communities have experienced decreased dependence on municipal waste collection systems.
- The programme has strengthened community participation, encouraging peer learning and collective responsibility.



ENVIRONMENTAL LEVEL

- The project has contributed to a reduction in the volume of waste sent to landfills.
- Composting practices have helped lower greenhouse gas emissions associated with organic waste.
- The initiative promotes circular resource use by converting waste into compost.
- Overall, the programme supports environmental sustainability and responsible waste management.



STATE LEVEL

- The initiative aligns with national priorities on waste management and sanitation.
- It supports decentralized waste processing approaches at the grassroots level.
- The project demonstrates a scalable model that can be replicated in other regions.
- It contributes to strengthening sustainable urban waste management systems.

CHAPTER 5
PROGRAM SUSTAINABILITY

Overview

The "My Waste, My Responsibility" initiative is a community-based decentralized waste management project implemented by Know How Foundation (KHF) with CSR support from Bharat Forge Limited (BFL) in Hadapsar and Keshavnagar areas of Pune. The project promotes household-level composting through the installation of Composter Planters (CPs), enabling residents to manage biodegradable waste at source and reduce dependency on municipal waste disposal systems.

The initiative aligns with multiple Sustainable Development Goals (SDGs), particularly SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 17 (Partnerships for the Goals).

Key Achievements & Impact

Environmental Impact

The project has generated substantial environmental benefits through decentralized management of organic waste:

- 1,927 tonnes of biodegradable waste diverted from landfills, reducing the burden on municipal waste systems and preventing landfill accumulation.
- 482 tonnes of carbon sequestered in soil, contributing to climate change mitigation and improved soil quality.
- Generation of valuable soil nutrients through composting:
  - 4.77 tonnes of Nitrogen
  - 0.71 tonnes of Phosphorus
  - 1.29 tonnes of Potassium
- Creation of 13,910.84 litres of water-saving potential through enhanced water retention capacity of compost-enriched soil.

These outcomes demonstrate the effectiveness of source-level composting as an environmentally sustainable waste management solution.

Community Adoption and Behaviour Change

The project has witnessed strong community participation and ownership:

- 97.42% community acceptance rate for the composting technology.
- 97% of installed composters remain functional, indicating sustained adoption and regular usage by households.
- 96% of composters are functioning optimally, with healthy moisture levels and absence of odour or leachate issues.
- 97% of beneficiaries reported motivation to continue using composters, reflecting successful awareness generation and behavioural change.

The project has effectively transformed residents from passive waste generators into active stakeholders in sustainable waste management.

Social and Economic Impact

Beyond environmental benefits, the initiative has created meaningful social and economic value:

- Enhanced awareness on waste segregation, composting, and sustainable living practices through community engagement activities.
- Increased community empowerment by enabling households to independently manage organic waste and contribute to environmental conservation.
- Economic benefits generated through:
  - ₹23,897 worth of Nitrogen fertilizer savings
  - ₹1,78,266 worth of Phosphorous fertilizer savings
  - ₹61,979 worth of Potassium fertilizer savings
  - ₹15.42 lakh worth of compost generated and utilized by households
  - ₹31.62 lakh equivalent value from carbon social cost savings

The project has also demonstrated strong replication potential, inspiring neighbouring housing societies and communities to adopt similar home-composting practices.

The "My Waste, My Responsibility" project has successfully achieved its intended objectives of promoting decentralized waste management, encouraging responsible waste disposal behaviour, and creating measurable environmental and social benefits. By enabling 1,680 households to manage organic waste at source and diverting 1,927 tonnes of biodegradable waste from landfills, the project has established a scalable and sustainable community-led waste management model. Strong community acceptance, substantial environmental gains, and sound governance practices underscore the project's effectiveness, sustainability, and potential for replication across urban communities.



06. OECD FRAMEWORK



The program has been evaluated using the OECD-DAC criteria, which assess its Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability. Each criterion is rated on a scale of 1 (Low) to 5 (High) based on program performance.

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RELEVANCE

Improper waste management and lack of source segregation remain critical challenges in India, particularly in urban and semi-urban areas where increasing waste generation places pressure on municipal systems. The intervention directly addresses these gaps by promoting household-level segregation and composting. The findings indicate that a majority of respondents (80.3%) reside in independent houses, making them suitable for decentralized composting, while 63.6% belong to small families, enabling manageable waste handling. The high level of awareness driven by field coordinators (61.8%) further reflects strong alignment with community needs, confirming the programme's relevance.

★★★★★

COHERENCE

The intervention aligns well with national and global priorities on waste management and sustainability. It supports Swachh Bharat Mission and Solid Waste Management Rules 2016 by promoting segregation at source and decentralized waste processing. It also contributes to SDG 11: Sustainable Cities and Communities and SDG 12: Responsible Consumption and Production. By addressing environmental challenges through community-driven approaches, the programme complements broader efforts toward sustainable urban development.

★★★★★

EFFECTIVENESS

The intervention has been highly effective in driving behavioural change and adoption of sustainable waste practices. A significant 99.1% of households reported practicing waste segregation, while 98.2% adopted daily composting, indicating strong achievement of core objectives. Additionally, 99.4% of respondents found the training very helpful, demonstrating the effectiveness of capacity-building efforts. These outcomes highlight the programme's success in promoting consistent and correct waste management practices.

Index : 5 Points - Very High ; 4 Points - High ; 3 Points - Moderate ; 2 Points - Low ; 1 Point - Very Low

★★★★½

EFFICIENCY

The programme demonstrates efficient implementation through structured training, regular monitoring, and strong field-level engagement. High levels of adoption and minimal challenges (89.7% reporting no major issues) indicate smooth operational processes. Further, 56.4% of respondents were able to resolve issues independently, reflecting effective knowledge transfer and reduced reliance on external support. Continuous guidance and monitoring by field coordinators ensured timely issue resolution and efficient programme delivery.

★★★★★

IMPACT

The intervention has resulted in significant environmental and behavioural impacts. Nearly all respondents reported reduced household waste (99.4%) and cleaner surroundings (99.4%), while 98.5% experienced reduced dependence on municipal waste systems. Additionally, 92.1% reported increased environmental awareness, indicating long-term behavioural change. The initiative has contributed to improved sanitation, reduced landfill burden, and strengthened community-level sustainability practices.

★★★★★

SUSTAINABILITY

The programme demonstrates strong sustainability, with 99.4% of respondents expressing willingness to continue composting independently. Universal adoption of composting inputs (100%) and high daily usage (98.2%) indicate sustained practice. Furthermore, 61.8% of households are utilising compost for gardening, reinforcing circular resource use. The combination of behaviour change, skill development, and continuous support ensures long-term continuation of benefits.



Index : 5 Points - Very High ; 4 Points - High ; 3 Points - Moderate ; 2 Points - Low ; 1 Point - Very Low

CHAPTER 7
RECOMMENDATIONS



Strengthen outreach in apartments and dense settlements by introducing compact or community composting solutions, as current adoption is higher in independent households.



Provide additional support tools such as cutters, spray bottles, or troubleshooting guides to improve user convenience and efficiency of composting.



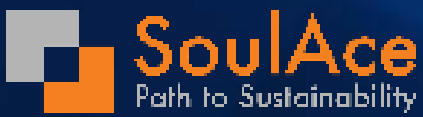
Explore partnership with local bodies to integrate the initiative with municipal waste management systems for scalability and long-term sustainability.

CHAPTER 8
CONCLUSION

The household-level waste management and composting initiative has demonstrated strong effectiveness in promoting sustainable waste practices and behavioural change among beneficiary households. The programme successfully enabled widespread adoption of waste segregation and daily composting, supported by effective training, continuous monitoring, and active engagement by field coordinators. The intervention has led to tangible environmental and social outcomes, including reduced household waste, cleaner surroundings, and decreased dependence on municipal waste systems. High levels of beneficiary satisfaction and willingness to continue the practice independently indicate strong ownership and long-term sustainability of the initiative.

The programme's emphasis on capacity building and community participation has ensured not only adoption but also consistency in practice, making it a scalable and replicable model for decentralized waste management. By promoting circular use of resources through composting, the initiative contributes to broader environmental sustainability goals. The project highlights the effectiveness of community-driven approaches in addressing waste management challenges and demonstrates how targeted interventions can lead to lasting impact at individual, community, and environmental levels, supporting a transition towards more sustainable and resilient waste management systems.





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