Assessment of Green Waste Management programme being implemented by SAAHAS in Bellary, Karnataka

Draft report

JSW Foundation

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Contents

Notice to the reader

- This report has been prepared solely for JSW Foundation (“Client” or “JSW-F”) being the express addressee to the report. JSW-F engaged Grant Thornton (‘GT’) to undertake a partner assessment of SAAHAS. The work performed was in accordance with instructions provided by JSW-F and was performed exclusively for JSW-F’s benefit and / or use.

- This report by its very nature involves numerous assumptions, inherent risks and uncertainties, both general and specific. The conclusion drawn are based on the information available with GT at the time of writing this report. The information contained in this report is selective and is subject to updating, expansion, revision and amendment. It does not purport to contain all the information that a reader may require

- Our work was limited to the specific procedures described in this report and were based only on the information and analysis of the data from quantitative survey of 139 beneficiaries inclusive of villagers, people from gram panchayat and qualitative interactions with one programme coordinator, 7 employees, 8 green workers. Our observations represent our understanding and interpretation of the facts based on reporting of the villagers and other key stakeholders.

1. Background and introduction

About JSW Foundation

Established in 1989, JSW Foundation (‘Foundation’) is the social development arm of JSW Group. The Foundation was started with an ideology that every life is important and must be given fair opportunities to make best out of it. The Foundation takes conscious steps to support and empower communities, primarily located around the plants of JSW Ltd. The Foundation’s focus areas are:

Nutrition	Skill development	Education
WaSH	Sports	Women empowerment
Sustainable agriculture	Art and Culture	Environment

The foundation supports local communities through its own initiatives or collaborates with other organizations in the target geographies.

About the programme

JSW Foundation has collaborated with SAAHAS to solve the existing waste management issue in Bellary, in a holistic manner focusing through the green waste management programme. The focus of the programme is collection and disposal of waste thereby increasing resource recovery from waste

Key strategic components of the programme:

- Awareness and Advocacy on waste management
- Training to green worker
- Door to door collection of waste
- Segregation of waste into dry and wet at household level
- Storage, sorting and sale of recyclable dry waste.
- Storage, loading and transportation of non-recyclables waste
- Composting of wet waste

Year-wise implementation details

Timeline	Key Activities	Key Outputs	Villages Covered
Phase 1: August 2015 - August 2016	• Advocacy • Awareness about waste management • Collection of dry waste • Storage of waste	• Almost 5000 households were covered for waste collection • Serviced by 5 collection staff member • Initiation of sending Non-recyclable dry waste to cement industry for co-processing	1. Gadiganuru 2. Gangalapura 3. Nagalapura 4. Bannihatti 5. Taranagara 6. Bhuvanahalli
Phase 2: August 2016 – March 2018	• Awareness about segregation of waste at source • Distribution of blue bags to store dry waste • Collection of dry and wet waste • Sorting of dry and wet waste • Dry waste for co-processing • Trial of Wet waste for composting	• More than 20,000 households and 1400 shops were covered for waste collection • 40% of dry waste sent for co-processing to the cement industry	Dry Waste Villages 1. Gadiganuru 2. Gangalapura 3. Nagalapura 4. Bannihatti 5. Taranagara 6. Bhuvanahalli
Phase 3: April 2018 – October 2019**	• Improve waste collection and segregation levels • Continues awareness campaigns • Improve sorting and initiate sale of recyclable waste • Reduce littering and improve visual cleanliness • Integration of the Vikas staff into Saahas roles • Handing over to Gram Panchayat	• Average 60% segregation levels across 12 villages • 65% of dry waste sent for co-processing • Integration of 76 Vikas staff in to Saahas pay-rolls	Wet Waste Villages 7. Talur 8. Vaddu 9. Basapura 10. Kurekuppa 11. Torangalllu RS 12. Toranagallu Village

**Phase 3 is on-going, however field visit was conducted in November 2019, hence the findings of this study are based on the outcome till October 2019

The overall process

Awareness Generation	Collection	Storage & Sorting	Recycling
• Awareness generation is done among the people about different types of waste generated at their household • Villagers are informed about source segregation of dry waste and wet waste and how it helps • Information about the harmful impacts of the waste on health – vector borne diseases, harmful effects of burning plastic etc. are given to the villagers to avoid littering	• Villagers are provided with a blue bag by the SAAHAS team to segregate and store their dry waste • Wet waste is being stored in buckets or earthen pots by the villagers • Wastes are collected from the households by the green workers in push trolleys • Collected waste is offloaded at the streets which is further picked up the auto vehicle	• Dry Waste collected is stored at the storage unit provided by the village panchayats. • The dry waste is further sorted and stored in the shed • The wet waste is sent to the village level composting unit wherever available • Wet waste collected from villages with no composting units, is sent to dump yard	• The recyclable dry waste is sold at local dealers • The non-recyclable dry waste is sent to the cement factories for co-processing.

Advocacy

Key stakeholders and their roles

Stakeholders	Roles
JSW Foundation	• Provide funding to SAAHAS for programme • Streamline processes to implement the programme
Community (Villagers)	• Segregate the dry and wet waste at the source and store them in their respective storage items • Avoid burning of waste and dumping of waste in public
SAAHAS Team	• Awareness creation among the villagers about recycling, reducing and reusing • Implementation of the programme across the 7 panchayats and 12 villages • Sale of recyclables, composting of wet waste, facilitating coprocessing of non-recyclable dry waste
Green Workers	• Support received from SAAHAS in term of PPE and uniform • Collection of dry and wet waste from the households • Sorting of the recyclable and non-recyclable dry waste
Gram Panchayat	• Support extended by the village panchayats to the community (land for disposal of waste; storage facility for dry waste) • Feedback on the programme - awareness sessions and door to door sessions • Program takeover from SAAHAS

2. Approach and methodology

Our approach is based on the theory of change

Problem	Activities	Outputs	Outcomes	Goal
• Burning and dumping of waste • Lack of mechanism to collect and process waste in the rural areas	• Awareness sessions about waste management and source segregation - public awareness events, joint event, training sessions conducted in schools • Door to door collection of waste • Transportation of the waste to the shed • Storage, sorting and sale of recyclable dry waste • Storage, loading and transportation of non-recyclable waste • Day to day monitoring of waste collected	• Increase in awareness among **beneficiaries** • Segregation - percentage(%) of dry and wet waste collected • Collection - total number of household, commercial establishments covered under waste collection. Quantity of dry waste and wet waste collected • Transfer - No. of push carts collected waste everyday. Average waste load transferred per pushcart • Sorting - Quantity of recyclable dry waste, non-recyclable dry waste and wet waste	• Improved segregation at source • Reduced burning of waste • Increased recycling of waste • Reduced disposal of waste at landfill	• Awareness among people about types of waste and benefits of segregation • Improved cleanliness and living conditions in the village • Proper disposal and processing of all types of waste. • Reduction in vector-borne diseases.

Methodology followed

- Understand project context and relevant aspects through discussions with partners and document review
- Design the assessment framework, ensuring coverage of all OECD-DAC principles, and get feedback from sector specialists at JSW Foundation
- Finalize sample to be covered
- Develop data collection tools for identified stakeholders

- Induction and orientation of data collection team
- Conduct site visit, In-depth interviews with different stakeholders
- Documentation of programme assessment and observations

- Data analysis, desk research and mapping to the OECD principles and generate findings
- Prepare and submit draft findings for feedback
- Prepare and submit final reports

OECD-DAC programme assessment framework

OECD-DAC	Area of inquiry
Relevance	• What is the level of awareness among people in terms of waste management? • What is the current level of segregation in the villages? • How are the people now disposing off waste? • What is the situation of cleanliness in the villages?
Effectiveness	• How many villages and households were covered under the programme? • What is the percentage increase in the level of segregation in the villages? • How are the villagers collecting dry waste and wet waste? • How is the waste being disposed in the villages now? • What is the situation of cleanliness in the village now?
Efficiency	• Are the funds used in an optimum and timely manner? • Review the utilization certificate for expenditure trends • Review the compliance of the utilization certificate as per the MoU • Review for timely submission of the utilization certificate
Impact	• How has the programme improved the condition of the village? • How has the intervention been instrumental in training the villagers for proper segregation of waste and setting up a waste disposal mechanism?
Sustainability	• Which government schemes and affiliations can the programme leverage in order to self-sustain? • Would the community members be willing to pay for the waste collection? • How willing and capable are the gram panchayats to carry on and implement the objectives of the programme ?

COVERED IN THE FINANCIAL REVIEW REPORT

Sampling design

- Sample selection was done in consultation with the SAAHAS team and JSW Foundation team
- For the purpose of this study, beneficiaries from 6 (out of 12) villages, members from gram panchayat from all the villages, one government official, 2 health officials. green workers and SAAHAS team member were consulted

Type of intervention	Village covered	Mode	Sample covered
Dry waste	Gadiganuru	PI	2
		FGD	5
	Bhuvanahalli	PI	2
		FGD	23
	Nagalapura	PI	6
		FGD	17
Wet waste	Vaddu	PI	14
		FGD	23
	Basapura	PI	9
		FGD	25
	Kurekuppa	PI	2
		FGD	19

Stakeholder consultations and the tools used for data collection

Stakeholder	Qualitative		Quantitative
	Key informant interviews	Focus group discussions	In-depth Interviews
Villagers		✓	✓
Gram Panchayat members		✓	
Government officials	✓		
Green workers	✓	✓	
SAAHAS team			✓
JSW-F local team			✓
*Health officials			✓

*Discussion with health officials from Gandhiganuru and Torangullu

Limitations of the study

- Data collection was done by physically visiting the site. The data collection was undertaken in cognizance with the JSW-F team with prior acceptance on methodology, coverage plan, survey tools and indicators.

- The information collected for this study is through physical site visits with individuals (villagers, green workers, gram panchayat, SAAHAS coordinator and employers). Accuracy of data cannot be validated due to language barriers. We have relied on the information shared by these sources. Due to field challenges, the number of respondents is based on the availability of the beneficiaries. The scope of work here does not constitute an audit or due-diligence of the information shared, hence information received from the various sources was believed to be accurate.

- This report should not be considered as an expression of opinion on any form of assurance on the financial statements of or on its financials or other information.

- Grant Thornton India LLP holds no responsibility on accuracy or sanctity, or authenticity of information provided by company or implementing partner or stakeholders covered or any other party involved, and results / references drawn basis the same.

- The recommendations provided as part of the assessment exercise may be implemented after an analysis of prioritization. The decision to implement the recommendations is the responsibility of the management of JSW Foundation.

3. OECD DAC assessment

3.1 Relevance

- Need for Waste Management
- Implementation of “Beyond the Broom”

Need for Waste Management – Swachh Bharat Mission (SBM) / Total Sanitation Campaign (TSC) …1/2

- The Total Sanitation Campaign (TSC) was launched in 1999 by the Government of India, with initial focus on achieving open defecation free (ODF) status at the Gram Panchayat (GP) level.

- Gradually, sanitation coverage and usage had been scaled up and the focus of TSC had been widened to include hitherto neglected aspects of total sanitation such as Solid Liquid Waste Management (SLWM).

- SLWM was formally included in the TSC Guidelines in 2006. The Government of India had allocated 10 percent of the total TSC budget in a district to cover capital costs of SLWM works.

- Also, as per National Annual Rural Sanitation Survey (NARSS) ROUND-2 conducted for FY 2018-19, only 42.8% of rural population in Karnataka practice SLWM, which stresses the need of waste management programs in the rural regions.

Need for Waste Management – Swachh Bharat Mission (SBM) / Total Sanitation Campaign (TSC) …2/2

This campaign established that a GP-led approach with the complete involvement of the community can be an effective approach to tackle the rural waste management problem. The key initiatives of the GP-led approach involving community are listed below:

Community participation and ownership, based on a felt need through a participatory process	Household based treatment and management, Community-based collection, treatment and disposal systems	Promotion of effective waste management principles
Building capacity at the local level to manage and maintain facilities	Involvement of community-based groups [for example, youth clubs, self-help groups (SHGs)]	Segregation at source of solid waste (biodegradable and non-biodegradable) and liquid waste (gray water and black water)
Promotion of a variety of technologies that are user-friendly and affordable	Involving recyclers (for example, kabadiwalas) as partners	Developing an effective financial model to address capital and operational costs

Implementation of Beyond the Broom …1/2

- During the focus group discussions with community, the respondents identified that the major problem prevailing in the past was non-biodegradable waste. The waste used to be littered on street and the non-decomposable waste used to clog the drain.
- Though few of the villages had a composting setup for the biodegradable waste, due to lack of segregation at source the processing of both the biodegradable and non-biodegradable waste was getting hampered. Saahas has set up a proper system for collection and management of the non-biodegradable waste to address most of these issues.
- The two key principles around which this program is built are source segregation and decentralized waste management. These two concepts together help in ensuring that the waste landing at the landfills is reduced.
- The awareness created through the programme has imparted knowledge to people about the importance of waste management (segregation at source, proper storage and disposal of waste).
- The survey shows that almost **95% people were aware about segregation and were practicing segregation at source**. The same can also be supported through the **segregation levels on average ranges between 50% - 70% across all the villages**. This has also led to significant increase in the amount of dry and wet waste being collected from the households and shops as the littering has reduced.

Implementation of Beyond the Broom …2/2

- During our field observation, we found that **60% of the beneficiaries are now storing the dry waste in the blue bags given by the SAAHAS team**. Post proper collection mechanism, there has been a reduction in the burning of waste and dumping of waste on the streets and drains.
- Dry recyclable waste is being sorted and sold to the local scrap dealer, non-recyclable is being sent to the cement plants for co-processing, and the wet waste is being composted at village level composting units.
- The situation of the villages have also improved significantly. During the field visit, we did not find waste littered around public places or dumped on fallow lands.
- More than **70% of the villagers were directly handing over their waste to the green workers**. The drainage system of the villages were also functioning properly, and wastewater was flowing smoothly. This also resulted in a reduction in the vector-borne diseases.
- **During the field visit, we found that there was absence of well-defined objectives and targets laid down for the program which posed a challenge to comment on the performance of the program. Therefore, the relevance of the programme could not be validated against a benchmark. It was observed that there has been increased awareness, improved segregation and reduced dumping of waste in the target area**

3.2 Effectiveness

- Program Outreach and Coverage
- Shift is Disposal Practices
- Awareness Generation
- Awareness, Disposal and Segregation
- Improved Quality of Life

Program outreach and coverage …1/2

- Under the program, as per the information gathered through the MIS provided by Saahas, **more than 20,000 houses and 1400 shops were reached through this initiative**. More than **30 awareness events were conducted per year increasing the awareness among the people up to 90% in the villages**. The same can also be validated through our field study observations.

- During our field study, we found that **average 60% segregation level for dry and wet waste has been achieved in most of the villages. Out of all the villages, 2 villages have achieved a segregation level of more than 80%. The same was also corroborated in our discussion with the Gram Panchayats**

- The SAAHAS team has distributed blue bags to store the waste. The wet waste is being stored by the villagers in buckets and earthen pots. However, overtime the bags distributed have been torn out. People are now using gunny bags, rice and wheat sacks to store the waste. One challenge that arises, wet waste is collected in bins, measuring every bin would not be possible as it would require having weighing machine in every waste trolley. Hence waste is estimated though count of bins and therefore the quantity of wet waste is an approximation and not the actual quantity. The dry waste is weighed at the actual measurement of every bag

Program outreach and coverage …2/2

Timeline	Villages covered	Dry	Waste
Jan 16 – Mar 16	3	8 tonnes	No collection
FY 2016 – 17	9	85 tonnes	No collection
FY 2017 – 18	12	250 tonnes	3,200 tonnes
Apr 2018 – Oct 2019	12	790 tonnes	8,500 tonnes

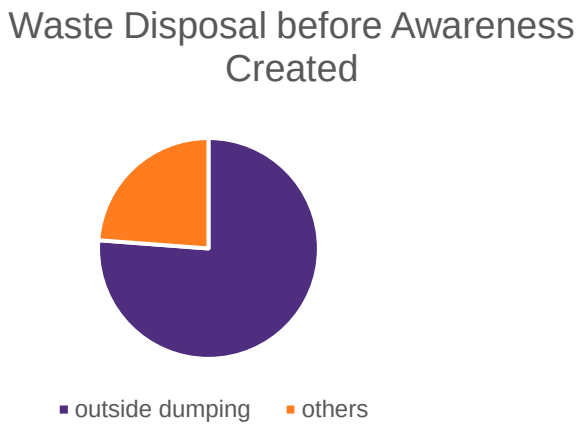
- Out of the total dry waste collected, approximately 500 tonnes of non-recyclable waste was sold to ACC cement plant. 30 tonnes of dry recyclable waste was sold to the local scrap dealers.

- The collection process involves collection of the dry waste being done once a week in all the villages, whereas the wet waste is being collected twice a week in the applicable villages. The dry waste is being stored in the blue bag distributed and the wet waste is being stored in buckets.

Shift in disposal practices

Before SAAHAS

- 75% of the people interviewed used to dump their wastes outside previously while others resorted to other methods
- As for their wet waste nearly 72% of the people interviewed had outside dumping as an option to dispose of wet waste while the rest 28% had other methods of disposal



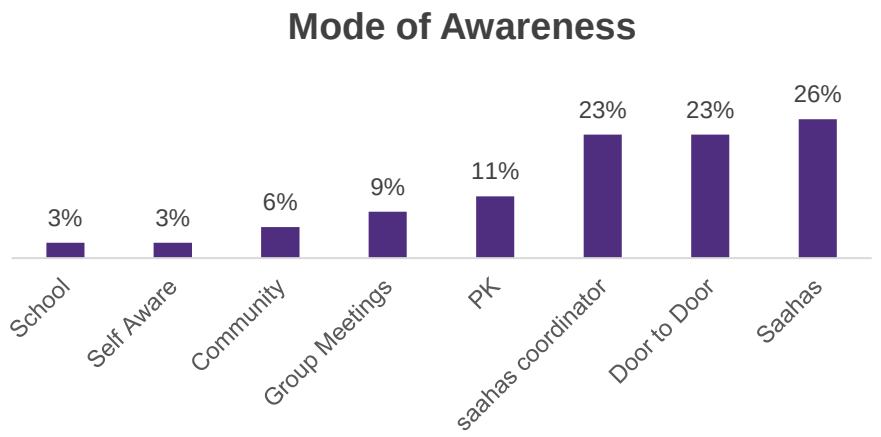
Post SAAHAS

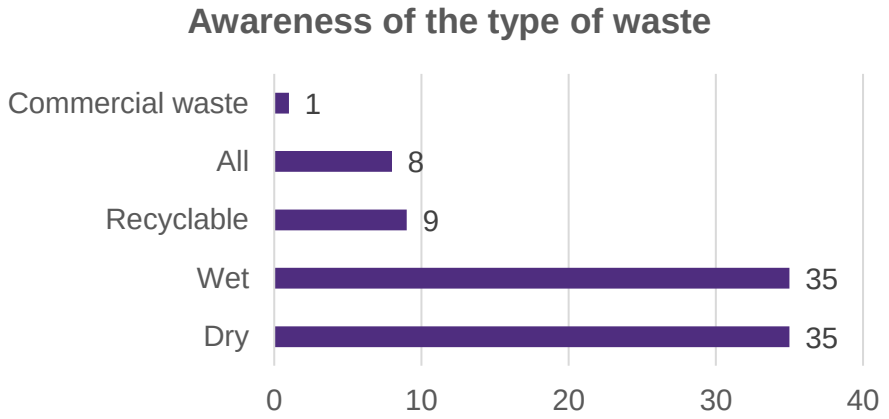
- 60% of the people interviewed were now handing over their dry waste to the green workers while the rest 40% had other ways to dispose of their dry waste
- As for their wet waste nearly 29% of the people interviewed depended on green workers for disposal while others disposed off in a different way
- For dry waste collection 85% of the time the waste is collected once a week
- For wet Waste 45% of the people get their wet waste collected by green workers twice a week while 16% of the people get it done daily
- Discussion with the Gram Panchayat members gave us a similar view on this

Overall 76% of the people interviewed did not give any charges for the waste collection service they receive through SAAHAS Green Worker

Awareness generation

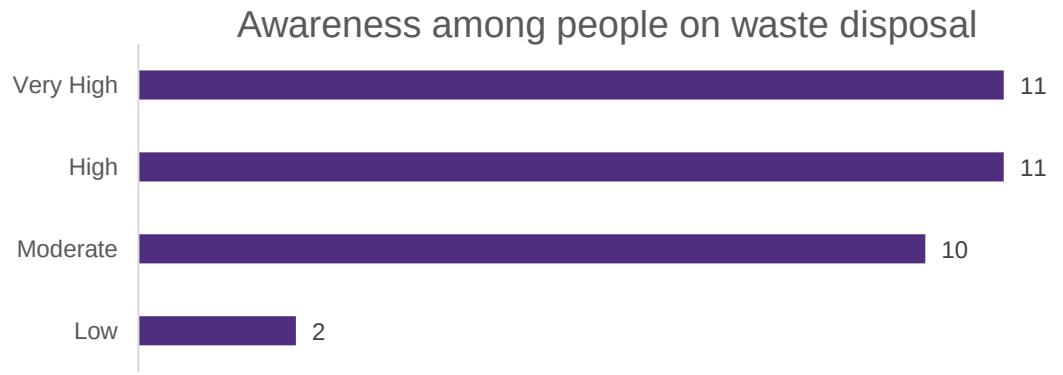
- Around 26% of the people interviewed had been made aware of the different types of waste through SAAHAS initiative
- 23% of them had been made aware of the different types of waste through door to door awareness by the SAAHAS coordinator
- Multiple rounds of trainings, both formal and informal were conducted for the collection and sorting staff. During these trainings, the staff were sensitized about the need for having a scientific and holistic waste management, benefits of source segregation, need for hygiene at work, safety measures they need to follow and basic first aid
- Every household interviewed knew about the dry and wet waste with nearly 23% having the idea about all three kinds of waste
- 26% of the people interviewed knew about recycled waste
- Overall 60% of the people interviewed recycled their waste. SAAHAS campaigns and door to door involvement was the most popular outreach strategy which helped in creating awareness
- Our discussion with the Gram Panchayat members also gave us a clarity about the awareness level amongst the villages and the sense of ownership

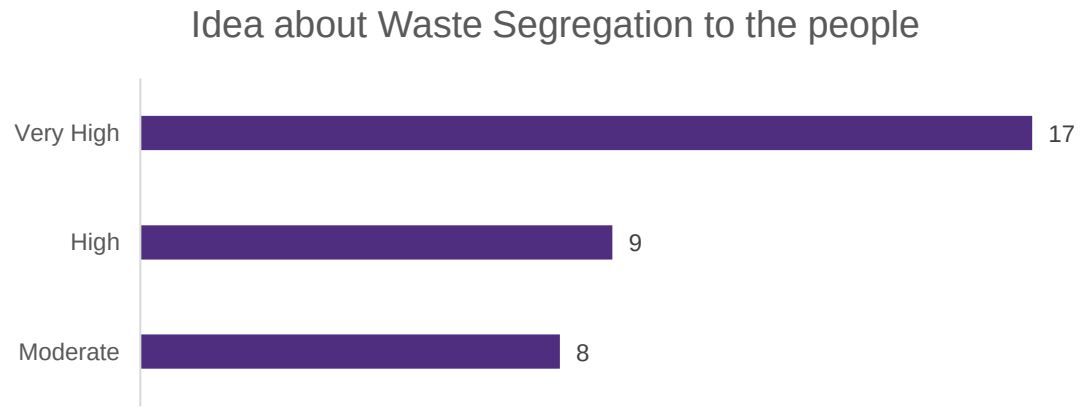




Awareness, disposal and segregation

- 24% people interviewed had awareness on the dry waste disposal post collection, while for the wet waste, it was nearly 12%
- 60% of the people had started reusing their wastes post the awareness programs
- Plastic materials such as plastic utensils, containers are the bottles are the most reusable items followed by clothes
- Among the number of people interviewed above 60% had a high or very high idea about waste disposal
- Nearly 50% of the people perceived high on the process of waste segregation while the rest perceived moderately. This indicates that the whole place has been sensitized regarding waste segregation and disposal
- Every interviewee had a fair idea about the benefits of waste management and 60% of the people have imbibed in them the idea of reduce, reuse and recycle- this can be concluded as a direct outcome of the interventions by the SAAHAS

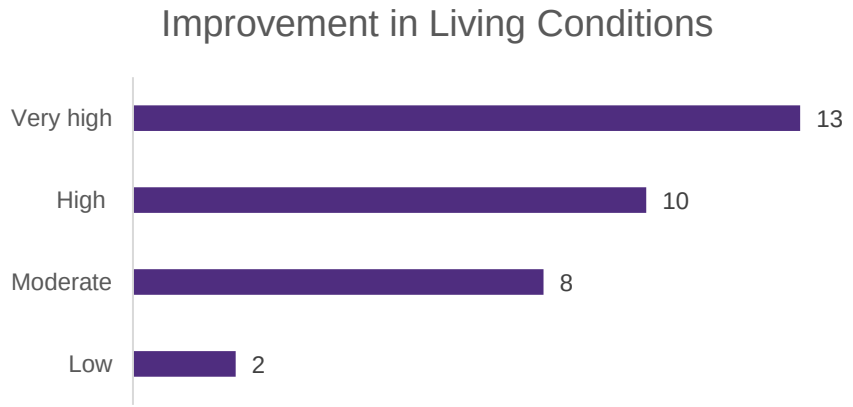




Improved quality of life

The findings from the field survey revealed:

- 60% people said that the cleanliness of the village enhanced post the intervention while 25% think that the improvement in cleanliness is moderate
- Nearly 61% of the people felt that the quality of life has improved post the intervention
- Nearly 70% of the people reported that their health improved post the intervention
- Nearly 65% of the people reported a reduction in vector borne diseases post the implementation of proper waste disposal and reduced littering in the public places. Also our discussion with the health officials revealed a reduction in malaria. However, in last 3 years there has been an increase in the cases of Dengue in the villages. Proper awareness needs to be created among the people about the disease and its prevention.
- It is evident from the interviews that the living condition and cleanliness in the villages have enhanced drastically which cab be attributed as a direct outcome of the interventions by the SAAHAS
- Concerns around the maintenance of blue bag provided to them for disposal, around 23% claimed that the maintenance is low while the views of nearly 32% ranges from high to very high



Blue bag distributed by SAAHAS to collect dry waste

3.3 Efficiency

Efficiency

Please refer the financial review report for details

3.4 Impact

- Reduced Waste Disposal
- Improved Waste Processes
- Wet Waste Composting

Reduced waste disposal

- The improved segregation levels have shown a drastic improvement in the conditions of the villages. Earlier in 2015 and 2016 the entire collected waste was mixed waste the entire dump was getting dumped at the site. Post awareness sessions, segregated waste was provided to the SAAHAS team. In 2016 - 2017, as per the information captured in the MIS, **waste segregation had started up to a certain level and almost 40% of the dry waste collected was sent to the cement industries and the rest was being dumped**. The wet waste being dumped.
- Post 2017, a lot of awareness events were conducted, and new villages were also added. This significantly increased the amount of waste collected. Segregation levels increased across the villages and wet waste also started getting collected. In 2017 as per the MIS, out of the total dry waste collected, **90% of the dry waste(non-recyclable) was sent to the cement industries which significantly reduced dumping of the dry waste**. The wet waste was being composted at few villages as per availability
- In 2018, more emphasis was given to sorting and recycling. The dry waste collected was further sorted at the storage facility into recyclable dry waste and non-recyclable dry waste. As per MIS and our discussion with Saahas team, **almost 70% of the dry waste (non-recyclable) was sent to the cement industries**. Remaining 30% of the dry waste is being disposed off in a landfill site, 22 kms away from the Bellary district. Approximately 5% of the dry waste (recyclable) was being sold at the local scrap dealers. This clearly indicates the impact of the programme in reducing the dumping of waste.
- Prior to the initiative, some people were burning their waste. The findings from the survey show that almost **90% people are now aware of the harmful impacts of the burning of waste and have now stopped burning the waste** and are handing over their waste to SAAHAS

Thus, it may be inferred that the initiative has brought about a positive impact and has reduced the harmful impacts of waste disposal

Improved waste processes

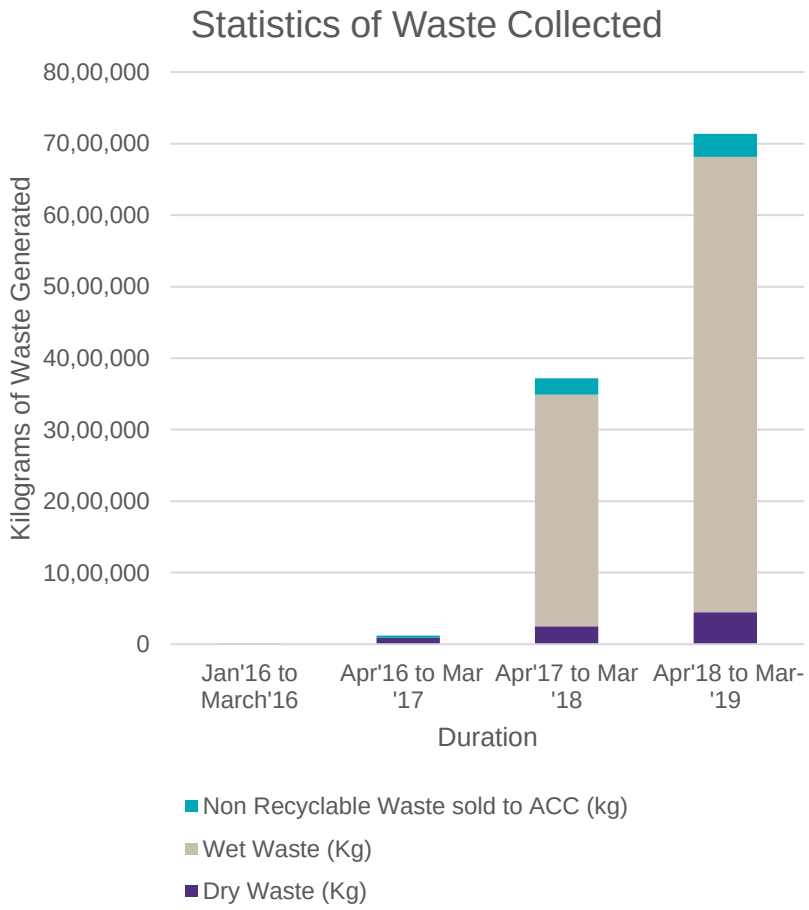
Reduction of Littering in Public Areas

- To reduce litter, shops were encouraged to keep cardboard boxes in their shops
- People were also asked to use the bags hung outside the houses/shops to dispose off waste
- In addition, multiple cleanliness drives were done across villages.
- From December 2018, the collection staff also started sweeping the common areas of the villages to ensure visual cleanliness of the villages

Improve waste collection and segregation levels

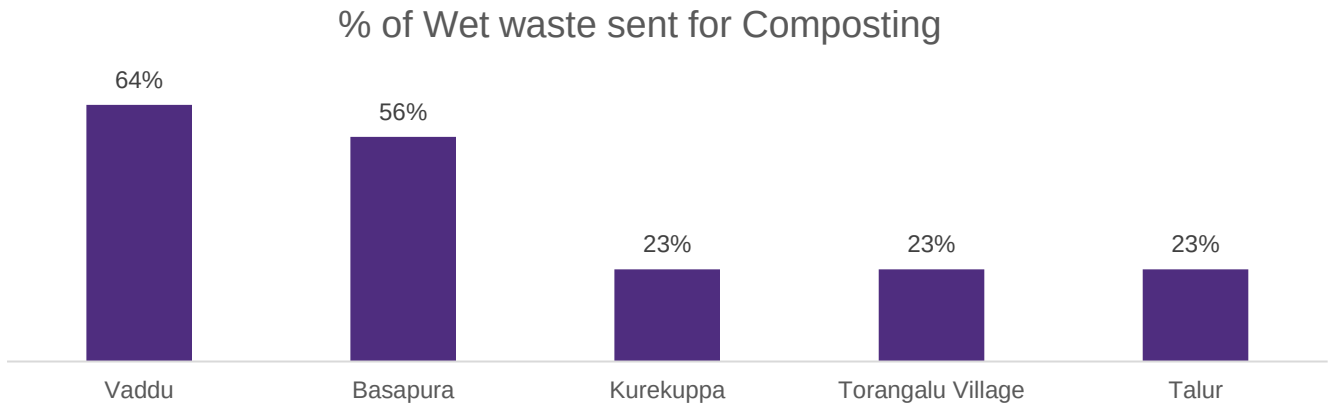
- People started using their own bags for storing the dry waste
- Bags that the team could retrieve during sorting of the waste were distributed to the village residents for storing dry waste
- Regular door-to-door awareness and public events were conducted to motivate people to segregate and hand over their waste to the collection staff.

As a result, total quantity of waste collected has gone up significantly for wet and dry waste. From March 2018 to April 2019 due to improved segregation 17102 kg of dry recyclable waste was sold at Rs 96735 and worth Rs1,17, 778 for 24,457 kg in the fiscal year 2019-2020



Initiation of wet waste composting

- In order to solve the problem of wet waste disposal, initiation of composting wet waste at village level in a decentralized way was done at Basapura, Vaddu, Kurekuppa TMC, Toranagallu Village and Talur on a trial basis
- In Talur the land was provided by farmers, in other locations the land was provided by Gram Panchayat and TMC
- NADEP Type of composting technology was adopted to generate compost at all locations
- The wet waste collected at all the villages was composted at these village level composting units. This was further used for agricultural activities



Composting unit setup in one of the villages

3.5 Sustainability

- Handover to Gram Panchayat

Handover to gram panchayat

The plan for the programme operational sustainability has been laid down by SAAHAS. The handing over the programme to the Gram Panchayat will help in transition of the programme to a self-sustainable model. Few of they key activities to successfully implement the plan have been laid down below:

- Work with ZP CEO office to build ownership of the GP Presidents
- Form Cooperative / engage Entrepreneur with whom the GP can contract out the SWM activities for Vaddu. For smaller GPs like Bannihatti & Gadiganuru, the SWM staff can be paid salaries through the user fee collected by the GPs.
- Amend the bye-laws to charge user fee, check for schemes that can fund the SWM infrastructure. Fee of ₹15 from Households for only dry, ₹30 for wet and dry, ₹100-150 from shops based on their size.
- Gradually reduce the salary component paid by the CSR. Transition of the staff from SAAHAS to GP
- Set up ward/street level committees to monitor the program and build ownership in the village residents

SAAHAS tried the Handover of Gadiganuru and Bannihatti to the GP. The snapshot indicates:

- Institutionalizing the user fee collection to make the program sustainable was done at Gadiganuru and Bannihatti GP
- User fee of ₹25 per household is being collected from November 2019 for implementing solid waste management
- This account has been opened under the name “Gana Tyajya Nirvahane” in both GP’s Training for specifically handling specifically solid waste

4. Recommendations

Structured model

SAAHAS is making a significant change in the villages of the project area by reducing littering and burning of waste and proper waste disposal. Their work has brought about a positive impact across the village, however, there still lies few areas of improvement, which on adoption, can further boost the existing achievements.

A proper structured framework could help in efficient implementation of the program within the allocated funds. Some of the key activities are listed below-:

- A proper well drafted MOU with the donor organization clearly mentioning the desired objectives and outcomes from the project
- Defined short-term targets for every year and long-term targets to achieve the programme objectives. The same will also help in monitoring the performance of the program
- Incorporating additional key performance indicators for holistic overview of the programme
- Robust MIS system for daily monitoring and tracking the information
- Saahas can explore further avenues to minimize the disposal of the dry waste at the landfill site

Thus, a well-defined framework would help a program perform on all the expected parameters and further facilitate in achieving the donor's objective

Gram Panchayat Waste Management Setup …1/2

- The jurisdiction has laid down bylaws for solid waste management of the villages and hamlets within the village, panchayat
- These bylaws are prepared keeping in view the Constitution of India (Articles 243G, 243H, 243I, and 280) and the Guidelines of the Swachh Bharat Mission (G) for solid waste management in rural areas.
- The Village Water and Sanitation Committee (VWSC) will be appointed Executive Authority to plan, collect, treat and dispose kitchen wastes, and other domestic waste generated by households, shops and other establishments within the boundaries of the Panchayat.
- The VWSC shall put in place a proper system for solid waste management for this GP. It shall fix terms and rates under which wastes generated by residents shall be collected and disposed in a manner that is healthy, and overall cleanliness of the village shall be maintained.
- Solid waste generated by households, shops and establishments, and marriage halls within the GP shall be handled by a team of sanitation workers trained and appointed by the VWSC with the approval of the GP on terms set out in this bylaw (and related rules to be intimated when required).
- Differential rates will be applicable to different category of residents such as households, tea stalls, village restaurants and eateries, marriage halls, schools and offices if any, vegetable markets, mutton and chicken stalls, grocery shops etc.
- Revenue collected for providing solid waste management (SWM) services shall be used only for the purpose of operation and maintenance of the said services including the workers' salary, employed additionally (or made to work for extra hours) for this purpose

Gram Panchayat Waste Management Setup …2/2

The following financial assistance are provided by government under SBM phase 2

- Rs 12,000 assistance to per family (BPL and identified APLs) for construction of IHHLs which includes water storage facility
- For villages up to 5,000 population, an assistance of Rs 60 per capita for SWM and Rs 280 per capita for grey water management
- For villages above 5,000 population, an assistance of Rs 45 per capita for SWM and Rs 660 per capita for grey water management
- Each village can utilize a minimum of Rs 1,00,000 for their solid waste and grey water management
- Upto Rs 3,00,000 for forming community sanitary complex
- Revolving Funds is 5% of the project outlay and cab be subjected to a maximum of Rs 15,00,000 per district which can be given to self help groups, societies or other groups as decided by states. Loan from this fund needs to recovered within 12-18 months.
- Up to 5% of the total funding can be spent on information, education and communication and capacity building
- Up to 1% of the funding can be used for administrative duties which includes salary of outsourced/contractual staff, consultants and agencies hired for execution of various components of SBM (G) at State, District, Block and GP levels.
- The Flexi funds available can be used by the states as per Ministry of Finance guidelines for technology and innovation at state level to meet the local needs within the overall objective of the scheme

5. Case studies

A choice that paid off

Residing in a small village of Kurekuppa which falls under the Sandur taluk of Bellary district in the southern part Karnataka, they did not have any idea about the segregation of waste or waste management.

The family of 5 came in association with SAAHAS in 2015 and since then their methodologies regarding waste disposal have undergone a paradigm shift.

Through door to door campaign and PK, they have been made acquainted with dry ,wet and recyclable waste and given blue bag for waste collection.

Now aware of the benefits, they have started using the blue bag for their dry waste collection instead of outside dumping which the SAAHAS coordinators collect once week.

Speaking of the benefits of waste management and reduction in waste, they claimed to have reduced their wastes by making plastic DIY.

Speaking of the benefits of waste reduction in the village, they claim that it has made the village aesthetically pleasing and have improved living condition. Due to less littering the health condition and chances of vector borne diseases have reduced in their area.

> “ Reduced disposing Plastic Waste by making Plastic DIY”
>
> Kurekuppa, Bellary

Artistic Expressions

Residing in a small village of Gadiganuru which falls under the Bellary district in the southern part Karnataka, the beneficiary did not have any idea about that waste recycling can be cost saving

The family of 2 came in association with SAAHAS in 2014 and since then their methodologies regarding waste handling have changed drastically.

SAAHAS coordinators informed them about the benefits of waste management and gave them a blue bag for waste collection. Their household waste consists of kitchen waste and vegetables and plastic, paper and pet bottles in dry waste.

Now aware of the benefits, they have started using the bins for their dry waste collection instead of outside dumping which the SAAHAS coordinators collect once week.

Being aware of the reduce, reuse and recycle they have started making door mats out of the torn clothes and flower pot out of the glass jar.

Speaking of the benefits of waste reduction in the village, they claim that it has made the village aesthetically pleasing and have improved living condition. Due to less littering the health condition and chances of airborne diseases have reduced in their area.

> "After being made aware about reduce, reuse and recycle they have started making door mats out of the torn clothes and flower pot out of the glass jar"
>
> Gadiganuru, Bellary

A journey towards awareness

Residing in Basapura which falls under the Bellary district in the southern part Karnataka ,he had awareness about the ideology governing waste management but before the intervention by SAAHAS they did not have a proper methodology in place in disposing their waste.

The family of 3 came in association with SAAHAS for the last three years and since then they have incorporated proper method for waste disposal

SAAHAS coordinators provided them with a blue bag which they used for dry waste storage .Post the damage of the blue bag they have started using their own bag for waste disposal. SAAHAS coordinators maintain the cleanliness by picking up both their dry and wet waste on a biweekly basis. They are moderately happy with SAAHAS maintaining the blue bags that were provided to them

Being aware of the reduce, reuse and recycle they have started reusing their plastic bottles to reduce the total waste generation.

Speaking of the benefits of waste reduction in the village, they claim that it has made the village aesthetically pleasing and have improved living condition. Due to less littering the health condition and chances of vector borne diseases have reduced in their area.

> “Being aware of the reduce, reuse and recycle they have started reusing their plastic bottles to reduce the total waste generation”
>
> Basapura, Bellary

Maximum Utilization of Available Resources

Residing in Vaddu which falls under the Bellary district in the southern part Karnataka ,he is considerably new to be associated with SAAHAS.

The family of 5 came to know about the initiative through community awareness 6 months back and since then have come a long way in waste management.

Being aware of the differentiation between dry and wet waste they use their own bag for keeping dry waste instead of dumping it .

Now aware of the benefits, they have started using the bins for their dry waste collection instead of outside dumping which the SAAHAS coordinators collect once week.

Being aware of the concept of reduce, reuse and recycle they have remarkably reduced their clothes waste. They have started making foot mats and curtains out of old sarees.

Speaking of the benefits of waste reduction in the village, they claim that it has made the village aesthetically pleasing and have improved living condition. Due to less littering the health condition and chances of airborne diseases have reduced in their area.

"They have started reusing old sarees post their lifecycle by changing them into foot mats and curtains leading to maximum utilization"

Vaddu, Bellary

A journey towards recycling

Residing in the village of Basapura which falls under the Bellary district in the southern part Karnataka, the family of 7 has been in association with SAAHAS for the last four years.

When SAAHAS conducted a door to door campaign, their coordinators informed them about the benefits of waste management and gave them a blue bag for waste collection.

Presently, they have started using their own bags for storing their dry waste collection and buckets to store wet waste instead of outside dumping which the SAAHAS coordinators collect once week. The wet waste gets collected biweekly. They are extremely happy how the blue bag provided to them is maintained.

Being aware of the concept of reduce, reuse and recycle they have started reusing paint boxes to reduce waste generated.

Speaking of the benefits of waste reduction in the village, they claim that it has made the village aesthetically pleasing and have improved living condition. Due to less littering the health condition and chances of vector borne diseases have reduced in their area.

"After being made aware about reduce, reuse and recycle they have started reusing paint boxes to reduce waste"

Basapura, Bellary

6. Caveats

Caveats

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- The information collected for this study is through interactions with various stakeholders, information shared by respondents and backend data provided by SAAHAS. We have relied on the information shared by these sources. The scope of work here does not constitute an audit or due-diligence of the information shared, hence information received from the various sources was believed to be accurate.
- This report should not be considered as an expression of opinion on any form of assurance on the financial statements of or on its financials or other information.
- The recommendations provided as part of the assessment exercise may be implemented after an analysis of prioritization. The decision to implement the recommendations is the responsibility of the management of JSW Foundation.

Caveats

- Data collection was conducted in cognizance with JSW Foundation with prior acceptance on approach, methodology, coverage plan, survey tools and indicators.
- Owing to communication gap, it was challenging to make interviewees understand the purpose of the survey and ensure that correct data was accordingly gathered.
- Project and Result frameworks were not available for the programme for evaluation study, in absence of which, the study was conducted basis information and understanding provided by programme team.
- Grant Thornton India LLP holds no responsibility on accuracy or sanctity, or authenticity of information provided by company or implementing partner or stakeholders covered or any other party involved, and results / references drawn basis the same.

Thank you