

Solid Waste Management – A Case Study of Shashwat with Urban and Rural interface

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Introduction

Shashwat Eco Solution Foundation is nonprofit organization from Pune working in environment sector since 2010 in the areas of Water, Solid Waste management, Waste water, Village Development, Environment education, Environment and festival through mainly various CSR projects and government funding. Shashwat is team of expert with national and International expertise. Here we are presenting a case study under Solid Waste Management.

Abstract:

We are aware of status of Solid Waste Management in India. After putting huge funding for many years the status of management is becoming challenging day by day. The need of hour for successful management is "segregation at source". Effective segregation of waste at the source leads to successful implementation and efficient functioning of technologies which instrument reuse of resources and economic aspect of Solid Waste Management. There is a lacuna in household system in India that the waste is not segregated so the treatment system did not run effectively. Apart from huge waste generation and good potential of generating resources like compost, biogas, alternate energy from waste and the availability of good technology providers, various options and putting huge funding the success ratio is not as expected. There is need to improve segregation at the household level and also to develop the habits and change in behavior for no littering to keep our surrounding and nature clean for better health and environment.

Considering this we, Shashwat Eco Solution Foundation an NGO working in Environment sector in Maharashtra, India has initiated a capacity building activity in urban and rural sector for various stakeholders to promote segregation at the source and wet waste composting at household or society level. Shashwat has initiated diverse projects at different location considering rural and urban population.

Project 1- Green Mahabaleshwar Project

The challenge of Solid waste management is Segregation at source. Capacity building, sensitization with different target segment and behavior change is 3 important factors.

Shashwat Eco Solution Foundation has initiated project at Mahabaleshwar, a famous hill station and tourist place in Maharashtra where fix population is 12000 and floating population like tourists is 1.4 million people in year. The project was

awarded by Ministry of Environment and Forest under “Green Idea program” through Mahabaleshwar Municipal Council in 2014-15.

At the first footstep, Stakeholders are identified and categorized under Waste generators, Messengers to Community and various Governing bodies. Individual stakeholder’s meetings and capacity building was organized. Schools were focused to inculcate habits in future generations. All the activities were interactive to ensure participatory approach for “No littering, No spitting, Segregation of Waste and restriction on use of Plastic carry bags”. Well known Television media has also joined hands to disseminate this approach to all over Maharashtra. The council has issued notices to shop vendors for ban of 20 micron and below plastic bags and declared legal action. Notices were issued to all hotels and resorts that waste will be collected by council if it is segregated only. Being hill station hotel industry is prominent so for big resorts and hotels with farm houses composing system at their own premises was made mandatory. Local NGO and CBO association and association of rag pickers were promoted for collection of waste at different view point restaurants. The collection system with beneficiaries is strengthened.

Achievements

Vasundhara Award 1st Prize from Maharashtra Pollution Control Board in State of Maharashtra for Council for this project



Mr Adesh Bandekar as Brand Ambassador



Panel Discussion in presence of Hon. CM, Mr Devendra Phadanvis

Photographs on Site-



Street Play/Carnival



Community Meetings



School Bazaar

Project 2-Comprehensive Waste Management Program, Kandivali (W)

After successful completion Green Mahabaleshwar Project, the challenge was to educate urban population of society.

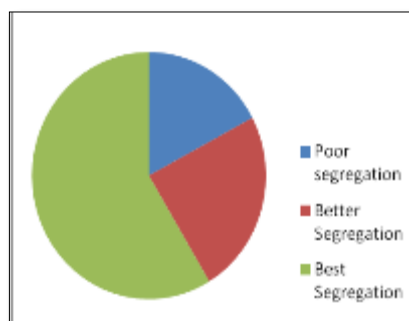
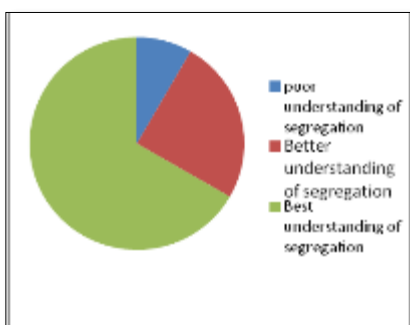
Shashwat Eco Solution Foundation have undertaken this project and implemented at Kandivali (W), Mumbai. The project was under CSR initiative of ACG cares Foundation. Target segment is lower middle income group and middle income group in Charkop sector 1, Ekta Nagar at Kandivali (W), Mumbai. Around 30 housing societies with 35 households in each society means 3000 households with around 15000 populations is targeted. Initial survey at household level is conducted to understand basic knowledge and present status and practices of waste management. Interactive training program is designed by using games, quiz with participatory approach to motivate and sensitize community for effective segregation of Waste. Mumbai Municipal Corporation (BMC) has joined hands and distributed household 2 bins for wet and dry waste. A local political member, corporator has supported and ensures community involvement and provided bin for wet waste at society level. Under this project, bin for Dry waste is provided by us. Also we have initiated advocacy with BMC for two separate vehicles for wet and dry for this area was ensured for collection of waste. A task force team was formed. Women participation is encouraged. Schools are involved through rally, drawing competition. Active participation from community and positive response is the 1st step towards effectiveness of project.

Achievements-

Received Best NGO Award for Waste Segregation from BMC on 5th June 2017



After capacity building, training & awareness sessions given to Society, the improvement is huge and it can see through below graphs



HH Level Waste Segregation Analysis 65% - Society Level Waste Segregation Analysis 60%

Photographs on Site-



Survey at HH Level

Training & Awareness Session

Rally of Students



Waste Segregation at Society Level

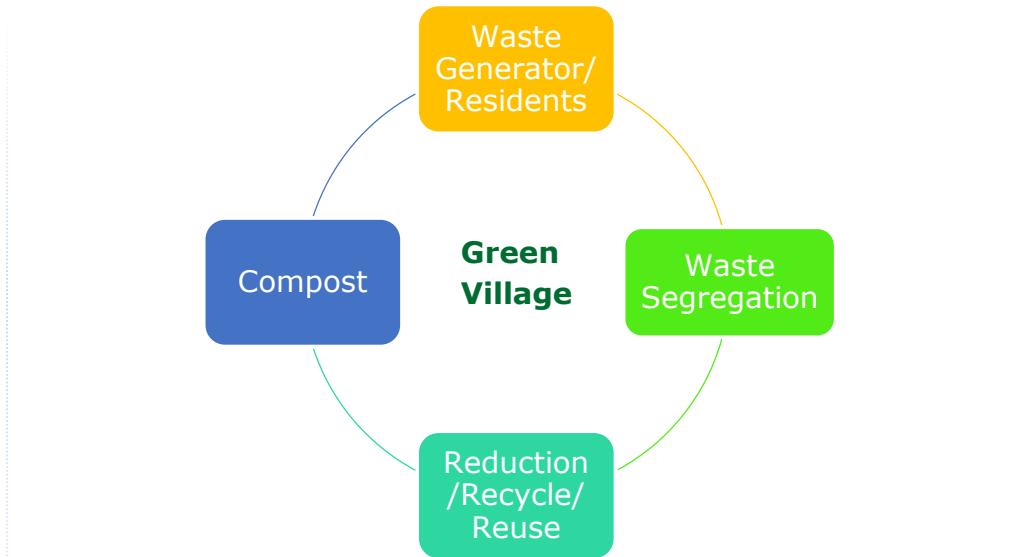


Waste Segregation at Household Level

Project 3-Green Village Project, Devghar, Taluka- Khandala, Dist- Satara

This project is all about rural community. To target the rural community, Shashwat Eco Solution Foundation has initiated a "Green Village" project at Village Devghar, Taluka Khandala, District Satara, Maharashtra with ACG Cares Foundation under CSR initiative. The population of village is 1500 in 57 households. Village has one primary school (1st to 4th standard) with strength of 50 students. Initial survey is conducted at household level. Then Taskforce team is formed with selected beneficiaries from different stakeholder groups.

Household composting is promoted with training at each household by involving women for segregation and setting up composting crates. Characterization of waste is done with the measurement of wet and dry waste at initial selected households. A research is conducted at initial few households for wet waste composting by taking some culture for effectiveness and dosing setting of the culture. IEC (Information, Education and Communication) programs are conducted at school and various stakeholders through interactive session to ensure community participation. At village level, dry waste is collected and a shed is constructed for further segregation of dry waste like plastic recyclable and non-recyclable, glass, paper, metal etc. A dialogue is initiated with waste picker and recycler agency to set up revenue model.



Achievements-

Sensitive Approach developed among villagers which is resulted in grey water management by every household with self-contribution and School received award in Satara District for Swacch.

Photographs on Site-



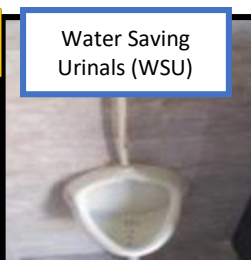
Training at HH Level



Awareness Session in School



IEC for Villagers



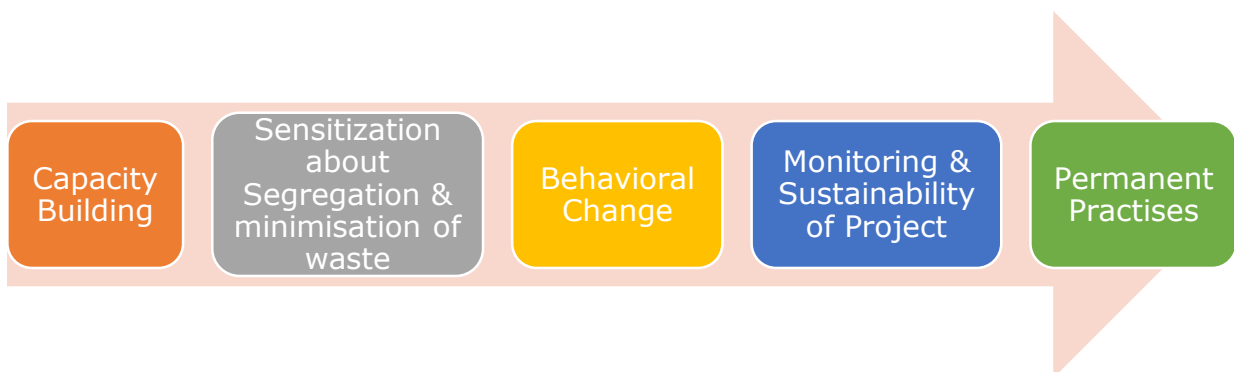
School Project at Devghar

Summary-

All 3 projects are in different categories with different stakeholders and varying type of population which is unique base of case study.

Sr. No.	Project Location	Population / Type	Stakeholders	Funded by
1.	Mahabaleshwar Satara	12000+ Floating 1.4 Million/Mixed population	Residents, Traders, Hotels, Forest Dept, Governing Body, NGOs, Food processing unit, Lake Authority, Students	Mahabaleshwar Municipal Council under Green Idea Project of Department of Environment Ministry
2.	Kandivali (W) Mumbai	3000 HH with 15000 /Urban Population	Corporation, Residents, Students, Corporate Employees	CSR project by ACG Cares Foundation
3.	Devghar, Satara	1500/Rural Population	Grampanchayat, Residents, Farmers, Students, Corporate Employees	CSR project by ACG Cares Foundation

The process of Solid Waste Management can intricate as-



In line with these projects, we are working on society level composting system with effective segregation at household level to demonstrate a robust low cost, less monitoring and easy to handle model by 'Swachhta Kamgar' and community.

With the success of these models and with support from our association with Arizona University, Phoenix, USA under RISN department we have initiated "SWM Toolkit" development for other cities or villages as guiding material to make Solid Waste Management an effective and successful program.

Achievement: Shashwat name published in white paper published by Arizona University.



These projects are having replicability and scalability scope. The Solid Waste Management has high potential to generate revenue by which it can directly contribute in Nation development if implemented properly in each and every part of Community by the People, for the people.

Other Achievements of Shashwat:

