

Zero Waste Leading to Swachha Graha: A Case of Mrs. Vani Murthy

Dr. Pratibha Kumari Singh*

Visiting Faculty, Jettwings Institute, Gangtok, Sikkim

Abstract – “We don’t need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly.”

- Anne Marie Bonneau

While organizations at a global level are taking major steps to protect the environment through waste management initiatives, a woman at Bengaluru, through her innovative initiatives of “Swachha Graha” has influenced lakhs to join her in the art of composting. Her work and story of zero waste, zero cost and zero smell have popularly made her call composite queen. Through this case, the author under the ambit of waste management wants to underpin the relevance of making a lifestyle change and suggests following a methodical step at home to practice this concept of zero waste. This paper delineates all those steps and techniques that Mrs.Vani Murthy uses to produce the manure. From inception to its final disposal, she highlights that one needs to understand the process, understand the eco-system. Dry leaves, rotten food, vegetable peel, leftover food, all are collected and treated with buttermilk as a microbe catalyst and mixed well until earthworms start to appear and participate in breaking down the organic matter turning the whole thing into compost within 35 to 45 days. Her rich garden, green leafy vegetables, kitchen herbs and green grass are all products of her homemade composite that she boasts with humbleness in her webinars and training sessions. She accentuates that this “Art of Composting” must be learned by all for making one’s home as “Swachha Graha”.

For writing this case, the author relied on secondary data available on the internet search, mainly her videos, newspaper and online articles. A thorough study of her works, their interpretation and paraphrasing enabled the author to suggest a waste management model, postulate the guidelines for waste management at home and propose scope for further research in this promising area for generating more awareness amidst the masses.

Keywords – Waste Management, Biodegradable Waste, Sustainability, Composting, Recycling.

-----X-----

INTRODUCTION

Nek Chand’s Rock Garden at Chandigarh is an example of how waste could find a new dimension with an imaginative and artistic touch of a genius. Out of the box thinking from an engineer’s mind culminated the waste into an artifact of world class architectural feat. This could be seen as a waste management practice with innovative thinking. Waste, as a term, means something that is useless and has no utility and relevance. The used material and whatever is left as trash finds a place in landfills that somehow not only threatens the environment but tenders problems in various areas of life. Waste, as a concept, shows inefficiency on part of society thus (Kumar, 2010). Waste needs attention, management and a change in perspective to make it cause of the solution and reduce the problem. The concept of zero waste has emerged in recent years to address this daunting

issue of waste. Although it is still in its developing stage and as diverse as the context of the situation, place and country demands, it is expanding and involving multiple domains, expertise and subjects to take hold of. Policymakers, organizations and urban authorities have been constantly working on understanding and including various aspects of it from the assessment of waste to its evaluation in terms of implementing it into the system (Zaman, 2015). At various stages of waste generation, however, steps and strategies have been devised to lead it towards zero waste. The studies conducted in the cities ofrepresent an indicator that highlights how these cities applied the concept of zero waste and at the same time also took measures to integrate those into the systems. Zero waste index tool comes as an effective tool to assess the overall performance if integrated well into the overall systems (Zaman & Lehmann, 2013). The present

case underpins efforts taken on an individual level By Mrs. Vani from Bengaluru popularly known as Composition Queen, who has been following the principles of zero waste and making her garden green and richer with her art of composting every day. Her innovative practices are not only generating awareness amongst the citizens of the city, however, her work and social media posts are inspiring thousands of people to adapt to this new lifestyle and engage meaningfully in this practice of composting and zero waste lifestyle.

CONTEXT AND THEORY LINKAGE

Sustainable practices are the need of the hour today. They ensure that natural resources are used optimally and waste is generated to the least (Wilkinson, Hill & Gollan (2001). With the advent of modernization, technological advancement, no wonder the increase in pollution and waste generated is unprecedented. Various measures have been taken at local and global levels to prevent pollution, reduce consumption and follow the principles of reduce, reuse, recycle and reproduce. For our survival and existence, we all are dependent on mother earth and if we do not take the onus of protecting it, repercussions would be catastrophic for the whole of humanity. While there are innumerable practices and measures taken by Industries and Governments, it is imperative to take individual steps as well. When the smallest unit becomes aware of the zero waste, when replicated at the global level, the results would be remarkable then.

Waste management refers to the art and science of managing waste from its inception to the final disposal. The process starts from identification, segregation, its collection, transport, treatment, reduction and recycling and then disposal. There is monitoring and management involved at each stage. This practice of waste management and functionality may differ from context to context and thus a lot of variation is found in the way this concept is approached. In urban areas and rural areas, from developed nations to underdeveloped countries, the waste management practices differ. This management also depends if the waste is biodegradable or non-biodegradable. In the present case study, the focus is on understanding the waste that is generated at home, then identifying its sources, segregating the waste and then making its disposal so that nothing remains as a waste leading to the implementation of the philosophy of zero waste in theory and practice both.

MRS. VANI MURTHY WITH HER LITTLE PARADISE ON EARTH

With her infectious smile, silver hair, clad in a saree or suit with a maroon bindi on her forehead, she could be seen talking with passion and zeal on the art of composting on YouTube channels and various social media platforms. Newspapers and organizations seek her support in making people aware about

sustainability and zero waste practices to be followed at home. A composite queen, Ranni and ninja, there are many titles that she has begged in the recent past because of the popularity of her work in the field and inspiring people and making a difference in her community. She is Mrs. Vani Murthy. She hails from Malleswaram, Bangalore, now Bengurulu and calls herself a homemaker and caregiver.

It was one of those visits in 2009 that she gave to the landfills at Mavallipura that made her traumatized almost to look at the dreadful amount of landfill generated. She decided, then and there, she would not be one of those who would contribute to generating this waste. An instant call as if from her inside that made her assure that she could think out of the box and take some important step in implementing what she had decided. Soon, she embarked on a self-initiated journey. The first step she took was to understand the source of waste generated. She started segregating the waste and sending it for recycling. Now, there was wet waste and a lot generated from her work field-kitchen itself. What to do with the wet waste now? After some research she came up with the method of composting that changed her life forever and made her compost queen, soon to be known by this name in the social and digital annals. Interestingly, her initial venture into composting turned out to be a great failure. Giving up, however, was not part of her dictionary. She critically analyzed the steps to understand the reasons of her failure and what didn't work. And like the saying goes, where there is a will, there is a way. Instead of finding the right method of composting, she also got to discover various other types of composts.



Source: <https://www.youtube.com/watch?v=XEh2gi-ICjk>

With this eureka moment and discoveries at her workshop, the next thing was to understand what to do with the compost that has been made and stored in volumes now. There was another opportunity awaited for her as if with this question. When invited to a meet by the organic terrace gardeners to unveil the secrets of the art of composting, she returned with the gift of seeds. The seeds made assured that her compost shall be taken care of from now onwards. Result: she transformed herself into an urban farmer growing vegetables on her terrace-a place that turned into her "little heaven on earth." Further, she writes on her FB post, the ways farming

has helped her in following sustainable practices in many areas:

- She buys safe and chemical-free food from her locality. She has become a member of CSA (Community Supported Agriculture) that allows her to support local farmers. This enables her to get the fresh fruits and vegetables direct from the farmers without the involvement of any middleman. A more economic, safe and healthy practice.
- Besides farming, she also practices water conservation at home. She uses non-chemical cleaners that allow the grey water to be used in her gardens.
- Further, she has also, switched to healthy eating practices. Whatever she grows in her terrace becomes a natural choice for her food menu. Saying no to processed and refined food and yes to unpolished grains, millets and seasonal fruits and vegetables have helped her raise the nutritive value of her family.

THE ART OF COMPOSTING

Mrs. Vani has been promoting the idea of Swaccha Graha for more than 10 years now. It started as a small initiative wherein she wanted to help her community through waste management leading to a clean home by generating minimum garbage or waste. During this lockdown, she trained many people through her website where she could be seen training the art of composting. Her YouTube videos have lakhs of views and queries on this art of composting. According to her if people understand the process of composting and how to manage the kitchen waste, a lot of problems of waste could be solved at the home level itself. Her terrace gardening and blooming flowers in Bengaluru have not only made her home look beautiful but have also inspired people around to practice and follow her art of composting.

Composting refers to the process of collecting and sorting the plant and then treating it and mixing it with other biodegradable material for fermentation and conversion into a composting after decay so that it could be used as manure for enriching the soil (Bertoldi, (2013); Cooperband, (2002). Further, composting also ensures that less waste goes to landfills and more to the soils again. "One of the most versatile and remunerative techniques of handling biodegradable waste is composting," (Gajalakshmi & Abbasi 2008). Composting allows the disposal of kitchen waste, plants and roots, leaves and veggies and other such material at home and industry level both and thus could be counted as one of the most effective and reliable methods of solid and biodegradable waste management. Since it is easy to make manure at home through this method that has a huge market and further can be stored and has no odor, this becomes a more valuable process of zero

waste management. No wonder her zero waste, zero cost and zero smell lead her to call a composite queen. She suggests five steps to be followed in making this compost.

First, a place in the home needs to be identified for composting. There, either the area could be used for storing the green and the brown material or a bin as shown in the image 2 below could be used for preparing the compost. Second, the green and the brown material, as shown in table 1.1 and image 1 should be layered in the compost bin or area. Third, an agent such as buttermilk as a catalyst needs to be added to fasten the process of compost making. Fourth, the ingredients of the compost should be stirred and fifth, the last step, the ingredients should be left for 30 to 45 days till the earthworm appear and make the entire thing into compost.

Art of Composting	
Brown Material (Carbon Rich Material)	Green Material (Nitrogen Rich Material)
Dry Leaves	Fruits and vegetable peels
Wood chips	Tea leaves
Straw and hay	Coffee ground and filter paper
Cardboard	Egg shells
Soft Paper	Left-over food
Saw dust	Grass clippings
Wood Shavings	Moss/weeds

1.1 Compost List of Brown and Green Material

This compost is rich in nutrients and helps the plants to grow better and healthy. The ready compost known as black gold is added to lawns, garden and farming areas that benefit the soil by enriching it. No wonder, Mrs. Vani gardens look fresh with fruits and blooming flowers by the richness of this compost and she feels blissful amidst her little heaven on earth in her terrace garden.



Credits: Google Images

Image 1: A step wise method to prepare compost at home



Credits: Google Images

Image 2: A Compost Box

DISCUSSION, FINDINGS AND WAY FORWARD

The waste changes its meaning when we change our perspective towards it. A problem that needs an address, its solution could be simple and effective, this case study has presented. Mrs. Vani has proved that with awareness and pro-active steps taken every day, we can lead a zero-waste lifestyle and solve this problem at the root level. A Swachha Graha can lead to Swachha Bharat and then to Swachha Planet. Her case study helped the author to understand the dimensions of bio-degradable waste and non-biodegradable waste. This proposed model helps us to understand how in two steps we can broadly solve this issue. At the micro-level, there will be efforts and consistent steps taken to segregate and dispose of the waste. Biodegradable waste, like Mrs. Vani highlighted, could be converted into compost. Further, the biodegradable waste is easily decomposed, in the field of non-biodegradable there is need of more research and innovation that could lead to ways to reduce pollution and spread of lethal diseases. Non-biodegradable waste could be managed by 5 R's: Recycle, Reduce, Reuse, and Reproduce, Refuse. There are intricacies at each level that needs further deliberation and understanding, however being aware and proactive in the field can truly help us to lead a life of minimalism that is based more on the needs, rather than wants and desires. A single step taken by Mrs. Vani has inspired her community to follow sustainable practice and when we follow this model, we could truly lead a zero-waste lifestyle and live a fulfilled and meaningful life.

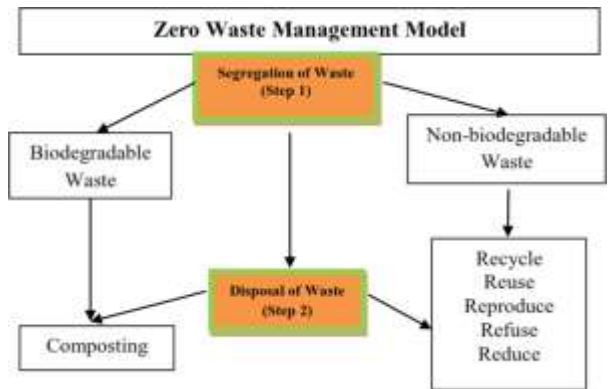


Image 3: Zero Waste management Model

While the model focuses on zero-waste management, it is pertinent in these times to follow sustainable practices and be a more conscious and aware consumer and buyer of the products. Some of the practices have already been suggested by Mrs. Vani, there are others that we could follow with respect to waste management which are popular and easy in implementation:

- Usage of cotton and jute bags for shopping instead of carrying poly bags
- Carrying water bottles that could be refilled and reused instead of buying every time a new bottle
- Usage of bamboo brushes and straws and other such products that are natural
- Reusing plastic bottles, cans and Tyres for planting saplings and using them in creative and innovative way
- Non-biodegradable material from the homes to be straightaway sent to recycling centres
- Water to be saved, harvested and economically used in homes
- Sunlight and air ventilation to be used as sustainable electricity consumption practices
- Tools and methods like Zero waste index tool to be used at homes to measure the effectiveness of the zero waste life style

CONCLUSION

This case highlights the impact that Mrs. Vani has on her community in terms of reducing and managing the kitchen waste and also teaching the art of composting for Swachha Graha. Through this study, the author wants to underpin the importance of self-initiative taken by an individual and how transformative it could be and lead to bring change in the community. This diminishes the boundry between the public and personal responsibility of

waste management and accentuates the impact of self-initiative. Her case made us realize to be more aware of waste and how to manage it from the beginning that can lead to the practice of a zero-waste lifestyle, the need of the hour today. Further, the case also illustrated the essential steps in the art of composting and practicing it on regular basis at home, which could ultimately help in following the zero waste lifestyle. Individual attitudes and behaviours needs to be sharpened and changed through their exposure in the social context of recycling (Derksen & Gartrell 1993). Pro-environmental behavior should be applauded and accepted by the society like in case of Mrs. Vani. Overall it helped in developing an understanding of the ecosystem and making other people aware of the zero waste management and other sustainable practices in the community for a healthy and clean environment.

REFERENCES

- Cooperband, L. (2002). The art and science of composting. *Center for Integrated agricultural systems*.
- De Bertoldi, M. (Ed.). (2013). *The science of composting*. Springer Science & Business Media.
- Derksen, L., & Gartrell, J. (1993). The social context of recycling. *American sociological review*, pp. 434-442.
- Gajalakshmi, S., & Abbasi, S. A. (2008). Solid waste management by composting: state of the art. *Critical Reviews in Environmental Science and Technology*, 38(5), pp. 311-400.
- Gtsindia (Director). (2020, August 18). *Learn how to compost With vani Murthy* [Video file]. Retrieved March 18, 2021, from <https://www.youtube.com/watch?v=XEh2gi-ICjk>
- Hoorweg, D., & Bhada-Tata, P. (2012). What a waste: a global review of solid waste management.
- Kumar, S. (Ed.). (2010). *Waste management*. BoD–Books on Demand.
- Scoones, I. (2007). Sustainability. *Development in practice*, 17(4-5), pp. 589-596.
- Sharholly, M., Ahmad, K., Mahmood, G., & Trivedi, R. C. (2008). Municipal solid waste management in Indian cities—A review. *Waste management*, 28(2), pp. 459-467.
- Wilkinson, A., Hill, M., & Gollan, P. (2001). The sustainability debate. *International Journal of Operations & Production Management*.
- Zaman, A. U. (2015). A comprehensive review of the development of zero waste management: lessons learned and guidelines. *Journal of Cleaner Production*, 91, pp. 12-25.
- Zaman, A. U., & Lehmann, S. (2013). The zero waste Index: a performance measurement tool for waste management systems in a 'zero waste city'. *Journal of Cleaner Production*, 50, pp. 123-132.

Corresponding Author

Dr. Pratibha Kumari Singh*

Visiting Faculty, Jettwings Institute, Gangtok, Sikkim