
PROBING THE HOSTS' & TOURISTS' RESPONSIBILITIES AND PARTICIPATION TOWARDS SOLID WASTE MANAGEMENT IN DESTINATION WAYANAD

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ABSTRACT

Solid waste management, in the present day, has become a significant environmental issue in a rapidly developing country like India, especially degrading its unique and serene tourist spots in myriad ways. The pollution generated by the tourism and hospitality industries and the lack of proper mechanism in place for the disposal and treatment of solid waste has negatively impacted the physical image of tourism destinations in the country. Moreover, the health problems that surface also curtail the growth of tourism. In this backdrop, the responsibilities of stakeholders in the solid waste management of tourism destinations assume much importance. This work focuses on the roles and responsibilities of both hosts and guests in drastically reducing solid waste through alternative practices, abiding by the personal ethics and regulatory methods in Wayanad located in Kerala. Wayanad is home to some enchanting wildlife tourism spots and facets of cultural heritage dots a place of paramount significance in the Indian tourism map. Statistics indicate that there has been considerable increase in the solid waste generation particularly in the areas of Wayanad frequented by tourists a great deal. This is in sync with the surge of tourist arrivals in the district and also the fast paced development of tourism industry. Already, many spots are experiencing the trouble as regards the disposal of mounting heaps of trash. This trend can

be attributed to the burgeoning population, rise in tourists' influx, changing lifestyles in tune with modernity, food habits, changes in the living standards, improper financial planning and funds allocation, institutional weaknesses, unsuitable choice of technology, and public apathy towards municipal solid waste. Waste is directly related to the consumption of resources and dumping on the land. Thus, the problem of solid waste disposal can hardly be viewed with equanimity, i.e., it surely represents a major environmental problem that is likely to propagate worse in destination Wayanad. The result in terms of economic progress in tourism development leads to urbanization and urban expansion leads to solid waste pollution. The present study deals with the proper and efficient ways of handling the waste materials in Wayanad through committed host-guest participation, which requires a good deal of total sewage disposal and public awareness campaigns. The hosts and guests should be aware of the necessity of hygienic disposal of wastes generated at the tourist centers. This paper attempts to bring to light the agenda that may be implemented to curb solid waste pollution as it directly impacts tourism resources, environment, health, and overall welfare. The study also discusses the indigenous sustainability practices that may be imbibed by the hosts and guests in the context of solid waste management in Wayanad thereby making the destination sustainable, greener, and cleaner not only at present but also for the future. The data for the study is collected through field visits, observations and in-depth interviews. The methodology adopted is qualitative technique and SWOT analysis has also been carried out to derive the inferences.

Keywords: *Destination Wayanad, Sustainable Tourism, Solid Waste Management, Host Community, Eco-Responsibility*

Introduction

“The only way forward, if we are going to improve the quality of the environment, is to get everybody involved.” -Richard Rogers

Any material that is discarded, unusable or unsolicited is considered as a waste. Solid waste management has different stages in terms of the collection, transportation, dispensation, or disposal of waste material. Improper disposal of municipal solid waste can create unsanitary conditions, occurrences of vector-borne disease, i.e., diseases spread by them and these conditions in turn can lead to effluence of the environment and to micro – germs, rodents and insects. Education and awareness in the areas of waste generation and waste management is increasingly important from a global perspective of resource management to reach and teach the stakeholders in every nook and

corner of the destinations so as to understand the benefits of maintaining a destination as an eco-friendly and unpolluted tourist spot. Local, regional and global air pollution, amassing and distribution of toxic wastes, devastation and depletion of forests, soil and water, depletion of the ozone layer and emissions in the countries of the world and its impacts on the biodiversity, the security of nations and the heritage of forthcoming generations are core issues of profound contemporary relevance. Historically, environmental management from the tourism point of view can be traced back to the 1950s when the environment and the health of people were threatened by a humongous movement of tourists. In view of the above, proper steps needs to be initiated to preserve the environment in consonance with its sustenance level. In line with the stated premise, the present work based on solid waste management in Wayanad, a premier tourism haven located in the Malabar region of Kerala has been structured. Wayanad is a beaming tourism destination experiencing incredible tourist influx throughout the year. Of late, the natural ambience has been taking a beating owing to the accentuating commercialization. Yet another offshoot of the increased tourism activities and establishment of tourism ventures is the littering and the corresponding generation of solid waste at the destination. Construction wastes are strewn around the fragile hilly terrains of the district. Thus, the study addresses the challenges posed to both social and environmental sustainability by the solid waste generation in the tourism and hospitality industries.

Literature Scan

Rajamanikam Ramamoorthy et. al' (2014) notes that in recent times in India, there are good number of initiatives by non-governmental organizations (NGOs) and other civil society organizations who have gradually commenced works in improving waste management amenities. Municipal solid waste management being a public sector concern, the contribution of non-profit organizations in this field has not been well recognized and recommended in a destination. The paper highlighted the various contributions and facilities of Shuddham, an NGO working in the periphery areas of the Union Territory of Puducherry in South India. The organization activated the creation of awareness and edification, exhilarated source separation, enriched door-to-door waste material collection, utilized wastes as raw materials and spawned more job opportunities for the host community.

Shaalán (2005) states that the problems of littering and improper solid waste management, in addition to the production of waste, have a very high negative environmental impact. They also create a retrogressive impression

and reduce the quality of a destination with respect to the experiential aspects of tourists and other visitors. The main expectation of a tourist is cleanliness and hygiene of the destination.

Albeit, tourism is an activity that depends deeply on the natural resources and has the capacity to bring about greater enhancement of the environment, it also has the latent power of destroying the green surroundings if not suitably managed (Pigram, 1995). The waste management has to be effective in initiating numerous steps to protect the destination environment.

In recent times, there were concerns raised by governments, local residents, consumers and non-governmental organizations for more sustainable tourism practices in tourism destinations (Mensah, 2006). The various governing bodies and non-profit organizations had to analyze the projects of Solid Waste Management.

Objectives of the Study

- To study the proper and efficient ways of handling solid waste and also its management process with reference to the tourism and hospitality sectors in Wayanad through committed host-guest participation.
- To investigate the indigenously acclaimed sustainability practices in Wayanad for effective solid waste disposal.
- To assess the plans for better formulation and implementation of the Ten R's in Wayanad for its environmental sustainability and ways forward.
- To suggest ways and means for the conservation of the unique attributes of eco-responsibility and sustainable development in destination Wayanad.

Need for the Study

There is a dire need to study the nuanced approaches in solid waste management as regards eco-tourism spots and other tourist centers in Wayanad. The natural resources of the sites along with their values and significance are to be conserved and safeguarded for this and future generations. Wayanad must be considered as a site that understands and celebrates its rich natural resources and eco-friendly ambience and also it has the unique distinction of enabling the active participation of hosts and guests laying due stress on their responsibilities towards solid waste management. The stakeholders of tourism should have a focus on the balance of resources' use and control of

wastage which in turn leads to stipulation of proper guidelines for developing the ideals of solid waste management.

Research Methodology

This study is based on extensive field visits, surveys, and observations in Wayanad. The methodology employed is the qualitative technique and SWOT analysis has been carried out to derive the inferences. Secondary data has been compiled and processed to substantiate the aims of the work.

Data Collection

The data for the study has been collected through empirical approaches, viz, field visits and personal interviews. Other relevant information has been collected from journals, periodicals, and websites.

The respondents for the research work configured various stakeholders:

- Local community (residents)
- Tourists
- Government Officials
- Tour Operators
- Non-governmental organizations
- Hoteliers and resort operators
- Paradigm Shifts in Solid Waste Management

The theme of UN Environment Assembly, 2017 is 'Pollution' which will be hosted in Nairobi, Kenya, from December 4 to 6. Five of the fifty anti-pollution action programmes in the recent UN Environment Report converge to solid waste disposal. It underlines that carefully crafted policies and parameters at the national level are imperative to moving the economies into a more sustainable pathway. The Venice of East – Alappuzha' is among a handful of municipalities acknowledged by the Clean City Award from the Centre for Science and Environment (CSE) in 2016. Of late, the CSE included Alappuzha in a distinctive forum of cities which have adopted source separation as a prime initiative in waste management concept in the country which draws the attention of tourists. Prime Minister Narendra Modi on World Environment Day 5th June, 2017 initiated a drive to address the heap of trash piling up in streets and landfills across India (The Hindu, November 29, 2017).

Path-breaking Models of SWM (Solid Waste Management) by United Nations Environment Programme (UNEP)

- *Alappuzha (India)*: The city in the eastern State of Kerala dubbed the ‘Venice of the East’ for its association of backwaters and coastal lagoons where tourists enjoys the unique products such as houseboats for a rent has addressed the hassle by introducing a decentralized waste management system. This separates biodegradable waste at the district level, treats it in small composting plants, and provides an approximate population of nearly 1,74,000 inhabitants with biogas for cooking.
- *Osaka (Japan)*: Tourists who take a wrong turn en route to Osaka’s Universal Studios might think they have stumbled into a remake of Charlie and the Chocolate Factory. But the funky-looking building with the wavy lines and gold-domed tower is actually a massive waste incinerator. More recycling helped reduce the volume of waste sent for disposal by more than half between 1991 and 2014. Rather than discarding it in landfill, much waste is burned in high-tech plants that use the heat to produce electricity for a predictable 125,000 domestic purposes as well as municipal hot water.
- *Ljubljana (Slovenia)*: The waste treatment facilities, located near Ljubljana, are among the most modern in Europe and leading of their kind in Slovenia in terms of resources and competence. Owing to the advanced technologies used, the project has helped to cut surface and groundwater pollution by water leaching from landfill, greenhouse gas emissions, particularly methane, and odors from the decomposition of biodegradable waste. It has also brought about a six-fold lessening in waste ending up in landfills.
- *Penang (Malaysia)*: Penang State in Malaysia is working to reduce methane emissions its municipal solid waste by reducing the amount of organic waste reaching its landfills. Penang’s composting project has created incentives for households to separate their organic waste, which is composted and used as fertilizer.
- *Cajicá (Colombia)*: As a country getaway from the Colombian capital, Cajicá may not want to be too closely associated with worms, but the creatures have helped the city position as a trans-national model in responsible waste management. Cajicá is also blazing a trace within the country. Startled landfills in hundreds of municipalities are fast filling up; the national government last year commenced an integrated solid waste management guiding principle with the long-term aim of turning Colombia into a circular economy.

Facets of Tourism in Destination Wayanad

“Uravu” – Bamboo Village

Uravu offers unique experiences in Wayanad. Uravu is a non-profit independent trust established in 1996, registered under the Indian Trusts Act in Trikkapatta village of Wayanad district in Kerala. The prime motive of the trust is to nurture eco-friendly community ventures, produce sustainable products, and be responsible towards the nature and the resources thriving in the area. Uravu organizes various design workshops in synergy with the leading institutes like National Institute of Design Ahmedabad and IIT Mumbai to diversify the core products and revitalize them by tuning into new designs.

More than 200 families live in this Bamboo village. Uravu supports the families to have a steady source of income along with agriculture. Jackfruit Festival is a very popular fest organized by Uravu Bamboo village from 2006 onwards which found mention in Limca Book of World Records in 2008; for showcasing more than hundred value added products of jackfruit.

Edakkal Cave

Edakkal cave is situated about 4000 feet above sea level in the Ambukuthi hillock in Wayanad district. Edakkal exactly means the store in between. It is a mesmerizing view for tourists in the midst of Edakkal cave. It was F. Faweett, the then superintendent of Police in British Malabar, who brought this cave into the public view for the first time in 1894. In an accidental exploration during a game hunting he found a Neolithic celt.

Pookot Lake

Pookot Lake about 13 kms from Kalpetta is undoubtedly the most stunning tourist spot in the whole of Wayanad. The lake nestles in the lap of mountains surrounding it. Boating in the Pookot Lake is an unforgettable experience. Tall trees and dense forests that line along the pathway around the lake provide a visual treat for tourists. Tourists can also avail boating facilities and enjoy the serene waters of the enchanting lake. A children's park and a shopping centre for handicrafts and spices are some of the few alluring attractions of the region, providing recreational amenities to the visitors.

Kuruva Dweep

This 950 acre isolated island on the Kabani River is an ideal picnic spot. The woody stretch of land is home to numerous invaluable species of birds, orchids, and herbs. The distance is approximately 15 km east of Mananthavady.

Thirunelly Temple

Thirunelly temple is bounded by the Kambamala, Karimala, Varadiga peak and Brahmagiri hills. The temple embodies classical, traditional Kerala architecture. A famous pilgrim centre, this temple devoted to Lord Vishnu the God revered to maintain life, attracts hordes of devotees especially for performing inherited rites at Papanasini.

Reasons for Rise in Waste Generation in Wayanad

Increasing Urbanization

The term urbanization implies shift from the rural to urban, developed areas and change to modernized life style. When this shift occurs, it directly involves activities of a mass community living in a particular locality which invariably leads to over consumption of resources and in turn production of waste materials like natural and toxic wastes at a high level. This emerging trends of urbanization in “Wayanad” which is a popular tourist spot in Kerala experiencing ever increasing development owing to tourists flocking in from different places and consuming extensive resources of the destination and also generating too much waste dumping which spoils the enchanting ambience of the spot.

Changing Lifestyles

Rising non-refundable incomes have led to a change in values. The use-and-throw culture has become more pronounced. There is also the menacing presence of plastic in our lives. It is not just the plastic bags that cause the problem. Food, water, phones, and computers – almost everything we use in our daily lives involves plastic in some form or the other. This just increases the problem of waste disposal, as the current composting and recycling rates in India are hardly encouraging. This entails irresponsible actions of the tourism stakeholders.

Rise in Tourism

While tourism is a major revenue earner for Kerala, there is a serious flip side too. The United Nations Environment Programme states, “In areas with high concentration of tourist activities and appealing natural attractions, waste disposal is a serious threat and improper disposal can be a major despoiler of the natural environment – rivers, scenic areas, and roadsides. Solid waste and littering can degrade the physical appearance of the water and shoreline and cause the death of marine animals.” The Kerala Government has been taking steps to address this issue with its Kerala – Waste Free Destination Campaign. However, scores of effective awareness program are to be implemented to educate both the host-guest as to participate productively in maintaining the environment in a cleaner way.

Source of Solid Waste in Kerala	
Household Waste	49%
Hostels, Marriage halls, Institutions	17%
Shops & Markets	16%
Street sweepings	9%
Construction	6%
Slaughter house, Hospitals	3%

Source: universalecoservices.com/wastemanagement_in_kerala.cfm

An Overview of Stakeholders Engagements in Solid Waste Management

Kudumbashree – Self Help Group

Kudumbashree is the women empowerment program, structured and enforced by the State Poverty Eradication Mission (SPEM) of the Government of Kerala for the up-liftment of women and elimination of gender disparity in society. Wayanad, the green village in Kerala is well known for nature based tourism. Since there is vivid scope for the local community to involve directly as well as indirectly in tourism activities without eroding their cultural values and at the same time protecting the natural environment. The Kudumbashree (Self Help Group) creates numerous employment opportunities and generates income from tourism in Wayanad. The concept of community contribution to the decision making process of tourism planning is viewed as the reason behind the success of sustainable tourism development initiatives. It enables more equitable allocation of economic benefits to the society. The concept of

Kudumbashree can be well adopted towards attaining a positive approach in operating the Solid Waste Management systems in Wayanad.

Hoteliers

In the recent past, a great number of tourism resorts have mushroomed across the length and breadth of the district. Resorts thereby have become central to the accommodation of tourists. Right from its inception, the resorts have a significant role to play in ensuring that Wayanad is strictly abiding by the tracks of sustainable tourism. In this backdrop, the present work examines the initiatives of the resorts in Wayanad that engages the tourists with the natural resources without compromising on the environmental ethics. The marketing strategies devised by the resorts that underscore the agenda of sustainable tourism have been adopted. There are numerous practices carried out by the hoteliers with the intention of promoting the responsibilities in protecting the environment. The mounting environmental awareness among tourists, governments, and other bodies, the sustainability of resources, waste management and the greening of hotels have resulted in waste becoming a critical issue for the tourism industry. It was found that since 1994 hotels have started some successful waste management practices. The threat of pollution and waste disposal is an alarming threat for the industry and to offset the same, along with apex bodies the stakeholders should contribute towards maintaining a balanced natural resource consumption and enjoyment at the destination. A recommendation in this direction is that the existing legislation needs to be amended to further both environmental and waste management practices (Concept courtesy Ball Stephen, Taleb Abou Mohamed, (2011))

The Perspectives of Solid Waste Management in Wayanad

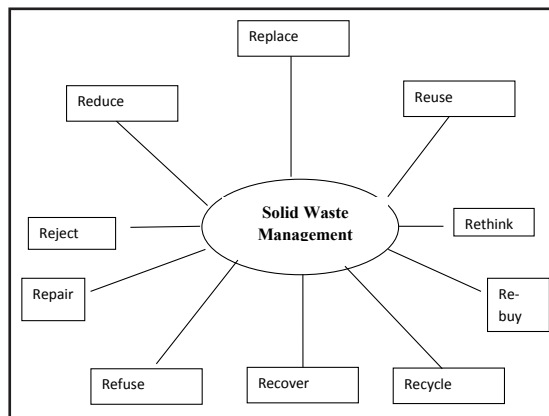


Fig. 1: The Ten R's in the Context of Solid Waste Management

- Reuse means to reuse a product.
- Recycle means the waste materials which will be converted into reusable materials.
- Recover is to bring back/retain the quality of the product.
- Re-buy is not to buy non-recyclable items but always seek products which lasts long or can be re-cycled.
- Replenish means placing an alternative of the same quality to avoid depletion.
- Rethink means to think about what can take place upon doing the recycle process.
- Repair means to take old and little defected things into use by repairing them. Rather throwing the product into waste, it will be utilized after the necessary repair.
- Refuse means disposable plastics are the greatest source of plastic pollution. Plastic bags, straws, bottles, utensils, lids, cups and so many others offer a small convenience but remain forever.
- Reject means you always have the choice. Do not buy anything you do not really need. Not too much consumption without a purpose of its use.
- Reduce means decreasing the amount of waste produced. Automobiles - car use a large amount of energy and cause pollution in the environment.

Regardless of several initiatives launched by various agencies in the public sector and the NGOs, nothing much has changed as far as solid waste management in Wayanad is concerned. It may also be viewed as these plans are not sufficient to address the issue of waste management in Wayanad. The PPP model can play a pivotal role in striking an efficacy system in maintaining the waste disposal in destinations. May be in the long run these plans can be effectively utilized in a healthy manner. While media and the general debates and experiments on waste management continue, Wayanad still leaves a lot to be desired in the area of waste disposal and sewage treatment. There should be rules and regulations in place to strengthen the efforts of maintaining the irresistible destination devoid of pollution and for the healthy maintenance of the environment. In each tourist spot visited as part of the field work, there was a curious question pondered by the researchers as to how the practice of 'solid waste management' is carried out to balance or offset the increase of waste materials. The government officials, DTPC, and local communities possess absolute clarity in the ideas about the solid waste management process which are to be incorporated in the tourism spots. The municipality takes much effort

to reduce the waste materials by separating them in different categories and then disposing with them. The dumping and landfills are carried out, but still new techniques are necessary for the effective maintenance and management of the practices.

Swot Analysis

Strengths

- Wayanad” Vayal Nadu” meaning land of paddy fields is an eco-tourist destination where the focus is on the sustainability of the environment. So solid waste management is practiced in this place for both the host-guest community with great commitment.
- As it is a fascinating destination with aboriginal tribes, tree houses, jungle trails and exotic wild life this place is attracted by nature lovers. It spreads awareness of sustainable and responsible tourism by improving local livelihoods from involving in tourism linked to the preservation of nature and biodiversity.
- District Tourism Promotion Council (DTPC) takes initiatives to balance the environment set up with clean and serene ambience for host-guest community.

Weaknesses

- The tourist footfalls are increasing day-by-day in Wayanad and due to this resultant over consumption of resources leads to depletion of natural resources
- Lack of effective measures implemented to maintain a proper system to ensure collection of solid waste, which are still being processed is a lacunae. It requires political will to execute them in an efficient manner.
- Lack of innovations in ecotourism products.
- No proper segmentation done for ecotourism marketing and promotion of the destination.
- Lack of in planning the waste dumps in a sustainable manner in the destination. Contractors who transport rubbish to dump in the interior village dumping sites or near forests or water bodies often face rigorous conflict from the local community and environmental activists. In the process the main tourist zones are stinking due to the presence of waste materials.

Opportunities

- The recent campaign “Swachh Bharat Abhiyan” will reinforce the practice of solid waste management in this destination.
- It helps both host-guest communities to live and enjoy a hygienic standard of living.
- It can be one of the best tool to protect and conserve the ecosystem, without disturbing the natural locations of Wayanad.

Threats

- Major crisis is the heavy traffic congestion in Wayanad.
- A rapid increase in the urban population has resulted in the breaking down of sanitary facilities and other infrastructure due to dumping of waste materials and toxic wastes.
- Burning of waste materials in this place paves way for toxic gases and disturbs the natural intake of oxygen.
- Resorting to discarding the waste generated is also a serious matter since such insanitary methods of disposal of solid wastes would cause serious health concerns among the local community and also a hazard towards the guest.

Implications and Recommendations

- Traditional wisdom for mitigating waste and indigenous solid waste management practices can be adopted by the tourism and hospitality industries in Wayanad.
- Ensuring switching off the unused lights and electrical equipments at all main tourist destinations of Wayanad and save fuel in transport.
- Stabilizing the population growth, control of overconsumption of natural resources, and preservation of bio-diversity of destination Wayanad.
- Implementation of different ecotourism projects which should be enhanced by the government. Various forms of awareness programs should be created to establish responsible tourism.
- Waste should be disposed through the authorized recyclers.
- Segregating solid wastes into different types on the basis of degradation through waste management is a dire necessity in Wayanad.

- Solar charged battery cars should be used as a mode of transportation in the tourist zones of Wayanad.
- The campaign should lay emphasis on the prevention of wastage of natural resources and there should be control over pollution to be maintained across Wayanad. The host communities and the guests should be educated about the concept of solid waste management.
- “Wayanad” should be used as an acronym in the form of ‘Waste Accumulation and Disposal Yard as a Necessity Adoption’ plan to maintain a balance of throwing waste garbage across the streets. The flow of dumping waste to be collected in a particular place and disposing without harming the surroundings.
- The media is the strong weapon to educate both hosts and guests regarding solid waste management in the form of advertisement and small clips (snap shot) in between movies. Screening it in shows, theatres and musical concerts can be put to much productive effect.

Conclusion

The concept of solid waste management has to reach the host communities in all scientific terms to ensure a meaningful bearing upon the guests (tourists) visiting their native land. The practice of cultural and social traditions along with reduction of waste generation should also be part of the visitors’ responsibility. The innovative plans to be executed for a destination must undertake certain steps to avoid too much of thrash dumping and polluting the environment. Any development programme aiming at the development of the tourist places should keep in view the concern for the future generations. This is the essence of sustainable development. Nature is generous to Wayanad in providing a variety of resources to the locals and tourists. Care should be taken not to utilize these resources beyond permissible limits. All the stakeholders must imbibe conservation and preservation of all kinds of resources.

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