A FAILED ATTEMPT OF IMPLEMENTING SUSTAINABLE WASTE MANAGEMENT PRACTICES: A STUDY OF LOCAL GOVERNMENT IN THE SOUTHERN PROVINCE OF SRI LANKA

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ABSTRACT

Waste management is one of the priorities to ensure appropriate and effective local waste management mechanisms are on the agenda of Local Government Authorities (LGA). Nevertheless, this has proved to be quite a challenge for most developing countries due to inefficient and ineffective performance in prevailing waste management practices. Therefore, this study aims to contribute to filling this gap by exploring the intricacies of waste management practices within the LGAs in the Southern Province of Sri Lanka, specifically focusing on their alignment with the concepts of sustainable waste management. A mixed-method approach was used to collect data from 41 LGAs in the southern province of Sri Lanka. First, a questionnaire was distributed among all LGAs to collect data on specific waste management practices. In addition, semi-structured interviews, focus groups, informal discussions, and document analysis were conducted to gain insights and identify trends in current waste management practices. The findings demonstrate favourable advancements in initiatives like awareness campaigns that engage citizens in the source separation of waste. However, the waste collection procedure encounters considerable obstacles stemming from shortages in staff and vehicles, leading to a substantial volume of uncollected waste. Further, it was revealed that disparities across LGAs in the collection of non-degradable waste are attributable to uneven financial resource allocation, inadequate regulation, disorganized collection schedules, and a lack of technical competency. Despite notable measures like boosting home gardening and organic fertilizer production to address environmental issues, these measures were undermined owing to insufficient enthusiasm and backing from political and administrative leadership. Another significant finding is that political leadership frequently diverts a portion of the budget allocated for waste management to other development projects, raising concerns about the seriousness of addressing waste management issues. The findings of this study advocate for increased transparency and accountability in the allocation of public funds and provide policymakers with several key measures to improve infrastructure, strengthen regulations, and enhance citizen engagement. Implementing these measures is crucial for advancing a circular economy and achieving sustainability goals.

Keywords: ***Sustainable Waste Management, Local Government Authorities, Citzen Involvement, Recycling, Sri Lanka***

10.57075/jafl122405

1 INTRODUCTION

Waste management is among the major responsibilities of local authorities (Morrissey and Browne, 2004). Diverse waste management strategies have been extensively implemented by local governments globally, demonstrating a reduction in waste production (Anantanatorn et al., 2015; Banerjee and Sarkhel, 2020; Simangunsong and Fajarwati, 2018) and promoting the adoption of sustainability practices. These practices range from creative separation-at-source programs (Dickella, Ghosh, and Onogawa, 2022; Loan et al., 2017), citizen-driven initiatives (Anantanatorn et al., 2015; Kubota, Horita, and Tasaki, 2020), public-private partnership initiatives (Casady and Peci, 2021; Spoann et al., 2019) to household solid waste separation programs (Kastolani et al., 2022). In this view, efficient waste management at the local government level is crucial to reinforcing concepts of sustainable development while aiding in pollution mitigation and enabling ecosystems to preserve a delicate equilibrium (Agamuthu, Khidzir and Hamid, 2009; Azizah, Astrina and Ulfa, 2021; Morrissey and Browne, 2004). Notably, waste should be recycled to solve these problems and embolden sustainability to minimize waste generation and the environmental consequences of improper waste management (Owukio, Didia and Walters, 2022). These possible consequences create awareness and call for meaningful waste management practices, positioning LGAs to reduce these burdens advantageously.

Despite positive developments in waste management, numerous studies demonstrate the disadvantages of improper waste management. As demonstrated by Hannan and Aigbogun (2021), neglecting to prioritize or effectively manage waste disposal can lead to detrimental consequences that significantly impact local communities and ecosystems. Further, they emphasized the risk of disseminating infectious diseases, polluting essential water sources, and discharging hazardous substances that endanger community wellness and well-being. In this view, despite the implementation of diverse waste management programs across various local government contexts, their success is not merely contingent upon the dedication of local authorities. It necessitates the active participation of the individuals for whom these services are intended (Azizah et al., 2021). Given the preceding discussion, it is evident that waste management practices differ significantly across various local government areas, rendering consistency in these practices unattainable. Although various regions have adjusted to the evolving issues associated with waste management, conventional waste management practices frequently fail to address the demands of the growing population and changing environmental conditions. In line with global trends, local government in Sri Lanka encounters significant challenges in the implementation of effective waste management practices. These difficulties are intensified by the dynamics of local governance and constraints on resources, particularly within the local government of the Southern Province.

In the Sri Lankan context, several studies have been done on practices in waste management in various local governments, especially in the Western Province and municipalities from different parts of the country (Fernando, 2019; Menikpura, Gheewala and Bonnet, 2012; Rathnayake and Sellahewa, 2022; Saja, Zimar and Junaideen, 2021). As Vidanaarachchi, Yuen and Pilapitiya (2006) point out, most

studies have concentrated on the Western Province, which includes the capital city and is marked by rapid suburban growth and a significant industrial sector. Much research has focused on individual LGAs and their specific waste management systems. However, a study has inquired into the waste management practices in the southern province of Sri Lanka, mainly focusing on household waste management practices, and did not strongly emphasize the role of the LGAs (Vidanaarachchi et al., 2006). Edirisinghe et al. (2012) conducted a study focused on a preliminary survey of solid waste management data, as well as an assessment of town conditions, treatment sites, and disposal sites in the Southern Province of Sri Lanka. This study also highlights various solid waste management issues related to the current state of waste management practices in the Southern Province. However, these studies do not examine how sustainable waste management practices align with the practices implemented in these LGAs. The Southern Province has one of the highest numbers of LGAs in the country, comparable to the Western Province, yet it receives less academic attention regarding waste management practices. Therefore, a study involving multiple LGAs is necessary to gain a deeper understanding and make meaningful comparisons of the waste management practices adopted by different LGAs across the country. Therefore, this study aims to contribute to filling this gap by exploring the intricacies of waste management practices within the LGAs in the Southern Province of Sri Lanka, specifically focusing on their alignment with the concepts of sustainable waste management.

The paper is divided into five sections. The second section presents a literature review on Sustainable Waste Management practices and the nature of waste management in Sri Lanka. Following that, Section three outlines the research methods, while Section four discusses the findings. The final section offers concluding remarks and suggestions for future research.

2 LITERATURE REVIEW

2.1 Sustainable Waste Management in Local Governments

The implementation of sustainable waste management practices is essential for mitigating the impacts of environmental and public health (Seadon, 2010). These waste management practices are crucial for the safeguarding of the environment, the enhancement of economic efficacy, and the promotion of social well-being. Further, it guarantees that waste is managed responsibly to mitigate adverse effects on ecosystems (Morrissey and Browne, 2004). In this sense, local governments have to play a pivotal role in the enforcement of waste management legislation and regulations, thereby ensuring the maintenance of a clean and healthy environment (Morrissey and Browne, 2004) for future generations. The principles of sustainable waste management encompass several strategies, such as waste reduction, recycling, resource recovery, composting, waste-to-energy methods, and educational and awareness campaigns (Seadon, 2010).

According to Agamuthu et al. (2009), implementing sustainable waste management practices is crucial for preserving the environment and efficiently utilizing resources. Such practices encompass various techniques and methods to minimize waste

generation, optimize resource recovery, and alleviate adverse environmental consequences (Seadon, 2010). To attain effective sustainable waste management, it is essential to formulate customized strategies, engage the informal sector in the decision-making process, and employ evidence-based research to inform policy development (Agamuthu et al., 2009). Therefore, citizens' active participation in preserving sustainable waste management practices is essential. As Azizah et al. (2021) demonstrated, local community involvement is frequently crucial in successfully implementing waste management initiatives, as it enhances awareness and promotes the adoption of sustainable behaviors. These initiatives aim to minimize environmental pollution, preserve resources, and foster a circular economy where waste is considered valuable (Mandpe et al., 2023; Seadon, 2010). Implementing innovation programs at the grassroots level has the potential to yield financial gains and enhance waste management efficacy (Kastolani et al., 2022; Meidiana et al., 2022).

Inadequate waste management practices can spread disease, water pollution, and hazardous substance emissions (Hannan and Aigbogun, 2021), which harm social well-being. Some studies demonstrate that less developed countries still use inefficient waste disposal techniques. For example, one Nigerian study found that, like many modern Nigerian cities, the local government uses dustbins, buckets, plastic bags, and other containers for waste disposal as waste management infrastructure and services lack (Owukio et al., 2022). Considering the preceding discussion, it has become evident that implementing sustainable waste management practices is crucial for effectively addressing the myriad challenges associated with waste management that emerge in various contexts.

2.2 Waste Management in Sri Lankan Local Government

The waste management practices in Sri Lanka are characterized by a complex interplay of factors that impact the successful implementation of Solid Waste Management (SWM) programs. Fernando (2019) highlights that several critical factors, including the compensation and motivation of personnel, political leadership support, and community and business sector involvement, influence the effectiveness of SWM projects in Sri Lanka. These factors collectively contribute to the success or failure of SWM initiatives. The SWM in the local government of Sri Lanka has significant drawbacks. These drawbacks include inadequate waste segregation techniques during the generation phase, restricted availability of resources, ineffective waste reduction regulations, irregular garbage collection schedules, and a lack of technical expertise (Saja et al., 2021). In addition, these drawbacks are further limited land availability for dumping, composting, and recycling, inadequate garbage-carrying vehicles, and the absence of a comprehensive solid waste management program (Fernando, 2019). These drawbacks have an adverse impact, leading to many consequences like decreased employee morale, limited workforce capacity, health-related difficulties, and issues in work ethics (Rathnayake and Sellahewa, 2022). This situation is further exacerbated by diminished worker productivity and output, a dearth of public awareness, and inadequate governmental involvement (Fernando, 2019).

The research undertaken by Vidanaarachchi et al. (2006) unveiled a notable disparity in the availability of garbage collection services in the southern province. Only 24%

of families can avail themselves of such services, with rural regions seeing far more limited access, at a meagre 2% or less. Furthermore, it is worth noting that many waste management facilities within the province are now functioning at or below their maximum capacity. In order to effectively tackle these concerns and minimize the ecological ramifications, several researchers have investigated alternate methodologies for waste management. Basnayake and Visvanathan (2014) explore how citizens engage in home composting. According to Menikpura et al. (2012), using gas recovery systems in sanitary landfills can mitigate environmental concerns such as global warming, acidification, and eutrophication. These findings underscore the significance of shifting from traditional waste practices to sustainable waste management approaches. In addition, it is emphasized that there is an urgent requirement for enhancements in waste management infrastructure and practices in Sri Lanka (Fernando, 2019). These changes might stimulate local economic development by implementing innovative waste management approaches.

3 RESEARCH METHODOLOGY

The lack of a comprehensive waste management policy in Sri Lanka has led to significant waste management challenges. For instance, the country generates approximately 7,000 metric tons of solid waste daily, with the Western Province contributing around 60%. On average, individuals generate between 0.4 and 1.0 kilograms of waste daily. However, it is notable that only about 50% of the waste produced is collected (Status of Waste Management in Sri Lanka, 2017). Similar waste generation and collection patterns are observed in provinces besides Western ones (Vidanaarachchi et al., 2006). This study investigated waste management practices and their alignment with sustainable waste management principles in LGAs within the Southern Province. The Southern Province is divided into three administrative districts—Galle, Matara, and Hambanthota—subdivided into 49 LGAs for effective governance. These LGAs include three municipalities, four urban councils, and forty-two Pradeshiya Sabhas.

Data was gathered using surveys, semi-structured interviews, focus groups, informal discussions with citizens, and analysis of relevant documents. This data triangulation helped ensure the findings' accuracy and reliability (Flick, 2004). The questionnaire pertained to prevailing waste management practices, encompassing aspects such as collecting waste, disposal, and recycling practices. Furthermore, several open-ended questions were incorporated to gather diverse perspectives from officers engaged in the waste management process within local governments. The questionnaire was distributed to 49 LGAs using both official and personal contacts, as well as a Google form, in order to ensure a high response rate from the targeted LGAs. However, a total of 41 LGAs responded. A total of five semi-structured interviews were carried out, with two interviews performed with the provincial commissioner and three interviews conducted with selected politicians in LGAs. Due to data saturation, the data-gathering was constrained to conducting five semi-structured interviews. However, the study included three focus group discussions with three deputy commissioners in three districts, three municipal commissioners within the province, and twenty-five local government officers actively engaged in the waste management process. The

data-gathering procedure spanned from 2021 to 2023. The data gathered from the questionnaire was analyzed using descriptive analysis, whereas the qualitative data was examined through thematic analysis.

4 FINDINGS AND DISCUSSION

This study examines waste management practices in LGAs within the Southern Province, with a focus on how these practices align with sustainable principles. The research was conducted across 41 out of the 49 LGAs due to their diversity and unique waste management challenges in the province. It was revealed that significant differences in waste management practices among the LGAs were largely due to the absence of a consistent, nationwide waste management policy. As a result, waste management has been shaped by local contexts and the ideologies of political leadership. Further, interviews revealed that sustainable waste management practices have been promoted by the government since 2014, with the provincial and local government ministries organizing several awareness sessions to encourage sustainable practices within local communities. However, the interviews also disclosed that most LGAs in the province have struggled to successfully integrate sustainable waste management practices into their waste management systems, indicating a failure in the implementation of these initiatives.

Table 1 presents a comprehensive overview of the current waste management system throughout the LGAs in the Southern Province. It highlights that all LGAs have designated a budget for waste management initiatives at the start of the year. Basnayake and Visvanathan (2014) Basnayake and Visvanathan (2014) emphasized that over 70% of the budget is usually spent on operational activities, including waste collection, transportation, employee wages, vehicle maintenance, and fuel expenses. In this study, as interviews revealed, the allocated funding is not entirely used as planned, with the majority committed only to sustaining the waste disposal operation. Significantly, no resources are adequately allocated for waste reduction and recycling initiatives. Several LGAs have implemented initiatives like organic fertilizer production, inter-lock stone manufacturing for landscaping, and an electricity generation project; however, these projects are often terminated after one or two years due to budgetary constraints and administrative challenges.

Local politicians frequently use these funds to enhance their reputation among the community. For instance, rubbish bins are often allocated to individuals with strong connections to political leaders, illustrating a trend of resource allocation predicated on personal affiliations rather than communal requirements. This pattern of favouritism in resource allocation is common within local government contexts (Jayasinghe and Wickramasinghe, 2011; Kuruppu et al., 2016). Further, Mor and Ravindra (2023) stressed that sufficient financial and governmental support is essential for maintaining a sustainable waste management system. However, the results of this study reveal that almost all LGAs have insufficient financing, misappropriation of financial resources, and inadequate assistance from political leadership. In these contexts, as demonstrated in developing countries (Hannan and Aigbogun, 2021; Owukio et al., 2022), these LGAs face significant challenges in attaining long-term enhancements in waste management due to financial mismanagement at the local government level,

which undermines sustainable practices. The continual reallocation of resources from waste management programs to politically driven projects underscores the conflict between managing immediate operating costs and sustaining a long-term commitment to sustainability objectives. This indicates that, for LGAs to oversee waste management operationally, including financing waste collection and employee wages, they must reallocate resources formerly designated for sustainable waste management solutions. The ongoing struggle to balance immediate operational needs with the necessary investment in sustainable solutions has continually hindered progress toward sustainability, leading to persistent inefficiencies and ongoing environmental harm, undermining sustainable waste management principles (Owukio et al., 2022).

Table 1 further highlights a serious disconnect between resource allocation and implementing best practices for sustainable waste management. Several shortages characterize the waste collection process in these LGAs. For example, waste collection is carried out daily in designated areas except Sundays. However, this process is hindered by a shortage of personnel and vehicles, as explored by Fernando (2019). According to the national waste collection report, the average individual generates between 0.4 and 1.0 kilograms of waste daily, yet only 50% of the total waste is collected. Notably, the waste collection processes managed by LGAs in the province rely on traditional methods with minimum citizen involvement rather than modern techniques and technology (Yadav, Soni and Kumar, 2023) that support sustainable waste management. This raises concerns about the effectiveness and sustainability of waste collection by LGAs. Further, interviews revealed that waste collection vehicles are not consistently deployed across all areas daily. Instead, a scheduled route system is used, where specific routes are assigned to vehicles for waste collection over a week. While these vehicles generally follow their designated routes, residents have lodged many complaints regarding missed collections in certain households and areas. The same pattern of waste collection has been in the study of Rathnayake and Sellahewa (2022). The commissioner elaborated further regarding the waste collection practices in these LGAs in the province. "*We cannot say that all LGAs have adequate waste collection practices. Due to financial constraints, each local government faces various waste-collection issues".* With staff and vehicle shortages impeding day-to-day operations, our empirical findings demonstrate that LGAs have a substantial mismatch between how financial resources are allocated and how effectively garbage is gathered. Additional obstacles to sustainability include inconsistencies in vehicle use, low levels of citizen participation, and conventional techniques of collecting waste (Fernando, 2019). The lack of financing makes these difficulties even worse, highlighting the need for better waste management systems, more contemporary technologies, and more efficient funding overall.

Table 1: Overview of existing waste management system in LGs

	LGAs			
	Galle (20 LGAs)	Matara (17 LGAs)	Hambanthota (12 LGAs)	Total (49 LGAs)
Questionnaire collected	14 LAGs	15 LAGs	12 LAGs	41 LAGs
Do LGs have a budget allocation for SWM?	Yes	Yes	Yes	Yes
When do you collect waste from your area?	Daily	Daily	Daily	Daily
Do you think enough employees are utilized for this purpose?	No	No	No	No
Do you think enough vehicles are utilized for this purpose?	No	No	No	No
Do you ask households/institutions to separate waste?	Yes	Yes	Yes	Yes
Do you conduct awareness activities on solid waste management for households/ institutions?	Yes	Yes	Yes	Yes

Source: Developed for the study

The importance of waste separation at the source in facilitating the effectiveness of waste-collecting endeavors has been underscored by Kastolani et al. (2022). In the southern province, all LGAs have actively included their constituents in waste separation at the source by conducting various awareness initiatives such as issuing notices, distributing leaflets, and making public announcements. As revealed by interviews, this concerted effort has had favourable outcomes in several LGAs, as citizens have demonstrated eagerness and readiness to segregate their waste following prescribed guidelines. For example, certain LGAs have adopted a waste management system in which degradable and non-degradable waste are collected separately on designated days within the same area. The study conducted by Azizah et al. (2021) provided evidence of the active engagement of citizens in the preservation of sustainable waste management practices. In the LGAs, the active engagement of citizens in waste separation reflects their comprehension of the environmental and societal significance associated with appropriate waste management. The favourable reaction indicates the efficacy of the awareness efforts and the community's willingness to participate in sustainable waste management practices. However, a notable disparity

becomes apparent when analyzing the data shown in Table 02. Although all LGAs consistently gather degradable waste as part of their waste management strategies, there is a significant variance across LGAs in the collection of non-degradable waste. The significant variance seen in the accumulation of non-degradable waste among LGAs necessitates an investigation into the underlying mechanisms contributing to this variation. Several potential explanations may be identified, such as variance in the availability of limited resources, inadequate waste reduction regulations, irregular waste collection timetables, and a lack of technical expertise (Saja et al., 2021). Furthermore, interviews indicate that many LGAs have instituted initiatives centred on home gardening, utilizing organic fertilizers projects. Unfortunately, these projects encountered several problems and finally demonstrated unsustainability over the period. The main factor leading to their failure is the insufficient support provided by political leaders and administrative personnel, as evidenced by Fernando (2019).

Table 2: Types of waste collection from LGAs

Type of Waste	Waste collected from							
	Galle LGAs		Matara LGAs		Hambanthota LGAs		Total LGAs	
	Yes	No	Yes	No	Yes	No	Yes	No
Degradable	14	0	15	0	12	0	41	0
Plastic	6	8	9	6	10	2	25	16
Paper and Cardboard	6	8	9	6	10	2	25	16
Glass	2	12	8	7	8	4	18	23
Metal	2	12	5	10	3	9	10	31
Fabric	3	11	6	9	6	6	15	26
Coconut shells	3	11	6	9	4	8	13	28
Hazardous Waste	2	12	1	14	2	10	5	36
Electronic Waste	6	8	5	10	9	3	20	21

Source: Developed for the study

Table 3 presents an overview of local authorities' waste disposal and recycling practices, indicating a tendency towards limited waste management initiatives. The prevailing practices employed by these local authorities entail the production of organic fertilizer. Based on data obtained via interviews, it has come to light that the central government made a momentous step in mid-2021 by imposing a ban on importing chemical fertilizers. Considering this policy change, many LGAs nationwide have undertaken programs to produce organic fertilizers. This is consistent with the prevailing nationwide trend, wherein LGAs, particularly those in the southern province, have effectively shifted towards producing organic fertilizers. However, it is crucial

to consider the preceding circumstances leading up to this change, wherein a significant proportion of LGAs resorted to disposing of waste through indiscriminate dumping on land or in open areas, except for a limited number of LGAs. The inadequate management and disposal of waste pose significant environmental and social challenges, as evidenced in the studies conducted by Hannan and Aigbogun (2021) and Owukio et al. (2022). The environmental and social issues arising from insufficient waste management and disposal practices are not exclusive to this province. However, they are prevalent concerns, particularly in less developed countries, as substantiated by the studies conducted by Fernando (2019), Hannan and Aigbogun (2021), Owukio et al. (2022), and Saja et al. (2021). In such a background, it is vital to highlight the government's choice to endorse the production of organic fertilizers as a viable and ecologically responsible substitute for chemical fertilizers. Local authorities effectively address environmental issues by implementing improved waste disposal practices and promoting organic fertilizer production while fostering agricultural sustainability and diminishing dependence on imported chemical fertilizers. As revealed by the open-ended questions in the questionnaire, the effectiveness of these programs may be contingent upon other aspects such as the development of infrastructure, the acceptance of technology, modern SWM practices, and the participation of the community.

The empirical data collected in the study presents a significant disparity in waste management practices among the local governments within the province. Out of the chosen local authorities within the province, a scant six have demonstrated active participation in recycling initiatives about polythene and plastic materials, which serves as a poignant reminder of an overlooked prospect for enhancing the sustainability of waste management practices. Recycling not only diminishes the amount of waste that ends up in landfills, but it also has the potential to create income or valuable resources through the sale of recycled materials. In other words, a circular economy can be developed at the local level, as highlighted by Kastolani et al. (2022), Meidiana et al. (2022), and Seadon (2010). The little participation of governing bodies in recycling initiatives indicates a dearth of prioritization toward ecologically sustainable practices. Furthermore, it is important to acknowledge that the sale of collected solid waste, practised by sixteen local authorities, is another aspect of waste management. The data presented reveals a worrisome scenario, suggesting that most local governing bodies in the province now face severe difficulties managing waste effectively. This suggests a deliberate attempt to transform waste into a prospective revenue stream. The data in Table 03 highlights the urgent need for enhanced waste management practices among the province's local governments. In order to tackle these concerns, the inadequate priority of recycling initiatives (as seen in Table 3) may be attributed to insufficient regulatory incentives and a deficiency in technical expertise among local government authorities, highlighting the necessity for focused capacity-building programs.

Table 3: Existing solid waste treatment of LGAs

	Galle LGs	Matara LGs	Ham-banthota LGs	To-tal LGs
Organic Fertiliser Production	7	11	10	28
Electricity Generation	0	1	0	1
Polythene and Plastic recycling	4	1	1	6
Selling collected solid waste except for degradable waste	7	6	3	16
No specific treatment for any waste	7	4	5	16

Source: Developed for the study

In addition, local authorities must contemplate allocating resources towards developing recycling infrastructure, enhancing public consciousness about responsible waste management, and engaging in cooperative endeavours.

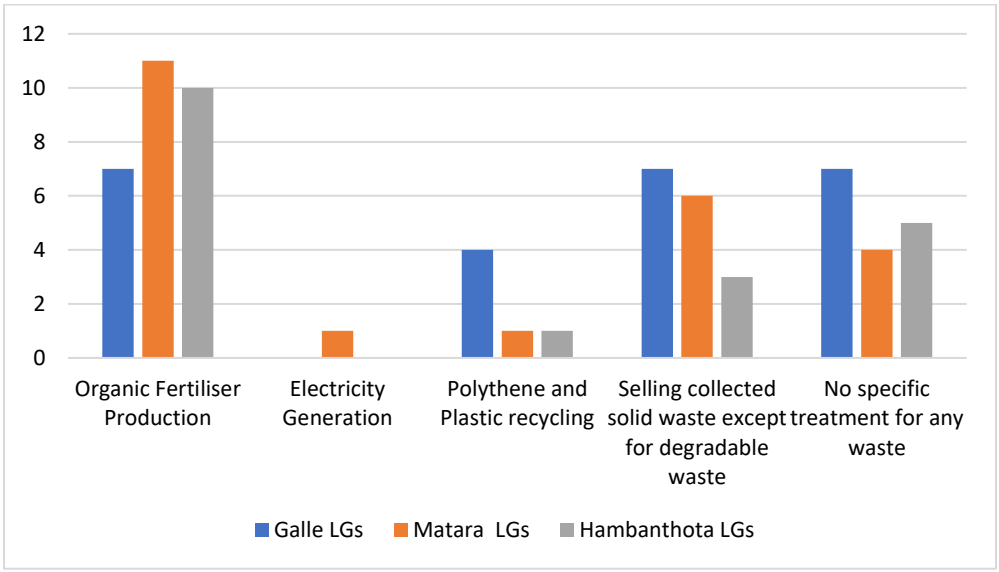

Figure 1: Waste Treatment among LGAs

Figure 1 illustrates a comparison of existing solid waste treatment practices among LGAs in the Galle, Matara, and Hambantota districts, highlighting key trends in waste management. Organic fertilizer production is the most widely adopted method, with Matara LGAs leading, followed by Hambantota and Galle. A key concern is that a considerable number of LGAs, especially in Galle and Hambantota, do not have

specific waste management practices. This has resulted in the lack of a well-managed waste management approach, leading to improper waste disposal, environmental degradation, and potential health hazards (Fernando, 2019). It highlights the urgent need for policy interventions, improved regulatory frameworks, and enhanced LGA waste management strategies to ensure that all LGAs adopt sustainable waste management practices. However, Figure 1 highlights the effective waste management practices present in these LGAs. For example, although producing organic fertiliser represents a beneficial advancement in the realm of sustainable waste management, the leadership in these LGAs lacks a long-term vision for waste management initiatives, which hinders their effectiveness. The local government commissioner in the province explained that *"when the central government launches waste management projects through the LGAs, all local authorities begin implementing these projects with the backing of the community. However, after a couple of years, the leadership of the LGAs tends to revert to their usual practices".* These findings indicate that effective sustainable waste management hinges on robust policies, a commitment to long-term leadership, and consistent enforcement to foster enduring effectiveness and community backing.

5 CONCLUSIONS AND IMPLICATIONS

This study examines LGAs in the southern part of Sri Lankan waste management practices and their alignment with sustainable waste management. All LGAs initially allocated a budget for the disposal of waste. However, funding constraints divert resources to alternative initiatives, raising concerns about the objectives of LGA waste management. As such, waste collection remains a significant challenge for LGAs in southern Sri Lanka due to staff and vehicle limitations (Fernando, 2019), leaving a substantial amount of waste uncollected. Despite these challenges, awareness initiatives have improved citizen participation in waste separation at the source, highlighting increased community involvement in sustainable waste management as in other contexts (Dickella et al., 2022; Loan et al., 2017). However, disparities in non-degradable waste collection among LGAs (Anantanatorn et al., 2015; Banerjee and Sarkhel, 2020; Simangunsong and Fajarwati, 2018) raise concerns about the underlying causes, which include resource inequities, weak regulatory measures, inconsistent collection schedules, and technical inexperience. The lack of governmental and administrative backing (Fernando, 2019) has further hindered efforts in sustainable waste management, particularly in initiatives like home gardening and organic fertiliser production. To rectify these disparities in the LGAs, it is essential to implement context-specific solutions. For example, investments in infrastructure, technological advancements, and contemporary solid waste management practices supported by active citizen participation, strengthened regulatory frameworks, and secure political and administrative support to foster long-term are among the solutions.

This study fills a gap in the literature on sustainable waste management by providing empirical evidence on how the Sri Lankan local government in Southern Province are implementing sustainable practices into action, which has largely been overlooked in previous studies. With important theoretical implications for waste management governance, the findings demonstrate how inadequate legal frameworks, uneven allocation of resources, and financial mismanagement impede sustainability initiatives. Notably, this study's findings urge more transparency and accountability in the distribution of public funds and offer policymakers suggestions to improve infrastructure, strengthen regulations, and enhance citizen participation. The study further

underscores the importance of sustainable incentives, such as recycling programs, organic fertilizer production, and circular economy initiatives, which offer solutions for more effective waste management.

Further investigation is warranted to examine the efficacy of financial allocations for waste management and identify potential measures for ensuring the appropriate utilization of allocated funds. In addition, comparative analysis from different provinces and other developing countries would go a long way in ascertaining how different solid waste management practices exist and why differences are noted in such contexts. All other things being equal, this research discusses the factors affecting community-based separation at source and recycling while still trying to give practical ways to improve participation. Further research into those areas and addressing the issues identified will contribute significantly to policymakers' and researchers' efficiency and sustainability in waste management practices within and outside the Southern Province. This will be important in developing more equitable and effective waste management systems compatible with sustainability goals.

Acknowledgement

This paper is part of the Techno-Economic-Societal Sustainable Development Training in Sri Lanka (TESS) Project: 609925-EPP-1-2019-1-NO-EPPKA2-CBHE-JP, which is co-funded by the European Commission under its ERASMUS+ CBHE programme.

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