

**This is the Accepted Version of the following book
chapter:**

Fernando, N., De Silva, M. (2021). The Discourse of Municipal Solid Waste Management in Sri Lanka. In: Amaratunga, D., Haigh, R., Dias, N. (eds) Multi-Hazard Early Warning and Disaster Risks. Springer, Cham.

The definitive publisher-authenticated version is available
online: https://doi.org/10.1007/978-3-030-73003-1_17

The discourse of Municipal Solid Waste Management in Sri Lanka

Nishara Fernando*¹, Malith De Silva²

¹ Social Policy Analysis and Research Centre, University of Colombo, Colombo, Sri Lanka

² Social Policy Analysis and Research Centre, University of Colombo, Colombo, Sri Lanka

ABSTRACT

The history of Municipal Solid Waste Management (MSWM) in Sri Lanka runs to colonial times. Since then, it has undergone many changes and reforms. These modifications are the result of the changing social discourse of MSWM in the country. This paper attempts to study how the MSWM discourse has changed over time and factors that have contributed to these changes. The study incorporated a thorough policy review, which was developed using a systematic review of ordinances, acts and policies on MSWM. Further, fifteen in-depth interviews were conducted with MSWM stakeholders representing national and local level government agencies, the private sector and NGOs to collect primary data. The findings revealed that the British colonizers adopted a nuisance discourse of MSWM, which continued until the early 1980's. This led to the accumulation of MSW in rural areas and suburbs of Colombo and other major cities. As a result, in 1980 a contextual nar-

rative defined MSWM as an environmental issue. An urban beautification contextual narrative emerged in the 2000's which reinforced the nuisance discourse on MSWM. The paper concludes that the discourse on MSWM in Sri Lanka has remained as a nuisance discourse since the colonial period to date.

Keywords: Municipal Solid Waste Management; Discourse; Social Narrative; Nuisance

*nishara.fernando@gmail.com

Introduction

Municipal solid waste management is a key responsibility of central governments as well as local governments. Waste management authorities utilize different technologies, strategies and mechanisms to reduce, control and manage municipal solid waste because of its significance. The social discourse on Municipal Solid Waste Management (MSWM) decides the nature of management strategies or mechanisms that the central government or local governments employs. Similar to other countries, the social discourse decides the nature and the direction of municipal waste management strategies in Sri Lanka. The municipal waste management strategy of Sri Lanka has changed and developed over time, incorporating new policies, technologies and techniques.

This study aims to identify the historical development of the MSWM discourse in Sri Lanka. Furthermore, the study wishes to identify the actors that shape the MSWM discourse in Sri Lanka.

Sri Lankan studies on Municipal Solid Waste Management

Academics and scholars in Sri Lanka have closely studied municipal solid waste management activities as waste has created serious issues for the environment and wellbeing of the population. Academics have studied waste management under two key themes: one, the impact that discarded waste has on the environment and two, possible solutions to manage municipal solid waste management.

Arachchige et al (2019) discuss a novel solution to resolve waste management issues in Sri Lanka. They propose that the “*conservation of natural resources as well as...protecting the environment by maintaining quality living standards can be achieved by proper waste management system*” (Arachchige et al., 2019). The authors identify “Waste to energy and landfilling” as the most promising technologies for waste management and propose a pre-drying mechanism that uses solar heating to de-moisturize segregated waste. Basnayaka et al. (2019) in a book chapter titled “Solid Waste Management in Sri Lanka” discuss the prevailing waste management mechanisms and national level policy initiatives of Sri Lanka.

The chapter proposes an integrated solid waste management system as the most suitable system for the country. In another article, Bandara (2008) analyses the impact of social and economic factors of waste generation. The article titled “Municipal solid waste- a case study of Sri Lanka (Bandara, 2008) identifies the major impacts that the prevailing mismanagement of waste has on the environment and the health of communities.

According to her, the current waste disposal practices have threatened many ecologically valuable habitats such as wetlands and this has reduced the flood retention capacity in many suburban areas. She also describes emission of landfill gases and leachate as a major evil of open dumping citing and its significant contribution to the greenhouse gas budget of Sri Lanka. All these studies focus on valuable aspects relevant to MSWM. However, none make an attempt to analyse the social discourse hidden within the administrative architecture and policies. The discourse on MSWM decides the effectiveness of measures introduced to manage municipal waste. Therefore, this study provides officials, practitioners and policy makers an opportunity to comprehend the nuances of the MSWM discourse and adapt their policies and programmes accordingly.

Further, the study has gathered data from majority of key stakeholders such as National level officials, officials from Municipal councils, informal waste collectors and private sector waste collectors. As a result, the analysis provides a comprehensive and holistic picture of the discourse on MSWM. In addition, the study explores MSWM activities in the Dehiwala-Mt.lavinia Municipal Council and the Boralesgamuwa Urban Council areas. Therefore, the findings of the study are useful for local councils to reframe their waste management activities to provide a better service to their citizens.

Methodology

The study used secondary data sources such as ordinances, acts, policies etc. to study the social narratives on municipal solid waste management in Sri Lanka. Accordingly, authors analyzed all secondary data sources on municipal solid waste management using a systematic review method. Secondly, the study used primary data which was collected during in-depth interviews with fifteen national and local level experts, government officials, practitioners and policy makers. The research team recorded all the interviews after obtaining informed consent from respondents and was later transcribed using word processing software. Data was analyzed using the discourse analysis method.+

The Social Discourse Analysis

Sociologists define discourses as any practice to which individuals instill meaning to understand the world around them (Metzidaki; 2000). Moreover, discourses promote understanding of social reality as a subjective orientation of social action. The subjective orientation of the actions of an individual is not completely subjective, instead the narratives that guide individual actions are mostly socially produced and shared patterns (SCHUTZ; 1974).

Sociologists have a keen interest in understanding verbal discourse, as it is the most direct form of discourse. In other words, analysts have to translate other forms of discourses to verbal form in order to comprehend other forms of discourses. Such practices can be tricky as personal biases and subjective beliefs might corrupt the translation. (Spannagel et al. 2005; Metzidaki; 2000).

There are three levels to a discourse analysis: a textual level, a contextual level and an interpretive level. Textual analysis is used to characterize a discourse as it focuses on the wording and text; the contextual level of analysis contextualizes the discourse and the third and final level of analysis is interpretive analysis where the contextualized texts are analysed to reveal social narratives (Metzidaki; 2000).

Municipal Solid Waste Management discourse in Sri Lanka

The first section of the paper discusses the social discourse narratives that emerged from secondary data sources, which include policy documents developed by the parliament and other responsible authorities. The policy documents under consideration were:

- The Urban Council Ordinance (1939)- **Sections 118,119 and 120**
- The Municipal Council Ordinance (1947)- **Sections 129-131**
- The National Environment Act (1980)- **Section 33**
- The Provincial Council Act (1987)
- The Pradeshiya Saba Act (1987)- **Sections 93-95**
- The National Solid Waste Management Policy (2007)

The researchers attempted to identify social narratives of MSWM by paying special attention to how waste was defined, how issues are identified and how solutions are provided in each document.

The Nuisance Narrative

The narrative presented in the Urban Councils Ordinance suggests that waste management is the sole responsibility of the council; it fails to identify household waste producers, large-scale waste producers or the central government as additional key stakeholders in MSWM. Under the British rule in 1939, Ceylon had very few

urban centers created for the benefit of the colonizers, and households of ordinary people were able to take care of their own waste until the stage of treatment and disposal. In the colonial period, there was no overconsumption and hardly any non-biodegradable wastes. However, with the introduction of missionary education, an urban, educated upper class emerged (Jayawardena, 2000) adopting, the lifestyles of the colonizers including overconsumption. This resulted in the gradual increase in the production of solid waste in the country. Ultimately, the British rulers felt it necessary to introduce a waste management component in the Urban Councils Ordinance in 1939.

This ordinance defines municipal solid waste as “All street refuse, house refuse, to be night-soil, or other similar matter” (Urban Councils Ordinance, 1939). It identifies waste as any material that is used and disposed to the streets by households. The ordinance does not take large-scale producers of waste such as hotels and factories into account.

The ordinance identifies three key components of MSWM

- Cleaning - “for properly sweeping and cleansing the streets, including the footways”
- Collection - “for collecting and removing all street refuse”

- Disposal - “proper disposal of all street refuse, house refuse, and night-soil all refuse”

Furthermore, it is interesting to note that section 120 of the ordinance identifies waste as a ‘nuisance’:

“Every Urban Council shall, from time to time, provide suitable places convenient for the proper disposal of all street refuse, house refuse, night-soil, and similar matter removed in accordance with the provisions of this Part, and for keeping all vehicles, animals, implements, and other things required for that purpose or for any of the other purposes of this Ordinance, and shall take all such measures and precautions as may be necessary to ensure that no such refuse, night-soil, or similar matter removed in accordance with the provisions of this Part is disposed of in such a way as to cause a nuisance” (Urban Councils Ordinance, 1939).

Today, such ‘nuisance discourses’ are associated with upper middleclass and middleclass norms (Ghertner, 2008) in South Asia. This nuisance approach is the dominant social narrative in the Urban Councils Ordinance. When a society or community needs to resolve a nuisance, the general approach is to get rid of it and the same applies to waste. “Every Urban Council shall, from time to time, provide suitable places convenient for the proper disposal of all street refuse, house refuse and night-soil”, signifies that disposal

should be carried out in places which are “out of sight”. This means that the urban councils were responsible for providing land outside the urban area to dispose waste. Another term that reveals this nuisance narrative is the term “proper.” The term “proper” refers to appropriate disposal of waste in a location, which is out of sight of the educated, middle class and the ruling British. For an example, the municipal solid waste collected in 1939 had been disposed at two locations in Colombo and Mt. Lavinia. Kirulapone, which was a less populated area, nearly ten kilometers away from the Colombo city area was the disposal site in Colombo. Collected waste was burned using a “Refuse Destructor”, a 32-horse power liquid fuel engine incinerator. The other incinerator was located down Prince of Wales Avenue in Mount Lavinia, which was also a less populated area in the 1940s. The waste incineration facility is located nearly fifteen kilometers away from the Colombo city center (CMC, 1939; 1940). However, the other suburbs had not developed and mass scale waste generation took place only in the Colombo Municipal Council area by this period.

In 1960, the Colombo Municipal Council stopped using incinerators due to high operation and maintenance costs. According to the Report of the Commissioner of the Colombo Municipal Coun-

cil, (1960) the total cost of operating and maintaining the incineration facilities amounted to 333,699 rupees which was four percent of the total budget of the municipal council.

After discontinuing the incineration facility, the Colombo Municipal Council resorted to dump municipal solid waste in privately owned lands in Muthurajawela, Kirulapana and Aththidiya areas (CMC, 1962). All these places are located at a significant distance away from the Colombo Municipal Council area.

This nuisance narrative has had a long-term effect on the waste management process of the country as the open dumping sites selected by the Municipal Councils were marshy lands or paddy land outside the immediate boundaries of urban centers. It is interesting to notice that this nuisance narrative advocated by the Urban Councils Ordinance is still the accepted policy approach of local governments. The Municipal Councils Ordinance (1947) and the Pradeshiya Saba Act of (1987) have adopted sections 118-120 of the Urban Councils Ordinance just as they are. As a result, the harmful waste disposal discourse “out of sight, out of mind” followed by the colonizers continued and resulted in the creation of large garbage mountains in locations including Blouemandel, Meethotamulla and Karadiyana.

The Environmental Management Narrative

A shift from the nuisance social narratives emerged in the National Environmental Act, implemented in the 1980s. The act established a special waste management unit under the Ministry of Mahaweli Development and Environment titled “Hazardous Waste and Chemical Management”. This move to establish a unit to manage and preside over waste management under the Ministry of Environment indicates that waste became an environmental issue for the first time in 1980.

The act defines waste in the following manner:

“waste includes any matter prescribed to be waste and any matter, whether liquid, solid, gaseous, or radioactive, which is discharged, emitted, or deposited in the environment in such volume, constituency or manner as to cause an alteration of the environment” (Environment Act, 1980). The act implemented a new waste management unit, but it did not have any direct impact on MSWM as it had no jurisdiction over local governments. Local governments, on their part, continued the nuisance discourse advocated by previous policies.

In 2007, however, the Central Environmental Authority developed a National Waste Management Policy. The policy (as stated

in its introduction) was an attempt to “develop an appropriate national policy on holistic waste management” (NWMP, 2007). The policy introduces novel technical approaches, management structures and mechanisms to increase efficiency and effectiveness. It defines waste management as an intricate, complex activity, which requires expertise and knowledge in the fields of:

- I. Technology
- II. Management
- III. Public Relations
- IV. Marketing
- V. Administration

This policy in turn shifted a significant amount of power and responsibilities from Local Authorities. Even though the policy introduces community members as key stakeholders in MSWM, it does not advocate community centric waste management. Rather, it gives the community a very limited role.

“The mandatory community involvement in managing waste is a significant input to ensure that waste managers perform their duties with the highest degree of accountability and responsibility around the country.” (NWMP, 2007)

The sole responsibility of the community is to be vigilant and observe the efficiency and accountability of the local governments.

The policy considers MSWM as a technical issue, which can be resolved using technical solutions. The solutions brought in by this technical narrative include the introduction of new technologies and machinery to manage the collection of waste, managing disposal sites and upgrading of staff capacity through training. The approach does not take social aspects such as cultural practices, consumption patterns and demographic specifications into account though they are significant components of waste management. Ignoring these factors can have a lasting impact on the solutions proposed to resolve waste management issues. In addition, it must be mentioned that although new technologies were introduced to waste management activities the discourse remained the same as waste management authorities continued to practice the “out of sight, out of Mind” discourse of the colonial period.

Co-existence of Narratives

In this section, we discuss all the policy documents available on waste management. The oldest document, the Urban Councils Ordinance of 1939 is still in effect, with no major changes to the laws on MSWM. The Municipal Councils Ordinance and the Pradeshiya Saba Acts, (1947 and 1987), adopted sections 118 -120 of the Urban Councils Ordinance word by word. This suggests that what in recent critical urban studies literature has been identified as a middle

class social narrative of waste being a nuisance had underpinned waste policy in Sri Lanka from 1939- 1987. This narrative asserts that the problem of waste should be resolved by following the “out of sight- out of mind”. Even though the Central Environmental Act introduces an “environmental” and “management” discourse of waste in 1980, the nuisance approach introduced by the Urban Councils Ordinance is still in effect. The introduction of the National Solid Waste Management Policy of 2007, too, embodies an environmental and managerial narrative but the policy acts only as a guiding principal since local governments have no jurisdiction over them.

Other than a nuisance, MSW is an environmental and managerial issue that is resolvable through technical interventions. Therefore, the official waste discourse introduced by the earliest policies has shifted away from the idea of waste been a nuisance only to a limited extent.

Narratives emerging from verbal accounts

The research team also used in-depth interviews conducted with key informants, mostly government officials but also private company actors who have established Public-Private Partnerships with municipalities, to comprehend the nature of the waste discourse post 2007. The authors paid special attention to the impact that the

collapse of the Meethotamula garbage dump had on the MSWM discourse. The key informants included seven high-ranking officers at national and provincial level agencies, such as the Central Environmental Authority, the National Solid Waste Management Support Centre, the Environmental Police, the Western Province Solid Waste Management Authority, and the Ministry of Mega Polis and Western Province Development; six elected members and government officers from Dehiwala-Mt. Lavinia Municipal Council and Boralesgamuwa Urban Council; and four managers and owners of local private waste management companies.

As discussed in the previous section, the discourse narrative revealed by the existing policy documents suggests that waste is still regarded as a nuisance and additionally as an environmental issue that requires expert solutions. However, the key informants had a different narrative on MSWM. The interviews suggest that waste is a key responsibility of modern governance and a valuable source of income for the country. The following section discusses the MSWM narratives of national and local level officials.

Narratives of national and provincial level officers

As mentioned earlier, national level key informant interviews conducted with selected officials of the Central Environmental Authority, Ministry of Megapolis and Western Province Development, National Solid Waste Management Support Centre, the Environmental police of Sri Lanka, and the Western Province Solid Waste Management Authority revealed new narratives.

A recurrent narrative that emerged from the interviews with officials of the central government is that waste management is a key responsibility of the government. An officer of the Central Environment authority stated the following:

“We at the Central Environmental Authority understand the significance of municipal waste management and this is why we have a dedicated center to generate policy guidelines and to monitor the activities of the provincial and local level authorities and councils. If the waste management system fails for a day it is enough to create a serious disturbance to the day today activities of citizens, the government and private sector activities” (KII Interviews, 2019)

Another executive officer at the National Solid Waste Management Support Centre of the Ministry of Public Administration and Home Affairs expressed the same narrative,

“Waste management is a key responsibility of the government; this is why the government has established multiple organizations to manage the MSWM activities. At the national level we have the Central Environmental Authority, the Urban Development Authority, Ministry of Mega Polis and Western Province Development and National Solid Waste Management Support Centre to take care of waste management and improve the efficiency of the services provided to the masses” (KII Interviews, 2019).

Another narrative that emerged from the interviews with national level officials revealed that they view waste as a resource and an income earning opportunity. According to an executive officer of the Ministry of Mega police and Western Province Development, waste is an opportunity.

“I believe that the time has passed where we viewed waste as a burden. In this era, we see waste as an opportunity; an asset. If waste is managed using the correct techniques we can earn from each bit of waste, bio-degradable waste can be turned into compost manure and non-biodegradable waste can be used for recycling. If we tap into the potential of waste, our waste management system will be self-sustaining. It will also be one of the main income sources of the local councils. Our problem is that we do not manage

MSW well. If we manage it properly the opportunities are endless” (KII Interviews, 2019).

An official of the Western Province Solid Waste Management expressed a similar idea:

“With new technology and innovation in composting and recycling such as one day composting we have come to understand that waste is not waste in reality. By managing different types of waste, we can use waste to improve the lives of Sri Lankan citizens. Plastic can be recycled into new plastic material, (e.g. pavement blocks), carbonic waste can be turned into compost. Currently we have a very successful composting facility at the Karadiyana Waste Resource Centre. It has reached its full capacity in production and still cannot provide an adequate supply for the demand. We currently export 450 MT of compost to Maldives” (In-depth Interviews, 2020).

Another national level official had a similar opinion. According to him, the government wishes to reduce the burden of waste on the environment by promoting segregation at source and recycling levels.

“The way we had deposited waste in the past is a key factor that has contributed to the pollution of the environment and accumulation of mountains of garbage. The government wants to see a

change in this and that is why the government introduced strict waste disposal laws in the recent years. By doing so we expect that the public will resort to dispose their waste in more environment friendly ways by segregating waste at home and handing it over to municipal council tractors. Segregated waste becomes a resource if properly managed. Also the compost can be used to reduce the use of artificial compost in farming which would also significantly reduce the cost that the government has to bare to import artificial manure” (KII Interviews,2020).

Narrative of the local level officials

Our data suggests that the narrative of local level officials is somewhat similar to the narratives of national level officials. For instance, local level officials also regarded MSWM as a key responsibility of the local government, as an official of the Boralesgamuwa Urban Council stated that,

“Managing waste is a key responsibility of the council; after all municipal waste is generated by community members of each urban council. We have to manage it. Unlike before, now we can earn from waste. So we see it as an asset and we are focusing on providing an optimal service to our community while obtaining the highest possible income from waste” (In-depth Interviews, 2020).

The quote also reveals a managerial narrative on MSWM, which promotes the use of waste as a resource to reduce operational and management costs. This cost-cutting narrative is a characteristic of the neoliberal governance in Sri Lanka.

This narrative of waste as a resource also emerged in an interview with an executive from the Dehiwala - Mt. Lavinia Municipal Council:

“Our wards generate a large amount of waste on a daily basis. We have both a highly urbanized Dehiwala City area and a popular tourist destination - Mt. Lavinia is under our purview. As we spend more than 10 million rupees each month, we have decided to earn as much as possible from recyclable and reusable waste in the future. We have already invested money to open a large recycling center in Mt. Lavinia in the future” (In-depth Interviews, 2020).

Current discourses: Waste as resource, waste management for beautification

These interviews suggest that the definition of waste by key informants is different to the narratives revealed from policy documents. The narrative presented here defines waste as a resource or an asset. This narrative seems to have developed due to many factors. As mentioned by an official from the Western Province Waste Management Authority, the introduction of new technology and

innovation has played a key role in the change of the narrative. The technical developments in recycling – from producing recycled items to generating electricity— have gradually reached the Sri Lankan waste management system. These technologies have converted smelly and dirty waste into a profitable source of income. The Sri Lankan waste management authorities of the central, provincial and local governments have adopted this narrative with open arms.

Nevertheless, the nuisance narrative has not disappeared completely, as one of the interviewed mayors stated:

“We are always attempting to keep the city clean. Our collection vehicles always start from the city center and clean all the waste that is piled up on the roadsides of the city. When people go to work the city should look clean and beautiful” (In-depth Interviews, 2020).

An officer of the Central Environmental Authority made a similar statement:

“Waste is not a nice thing to look at. We always instruct the councils to keep cities clean and pleasant. The previous government invested a lot in city beautification projects. The small streams flowing through the cities of Bellanwila and Kotte were cleaned thoroughly. Previously these locations were filled with

PET bottles, beer cans and even garbage bags thrown by community members. The Urban Development Authority created a new walking path and a bicycle track there” (In-depth Interviews, 2020).

These statements suggest that the nuisance narrative is still present despite the positive definitions given to waste. Now, waste is a nuisance as it affects the beauty of the city. The government of former President Mr. Mahinda Rajapaksa invested heavily on beautification projects in the metro Colombo region as well as in sub-urban areas such as Kotte, Bellanwilla and Baththaramulla. One of the key initiatives of these beautification programmes was to get rid of waste from cities and to manage them outside these territories.

The present President, his Excellency Gotabaya Rajapaksa, (then- Secretary of Defense) led this movement, committing himself to make Colombo the ‘Green City of Asia’. This beautification narrative seemed to have influenced officials at all levels heavily.

To sum up, the narrative on waste has become more positive although the definition of waste as a nuisance is still prominent in the discourse due to the influence of beautification projects carried out by the previous central government.

The key actors of MSWM discourse

The analysis of the secondary data revealed key actors of the MSWM discourse in Sri Lanka. The secondary data identifies the government of Sri Lanka as the most prominent actor in shaping the MSWM discourse. The 1939 Urban Council Ordinance was the first instance when the central government had intervened in deciding municipal solid waste management in Sri Lanka. The 1939 colonial government introduced the Urban Council Ordinance to manage municipal solid waste in the cities of Colombo, Kandy and Galle. However, the ordinance did not establish a specialized organization to manage municipal waste management. It is in the year 1980 that the government established the Central Environmental Authority which was a specialized organization with waste management as a key responsibility. Moreover, in the year 1999 the Western Provincial Council established the Western Province Waste Management Authority as a specialized organization to manage waste management issues in the western province. However, the Central Government of Sri Lanka has remained the key actor in the MSWM discourse, as provincial and municipal level organizations do not have the power to shape the national discourse on MSWM.

The key informant interviews identified that the collapse of the Meethotamulla waste mountain was instrumental in convincing responsible authorities, politicians and Sri Lankan citizens that the existing MSWM system made waste a serious issue. Accordingly, the Meethotamulla disaster was a major event that changed the MSWM discourse in Sri Lanka.

A ministerial consultant stated that,

“MSWM in Sri Lanka is a problem only because of the inefficient and ineffective management system. Meethotamulla was one such site that lacked a proper management system; Waste was not properly segregated. Dumping of mixed waste created a waste mountain that was over 29 meters high. The collapse of the dump is a tragedy but the incident created an opportunity to drum into the heads of administrators, politicians and the public that segregation is a must and that new technology has to be introduced to other open dumping sites to avoid a similar disasters from occurring” (In-depth Interviews, 2020).

An officer of the Dehiwala-Mt.Lavinia Municipal Council remarked:

We initiated a programme called ‘waste segregation at the source’ a few months before the Meethotamulla disaster. However waste segregation remained at 10% to 20%. After the disaster

struck, this percentage increased to nearly 60% immediately. For the first time, the people, especially individuals living in the urban areas began to see how improper waste management can create serious issues” (In-depth Interviews, 2020). Another officer of the Central Environmental Authority stated that the Meethotamulla disaster played a key role in improving the waste management system in the Colombo district.

“Prior to the Meethotamulla disaster, the Kesbawa Urban Council managed the Karadiyana open waste dumping site. However, the site was not properly managed and that created long term impacts on the environment, with the Weras ganga (a river that runs through the area) being severely polluted and communities living close to the dump suffering from illnesses. However, after the Meethotamulla disaster, the Western Province Solid Waste Management Authority took over the management of the site. The management has become better now and only segregated waste is dumped in the area” (In-depth Interviews, 2020).

These statements by key informants reveal that the Meethotamulla disaster has affected the discourse on waste management. The disaster has played a role in convincing administrative officers

and the public on better waste management practices. This is evident from the dramatic increase in waste segregation at source after the disaster which is increasing steadily.

Conclusion

The findings suggest that the nuisance narrative has played the most influential role in shaping the municipal waste management discourse in Sri Lanka. The narrative has emerged out of the regulations of the central government of Sri Lanka. The nuisance narrative emerged in the MSWM discourse in the year 1939 under the British rule to manage municipal solid waste generated in a few urban centers. Despite this limitation, the preceding governments of Sri Lanka continued the nuisance narrative. In the year 1980 a new narrative of environmental pollution emerged within the nuisance discourse with the introduction of the Environment Act. This new narrative justified the “out of sight- out of mind” nuisance narrative of the MSWM discourse and supported the continuation of the narrative. In the late 2000’s the central government of Sri Lanka introduced an “urban beautification” narrative to the MSWM discourse which further reinforced the nuisance narrative of municipal Solid Waste Management in Sri Lanka.

Another narrative defines waste as a resource or an asset. This narrative seems to have developed due to the introduction of new

technology and innovation. The technical developments in recycling – from producing recycled items to generating electricity— have gradually reached the Sri Lankan waste management system. These technologies have converted smelly and dirty waste into a profitable source of income.

In conclusion, the Municipal Solid Waste Management discourse of Sri Lanka can be defined as a nuisance discourse reinforced by contextual narratives such as environmental issues and urban beautification. However, there is a rising narrative among officials involved in the MSWM that defines waste as a profit making commodity and an asset.

Reference

Arachchige, U.S., Heshanka, S., Peiris, H.I., Udakumbura, M.G.P. and Nishantha, P.G., 2017. Proposed Model For Solid Waste Management In Sri Lanka.

Bandara, N.J., 2008. Municipal solid waste management-The Sri Lankan case. In *Proceedings of International Forestry and Environment Symposium*.

Basnayake, B. F. A., Popuri, S., Visvanathan, C., Jayatilake, A., Weerasoori, I., & Ariyawansa, R. T. K. (2019). Concerted initiative for planned management of municipal solid waste in target provinces in Sri Lanka. *Journal of Material Cycles and Waste Management*, 21(3), 691-704.

Colombo Municipal Council, 1939. Annual Report of Colombo Municipal Council, 24-25.

Colombo Municipal Council, 1940. Annual Report of Colombo Municipal Council, 24-25.

Colombo Municipal Council, 1962. Annual Report of Colombo Municipal Council, 24-25.

Ghertner, D.A., 2008. Analysis of new legal discourse behind Delhi's slum demolitions. *Economic and political weekly*, pp.57-66.

Jayawardena, L. P., & Mathur, S. (2000). Design Aspects of the Barrier Systems in Municipal Solid Waste Landfills. *Engineer"-Journal of the Institution of Engineers*, 20-25.

Metzidakis, S., 2000. Barthesian discourse: Having your cake and eating it too. *Romanic Review*, 91(3), p.335.

Municipal Council Act 1947. (SL).

National Environmental Act No. 47, 1980, Parliament of Sri Lanka.

National Environmental Act, No. 47 1980 s. 41,93, 95. (SL.).

National Waste Management Policy, 2007, Ministry of Environment, Government of Sri Lanka.

Pradeshiya Saba Act, No. 15 1987 (Cth) s. 41,93, 95. (SL.).

Provincial Councils Act 1987 (Cth) s. 129,130,131. (SL.).

Spannagel, C., Gläser-Zikuda, M. and Schroeder, U., 2005, May. Application of qualitative content analysis in user-program interaction research. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 6, No. 2).