



# IMPACT OF COVID-19 ON INFORMAL WASTE MANAGEMENT IN SRI LANKA

A case study of Boralesgamuwa Urban  
Council and Dehiwala – Mt. Lavinia  
Municipal Council

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## 1. INTRODUCTION

### 1.1 BACKGROUND

The management of waste in a sustainably is a global challenge with considerable economic implications, particularly in developing countries. Waste management often consumes a substantial portion of municipal budgets, placing financial strain on local governments (Fernando, 2019; Cheema & Singh, S. P. 2021). This issue is particularly acute in densely populated urban areas of developing countries, where local authorities struggle to provide adequate waste management services to the public (Nanda & Berruti,2021; Das et al.,2019). As a result of these challenges the formal waste management systems' experiences and other reasons, an informal sector has emerged, comprising of low-income groups who engage in waste collection, sorting, and recycling as a means of income generation (Tong, Huynh & Khong,2021; Sahar,2019; Yu, Blaauw & Schenck, 2020).

Sri Lanka's waste management system incorporates an informal waste sector, which has been documented in various studies (Gunarathne, et al, 2019; Jayasinghe et al., 2013; Jayasinghe, 2019; Ranasinghe & Athapattu, 2020; Perera, & Ranasinghe,2022). While this informal sector plays a valuable role in waste management, it often operates without formal recognition as significant stakeholders in the urban waste landscape (Jayasinghe et al., 2019).

Data collection activities under a previous r4d project and the ongoing SPIRIT project point to the significant repercussions that the informal waste management sector in Sri Lanka has faced as a result of the COVID-19 pandemic, a period in which waste management was considered an essential service. Focusing on the informal sector in the context of COVID-19 is crucial due to its vulnerability to the pandemic's impacts. This sector, which often lacks job security and social protections, includes a significant portion of the global workforce, especially in developing nations. The pandemic has disproportionately affected informal workers, leading to income loss, limited healthcare access, stigmatization, and increased economic hardship. Moreover, the formal and informal sectors are deeply interconnected, with disruptions in one sector affecting the other. Recognizing this interdependence is crucial for developing comprehensive strategies to address the repercussions of COVID-19 on both sectors and to strengthen social safety nets for these vulnerable workers.

Recognizing this critical gap, the objective of this working paper is to bridge these knowledge limitations. By delving into the intricate details of the informal sector, this paper aims to present a

thorough and holistic depiction of its operations. Additionally, it endeavors to provide a detailed insight into the specific impacts endured by the informal sector due to the emergence of the COVID-19 virus, contributing to a deeper understanding of the dynamics at play within the waste management landscape of Sri Lanka.

## 1.2 OBJECTIVES

This working paper aims to:

- (a) comprehend the activities and functions of informal waste management sector in Sri Lanka
- (b) explore the key impacts on COVID-19 virus on the informal waste management sector
- (b) comprehend the coping and mitigation strategies employed by owners of informal waste collection centers to counter the impacts of COVID-19

## 1.3 RESEARCH METHODOLOGY

### 1.3.1 TYPES OF DATA

In the pursuit of comprehensive insights, this study employed a dual approach, encompassing both primary and secondary data collection methods. The acquisition of secondary data was instrumental in identifying scholarly discussions and existing discourse surrounding the informal waste management sector of Sri Lanka. Primary data collection, on the other hand, played a pivotal role in substantiating the key findings extracted from secondary sources, while also providing a nuanced understanding of the functions performed by the informal waste management sector—previously, during, and after the onset of the COVID-19 virus.

Given the multifaceted objectives of the study, qualitative data was gathered to comprehensively address the research questions. This approach allowed for a more holistic analysis of informal waste management. This qualitative data was essential to validate and enrich the findings drawn from the quantitative analysis. It provided detailed insights into the informal waste management activities, the labour force, the challenges experienced, and the impacts of the COVID-19 virus. Furthermore, the qualitative data was used to delve into the mitigation and coping strategies and measures adopted by the informal waste sector in response to the challenges posed by the pandemic. Through this comprehensive approach to data collection, the study aimed to not only establish a thorough understanding of the informal waste management sector but also to shed light on its intricate dynamics, resilience, and adaptability in the face of unforeseen challenges.



### 1.3.2 DATA COLLECTION METHODS

This study employed semi-structured interviews as the primary data collection method. This approach allowed for flexible yet focused interaction with respondents, enabling a nuanced exploration of the intricate dynamics within the informal waste management sector. The research team designed two distinct interview schedules tailored to the unique roles and insights of the respondents. The interview schedules were originally developed in English and subsequently translated into the Sinhala language.

One interview schedule was developed to engage informal waste collectors, delving into their waste collection methods, waste management practices, sources of income, interactions with local government bodies, challenges faced, negative impacts of the COVID-19 pandemic on their activities, coping and mitigation strategies employed, positive outcomes resulting from the pandemic, and the post-pandemic situation of informal waste collection activities.

Simultaneously, another interview schedule was developed for local council officials and elected members. This interview schedule sought to uncover their perspectives on interactions between the informal sector and the formal sector, the methods of waste collection and management undertaken by informal collectors, challenges encountered, issues faced, levels of awareness regarding the pandemic's impacts on the informal sector, public attitude towards informal waste collectors, the management of informal waste during the pandemic, and the post-pandemic scenario.

### 1.3.3 FIELD LOCATIONS

#### ***Dehiwala – Mt. Lavinia Municipal Council***

Dehiwala - Mt. Lavinia Municipal Council is strategically positioned within the Colombo District, to the south of Sri Lanka's bustling capital, Colombo. This urban center boasts a close connection to the capital, serving as its largest suburb. Comprising a total of seven wards, the Municipal Council's jurisdiction extends over 28 GN Divisions. As indicated by the 2011 Census Report, the area hosts a population of 245,974 permanent residents. The Municipal Council encompasses both Dehiwala and the renowned Mount Lavinia cities. Encompassing a geographical expanse of 20.19 square kilometers, Dehiwala is situated at the fringes of Colombo, while Mount Lavinia, located further south, stands out as a residential area famous for beaches and a vibrant array of restaurants. With its tourist attractions and leisurely nightlife, Mount Lavinia has emerged as a captivating tourism hub, characterizing the diverse landscape of this dynamic urban landscape.



### ***Boralesgamuwa Urban Council***

The Boralesgamuwa Urban Council area stands as a smaller urban council within the Colombo District. Encompassing an area spanning 13.5 square kilometers, it comprises 18 Grama Niladhari (GN) divisions. According to data from the 2011 Census report, the Boralesgamuwa Urban Council area is home to a population of 37,260 permanent residents. This area encapsulates a blend of residential, commercial, and civic spaces.

### ***Justification of the Selection of Field Locations***

The selection of the Dehiwala-Mt. Lavinia Municipal Council area and the Boralesgamuwa Urban area as the field locations for this study can be justified by two distinct reasons. Firstly, these two locations were chosen by the present study as the settings for examining the impacts of COVID-19 virus on the municipal solid waste management sector. This decision was guided by the desire to comprehensively assess the impact of the pandemic on waste management practices within densely populated urban contexts. Moreover, the authors possess an extensive familiarity with both of these locations, having worked closely in collaboration with the respective local councils since 2018. This close engagement stems from the fact that these very locations were selected as the field locations for a previous r4d study titled "Challenges of Municipal Solid Waste Management: Learning from Post-Crisis Governance Initiatives in South Asia." Thus, the combination of the study's thematic alignment with the present research focus and the authors' established rapport with the local councils renders the Dehiwala-Mt. Lavinia Municipal Council area and the Boralesgamuwa Urban area as particularly pertinent field locations for this investigation.

#### **1.3.4 SAMPLE SELECTION**

The study employed a purposive sampling method to select the study's sample. Accordingly, the authors directly approached owners of informal waste collection centers active in the selected locations, extending invitations to participate in the research. While several owners of informal waste collection centers readily agreed to partake in structured interviews, there were instances where some of these initially interested individuals withdrew due to varying reasons. Consequently, in order to ensure a representative and comprehensive sample, the authors had to enlist additional owners of informal waste collection centers to participate in the study. Data collection continued until the point of saturation was achieved.

A similar strategy was employed in selecting the sample of local government officials and elected members. This involved the selection of officials including the Commissioner and Deputy Commissioner of the Dehiwala-Mt. Lavinia Municipal Council (DMMC), along with the Secretary

of the Boralesgamuwa Urban Council (BUC). Additionally, other officials holding significant roles within the councils, such as Public Health Inspectors (PHI), waste supervisors, and health education officers, were also purposely chosen to form a comprehensive sample. In addition, elected members of the local councils including the chairs of environmental and waste management committees were selected in the study. By strategically selecting individuals occupying diverse positions within the local governance framework, the study aimed to capture a well-rounded and insightful perspective on the functioning of the informal waste management sector within the contexts of the Dehiwala-Mt. Lavinia Municipal Council and the Boralesgamuwa Urban Council areas.

### 1.3.5 SAMPLE SIZE

In total, the study encompassed a sample of 33 informal waste collectors, drawn from both the Dehiwala-Mt. Lavinia Municipal Council (DMMC) and the Boralesgamuwa Urban Council (BUC) areas. Within this sample, 13 of the selected owners of informal waste collection centers hailed from the Boralesgamuwa Urban Council region, while the remaining 20 were sourced from the Dehiwala-Mt. Lavinia Municipal Council area. Of these 33 participants, 11 were owners of informal waste collection establishments, responsible for the oversight and management of these facilities. The remaining 22 participants were informal waste collection workers, engaged in waste collection and management operations under the guidance of the aforementioned owners. This structured sample composition enabled the study to capture a diversified perspective, thus enhancing the comprehensiveness of the findings and insights generated by the research.

TABLE 1. SAMPLE OF THE INFORMAL WASTE WORKERS

Local Council	Owners of informal waste collection establishments	Informal Waste Workers	Total sample Size
1. Dehiwala-Mt. Lavinia Municipal Council	07	13	20
2. Boralesgamuwa Urban Council	04	09	13
<b>Total</b>	<b>11</b>	<b>22</b>	<b>33</b>

Source: Own data, 2023

Furthermore, the study encompassed a total of 16 respondents drawn from the Dehiwala-Mt. Lavinia Municipal Council and the Boralesgamuwa Urban Council. Within this cohort, the Dehiwala-Mt. Lavinia Municipal Council was represented by 7 officers, including the Commissioner, Deputy Commissioner, Chief Public Health Inspector (CPHI), Health Education officer, 2 Waste Management supervisors, and a Muster supervisor. On the other hand, 4 officers from the Boralesgamuwa Urban Council were selected to the sample, including the Secretary and 2 Waste Management supervisors, in addition to the Health Education officer. The study also engaged elected members from both councils. Accordingly, 3 members were selected from the Dehiwala-Mt. Lavinia Municipal Council, while 2 were selected from the Boralesgamuwa Urban Council.

**TABLE 2. SAMPLE OF THE LOCAL COUNCIL OFFICIALS AND ELECTED MEMBERS**

Local Council	Number of local council officials	Number of elected members	Total sample Size
1. Dehiwala-Mt. Lavinia Municipal Council	07	03	10
2. Boralesgamuwa Urban Council	04	02	06
<b>Total</b>	<b>11</b>	<b>05</b>	<b>16</b>

Source: Own data, 2023

### 1.3.6 DATA COLLECTION

The data collection was conducted by a team consisting of 8 graduate research assistants and the authors. These research assistants, all holding degrees in Sociology from the University of Colombo, were well trained in carrying out data collection activities using qualitative data collection tools. To ensure a cohesive and effective data collection, a special training session was organized, providing the research assistants with a comprehensive understanding of the data collection tools and the overarching objectives of the study.

As mentioned earlier, the data collection tools were initially developed in English. Later, they were translated into Sinhala before the training session for the research assistants. The translated versions of the data collection tools were thoroughly discussed and explained to the research assistants.

The data collection was carried out from November 2022 to January 2023. During this timeframe, the team of research assistants and authors diligently engaged with the selected participants, conducting interviews and systematically gathering insights from owners of informal waste collection centers and key local government officials and elected members.

### 1.3.7 DATA ANALYSIS

The data collected through the semi-structured interviews was subsequently transcribed by the research assistants. The qualitative data amassed through these interviews were analyzed, employing the thematic analysis method. This systematic approach allowed for the identification and exploration of recurring themes and patterns embedded within the qualitative data, facilitating a nuanced understanding of the intricacies surrounding the informal waste management sector and its interactions with the challenges imposed by the COVID-19 pandemic.

Conversely, the quantitative data collected from the field were analyzed manually, using univariate and bivariate techniques. This meticulous analytical process enabled the extraction of meaningful insights from the quantitative data, unveiling trends and relationships inherent within the collected data. By combining these complementary methods of analysis, the study was able to holistically unravel the multifaceted dimensions of the informal waste management sector's dynamics, encompassing both qualitative nuances and quantitative trends.

## 1.4 CHALLENGES

During the course of conducting data collection activities, the research team encountered several noteworthy challenges that influenced the research process. These challenges are discussed in brief below.

### 1.4.1 DIFFICULTY IN CONTACTING AND INTERVIEWING INFORMAL WASTE COLLECTORS

One significant challenge involved the fluctuating availability and cooperation of selected owners of informal waste collection centers for interviews. This variability often stemmed from the nature of their work, making it difficult to secure consistent participation due to their dynamic work schedules. This busy routine frequently necessitated the rescheduling of meetings, and in some instances, interviews were postponed even after a visit was made to their establishments.

Additionally, the researchers faced a unique challenge in conducting interviews with owners of informal waste collection centers due to the nature of their work. These individuals often carried out their daily tasks concurrently with participating in interviews, such as weighing waste and

engaging in buying and selling activities. Therefore, it was challenging to conduct comprehensive interviews in a single sitting. To navigate this obstacle, the research team opted to conduct interviews in multiple sessions when necessary. This approach allowed for a more thorough and accurate data collection process by accommodating the informal waste collectors' busy routines and ensuring that their valuable insights were adequately captured.

#### 1.4.2 RELUCTANCE OF OWNERS OF INFORMAL WASTE COLLECTION CENTERS TO TAKE PART IN THE STUDY

A notable challenge encountered during the data collection process was the reluctance of certain owners of informal waste collection centers to participate in the study. This hesitancy was particularly influenced by concerns surrounding the newly introduced income tax policy by the government in January 2023. Some informal workers expressed their fear that participating in the data collection activities might inadvertently subject them to tax implications. To address these anxieties, the research assistants and authors reassured potential participants that the collected data would remain confidential and accessible only to the researchers. Despite these explanations, a majority of respondents maintained their reluctance to take part. In situations where hesitation prevailed, the research assistants were advised to respectfully thank the informal workers and concluded the interview, understanding and respecting their concerns.

#### 1.4.3 DIFFICULTY IN CONTACTING ELECTED MEMBERS OF THE LOCAL COUNCILS

Amidst the data process, the research team encountered a distinct challenge concerning contacting the elected members of the local councils. At the time of the data collection local councilors had initiated campaign activities, engaging in pocket meetings and public interactions. This flurry of campaign-related engagements posed a significant obstacle in securing appointments with elected members to partake in the study. Despite these difficulties, the authors managed to successfully engage five elected members to participate.

Originally, the research team had set out with the intention to conduct a minimum of five interviews with elected members from each council. However, given the prevailing challenges and the constraints in scheduling interviews, the authors made a decision to adjust their approach. As a result, the number of interviews with elected members was subsequently reduced to five, allowing for a balance between research objectives and the practical realities of engaging with local councilors amidst their campaign commitments.

### 1.5 CHAPTER OUTLINE

The working paper is structured into several chapters that collectively provide a comprehensive analysis of the informal waste management sector in Sri Lanka:

Chapter One delves into the study's primary objectives and its research methodology. It offers a detailed discussion of the data collection strategy, sample selection criteria, data analysis techniques, and challenges confronted by the researchers during the data collection process.

In Chapter Two, a comprehensive overview of the informal waste management sector is presented. This chapter encompasses critical aspects such as the historical backdrop of the sector, its key functions within the waste management ecosystem, the labour force that drives its operations, and an exploration of the multifaceted challenges that it encounters.

Chapter Three is dedicated to unraveling the significant impacts of the COVID-19 pandemic on the informal waste management sector. It examines the pandemic's impact on Sri Lanka, dissecting its repercussions on various facets of informal waste collection, post-management practices, and the trading of economically viable waste. Furthermore, this chapter delves into the mitigation and coping strategies that owners of informal waste collection centers adopted to navigate the pandemic-induced challenges.

The concluding Chapter Four summarizes the report by synthesizing the study's key findings.

## 2. INFORMAL WASTE MANAGEMENT IN SRI LANKA

### 2.1 ORIGINS

The origin of the informal waste management sector in Sri Lanka remains shrouded in the absence of definitive dates or periods in available secondary data. Yet, primary data collected through in-depth interviews with waste management stakeholders provides a window into the sector's early beginnings. These interviews unearthed the emergence of a group known as the "PARANA COAT," which laid the groundwork for modern-day informal waste workers.

The term "PARANA COAT," meaning "old coats," denotes their initial focus on collecting used clothing items. Active primarily during the 1960s, these individuals collected old clothes from households of higher socio-economic status, often receiving compensation or obtaining items for free. After cleaning and ironing, they sold these items to lower and lower-middle-income individuals.

**IMAGE 1. IMAGES OF PARANA COAT MEN**



Source: The Sunday Times,2020

Source: The Sunday Times,2011

An elected member of the DMMC stated,

*"A whole street in Pettah, Colombo, was made up of buyers and sellers of old coats. The 'PARANA COAT Men' were employed by the vendors in Pettah to go around the country and collect reusable clothes. From what I recall they also engaged in selling bangles, chains, soap and other beauty products from Colombo in rural areas. Those days it was a spectacle to see a "PARANA COAT" man as very few outsiders visited villages from Colombo."*

*(Semi Structured interview with elected member, 2022.11.08)*



An informal waste collector revealed that the common notion when he was young was that the informal waste work in the old days (1950s to 1980s) was mostly carried out by South Indians who migrated to Sri Lanka from Rameswaram of India, in search of a better life.

*"I remember that my father used to say that the "PARANA COAT MEN" are "KALLATHONIS", It's a word used by Sinhalese to identify the migrants who migrated from Southern India via boats. According to the common understanding at the time, they were low-caste Tamils who have moved to Sri Lanka in search of a better life. They have learned Sinhalese after moving to Sri Lanka and had started to collect economically viable waste from villages to be sold in other regions of the country and in Colombo. However, they were treated with indifference by the villages as less of humans, as they were low-caste Tamils. Also, they earned a meager living by the trade and often the trade from father to son."*

*(Semi Structured interview with informal waste collector, 2022.12.21)*

Although secondary data are limited, these accounts provide unique insights into the early days of informal waste management in Sri Lanka. Specially, the accounts reveal the nature of the employment of the informal waste workers highlighting a labour-intensive, low-income and socially discriminated employment. This revelation is of utmost importance as the upcoming sections of the working paper will reveal that the nature of the employment of the informal waste workers and collectors has not improved that much from the time of the "PARANA COAT MEN".

#### *Evolution of the informal waste management sector*

The evolution of the informal waste sector began to take shape in the late 1970s, coinciding with the country's shift towards an open market economy. Life in Sri Lanka before the opening up of the economy in 1977 was characterized by a markedly different consumption landscape, as recalled by various respondents. During this period, consumption patterns were inherently tied to principles of reuse and recycling, reflecting a scarcity-driven lifestyle where products were cherished and carefully utilized.

A representative from the Boralesgamuwa Urban Council expounded on the reasons underlying these consumption characteristics, stating,

*"You should understand that the way people lived in Sri Lanka prior to the economic liberalization was completely different from how we live today. One of the pens I used was called 'CIAL.' It was the cheapest, priced at 2 rupees at the time. For the rich and wealthy, there were Parker pens, a luxury I could only dream of back then. Similarly, clothing was primarily locally produced and often created through cooperative societies or by local*

*businesses like "DASA" industries. I used to wear a shirt called "KEGANY", it was an abbreviation of the cooperative that produced it."*

*(Semi Structured interview with informal waste collector, 2022.11.06)*

The limited options available to consumers played a pivotal role in shaping their preferences. This was evident in simple products like pens, where the variety was minimal, and the affordability factor was paramount.

These accounts paint a picture of a society content with limited options and prioritizing the prudent use of available resources. Scarce access to imported products encouraged the population to maximize the utility of items they possessed. According to the same informal collector, glass bottles and jars were particularly rare commodities, leading to their meticulous reuse and caution against breakage. He recalled,

*"Breaking a glass jar was such a big crime at home those days. In our home my mother had jam jars used by my grandmother when she was young. Bottles were used to get medication from the hospital as most of the time hospitals gave syrups instead of pills those days. I remember that there were mobile bottle vendors Infront of hospitals and small dispensaries."*

*(Semi Structured interview with informal waste collector, 2022.11.06)*

This emphasis on extending the lifespan of products through reuse and recycling underscores the frugal nature of the era, where people made the most of what they had.

However, the opening-up of the economy in Sri Lanka had profound implications for the informal waste collection sector, causing significant shifts in consumption patterns and waste generation. According to an elected member of the Dehiwala-Mt. Lavinia Municipal Council (DMMC),

*"With the opening-up of the economy, the way people lived changed completely. Suddenly, unlike the old days, people had access to more products and also due to the open market trade and businesses started to open up in rural areas of the country. This further increased the access people had to new products imported from China, India and other countries. As a result, the need to be careful when using products was not there anymore. People started to use more plastic items. Everything started to come in plastic packs and the new products that came into the market, such as drinks and biscuits started to give away plastic items as promotional gifts to people."*

*(Semi Structured interview with elected member, 2022.11.17)*

This observation highlights how the open market economy created a business opportunity for informal waste workers due to the change in people's consumption patterns. Nevertheless, this economic shift had far-reaching consequences beyond just consumer behaviour.

The establishment of special economic zones, like those in Seeduwa and Katunayake, provided the opportunity for Sri Lanka to manufacture and export new products, particularly in the apparel sector. Consequently, rural youth migrated to these zones in search of employment, leading to the development of accommodations, eateries, hotels, and other businesses in the vicinity. As an elected member of the Boralesgamuwa Urban Council (BUC) emphasized,

*"The opening up of the economic zones created an unprecedented influx of youth from the rural areas to these Zones, and a large number of people started to live in these areas and to facilitate them many businesses sprung up. Consequently, this influx also resulted in the generation of large amounts of waste from households and the factories of the economic zones. As a result, a large number of informal workers started to work in these economic zones and started to make a good profit"*

*(Interview with elected member, 2022.12.09).*

The impact of the open economy on the informal waste sector is particularly evident in the Western Province, especially in the Colombo District. The increase in waste generation, particularly plastic waste (packaging of food items, clothing products, toys, stationary items, plates, cups, spoons, etc.), driven by changing consumption patterns and the development of economic zones, presented a significant opportunity for informal waste workers to thrive. This transformation underscores the intricate relationship between economic growth, consumption, and waste generation, showcasing how economic changes can shape waste management practices and create opportunities within a society.

## 2.2 KEY ACTIVITIES

Today's activities undertaken by informal waste workers in the Dehiwala-Mt. Lavinia Municipal Council (DMMC) and Boralesgamuwa Urban Council (BUC) areas showcase their adaptability, resourcefulness, and economic resilience. These workers engage in a spectrum of activities beyond traditional waste collection and resale, demonstrating their multifaceted roles in the waste management ecosystem.

### 2.2.1 COLLECTION OF ECONOMICALLY VIABLE WASTE

The engagement of informal waste workers in collecting economically viable waste demonstrates their dynamic responsiveness to market dynamics. While the traditional collection of recyclable household items remains a core activity, their ability to adapt to changing demands is striking. The testimony of a waste collector underscores this agility,

*"What we collect actually depends on what the market demands... For an instance Aluminum has a high demand in the market. One of the easiest ways to get Aluminum is to collect beer cans and drink cans. Compared to cans that carry drinks, beer cans are much higher in quality because they carry an alcoholic product. Therefore, the cans are produced using a higher grade of Aluminum, which is highly useful in manufacturing activities. This is why we started to collect beer cans, even now beer cans have a huge demand."*

*(Semi Structured interview with informal waste worker, 2022.12.15)*

Owners of informal waste collection centers are also engaged in collecting construction material such as bricks, cement blocks, used doors, windows, gutter, roofing sheets, etc. Their engagement in collecting construction materials reveals their keen understanding of broader market trends and the potential profitability of these materials. The practical reasoning behind this approach is articulated by a waste collector worker,

*"Collecting building materials is highly profitable for us. There are two reasons for that. Firstly, with the increase in the demand for building products such as bricks, concrete blocks, used doors, windows, and more, people have increasingly turned to using used items in their construction projects. Additionally, you may have noticed that there are agreed-upon prices for some of the items we collect. For example, there is a set limit of 250 rupees for one kilo of iron. Although this price isn't explicitly mandated, exceeding it would draw the ire of other informal waste workers, potentially harming their businesses. However, when it comes to building materials, there are no such agreements. We can set a price that we believe is fair, considering the effort we put in, and no one can challenge it. To be honest, selling building materials is currently the most profitable aspect for me."*

*(Semi Structured interview with informal waste worker, 2022.12.15)*

This activity of the owners of informal waste collection centers also resonates with the increasing demand for reused building components and materials, aligning with sustainable construction

practices. In this sense informal waste workers are not only waste collectors but also agents of resource recovery, contributing to the circular economy by extending the lifespan of materials that would otherwise be discarded.

This activity also contributes to resource optimization and waste reduction. By incorporating construction materials into their portfolio, these workers contribute to reducing the burden on landfill sites and promoting a more sustainable waste management ecosystem. Moreover, their ability to recognize lucrative opportunities in specific waste streams showcases their entrepreneurial spirit, fostering innovation within the informal waste management sector.

### 2.2.2 REPAIRING PRODUCTS

Repairing products has emerged as a significant income-generating activity within the repertoire of informal waste workers. The data underscores their involvement in this endeavor, where they collect non-functional electronic items like freezers, sewing machines, blenders, televisions, and other equipment from households and institutions. These items, often discarded due to their malfunctioning status, are given a new lease of life through the skills of these waste workers. They repair these broken pieces and subsequently offer them for sale as secondhand equipment in their establishments and shops. This practice taps into a robust market demand for affordable, pre-owned electronics.

An owner of waste collection centers from Dehiwala illuminated the rationale behind their shift towards repairing, stating,

*"We used to use [non-functional] electronic items for raw material, but over time, I realized that it would be much better to try and repair this machinery and then sell them as secondhand equipment."*

*(Semi Structured interview with informal waste worker, 2022.11.14)*

Previously, he had outsourced repairs to external electronic repair services, which proved expensive. However, the waste collector now employs an in-house repairperson to mend these items. Although they cannot repair every collected item, they capitalize on repairable pieces by utilizing parts from other machinery they have gathered. Another owner of a waste collection center from BUC elaborated on how this practice extends to catering to specific customer needs, even accepting pre-orders for equipment or parts that are otherwise costly when bought brand new.

*"Sometimes people come to our shops and make a small down payment, asking for specific equipment or particular parts. For example, certain motors require specific*

*components that are expensive to buy brand new. However, there are instances when we acquire these items, and we can sell them to our customers at a more affordable price. Therefore, it's a beneficial arrangement for both our customers and us."*

*(Semi Structured interview with informal waste worker, 2022.11.14)*

During visits to various shops, authors observed an array of repaired items such as refrigeration units, freezers, televisions, and radios on display. These refurbished items were marked at a fraction of their market value, typically 1/5, making them particularly attractive to lower-income consumers. This venture into repairing demonstrates the waste workers' adaptability and resourcefulness and showcases their capacity to serve market-seeking economical alternatives to purchasing new electronics.

### 2.2.3 CLEANING AND DEMOLITION WORK

Engagement in cleaning and demolition work has emerged as another activity undertaken by informal waste workers in the DMMC and BUC areas. These activities transcend the conventional notion of informal waste management, illustrating the versatility of these workers.

Within this context, one worker's account sheds light on the intricacies of their engagement in demolition work. According to him when securing contracts to demolish structures, they charge a fee of 5000 rupees, a value justified by the necessity of employing at least two labourers to execute the demolition process.

*"When we obtain a contract to demolish a house, we charge 5000 rupees for the whole process. This is because I need to have at least 2 laborers to carry out the demolition of the building. I also visit the site and ask the laborers to carefully extract all the raw materials that we can salvage from it. Therefore, we obtain bricks, cement blocks, iron bars, door locks, brass handles, aluminum handles, electric switches, PVC pipes, electric wires, bulb sockets, rain gutters, and more. Additionally, I sell the rubble that is created by demolishing the house as landfill material."*

*(Semi Structured interview with informal waste worker, 2022.11.14)*

This undertaking not only provides an immediate financial benefit but also grants them access to a variety of salvageable materials, including bricks, cement blocks, iron bars, door locks, brass handles, aluminum handles, electric switches, PVC pipes, electric wires, bulb sockets, rain gutters, and more.

Moreover, the financial advantages associated with these demolition activities are significant and have a twofold impact. As expressed by one worker, securing a demolition job is akin to winning a lottery for the month.

*"If I get a demolition job, it's actually like winning a lottery for that month. I don't have to worry about setting aside money for rent because the earnings from that one demolition would cover it, as well as most of the salaries I have to pay. Additionally, since I charge money from the people who contract me to demolish the house, I don't have to separately pay for the laborers. That is an additional benefit."*

*(Semi Structured interview with informal waste worker, 2022.11.14)*

#### 2.2.4 PROVIDING TRANSPORT FACILITIES

The informal waste workers offer a distinct service by providing transportation assistance to individuals and businesses. Many medium and large-scale informal waste management centers possess a fleet of vehicles, often including small lorries, which they make available for rent on an hourly basis. These vehicles are not solely for transportation purposes, as an informal worker emphasizes,

*"We do not provide only transportation services; we usually provide waste workers for loading and unloading goods, and we charge for the vehicle on a daily or hourly basis."*

*(Semi Structured interview with informal waste worker, 2022.11.18)*

However, it's important to note that these transportation services are not offered on a daily basis, as the primary focus of informal waste workers remains the collection of economically viable waste from households and institutions. To avail of their transportation services, individuals or businesses need to notify and reserve the vehicle in advance.

An informal owner of waste collection centers clarifies this aspect further, explaining,

*"We have to ensure that the income from providing the vehicle covers the day's expenses, so we don't offer the service for very short trips or transportation activities. Instead, we provide it when it yields an income of more than 10,000 rupees."*

*(Semi Structured interview with informal waste worker, 2022.11.18)*

This selective approach ensures that their resources are used efficiently and profitably. The study findings also reveal an interesting additional service: owners of informal waste collection centers often provide labor for loading and unloading purposes in addition to the transportation service. This value-added feature benefits those who hire the vehicle, as the informal waste worker can assist with handling goods. Notably, individuals who utilize the transportation service



are generally expected to pay an extra fee of around 500 rupees to the informal waste collector for the additional labour provided.

### 2.2.5 MANUFACTURING PRODUCTS

In addition to waste collection and related services, informal waste workers also engage in the production of goods using the raw materials they collect. This practice is particularly evident among large-scale informal waste workers, primarily located in areas like DMMC. These workers utilize the collected plastic materials to create various products, such as jars, cups, basins and dining plates.

One such production facility was visited in the Rathmalana area of DMMC, where waste collectors were collecting, segregating, and processing plastic waste for production. The conditions within this makeshift production facility lacked proper safety measures, exposing workers to toxic fumes and other hazards.

The owner of the production facility provided insight into the operation, explaining that the products they create serve a dual purpose, trading with local residents and using unrecyclable plastics. He emphasized the use of low-grade plastics for production, as utilizing high-grade plastics wouldn't yield a profitable income when selling to buyers. However, it's important to note that the conditions within such production facilities are often unsafe, lacking proper protective gear and emitting toxic fumes. Despite the challenges, informal waste workers engage in producing these items to utilize plastics that are not suitable for further recycling due to their disintegration upon exposure to heat or hot materials.

The informal waste collector who owns the production process elaborated on the motivations behind this practice:

*"The type of plastic that I'm using here cannot be recycled further. The reason being that if you add hot water or any other hot material, these plastics would start to disintegrate. Therefore, I cannot sell these to buyers who produce recycled items out of plastic as they would not purchase them. Therefore, the most viable option I have is to give it to the residents and homeowners. Of course, we do tell them not to use hot water in these products as they might melt."*

*(Semi Structured interview with informal waste worker, 2022.11.18)*

However, this practice raises crucial questions about the larger implications for both human health and the environment. While informal waste workers demonstrate resourcefulness and adaptability, the products they create inadvertently contribute to a concerning cycle of plastic

pollution. Microplastics, tiny particles resulting from the breakdown of larger plastic items, are notorious for their ability to infiltrate ecosystems and even enter the food chain, with potential repercussions for human health and biodiversity.

#### 2.2.6 SELLING RAW MATERIAL

The selling of collected economically viable waste is the key activity within the realm of informal waste workers' operations, revealing a network of diverse buyers and transactions. As one owner of a waste collection center emphasized,

*"We cater to various buyers, from individuals needing construction materials to factories seeking raw materials for their products."*

*(Semi Structured interview with informal waste worker, 2022.12.03)*

At the smallest scale, individual buyers engage informal waste workers to acquire small amounts of raw materials for their everyday needs, ranging from housing construction materials to vehicle and machinery parts. These buyers conveniently visit recycling centers to select and purchase the required items, as another worker highlighted,

*"People come to us for specific parts or materials they require, and we provide them at a fair price. Our relationship with these individual buyers is built on trust and convenience. They know that they can rely on us to have the materials they need, whether it's a particular vehicle component, a construction element, or machinery parts. This personalized service is important because it saves them time and effort in searching for these items elsewhere."*

*(Semi Structured interview with informal waste worker, 2022.12.03)*

Moving up the scale, medium-level buyers emerge as the most common type of buyers. These buyers establish consistent relationships with informal waste workers, often adhering to predetermined schedules to collect raw materials for construction purposes or resale. Middlemen represent a significant subset of this category, as described by an informal waste worker,

*"I've been working with these middlemen for over a decade. We have agreed-upon days for them to collect raw materials, which makes the process efficient. This mutual understanding allows us to plan our operations better, ensuring that we have the materials ready for them when they arrive. They have established networks and connections that enable them to distribute the raw materials to various factories and*

*facilities. If we have a surplus of materials or if we come across a unique item, we can even give them a heads-up, and they often buy the item/s at short notice."*

*(Semi Structured interview with informal waste worker, 2022.11.09)*

The quotation offers a glimpse into the intricate dynamics of the informal waste management network, emphasizing the crucial role that middlemen play in connecting informal waste collectors, with industries in need of raw materials.

The third category encompasses large-scale buyers, primarily interested in purchasing raw materials for recycling and reuse purposes. An owner of waste collection center highlighted the scope of this engagement, stating,

*"We supply large factories with plastics for their production processes. It's a crucial part of our business, as these factories pay better prices for the materials. Working with these factories allows us to secure a more stable income compared to smaller buyers. The volume of materials they require is significant, and they are willing to pay a premium for quality."*

*(Semi Structured interview with informal waste worker, 2022.11.09)*

Above quote reveals that engaging with large factories is not without its challenges. The strict quality standards imposed by these factories pose hurdles, requiring proper segregation, cleaning, and grading of the plastics. The relationship with large factories also highlights the informal waste workers' motivation to bypass middlemen and directly collaborate with these industrial buyers.

The activities of informal waste workers extend far beyond their role as collectors. They exhibit resourcefulness, adaptability, and entrepreneurial spirit, engaging in transportation services, production, and collaboration with diverse buyers. These multifaceted activities position informal waste workers as essential contributors to waste management and economic sustainability, showcasing their ability to navigate the evolving demands of their communities and the recycling industry at large.

It is important to note that informal waste workers in the DMMC and BUC areas have evolved into community assets through ability to address diverse needs within their neighbourhoods, while simultaneously promoting sustainable practices and improving their own financial circumstances.

## 2.3 GENDER OF THE LABOUR FORCE

The study into the informal waste management sector of Dehiwala Mt. Lavinia Municipal Council and Boralesgamuwa Urban Council in Sri Lanka revealed a significant gender disparity. The majority of respondents engaged in informal waste collection were males, while females interviewed in the study were predominantly the wives of informal waste collection center owners. Their roles encompassed administrative tasks like bookkeeping and providing guidance to waste workers.

It was revealed that these women took part in informal waste management activities because they needed someone trustworthy to manage the finances and oversee the operations in the centers. None of the women who participated in the study were compensated financially for the services they provided to the informal waste collection centers, the family's main income source.

To comprehend this gender disparity and the reasons behind the limited participation of women in informal waste collection activities, the study used data collected from informal waste collectors, center owners, elected council members, and council officials.

Several key factors contributing to this gender gap were identified accordingly:

### 2.3.1 SOCIAL STIGMA ASSOCIATED WITH INFORMAL WASTE COLLECTION

Informal waste management is generally perceived as an undesirable vocation due to having to work with waste in undesirable or undignified conditions. This situation, further deters individuals in general from pursuing work related to informal waste collection. An owner of a municipal waste collection center revealed how this situation deters women from seeking employment opportunities in the informal sector.

"Women tend not to like to engage in work related to waste management activities as the job itself carries a negative attitude towards the individuals who are engaged in it and also as they have to work with waste, which is not a nice thing to do."

(Semi Structured interview with informal waste worker, 2022.11.11)

This account also revealed that in addition to the stigma attached to the vocation, the negative social attitude towards informal waste collectors themselves deters females from joining the labour force. Findings of this study and previous studies carried out under the project "Challenges of Municipal Solid Waste Management - Learning from Post Crisis Governance Initiatives in South Asia" revealed that informal waste workers are labelled as drug users, thieves and trouble makers. These negative social connotations have also discouraged women from selecting

informal waste management as an appropriate vocation. It was further revealed that as a result of this stigma women hailing from lower income classes would choose alternative job opportunities, especially in caretaking roles rather than opportunities in the informal waste sector. These includes caring for the elderly or working as domestic help. The same owner points out that when women have other job options, they are less likely to choose waste management. He articulates,

*"When other employment avenues are unavailable to them, women would choose to become caretakers for the elderly or children. Some opt to work as household maids."*

(Semi Structured interview with owner of informal waste collection center, 2022.11.11)

### 2.3.2 LACK OF JOB SECURITY AND INCENTIVES

It was also revealed that the lack of job security and incentives of the informal sector also significantly to the gender disparity. In the informal waste management sector, the income of the employees is dependent on the amount of waste they collect. As the collected amounts can vary the income is not fixed. Within the formal waste management sector, few females have found paid employment, enticed by the prospect of financial stability and job security as it provides a fixed salary with overtime, inflation matched Cost of Living Allowance, medical checkups and a pension. This security not only instills a sense of financial stability but also provides a safety net for the future. This situation was further clarified by an elected member of the DMMC in the following manner.

" Even in the case of formal waste workers, we also have a few females who are working for us. As I've mentioned before, often when we hire them, it's because this is a permanent job that provides them with a salary. After retirement, they receive a pension. But the informal sector does not provide such security. This also deters women from taking part in informal waste management activities."

(Semi Structured interview with elected member, 2022.10.05)

We have also found that women enter the government sector as formal waste workers ("health labourers") as this work does not require high educational qualifications. There have been cases where politicians used this position for their daughter, who then got quickly transferred to an office job in the municipal/urban council.

By contrast, the unpredictability of income, lack of formal contracts, and absence of retirement benefits create a precarious working environment in the informal sector. At the same time, the informal waste sector in the Colombo region is fairly organized and structured around small

enterprises. This allows for less flexibility regarding working hours (see below) as in Ahmedabad in India, for example, where low-caste women engage in informal and irregular waste work because it can be relatively easily combined with domestic obligations (Wittmer, 2021).

### 2.3.3 RELUCTANCE OF WASTE COLLECTION CENTER OWNERS TO EMPLOY WOMEN IN THE INFORMAL SECTOR

The gender disparity in the labour force of informal waste collection activities can also be significantly attributed to the hesitance of owners of informal waste collection centers to employ women in these roles. This reluctance is grounded in two primary reasons, as uncovered in the study.

Firstly, the physical demands associated with waste collection activities. Employers believe that women would face difficulties when it comes to engaging in heavy lifting and strenuous physical labour. This sentiment is echoed by the owner of an informal waste collection center in the Dehiwala-Mount Lavinia Municipal Council area, as he remarked,

*"I would actually like to get some women to work with me. However, I know for a fact that if I want to get done the amount of work a man does here, I would need to employ two women to do the same amount of work."*

(Semi Structured interview with owner of informal waste collection center, 2022.11.05)

This physical aspect of waste collection, particularly the long hours and even overnight stays often necessary to ensure efficient waste management, makes it challenging for women and is a deterrent for waste collection center owners to employ them. The above-cited owner elaborated that given the demanding nature of the job, workers may even have to stay overnight and that it is difficult to expect women to do so. This highlights the logistical issues and complexities involved in employing women in roles where their physical capacity might not align with the demands of the work.

*"Also, this job takes a lot of time. You have to stay here as long as we need you, and it's even better if you can stay overnight. This helps us work without any interruptions. Sometimes, we collect waste until late in the evening, around seven or eight, and our vehicles work late into the night to get things ready for the next day. If I were to hire a woman, I can't do all of this."*

(Semi Structured interview with owner of informal waste collection center, 2022.11.05)

The reluctance of informal waste collection center owners to provide facilities tailored to the needs of female workers represents a multifaceted challenge in addressing gender disparities within the sector. This reluctance stems from various factors, including cost considerations, space limitations, and societal attitudes. The primary concern for informal waste collection center owners is cost-effectiveness. If they were to hire women, they'd have to provide separate facilities, including restrooms and changing areas. As one center owner explained,

*"We're already struggling with limited space for waste collection and management. Men can manage without specific facilities, but women need more privacy. If we hire women, we'd have to invest in these additional facilities, which would increase our expenses."*

(Semi Structured interview with owner of informal waste collection center, 2022.11.05)

In an industry where margins can be slim, the prospect of incurring additional expenses can be a deterrent. This financial aspect reflects a broader issue within the informal waste management sector, where resources are often limited, and investments in improving working conditions can be challenging.

The waste management sector often grapples with space constraints. This is especially pronounced in informal waste collection centers. These centers are primarily designed to store and process waste, leaving little room for auxiliary facilities. Men might manage without specific amenities, but women understandably require more privacy and appropriate spaces for changing or restroom use. The lack of space available within these facilities can make it logistically challenging to implement separate areas for female workers. The spatial constraint creates a Catch-22 situation - without more women in the workforce, there's little impetus to create gender-specific facilities, but without these facilities, women are less inclined to join the workforce.

The perception of work in the waste management sector as unsuitable for women can be deeply ingrained in societal attitudes. Traditionally, waste collection has been viewed as physically demanding and 'dirty' work, contributing to the prevalent stereotype that it's more suited to be a male-dominated field. These perceptions can further dissuade center owners from considering the recruitment of female workers and investing in the necessary facilities.

#### 2.3.4 THE RELUCTANCE OF INFORMAL WASTE COLLECTORS REGARDING WOMEN ENTERING THE LABOUR FORCE

The reluctance of informal waste collectors to embrace the idea of women entering the waste collection sector is another factor that has contributed to the gender disparity. One major concern is the anticipated impact on the informal waste collectors' lifestyle. They enjoy a level of



freedom and informal camaraderie at the collection centers, which includes the liberty to walk about without a shirt, engage in activities like drinking and smoking, and essentially shape the rules according to their preferences. Their hesitation towards women joining the workforce is a reflection of their unwillingness to compromise their existing way of work-life. As one informal waste collector suggested, accommodating female workers would necessitate a shift in behaviour.

*"Currently, even though we work hard, we have a degree of freedom. I can walk around without a shirt, wear shorts, have a drink or smoke when I want. We can do as we please without privacy issues. But if a woman joins our group, we'd have to be more cautious, respect their boundaries, and curtail our activities, especially drinking and smoking. This is the culture we've grown up with."*

(Semi Structured interview with informal waste collector, 2022.11.11)

Respecting boundaries, adhering to a more stringent code of conduct, and curtailing activities like drinking and smoking are some of the anticipated changes. This stems from the acknowledgment that the inclusion of women brings with it a need for greater sensitivity and a more structured work environment.

Moreover, some informal waste collectors expressed concerns regarding the division of labour. They believed that women may not be able to perform the same quantity of heavy lifting and physically demanding tasks as their male counterparts. This perspective highlights the preconceived notions about gender roles and capabilities that exist within the informal waste collection community. A key concern expressed was that if women were included, male waste collectors would have to shoulder the additional burden of completing the tasks that women might struggle with, such as lifting heavy loads.

*"When women can't do something, the bosses will ask us to complete that work too. At the end of the day, after doing all our work, we will have to take on completing their unfinished work. This would be a burden for us."*

(Semi Structured interview with informal waste collector, 2022.11.11)

This is a reflection of the traditional division of labour and gender stereotypes based on gender, where certain tasks are considered "men's work" and others "women's work." As a result, the potential entry of women into this field was viewed as a disruption to established work patterns.

In conclusion, the reluctance of informal waste collectors and owners to embrace gender diversity in waste collection activities reflects the deeply rooted gender norms and dynamics in this profession.

## 2.4 LABOUR FORCE

The nature of the labour force engaged in informal waste collection in the DMMC and BUC areas presents a diverse range of employment arrangements, highlighting the complexity of their work and the challenges they face.

### 2.4.1 INFORMAL WAGED EMPLOYMENT

The key features of informal waged employment in the context of waste collection highlight both its prevalence and the challenges it poses to the workers. This form of engagement reflects the informal nature of the waste management sector, where labour arrangements lack the legal structures and protections typically associated with formal employment. Waste workers, often relying on a day-to-day basis, are remunerated based on their collection efforts and the subjective market value assigned to the waste they gather. This compensation structure exposes them to significant income volatility, making it difficult to plan their finances or ensure a stable livelihood.

*"As an informal waste worker, my income can vary greatly from day to day. Some days are better, and I can earn around 1,500 rupees, but it's not consistent due to factors like weather and competition. I've experienced days where I return with a significant haul and days where I barely find enough to make ends meet."*

*(Semi Structured interview with informal waste worker, 2022.11.09)*

The absence of formal employment contracts means that these workers lack basic job security, benefits, and protections. Paid leave, health insurance, and other essential benefits remain elusive, leaving them vulnerable to financial instability and adverse health outcomes. Moreover, their lack of legal documentation and recognition hampers their ability to assert their rights and advocate for better working conditions. This puts them at a disadvantage, further entrenching their marginalized status within the waste management ecosystem.

It is also important to note that the implications of such employment arrangements reverberate not only on the lives of the workers but also on the broader waste management landscape. The inability to access benefits prevents them from addressing health-related risks associated with waste handling. Additionally, the absence of legal contracts contributes to the perpetuation of

substandard working conditions, hindering the sector's potential to evolve into a safer and more sustainable enterprise.

#### 2.4.2 INFORMAL VOLUNTARY EMPLOYMENT

In contrast, the realm of informal waste collection also reveals a distinctive form of employment closely intertwined with familial bonds. This phenomenon, marked by voluntary participation, is predominantly observed in cases where the waste collection center's owner has kinship ties with those who assist in the waste management activities. Within this familial framework, spouses and children often play pivotal roles, sharing in the responsibilities of waste segregation, weighing, and related activities.

*"My wife and children help me with the waste collection. It's a family effort. While my wife and I manage administrative aspects and customer interactions, our children participate in tasks such as segregating recyclables, helping customers. This experience equips them with practical skills and a holistic understanding of waste management. However, we ensure that their involvement doesn't compromise their education; their studies remain a priority."*

*(Semi Structured interview with informal waste worker, 2022.11.09)*

This type of voluntary employment within the familial context presents a unique blend of economic necessity and shared responsibility. The lack of formal contracts and fixed wages further accentuates the significance of family contributions, as it becomes a way to collectively address economic challenges. However, this arrangement also brings into focus the blurred lines between personal and professional domains, as the workplace extends into the household.

The involvement of children in waste collection activities is particularly notable, reflecting a hands-on approach to learning the trade from a young age. This exposure offers insights into the transmission of skills, knowledge, and values across generations, preserving the legacy of informal waste management practices. While it offers a platform for skill development and a form of intergenerational bonding, it also raises questions about child labour and educational opportunities.

The duality of this employment model is emblematic of the complex realities within the informal waste management sector. On one hand, it speaks to the resilience of families to navigate economic uncertainties collectively, leveraging their strengths and resources. On the other hand, it highlights the need for a comprehensive understanding of the intersections between informal work, dignity of labour, kinship ties, and social dynamics.

### 2.4.3 INFORMAL NON-WAGE EMPLOYMENT (MEAN-BASED PAYMENT)

In the realm of informal waste management, a distinct form of employment arises in the form of informal non-wage employment, which is characterized by unconventional compensation methods. This intriguing type of engagement emerged in one specific venture studied, shedding light on the unique dynamics that can exist within this sector.

Unlike the more common waged employment model, where remuneration is tied to the amount of waste collected, informal non-wage employment takes a different route. In this venture, waste collectors are compensated not with traditional wages but with means that hold a market value equivalent to the collected waste. The similarity to monitored remuneration is evident, yet the nature of the compensation sets it apart.

What is particularly striking about this case is the nature of the means used for payment – drugs. The waste collectors receive a dose of drugs, ranging from crack cocaine to methamphetamine and ganja, which is equivalent in value to the market-assigned worth of the collected waste. This unconventional method of remuneration poses several questions and concerns, not only regarding the ethical implications but also the impact on the health and well-being of the waste collectors involved.

It's essential to consider the broader context in which this form of employment operates. The fact that the venture owner is involved in selling and distributing drugs adds another layer of complexity to the situation. The waste workers are not only engaged in waste collection but are also provided with a location and equipment for drug consumption. This intertwining of activities raises concerns about the exploitation of vulnerable individuals who may find themselves in dire circumstances.

The case of informal non-wage employment with drug-based compensation highlights the need for vigilant oversight and regulation within the informal waste management sector. It serves as a reminder that while the sector may encompass diverse forms of employment, ensuring the well-being and fair treatment of workers should remain a paramount concern. This case prompts a deeper reflection on the practices within informal waste management, emphasizing the significance of formulating measures needed to protect individuals from potential harm and exploitation within the sector.

The intricate web of employment arrangements within the informal waste management sector in the DMMC and BUC areas underscores the multifaceted nature of this industry. The three distinct types of employment shed light on the diverse ways in which individuals engage in waste collection, each carrying its own set of implications and complexities. These varying employment

models collectively paint a comprehensive picture of the informal waste management sector, where livelihoods are intertwined with family, economics, and unconventional compensation methods. As we navigate the complexities of this sector, it becomes evident that the journey towards a more equitable and sustainable waste management ecosystem necessitates not only policy interventions but also a deeper understanding of the lives and experiences of those who engage in this vital yet often overlooked work.

## 2.5 SOCIAL DISCOURSE

Based on the collected data from informal waste collectors, government officials, and local council elected members from DMMC and BUC areas, the study sheds light on the prevailing social discourse regarding the informal waste management system. Nevertheless, it must be emphasized here that data was not collected from residents of the selected local councils regarding the discourse on informal waste collectors. The findings indicate that this social discourse tends to be predominantly negative in nature. Here, we outline the key narratives of this discourse:

### (i) “Informal waste workers are thieves and drug addicts.”

This narrative paints informal waste workers as social deviants, branding them as thieves and drug addicts. It encompasses a complex array of societal biases that have far-reaching consequences on various aspects of their lives. It has profound implications on various aspects of owners of informal waste collection centers and workers lives. The respondents have highlighted the multifaceted impact of this labeling, shedding light on how it affects not only their livelihoods but also their overall social standing and interactions.

Primarily, this labeling subjects informal waste workers to unjust suspicion and mistreatment when crimes occur in the areas where they work. In such situations, the police often target these workers, coercing them to confess to crimes they did not commit or to provide information about potential accomplices. One worker expressed their plight, stating,

*"When a petty crime happens in an area that we collect, police come to the waste collection center and gather a few of us. The ones taken up are beaten and harassed, forced to confess to crimes they did not commit."*

*(Semi Structured interview with informal waste worker, 2022.11.09)*

This unjust targeting and harassment contribute to a sense of vulnerability and fear among informal waste workers, who become victims of a prejudiced system.

Furthermore, the labeling of informal waste workers as thieves and drug addicts complicates their waste collection activities. Residents of certain areas are quick to assume that these workers are involved in criminal activities, leading to threats and demands for them to leave those routes.

*"Sometimes I go to certain routes and residents ask me to leave, calling me a thief. Such incidents occur when a theft has occurred in the area. It's like guilt by association. People are quick to generalize and assume that just because we are collecting waste, we must be involved in criminal activities,"*

*(Semi Structured interview with informal waste worker, 2022.12.03)*

This type of harassment and discrimination impedes their ability to carry out their work without fear and unease. The labeling also perpetuates the perception that their presence automatically indicates criminal intent.

The impact of this labeling extends beyond work-related challenges, affecting informal waste workers' social interactions and reputations. Many informal waste workers report feeling belittled in social gatherings and events, such as school meetings.

*"I find it difficult to attend my son's school meetings due to the label. Parents at my child's school know that I am an informal waste worker. After a meeting, a few fathers cornered me, warning me not to steal from the class or the school."*

*(Semi Structured interview with informal waste worker, 2022.11.09)*

The negative stereotypes associated with their occupation lead to prejudiced judgments, making them feel marginalized and isolated. The stigma attached to their profession even influences how they are perceived by other parents, affecting their engagement in their children's education.

Elected members and officials, while acknowledging that labeling all informal waste workers as thieves and drug addicts is unfair, also point out that there is some basis for these allegations. They emphasize that a majority of informal waste workers are in some way involved in petty crimes, which contributes to the negative perception. The fact that some informal waste workers engage in illegal activities, such as consuming drugs, breaking into houses to steal valuables, adds credibility to the label, even though it doesn't represent the entire informal waste worker community.

*"The problem lies not just in the perception of the people. A majority of informal waste workers are somehow involved in petty crimes, breaking into houses to steal household items."*

*(Semi Structured interview with elected member, 2022.11.05)*

Some officials argue that even those who might have engaged in such activities have done so due to their circumstances and context. While some informal waste workers may have been involved in petty crimes, attributing these actions to their entire community is unjust and detrimental. This blanket labeling further marginalizes those who might genuinely be seeking an opportunity to better themselves and break free from their circumstances.

*"Even though some may be addicts and thieves, it's likely due to their circumstances. Labeling all as thieves and addicts is unfair and pushes them further into hardship."*

*(Semi Structured interview with local council officer, 2022.11.05)*

Nevertheless, it remains unlikely that a radical transformation in public opinion will occur in the near future. The deeply entrenched nature of this narrative, coupled with the occasional involvement of informal waste workers in minor criminal activities, hinders swift change.

#### **(ii) "Informal waste collection is a low-paying, unclean job."**

The narrative that "Informal waste collection is a low-paying, unclean job" encapsulates several defining characteristics that profoundly impact the lives and perceptions of informal waste collectors. This prevalent viewpoint paints informal waste management as an undesirable and menial vocation, giving rise to numerous challenges for those engaged in this line of work.

The portrayal of informal waste collection as both low-paying and unclean has far-reaching consequences on the treatment and interactions that informal waste workers encounter. Informal waste workers recounted instances where they are subjected to feelings of inferiority, such as being asked to wait outside shops while others are served indoors or being handed food and beverages in broken utensils. As one waste collector emotionally revealed,

*"If I go to a shop and try to buy something, they will often ask me to stay outside and bring me food outside... It's like I'm not good enough to be served properly."*

*(Semi Structured interview with informal waste worker, 2022.12.05)*

This mistreatment resonates with historical practices tied to the caste system and such practices reflect on the societal status attributed to informal waste workers.



However, elected members attributed the perception of informal waste work as dirty to the behaviours and practices of the workers themselves. According to their perspective, the appearance of dirtiness is reinforced by the way some informal waste workers present themselves.

*"Many of them wear the same ragged clothes every day, covered with waste. And those carts they use, most don't even bother to clean them, it is this that signify their job as unclean and unsanitary."*

*(Semi Structured interview with elected member, 2022.11.05)*

It can be argued that this link between their appearance and the nature of their work perpetuates the stereotype and bolsters the narrative that their job is inherently unclean.

Moreover, the narrative that informal waste workers are underpaid is rooted in a lack of understanding about their actual earnings. An official involved in waste management counters this perception, saying,

*"According to my understanding, informal waste workers earn a minimum income of around 45,000 rupees per month, comparable to a government teacher's salary."*

*(Semi-structured interview with local officer, 2022.11.05)*

However, this comparison overlooks the absence of job security, stable income, and benefits enjoyed by formal sector employees. It also disregards the physically demanding nature of their work, requiring them to toil all 30 days of a month to earn a comparable income.

These factors often remain overshadowed in discussions surrounding their compensation. As a result, the narrative portraying informal waste collection as a low-paying, unclean job has entrenched itself within the societal discourse. The broader implications of this narrative extend beyond personal interactions and stereotypes. The stigma attached to informal waste collection influences recruitment, with many potential workers opting for alternative forms of employment due to the devaluation associated with this occupation. This, in turn, affects the workforce's size and diversity, potentially hindering the sector's effectiveness.

The discourse that "Informal waste collection is a low-paying, unclean job" has pervasive impacts on various aspects of informal waste workers' lives. From influencing how they are treated in society to affecting their employment opportunities and overall well-being, this narrative reinforces deeply ingrained biases. While some of these biases are rooted in certain practices

of waste collectors themselves, broader societal misconceptions and a lack of awareness contribute significantly to the existence of this narrative.

**(iii) "Informal waste collection disrupts the proper management of waste."**

The narrative that "Informal waste collection disrupts the proper management of waste" is characterized by the belief that the activities of informal waste collectors, such as collecting mixed waste and improper disposal practices, pose challenges to organized waste management systems. This narrative highlights concerns about environmental contamination and inappropriate waste treatment.

The narrative asserting that derives its essence from the perspectives shared by elected members and officials. These stakeholders highlighted the tensions arising from informal waste management practices and waste disposal systems. A fundamental aspect of this narrative is the assertion that owners of informal waste collection centers frequently gather mixed waste, driven by financial incentives, and subsequently mishandle its disposal. A local council officer elaborated, emphasizing that

*"Owners of informal waste collection centers pick up mixed waste and, as they don't have the means to handle it, they throw it on empty lands or even sneak the mixed waste into collection bins of supermarkets and other businesses disrupting the formal waste collection activities that only collect segregated waste."*

*(Semi-structured interview with local officer, 2022.11.08)*

The inferences of this narrative encompass various dimensions. One of the most pronounced propositions is that informal waste management leads to potential environmental contamination stemming from the improper disposal practices employed by informal waste collectors.

Some officials emphasized that, inadequate waste management techniques can result in the infiltration of harmful substances into soil and water sources, potentially causing lasting ecological harm.

Nonetheless, it's essential to acknowledge that the improper waste management is not confined to the informal sector. The formal waste management system itself grapples with issues like inappropriate disposal and waste treatment practices. An illustrative example is the Karadiyana waste dumping site in Borelasgamuwa, which pollutes the "Weras" river and the surrounding wetland.

While the narrative of disruption draws upon valid concerns, a growing awareness regarding the vital role of the informal waste management sector is gaining prominence. There's an increasing realization of the potential for collaboration between local councils, the central government, and owners of informal waste collection centers to engender a more sustainable waste management model. As another official pointed out,

*"Owners of informal waste collection centers are integral to a comprehensive waste management strategy that eases the burden on local councils and benefits the environment. Instead of punitive actions, we should prioritize assisting and training informal waste workers and owners to enhance their waste management skills."*

*(Semi-structured interview with local officer, 2022.11.08)*

A nuanced analysis of this narrative reveals the complexity of waste management challenges. It becomes evident that both informal and formal waste management systems have their shortcomings and strengths. While informal waste collectors' practices can contribute to disruptions, they also represent a potential solution to the prevailing waste management crisis. The responsibility lies on authorities, policymakers, and stakeholders to recognize the synergies between the two systems and devise strategies that harness the strengths while addressing the shortcomings.

To conclude, the findings drawn from the voices of informal waste collectors, government officials, and local council elected members offer a comprehensive understanding of the prevailing social discourse encompassing the informal waste management system in Sri Lanka. This discourse overwhelmingly leans towards a negative perspective, as evidenced by the dominant narratives discussed above. The impact of these narratives extends across various dimensions, influencing how informal waste workers are treated, their social interactions, and the effectiveness of waste management efforts.

The narratives vividly highlight the power of societal biases, perpetuating unfair labels such as "thieves and drug addicts" onto informal waste workers. This unwarranted branding subjects them to unjust suspicion, mistreatment, and harassment. Furthermore, the notion that their occupation is associated with criminal intent severely hampers their ability to carry out their work without fear. Additionally, the portrayal of informal waste collection as a low-paying and unclean job not only affects the way these workers are treated in society but also impacts their self-worth and future employment prospects. These narratives collectively underscore the need to

challenge deeply ingrained stereotypes and address misconceptions that perpetuate these biases.

Moreover, the discourse asserting that informal waste collection disrupts proper waste management systems brings to light a critical concern: the potential environmental impact of improper waste disposal practices. However, it's crucial to acknowledge that both informal and formal waste management systems have shortcomings, and a holistic approach is required to address the broader waste management crisis. The collaboration between various stakeholders, including local councils, government bodies, and informal waste collectors, emerges as a viable path towards a more sustainable waste management ecosystem.

In essence, the analysis of these discourses unveils the intricate interplay between societal perceptions, individual experiences, and systemic challenges. It is imperative to recognize that these narratives do not solely reflect the reality but are shaped by biases, limited awareness, and a lack of nuanced understanding. By addressing these narratives, stakeholders can foster a more inclusive and effective waste management framework that improves overall waste management and the lives of informal waste workers.

## 2.6 KEY CHALLENGES

This section delves into the challenges experienced by owners of informal waste collection centers while carrying out waste management activities. These challenges span from societal biases to operational difficulties, impacting not only the individuals involved but also the overall effectiveness of waste management activities. By shedding light on these challenges, authors aim to improve the understanding of stakeholders to facilitate greater support and recognition for informal waste workers and develop strategies to address these issues effectively.

### **(i) Lack of stable income due to fluctuating prices**

One of the most pressing challenges faced by owners is lack of stable income due to the volatile nature of prices for the economically valuable products they collect. The income generated by these workers is intricately linked to the prices of recyclable materials, particularly those in high demand for construction and production activities, often driven by international demand from countries such as India and China.

The sensitivity of these prices to the economic activities within these countries and global-scale situations makes the income of informal waste workers inherently unstable. As expressed by an informal waste worker,

*"The prices we get for the waste materials depend on what's happening in other countries. If their economies are doing well, our prices go up. If things slow down, our income drops too."*

*(Semi Structured interview with owners, 2022.12.05)*

This dependence on external factors leaves the livelihoods of informal waste workers hanging in the balance, subjected to the unpredictable shifts in global markets. A compelling example of this volatility was witnessed during the COVID-19 pandemic. As the pandemic took its toll on economies worldwide, the initial phases led to reduced production activities in countries like India and China, causing a plummet in demand and consequently, a drop in prices for the recyclable materials collected by informal waste workers. One respondent stated,

*"During the lockdowns, we were barely making enough to cover our basic needs. Prices were so low that we could hardly make ends meet."*

*(Semi Structured interview with owners, 2022.11.16)*

However, the pandemic's mid-phase saw an unexpected twist. As construction and production activities rebounded in China and India, the demand for recyclable materials surged, propelling the prices upwards. This sudden shift caught many informal waste workers off-guard, as the prices of their collected waste materials almost doubled.

This erratic fluctuation in income poses significant challenges to informal waste workers' ability to predict and plan for their financial stability. As one worker put it,

*"It's really hard to plan a budget or save money when you can't even guess how much you'll earn in a month. Our income is so uncertain that we can't plan ahead or make sure we have enough money for our families."*

*(Semi Structured interview with owners 2022.11.22)*

The lack of stability in income further exacerbates the vulnerabilities faced by informal waste workers. Unlike formal employment, where predictable salaries allow for planning and saving, the unpredictability of income for informal waste workers leaves them susceptible to financial shocks. The challenge of fluctuating prices also complicates waste workers' relationships with moneylenders and loan sharks who take advantage of their vulnerable situation.

*"The instability in our income adds to the difficulties we already face. Since we can't get loans from banks, we end up borrowing money at really high interest rates from*

*informal lenders. Often workers fail to repay the loans on time and are pushed to obtain another loan from a lender at a higher price to pay it off "*

*(Semi Structured interview with owners, 2022.11.22)*

This behaviour perpetuates a cycle of debt and dependency, pushing them deeper into economic instability. Moreover, the lack of stable income makes it challenging for informal waste workers to plan for their own health and safety. In an occupation prone to hazards, they lack the financial cushion to cover medical expenses in case of injuries or illnesses.

In conclusion, the lack of stable income due to the constantly shifting prices of recyclable materials is a substantial challenge faced by informal waste workers. The precarious nature of their earnings, determined by global economic forces and unforeseeable events, adds an additional layer of complexity to an already demanding profession.

#### **(ii) Harassment by the Police and Local Councils.**

Owners of informal waste collection centers face significant challenges arising from interactions with both the police and local councils. These challenges often hinder their activities and exacerbate the already precarious nature of their work. The experiences shared by informal waste workers shed light on the multifaceted nature of these hindrances.

##### *Harassment from the Police*

Informal waste workers frequently encounter issues with the police, complicating their lives. Many waste collectors recount instances where the police target them unjustly, especially when crimes occur in the areas they operate. According to them the police subject informal waste workers to harassment, coercion, and physical abuse. One waste collector shared his experience, stating,

*"Whenever a theft happens in Rathmalana, the Police officers ask me to come to the Police Station, where they ask whether I know anything about the crime. Even when I tell them that I know nothing about the crimes, they keep on asking questions. Telling them what I know is not a problem, but when I go to the station so often, I lose time from collection and also people think that I am a crook."*

*(Semi Structured interview with owner, 2022.11.22)*

This pattern of harassment not only erodes the workers' sense of security but also perpetuates a cycle of vulnerability and fear.

### *Mistreatment by Formal Waste Workers and Local Council Officials*

The interactions between formal waste workers and their informal counterparts have introduced a source of contention within the waste management sphere. Formal waste workers also collect of economically valuable waste, which they subsequently sell to owners of informal waste collection centers for additional income. However, this has given rise to conflicts between the two groups. The formal waste workers, driven by their desire to safeguard their earnings, often oppose the involvement of informal waste workers in collecting valuable waste. When encounters occur where formal and informal workers cross paths during waste collection, formal workers frequently approach their informal counterparts, demanding that they cease their activities and leave the area.

*"During one of my waste collection rounds, I encountered formal waste workers who approached me with a stern demeanor. They warned me that I should stop collecting waste from that area and leave immediately. One worker told me that if I didn't comply, there could be consequences. It was quite intimidating."*

*(Semi Structured interview with owner, 2022.11.22)*

This clash of interests and resulting confrontations negatively impacts the lives of informal waste workers, impeding their income and day-to-day operations.

Many waste collectors expressed frustration over how local councils handle infractions. Owners of informal waste collection centers claim that local councils arrive at their locations, accuse them of wrongdoing without prior notice, and impose fines without allowing them to rectify their mistakes. One informal owner of a waste collection center stated,

*"We understand that when we make a mistake, the officials have to fine us according to the regulations. But it's better if they can give us a warning and train us on how to rectify the mistake we have made. However, we don't get such the chances. PHL officers would simply come to our place and say we are doing something wrong and then fine us."*

*(Semi Structured interview with owner 2022.11.20)*

The harassment faced by owners of informal waste collection centers from the police and local councils has significant implications for their livelihoods, well-being, and overall work environment. The constant fear of being targeted by law enforcement authorities creates an environment of vulnerability and insecurity. These challenges undermine the important role that the informal waste sector plays in waste management systems, inhibiting their potential to



contribute positively to the environment and society. Addressing these issues requires collaborative efforts between stakeholders, ensuring fair treatment, effective communication, and mutual respect.

### **(iii) Lack of support of local governments and central government**

The lack of support from both local councils and the central government stands as a significant stumbling block for informal waste collectors. Informal waste workers state that they face an unsettling lack of assistance from these institutions in obtaining financial backing and engaging in capacity-building initiatives. In their words,

*"Even though we don't expect much, it's sad to see that we don't receive any support from the central government and the local councils. They're more interested in controlling our operations rather than supporting us. But they are always ready to regulate our activities and pressurize us to change our methods."*

*(Semi Structured interview with owner, 2022.11.20)*

This sentiment underscores a sense of disappointment in the way local councils and the central government interact with the informal waste collection sector.

#### *Difficulty in obtaining loans and other financial support*

The inability to secure loans for the procurement of new equipment or vehicles further compounds the challenges faced by informal waste collectors. Owners of informal waste collection centers often find themselves at a disadvantage when they approach government and private banks for loans. The fluctuating nature of their incomes is a significant concern for banks, as they struggle to assess the repayment capacity of these workers. This unpredictability creates a barrier to accessing loans. As one worker aptly puts it,

*"I've approached banks for loans to expand my waste collection, but they always seem skeptical due to the irregularity of our income. It's frustrating because we could do so much more with the right financial support."*

*(Semi Structured interview with owners, 2022.11.20)*

Moreover, the complex document requirements imposed by banks and financial institutions exacerbate the problem. These institutions demand comprehensive proposals, budgets, and outcome documents, which many informal waste workers find challenging to create due to limited formal education. As another waste collector pointed out,

*"The banks want detailed documents that I just can't produce. I understand their concerns, but it puts us at a disadvantage. We need simpler processes and more understanding from the financial institutions."*

*(Semi Structured interview with owner, 2022.12.12)*

Owners have voiced the need for local councils and the central government to provide assistance in obtaining financial support from banks and financial institutions. They emphasized the importance of streamlining processes and introducing exceptions when it comes to the required documentation. This would entail simplifying the often complex and demanding procedures for securing loans, ensuring that the barriers to accessing financial aid are minimized.

#### *Lack of support to build capacities*

Local informal waste workers express a strong inclination to acquire new skills and enhance their waste management practices. They desire to improve their collection and storage practices, incorporating modern technologies. However, they find limited avenues for obtaining such training opportunities due to the absence of governmental and council support.

*"We want to learn and improve how we manage waste. But we can't find such opportunities because the government and local councils don't support us."*

*(Semi Structured interview with informal waste worker, 2022.12.10)*

In summary, the absence of support from local councils and the government stands as a formidable barrier for informal waste workers. The lack of interest to provide financial assistance, and capacity development opportunities, by the central government and local governments severely impedes the sector's ability to thrive and expand its services.

#### **(iv) Difficulty in finding labour.**

According to many participants, the task of securing labour for waste collection activities is exceedingly challenging. This difficulty arises from several factors, including the low societal acceptance of informal waste collection and its associated tasks. Most young individuals are hesitant to engage in this form of work due to the prevailing negative perception. Moreover, the comparatively lower income that comes with informal waste collection and the physically demanding nature of the work act as further deterrents.

*"It's really tough to find people to help with waste collection. People don't think highly of this job, especially young ones. The pay is not great, and the work is hard on the body. That's why not many want to do it."*

*(Semi Structured interview with owners, 2022.12.10)*

Owners emphasize that the risks associated with such work, including handling chemicals and heavy materials, contribute to deterring potential laborers from joining the labour force. Some workers pointed out that they have managed to continue their operations to some extent due to the involvement of young Tamil youths who have migrated from Northern Province.

*"After the war, many Tamil youths came to Colombo looking for jobs. Since most of them lack skills and education, their wages are lower compared to someone from Colombo."*

*(Semi Structured interview with owner, 2022.11.19)*

The scarcity of labour significantly hampers the efficiency and effectiveness of waste collection activities. With fewer hands to carry out the work, the existing informal waste workers face increased workloads, which can negatively impact their health and well-being.

#### **(v) Clashes with other informal waste workers**

Owners of informal waste collection centers encounter another significant challenge, that of conflicts arising among informal waste collectors. The research findings underscore the existence of both physical altercations and verbal disputes between informal waste collectors, particularly in relation to waste collection from specific areas within the local councils.

It's crucial to grasp the local geography and demographics of these municipal councils to comprehend this phenomenon. Like in many regions, these councils comprise sections inhabited by middle-income and high middle-income families, which tend to generate substantial quantities of valuable waste that they often offer freely to waste collectors. However, such neighbourhoods are limited in number. This scarcity leads to fierce competition among waste collectors to secure waste from these affluent areas, ultimately giving rise to clashes.

*"Some areas in the council have families with more money, and they throw away valuable things more than others. But these areas aren't many. Because of this some waste collectors end up fighting over who gets to pick up the valuable waste."*

*(Semi Structured interview with owner, 2022.11.19)*

These conflicts typically occur when one informal waste collector repeatedly targets an area just before another collector can reach it. An interviewed waste collector highlighted another dimension to these clashes, mentioning that certain collectors exploit their transportation vehicles to move illicit substances such as drugs and contraband alcohol. This scenario involves

a network of owners of informal waste collection centers competing to sell these illegal items to customers. The informant explained,

*"Some owners of informal waste collection centers use their trucks and carts to transport drugs like ganja, ice, and illicit liquor to various parts of the urban council. This is possible because these transportation vehicles are rarely checked by the police or local councils."*

*(Semi Structured interview with informal waste worker, 2022.11.15)*

These activities occasionally spark confrontations among these rival groups, which can mistakenly be perceived by outsiders as waste collectors fighting over their collection routes.

This heightened competition and the hidden layers of illicit activities contribute to the complexity of conflicts among informal waste collectors. Unable to amicably share collection routes and other resources, clashes emerge as a manifestation of these underlying tensions and rivalries. The situation highlights the intricate challenges these waste collectors face not only in their interactions with external stakeholders but also within their own informal waste collection ecosystem.

These conflicts not only disrupt the day-to-day activities of waste collectors but also pose safety risks to those involved. Verbal disputes can escalate into physical altercations, jeopardizing the well-being of the collectors and potentially leading to injuries. These confrontations also impact the overall efficiency of waste collection operations, diverting energy and time away from the primary goal of waste management. An additional consequence is the erosion of trust and collaboration among waste collectors, hindering the potential for collective efforts and cooperative initiatives that could benefit the entire informal waste management sector.

Furthermore, these internal conflicts present an image of disarray and discord to the broader community and stakeholders. The public's perception of waste collectors may be influenced by such conflicts, potentially undermining the legitimacy and credibility of their activities. These clashes also divert attention from the larger issues at play, such as advocating for improved waste management policies, securing better working conditions, and gaining support from local authorities.

Addressing these conflicts requires a comprehensive approach that takes into account both the immediate tensions and the underlying factors contributing to them. Creating channels for effective communication among waste collectors could help prevent misunderstandings and reduce the potential for disputes. Additionally, initiatives focused on capacity building, skill

development, and cooperative training could foster a sense of unity among waste collectors, emphasizing collaboration over competition. Ultimately, mitigating internal conflicts within the informal waste collection sector is crucial for enhancing its overall efficiency, image, and potential for positive change.

In conclusion, the challenges faced by informal waste workers are multifaceted and interconnected, spanning economic, social, and skill development dimensions. Lack of recognition, unsafe working conditions, economic vulnerability, and conflicts with authorities and other waste collectors hinder their ability to improve livelihoods and well-being. Addressing these challenges requires a collaborative effort from governments, organizations, and communities to create policies and initiatives that recognize their contributions, provide essential training and support, ensure safe working environments, and integrate them into the broader waste management system. Empowering informal waste workers not only enhances their lives but also contributes to more sustainable and efficient waste management practices for the benefit of entire communities and the environment.

## 2.7 DISCUSSION

Within the context of the DMMC and BUC areas, informal waste workers have not only adapted to the demands of waste collection but have also evolved into community assets. Their contributions transcend the boundaries of waste collection, encompassing a spectrum of activities that cater to diverse neighborhood needs. By engaging in initiatives that promote sustainability and simultaneously enhancing their own financial circumstances, they manifest their resourcefulness and adaptability. Such multifaceted roles have solidified their position as essential contributors to both waste management and the economic fabric of their communities.

The intricate web of employment arrangements within the informal waste management sector in the DMMC and BUC areas accentuates the sector's complexity. Through distinct modes of employment, these workers engage in waste collection, each type carrying its own implications and intricacies. These divergent employment models collectively present a holistic representation of the informal waste management sector. What emerges is a tapestry where livelihoods intertwine with familial dynamics, economic constraints, and unique forms of compensation. Understanding this web of connections is crucial to formulating effective interventions that enhance the sector's sustainability and the well-being of the workers involved.

However, the discourse surrounding informal waste management in Sri Lanka remains marred by negative perceptions. The prevailing narratives that label these workers as thieves and drug addicts undermine their credibility and hinder their recognition as significant contributors to

waste management and community welfare. Such misconceptions impede policy interventions and inhibit the potential for collaboration to address the challenges faced by this sector effectively.

In this regard, the challenges confronted by owners of informal waste collection centers during their waste management endeavors are manifold and impactful. The volatility of income due to fluctuating prices presents a formidable hurdle, making financial planning an uphill task. Harassment by the police and local councils exacerbates their vulnerability, inducing fear and disruption to their daily activities. The lack of support from local and central governments compounds these issues, depriving them of financial aid and opportunities for skill development. The challenge of finding labor, coupled with conflicts with fellow informal waste workers, adds layers of intricacy to their operational landscape.

Thus, the journey towards a more equitable and sustainable waste management ecosystem necessitates not only policy interventions but also a deeper understanding of the lives, challenges, and contributions of informal waste workers. The complexities woven into their daily experiences call for comprehensive solutions that acknowledge the broader societal context, operational nuances, and economic dynamics shaping their reality. As we delve into the depths of informal waste management within the DMMC and BUC areas, it becomes apparent that a holistic approach is vital to fostering support, recognition, and strategies that can uplift this vital yet often overlooked sector.

## 3. COVID-19 AND INFORMAL WASTE MANAGEMENT

### 3.1 INTRODUCTION

In an unforeseen turn of events, the global outbreak of the COVID-19 virus brought forth a wave of challenges that rippled across every facet of society. Among the most vulnerable groups to feel the impacts were the informal waste workers and the owners of informal waste collection services. This chapter delves into the impacts of the pandemic on these stakeholders casting a spotlight on the experiences of informal waste workers, examining how their livelihoods were disrupted and their vulnerabilities exposed by the pandemic's sudden onslaught. Similarly, the chapter analyzes the predicament faced by the owners of informal waste collection services, who grappled with a complex web of economic and social challenges. From diminished waste generation to heightened health risks, the impacts were far-reaching. Yet, amid adversity, these individuals exhibited remarkable resilience. This chapter further investigates the innovative coping and mitigation strategies they employed to counter the crisis.

### 3.2 SPREAD OF COVID-19 IN SRI LANKA

The spread of the COVID-19 virus within Sri Lanka marked a challenging period for the nation. The first confirmed case emerged on January 27, 2020, involving a Chinese national who was admitted for treatment at the National Institute of Infectious Diseases, a specialized facility for handling infectious diseases (Amaratunga et al., 2020). However, the spread of the virus locally became evident on March 11, 2020, when a Sri Lankan citizen tested positive, indicating that the virus had taken root within the country (ibid).

Several factors contributed to the virus's spread across Sri Lanka. The incessant influx of tourists from affected regions, along with the return of Sri Lankan citizens from countries affected by the virus, played a significant role in spreading the virus. Moreover, a lack of adherence to the government-imposed restrictions also contributed to the virus's uncontrolled propagation. Despite the government's containment efforts, the disease continued to multiply, eventually intensified by the emergence of the Delta variant. This variant's impact was evident as Sri Lanka experienced a notable surge in its fatality rate, ranking fourth globally in terms of daily deaths by population in August 2021, only preceded by Georgia, Tunisia, and Malaysia.

As attested by the 'National Epidemiology Report-Sri Lanka,' published by the Ministry of Health's Epidemiology Unit (2023), the impacts of the virus have been substantial. By January 2023, Sri Lanka had registered over 671,903 confirmed COVID-19 cases, with 655,063 individuals having successfully recovered from the illness. Tragically, the virus's toll was marked by more than 16,817 deaths. This grim tally underscores the immense impact of the pandemic on Sri Lanka's

population and healthcare infrastructure, prompting a need for multifaceted responses to mitigate its consequences and protect vulnerable communities.

### 3.2.1 IMPACT OF COVID-19 VIRUS ON THE WASTE MANAGEMENT SECTOR

The COVID-19 pandemic exerted significant impacts on Sri Lanka's waste management sector, creating a range of challenges and transformations that reverberated across formal waste collection activities. Notably, municipal waste collection continued unabated, albeit with substantial alterations to its operational dynamics. The government declared waste collection an essential service, allowing formal waste workers to continue their duties even during lockdowns. To facilitate this, these workers were provided passes permitting their engagement in waste collection endeavors (Jayasinghe, 2022). In contrast, informal waste workers were subjected to a ban on their activities, limiting their ability to contribute to waste management efforts during this critical period.

However, the pandemic's far-reaching effects were not confined to these operational restrictions alone. Social distancing measures introduced an additional layer of complexity to waste management practices. Both formal and informal waste workers faced hesitancy from households to interact closely due to the fear of virus transmission. This distancing inadvertently posed challenges to the efficiency of waste collection and disposal processes, underscoring the multifaceted nature of the pandemic's impacts (Jayasinghe, 2022).

The impacts of the pandemic extended beyond direct operational constraints, encompassing a suite of issues that pertained to the broader landscape of waste management. Jayasinghe (2022) highlighted several such general issues, including disruptions attributed to labour shortages, insufficient safety measures at work, the safe handling of waste from households affected by COVID-19 and increased volumes of medical waste.

In addressing the evolving needs precipitated by the pandemic, the Ministry of Health of Sri Lanka articulated an elaborate plan to enhance infection prevention and control (IPC) measures, which inevitably intertwined with waste management strategies. The robust strengthening of waste disposal (clinical) techniques emerged as a focal point, accompanied by the assessment of IPC measures in healthcare facilities handling COVID-19 patients.

It is evident that the COVID-19 pandemic drastically altered the landscape of waste management in Sri Lanka. It illuminated the sector's vulnerabilities, necessitated innovative approaches, and underscored the importance of addressing waste-related challenges within a larger context of public health and environmental concerns. The pandemic's impact resonates



as a call for heightened preparedness and resilient strategies to navigate such unprecedented challenges in the future.

While a wealth of data exists concerning the impact of the COVID-19 virus exerted on the formal waste management sector, there is a perceptible lack of information regarding the impacts on the informal sector. This research gap highlights the need for a comprehensive understanding of the nuanced effects of the COVID-19 pandemic on the informal waste management landscape. The ensuing sections of this report aim to bridge this knowledge gap by delving into the specific impacts that the spread of COVID-19 had on the informal waste management sector in Sri Lanka.

### 3.3 IMPACTS ON INFORMAL WASTE MANAGEMENT

This section explores the key impacts of the COVID-19 virus on the informal waste management sector of Sri Lanka. By prudently examining the experiences of owners of informal waste collection centers and workers, the ensuing discussion sheds light on the multifaceted impacts that the pandemic has had on this sector.

#### (i) Ban imposed on informal waste collection activities

The ban on informal waste collection activities proved to be a critical blow to the livelihoods of informal waste collectors. This abrupt halt in their operations was mandated by local councils as a preventive measure against the spread of the virus. The frustration and financial turmoil resulting from this decision were felt by informal waste collectors. One collector expressed their helplessness, saying,

*"It's not fair that we were suddenly told we can't do what we have been doing for years. No one thought about how we are going to survive and how the children are going to eat."*

*(Semi Structured interview with owners, 2022.11.15)*

The sentiment echoed the broader concern that the ban had far-reaching consequences on their financial well-being. With local councils deeming informal waste collection nonessential, the owners of informal waste collection centers found themselves grappling with the uncertainty of their future income. The lack of a social safety net added to their worries. An informal waste manager recounted,

*"We had no other income sources during that period. No one cared whether we had money to buy food or whether we could pay our workers."*

*(Semi Structured interview with owners, 2022.12.18)*

This situation laid bare the precariousness of their financial situation and the lack of support systems. The abruptness of the ban meant that even if they had wanted to, the collectors had no time to adjust or plan for this sudden loss of income.

The ban did not just affect the collectors' finances, but also their relationships with their workers. Many collectors employ informal waste workers on a daily wage basis, and the sudden stoppage of operations led to a dilemma. An informant waste collector stated,

*"We had workers who lived with us. They were stuck with us because of the suddenness of the situation. We couldn't abandon them, so we had to take care of them for the first few months of the lockdown."*

*(Semi Structured interview with owners, 2022.12.20)*

This scenario highlighted the additional responsibilities placed on the collectors to ensure the well-being of those who depended on them.

In conclusion, the ban on informal waste collection activities during the pandemic had profound consequences for the informal waste collectors. It exposed their vulnerability and the lack of formal support systems.

#### **(ii) Difficulty of selling collected stocks**

The pandemic-induced closure of shops had a cascading effect on the informal waste collectors' ability to sell their collected stocks of valuable waste items. With the closure of shops, this option was suddenly eliminated, plunging many into a financial crisis. Another practice of the owners of informal waste collection centers was to keep emergency stocks of valuable waste items such as copper, electronic items, etc. They had used these emergency stocks when they experienced economic hardships to cover expenses and salaries, etc. Nevertheless, due to the sudden closure of the shops, owners of informal waste collection centers could not use the emergency stocks to counter the economic hardships.

As an informal owner of waste collection center explained,

*"We used to keep emergency stocks that we could sell if we needed cash. But with the shops closed, we couldn't sell anything. This made it difficult for us to meet our daily expenses and repay our loans."*

*(Semi Structured interview with owners, 2022.12.19)*

The inability to sell their stocks not only impacted the informal waste workers' immediate financial situation but also had broader implications for their overall stability. Many informal waste workers had borrowed money from lenders to maintain their operations and support their families. The closure of shops meant they couldn't generate income, which in turn made repaying these loans challenging. One worker shared their predicament, saying,

*"We used to repay the loans at the end of the month. But with the lockdown and no income, we struggled to make the payments on time. This added more stress to an already difficult situation."*

*(Semi Structured interview with owners, 2022.12.19)*

Additionally, the closure of shops affected the income of informal waste collectors. These collectors rely on buying waste from informal waste workers and then selling it to recycling companies or other buyers. However, with the shops closed, the collectors had no outlet for selling the collected waste. This led to a reduction in their income as well. An informal waste collector revealed,

*"We couldn't sell raw materials to our buyers because they couldn't travel to our area to buy and transport the materials. This affected our income significantly."*

*(Semi Structured interview with owners, 2022.11.29)*

### **(iii) Reduction of the amount of waste collected**

After the initial wave of the COVID-19 pandemic and the subsequent easing of lockdowns, the informal waste workers were allowed to resume their activities. However, they quickly realized a significant reduction in the amount of waste being collected in the informal waste collection centers. This decline can be attributed to several key reasons that shed light on the complex dynamics influencing waste collection during these challenging times.

One of the primary reasons for the reduction in waste collection was the fear of interacting with informal waste collectors. Many residents were still apprehensive about the potential spread of the virus and were hesitant to engage with collectors. As an informal waste collector explained,

*"No one opened the doors for a few days. Very few individuals even came out to talk to us. Even the people that we know very well ignored us and did not communicate."*

*(Semi Structured interview with owners, 2022.12.19)*

Another significant factor contributing to the decrease in waste collected was the burning of waste by residents. During the lockdown period when informal waste collection activities were

prohibited, people resorted to burning waste or simply handing economically viable waste over to formal waste collectors. An informal waste collector clarified,

*"People had started to burn waste as we were not available for a longer period. So when waste collection started, there was very little waste left for people to give to us."*

*(Semi Structured interview with owners, 2022.11.19)*

Additionally, the conscious decision of some owners of informal waste collection centers to avoid collecting waste from certain areas due to potential COVID-19 infections further reduced the waste available for collection. They were aware that some houses within their collection routes had confirmed COVID-19 cases. Consequently, these collectors refrained from entering those areas, leading to a reduction in their collection routes. This not only limited the waste collected but also impacted their overall income.

This reduction in waste collection had significant implications for the informal waste workers' income and the overall sustainability of their operations. It underscores the intricate interplay between public health concerns and economic challenges in shaping waste management dynamics during times of crisis.

#### **(iv) Public protest against informal waste workers**

During the COVID-19 period, the emergence of public protests against owners of informal waste collection centers was another significant impact on informal waste collectors. Despite being granted permission by the police and local councils to resume their waste collection activities, residents were reluctant to accept the functioning of owners of informal waste collection centers due to ongoing concerns about the spread of the virus. This hesitancy led to a series of protests from the general public, which took various forms and had implications for the collectors' operations.

One notable way residents expressed their protest was by lodging complaints with the police. As many individuals were still working from home and remained alert about the activities in their neighbourhoods, they closely monitored the actions of informal waste collectors. Some even went to the extent of reporting these activities to the police, suspecting violations related to COVID-19 protocols. An informal waste collector shared,

*"People kept an extra eye out for owners of informal waste collection centers or windows fearing theft and spread of COVID-19 virus. Therefore, whenever these people saw an informal waste collector, they would call the police and inform them."*

*(Semi Structured interview with owners, 2022.11.19)*

Further exacerbating the situation, residents also lodged complaints when people visited the informal waste collectors' establishments. This led to instances where the police were informed about gatherings at these centers, which then prompted police visits and threats of closure. However, many of these allegations were unfounded, driven more by a desire to shut down the establishments than actual violations. As an informal waste collector explained,

*"Most of the time these allegations were not true. People simply wanted to close us down. For instance, a neighbour had called the police and stated that I am selling drugs to the children in the neighborhood with the hope of closing down the establishment."*

*(Semi Structured interview with owners, 2022.11.19)*

Beyond complaints and false allegations, some individuals engaged in direct harassment and threats towards informal waste workers. Instances of verbal abuse, intimidation, and even physical threats were reported. An informal worker described an incident where he was confronted by a group of residents,

*"Once when I was collecting waste a group of residents cornered me and asked me: 'Don't you know that there is a virus going around the country? Why are you traveling here and collecting waste?' They ultimately threatened to break my bones."*

*(Semi Structured interview with owners, 2022.11.19)*

Such incidents forced some workers to alter their collection routes or even avoid specific areas altogether to ensure their safety.

Furthermore, certain residents exhibited a form of "stalking" behaviour, shadowing informal waste workers along their collection routes and demanding their departure from the area. This behaviour aimed at pressuring the collectors to leave the vicinity and refrain from their waste collection activities. In some cases, this involved following them until they left the area completely, effectively preventing them from continuing their work.

Public protests also took a more official form through complaints to local officials, specifically Grama Niladhari (GN) officers. Residents informed these officers about the activities of informal waste workers in their areas, expressing their dissatisfaction with waste collection. As a result, GN officers intervened and instructed the owners of informal waste collection centers to refrain from collecting waste in those areas. Additionally, Public Health Inspectors (PHI) had advised collectors to avoid areas where protests were ongoing to prevent clashes and confrontations.

#### (v) Changes in the waste-related behaviour of public

Changes in residents' waste-related behaviour emerged as a notable impact experienced by owners of informal waste collection centers during the COVID-19 period. The pandemic brought about financial difficulties for many households, leading to alterations in how people consumed and disposed of their waste.

The widespread financial challenges faced during the pandemic prompted people to reconsider their consumption patterns and find ways to make the most of the available resources. As a result, individuals started to reuse and recycle items that they previously discarded. Owners of informal waste collection centers noted a shift in residents' behaviour, with people repurposing items such as plastic cups and ice cream containers to plant pots and cultivate vegetables. Additionally, there was a conscious effort to recycle and repurpose items instead of simply discarding them. An owner of waste collection center shared,

*"People had started to plant pots, plant vegetables, and other edible things in plastic cups, and ice cream containers that they usually use to throw away. So we didn't get much plastic containers as we used to get."*

*(Semi Structured interview with owners, 2022.11.05)*

This change in behaviour translated into a significant reduction in the amount of waste that residents were willing to give to informal waste collectors. For instance, Coconut Shells, which were once readily provided, became a less available source of waste for collection due to their use as cooking fuel. Residents were more cautious about parting with items that could be repurposed or recycled at home.

Furthermore, financial challenges prompted residents to demand more money for the waste they provided to informal waste collectors. Residents who were financially burdened sought higher compensation for the waste they contributed, making the process more costly for the collectors. As a result, informal waste workers found themselves having to increase the amounts they paid for waste, thus amplifying their daily expenses. A collector shared,

*"The prices residents demanded for their waste increased. Even for newspapers, they expected more money."*

*(Semi Structured interview with owners, 2022.11.05)*

In some cases, residents who had previously given away waste items without expecting compensation began to expect payment for their contributions. Some households, regardless of their financial status, began to request payment for economically viable waste, further straining the collectors' already compromised income. An informal waste collector shared,

*"Even households which are well-to-do expected informal waste workers to pay money for the economically viable waste that they had collected."*

*(Semi Structured interview with owners, 2022.11.05)*

A notable shift was observed in residents' attitudes towards bartering or exchanging plastic items for waste collection. Owners of informal waste collection centers faced a growing refusal from residents to engage in barter or exchange, further compounding the financial challenges faced by the collectors. This change in behaviour highlighted the intricate interplay between financial constraints, waste disposal, and the informal waste collection sector. In conclusion, it is evident that the changes in residents' waste-related behaviour during the COVID-19 period had a tangible impact on the operations and financial well-being of informal waste collectors.

#### **(vi) Additional expenses incurred by the spread of COVID-19**

The outbreak of the COVID-19 virus had a far-reaching impact on informal waste collectors, stretching beyond their usual operations into the realm of unforeseen expenses. One notable effect was the burden of additional costs that they were compelled to bear in order to ensure the safety and protection of both their workers and themselves. The necessity for enhanced safety measures led to a surge in expenditure, as these collectors found themselves having to allocate funds for essential items such as masks, gloves, and sanitizers. At the inception of the pandemic, the price of a mask, which had once been priced at a modest 15 rupees, escalated dramatically. By the midpoint of the initial lockdown, these masks were being sold for a staggering 75 to 100 rupees each. Similarly, the price of a one-liter bottle of sanitizer surged to an exorbitant range of 1200 to 2500 rupees. These skyrocketing prices exerted significant financial strain on the collectors, who were grappling with the sudden inflation of these crucial safety items.

An informal waste collector revealed the dilemma they faced, stating,

*"We had to give the men that work for us these masks and other protective gear. It is for their betterment and for our betterment too. I had to buy masks and sanitizer in bulk to cut down on these expenses."*

*(Semi Structured interview with owners, 2022.12.08)*

Such decisions to purchase protective gear in bulk were motivated by the commitment to safeguard both their workforce and their own well-being. Furthermore, alongside these equipment costs, owners of informal waste collection centers were compelled to invest substantial amounts of money in COVID-19 testing. Given that many establishments employed a minimum of two to three workers, local councils recommended that regular testing be conducted to ensure a virus-free environment. However, such tests came at a significant price, with an approximate cost of 14,000 rupees per test.

Another layer of expense arose from the unexpected need to support their workers who were stranded within their workplaces. As the initial lockdowns were imposed abruptly, some workers found themselves without the opportunity to return to their homes, often situated in distant regions. This situation prompted many owners of informal waste collection centers to step in and provide for the essential needs of these workers. This included covering meals and even providing recreational drinks to boost morale. One waste collector reflected,

*"Of course, we had to take care of these people. They work hard every day, taking care of our activities. And when something went wrong, it became our responsibility to take care of these children."*

*(Semi Structured interview with owners, 2022.12.08)*

This unanticipated responsibility translated into financial obligations that these collectors willingly assumed to ensure the welfare of their workers during a troubling period.

These unforeseen expenditures strained their financial resources and underscored the resilience and adaptability they demonstrated in the face of unprecedented challenges.

#### **(vii) Managing the collected stocks**

The challenges of managing stocks emerged as another impact experienced by owners of informal waste collection centers during the COVID-19 period. The pandemic-induced closure of their establishments significantly curtailed the movement of collected waste, leading to a substantial buildup of stocks within their warehouses. This stockpiling brought about a host of issues, with one of the most pressing concerns being the accumulation of water within plastic items and electronic housings. This unintended water collection created an environment conducive to the breeding of disease-spreading mosquitoes such as Dengue mosquitos. In response to residents' complaints, Public Health inspectors (PHI) officers visited these establishments and issued warnings of fines unless proper cleaning and management of the stocks were undertaken.



Therefore, owners of informal waste collection centers had to invest a significant amount of time and effort into the management of their accumulated stocks. The aim was to mitigate the risk of Dengue mosquitoes breeding within these items. To address this, collectors had to allocate funds to purchase kerosene, which was used to treat containers and cups that had inadvertently collected water and become breeding grounds for mosquito larvae.

The issue of animals causing harm to the amassed stocks also arose as a result of the extended storage period. In some larger waste collection centers, rat infestations emerged due to the accumulation of items over a prolonged duration. These rodents wreaked havoc by gnawing on electronic components, wiring, and plastic items. An informal waste collector highlighted that such rat infestations were uncommon in the past due to the regular movement of stocks. The need to combat these infestations necessitated financial investments in cleaning out affected areas and procuring rodent-killing chemicals.

An additional challenge that arose from the accumulation of substantial stockpiles was the financial burden of purchasing valuable items brought in by the public. Despite the closure and slow movement of stocks, valuable items like motors, copper wires, and expensive components were occasionally presented for sale. An informal waste collector explained,

*"Sometimes we were obliged to buy these items. And therefore, the pile of stocks got larger and larger."*

*(Semi Structured interview with owners 2022.11.08)*

This influx of high-value items further exacerbated the space constraints in their establishments. The space crunch eventually prompted some owners of informal waste collection centers to go a step further and invest their money in expanding their warehouse facilities. This involved not only the financial outlay for the additional space but also the procurement of necessary building materials. This aspect of managing stocks, compounded by the need to address issues like water accumulation and pest infestations, exemplified the multifaceted challenges that owners of informal waste collection centers had to navigate during the COVID-19 period.

In conclusion, the impacts of COVID-19 on informal waste management in BUC and DMMC have been profound and multifaceted. From the closure of establishments to the reduction in waste collection, the restrictions imposed during the pandemic disrupted the livelihoods of informal waste collectors. These challenges were exacerbated by the fear-driven public protests and changes in residents' waste-related behaviours. Additionally, the burden of increased COVID-19-related expenses, including purchasing protective gear and testing, strained their already limited resources. The management of accumulated stocks posed yet another set of

issues, necessitating further financial investments. The stories and experiences of these owners of informal waste collection centers in BUC and DMMC offer a glimpse into the intricate web of challenges faced by owners of informal waste collection centers during times of crisis, underscoring the importance of adaptable strategies and community support in overcoming adversity.

### 3.4 IMPACTS ON LABOUR FORCE

In this section, we delve into the impacts experienced by informal waste workers during the COVID-19 period. These individuals, who play a crucial role in managing waste and contributing to the environmental health of their communities, faced a multitude of challenges that ranged from economic hardships and public protests and increased expenditures. As we explore the intricate details of their experiences, it becomes evident how the pandemic triggered a cascade of effects that tested the resilience and adaptability of informal waste workers across different regions and communities.

#### (i) Increased exposure to COVID-19 virus

Greater exposure to the COVID-19 virus emerged as an impact that informal waste workers experienced during the COVID-19 period. This vulnerability stemmed from the very nature of their work – handling, segregating, and managing waste collected from various sources. As one informal waste collector highlighted,

*"We are on the frontlines, dealing with waste that comes from everywhere. We don't know what might be in there, including the virus."*

*(Semi Structured interview with informal waste worker, 2022.11.08)*

Owners of informal waste collection centers often deal with a diverse array of waste types, including infectious and mixed waste, making their exposure potential even more pronounced.

Furthermore, informal waste workers disclosed that their exposure to the virus was exacerbated by their interactions with formal waste collectors. An owner of a waste collection center noted,

*"We work closely with formal waste collectors. As they collect waste from everywhere, interact with residents and they also collected infectious waste. Therefore, interacting with them increased our chances of getting exposed to the virus."*

*(Semi Structured interview with informal waste worker, 2022.12.09)*

This collaboration, while essential for waste management, also inadvertently increased the avenues through which the virus could spread. Informal waste workers, operating across different parts and routes within local councils, encountered numerous residents during their work, leading to a higher likelihood of encountering carriers of the virus. As one worker put it,

*"We go from house to house, neighborhood to neighborhood. We come in close contact with residents, and we know that not everyone follows the safety measures."*

*(Semi Structured interview with informal waste worker, 2022.12.09)*

A previous study conducted by the researchers corroborated these concerns, revealing a concerning trend of COVID-19 infections among formal waste workers within the boroughs of BUC and DMMC local councils (Fernando , De Silva & Wise,2023). This finding underscored the actual vulnerability of informal waste workers to the virus, as their daily tasks brought them into contact with waste that might carry contagious elements. The combination of handling waste materials and interacting with diverse groups including residents, formal waste workers, and various waste types significantly elevated risk of exposure to the COVID-19 virus of the informal waste workers.

## **(ii) Reduction in income**

The reduction in income rippled beyond the immediate financial repercussions, affecting the overall well-being of informal waste workers and their families. Many owners of informal waste collection centers were the primary breadwinners for their households, and the decline in income strained their ability to meet essential needs such as food, shelter, and healthcare. "Our income became so uncertain. It became difficult to ensure our family's basic needs," shared an informal waste collector, highlighting the broader implications of reduced earnings.

Additionally, the reduction in income aggravated the existing vulnerabilities of informal waste workers. They often lacked access to formal social safety nets and healthcare benefits. The pandemic highlighted their susceptibility to unexpected financial shocks, leaving them more exposed to poverty and debt.

*"We don't have any support system to fall back on. If we earn less, we struggle to even make ends meet. All we have for our saving is these (shows his hands)".*

*(Semi Structured interview with informal waste worker, 2022.12.22)*

Therefore, it is evident that the reduction of income emerged as a formidable challenge for informal waste workers during the COVID-19 pandemic. The multifaceted impacts of this income decline rippled through various aspects of their lives, affecting not only their livelihoods but also their families, and aspirations.

### **(iii) Difficulty in attending to the needs of the family**

The impact of COVID-19 on informal waste workers extended beyond their work and income, reaching into their households and family dynamics. One of the key difficulties they faced was an increasing struggle to meet the basic needs and wants of their families. The reduction in income, as highlighted earlier, emerged as a significant factor contributing to this challenge. Owners of informal waste collection centers found themselves grappling with the reality of having insufficient resources to adequately support their families during these trying times.

For many informal waste workers, providing three meals a day and fulfilling the daily needs of their families became a daunting task. An owner of a waste collection center shared,

*"My income wasn't lavish, but it allowed me to provide for my family's needs and even treat them occasionally. But when the pandemic hit and the income dropped, it became really tough."*

*(Semi Structured interview with informal waste worker, 2022.12.20)*

The closure of their establishments and the subsequent reduction in earnings left them with meager resources to allocate towards household expenses.

The rising prices of essential commodities further compounded the difficulty. The surge in demand for basic food items during the pandemic led to a sharp increase in their prices. This made it even more challenging for informal waste workers to manage their household expenses within the limited income they were earning. Some found themselves seeking assistance from shop owners, family members, or community resources to bridge the gap and make ends meet.

Complicating matters, informal waste workers who had taken out small loans from local moneylenders prior to the pandemic found themselves in a precarious situation. These loans were initially obtained to cover daily expenses or invest in home improvements. However, as the pandemic caused their income to plummet, repaying these loans became increasingly difficult. Informal waste workers recounted stories of moneylenders coming to their homes and taking valuable possessions such as TVs, mobile phones, and household appliances as collateral due to the inability to repay the loans.

The inability to provide for their families and meet their basic needs took an emotional toll on informal waste workers. Many expressed feelings of frustration, helplessness, and concern for their family's well-being. An informal waste collector lamented,

*"I work hard to support my family, but the pandemic made it so much harder. I worried about how to provide for my children and ensure they have what they need."*

*(Semi Structured interview with informal waste worker, 2022.11.21)*

The economic strain had a ripple effect on family dynamics, affecting not only the livelihoods of waste collectors but also the overall stability and harmony within their households. As another informal waste worker expressed,

*"Financial stress seeped into our family life. We had to make difficult choices, cut back on things, and it strained our relationships."*

*(Semi Structured interview with informal waste worker, 2022.11.21)*

Therefore, it is evident that the difficulty in attending the needs and wants of their families emerged as a pressing challenge for informal waste workers during the COVID-19 pandemic. The combination of reduced income, escalating prices, and pre-existing financial commitments created a daunting environment, where fulfilling even the basic necessities became a significant struggle. This impact reverberated through their family lives, underscoring the complex and multifaceted consequences of the pandemic on these workers and their households.

#### **(iv) Discriminatory treatment at the hands of public**

The COVID-19 pandemic unfurled another distressing impact on informal waste workers: the brunt of discriminatory treatment from both the public and officials. This iniquitous behaviour intensified the hurdles they already faced, hurting their dignity and sense of belonging. As expounded earlier, these workers found themselves thrust into the spotlight of public and official scrutiny. A stark revelation from the study was the unjust treatment they encountered from local council officials, police officers, and residents alike.

This discrimination was palpable as owners of informal waste collection centers resumed their activities post the initial lockdown. Despite having obtained official permission to continue working, they were subjected to detention and even arrest by police and local council officials. Even while complying with regulations, they were accused of flouting health guidelines. An informal waste collector revealed,

*"We had official permission, but police officers and PHl officers would still harass us, saying we were violating health guidelines. It was as if our work was seen as a crime."*

*(Semi Structured interview with informal waste worker, 2022.11.21)*

The scope of this discriminatory treatment extended beyond official interactions to their dealings with residents. In the past, these workers enjoyed a degree of community support, receiving old clothes, meals, and occasional acts of kindness. However, the pandemic wrought a stark transformation in this dynamic. Informal waste workers shared a shift in how they were perceived, which impacted their emotional well-being.

*"The way people looked at us changed overnight. We used to get old clothes and sometimes even lunch from residents out of kindness. But suddenly, people wouldn't even offer a glass of water. It was really tough for us,"*

*(Semi Structured interview with informal waste worker, 2022.12.21)*

The fallout from this discriminatory treatment stretched beyond emotional distress; it hindered their ability to perform their tasks effectively. The negative perception and hostility further compounded their already daunting tasks.

In conclusion, the discriminatory treatment faced by informal waste workers during the pandemic was a sobering impact. This treatment not only hindered their professional endeavors but also corroded their self-esteem and sense of belonging. It underscores the imperative of cultivating inclusive attitudes and support systems, especially for those playing a vital role in waste management.

### **3.5 COPING AND MITIGATION STRATEGIES**

In the wake of the challenges posed by the COVID-19 pandemic, waste collectors and workers engaged in informal waste management have demonstrated remarkable resilience and resourcefulness. The pandemic's multifaceted impacts, spanning from reduced income to greater health risks and discriminatory treatment, have necessitated adaptive measures to safeguard their livelihoods and well-being. This section delves into the coping and mitigation strategies employed by the owners of informal waste collection centers and workers, shedding light on their innovative approaches, collaborative efforts, and the lessons garnered during their journey through adversity. From reimagining waste collection methods to diversification of income sources, these waste collectors and workers have exemplified the ability to navigate

crises and inspire change. As we traverse this section, authors will uncover the stories of ingenuity and determination that have emerged amidst the challenges, offering valuable insights into creating a more resilient and equitable waste management ecosystem.

### 3.5.1 COPING AND MITIGATION STRATEGIES EMPLOYED BY OWNERS OF INFORMAL WASTE COLLECTION CENTERS

#### (i) keeping the shops operational in the lock down period

In the face of the challenges brought on by the COVID-19 pandemic, owners of informal waste collection centers displayed remarkable adaptability by finding ways to keep their operations running even when faced with bans imposed by local councils. These collectors refused to let restrictions hinder their work. Despite the formal restrictions, they ingeniously continued their activities within the confines of their shops, ensuring that their work remained uninterrupted.

Findings revealed that the closing of the shops allowed them to carry out essential tasks that otherwise might have been time consuming during regular operations. They saw this period as an opportunity for further segregation of collected waste, and the extraction of raw materials from items.

One waste collector elaborated on this approach, stating,

*"We made sure that our operations continued even though the shop was closed to the public. This was the time for us to further process the economically viable waste that required further refining. For instance, when we collected large motors, we spent time breaking them down, extracting valuable materials like copper, alloys, and magnets. This additional processing increased the overall value of the materials we collected."*

*(Semi Structured interview with owners, 2022.12.21)*

By seizing the chance to enhance the value of their collected items through meticulous processing, these waste collectors effectively turned adversity into an opportunity. They recognized that processing waste materials further could yield higher returns, and they used the lockdown period to focus on these tasks. This approach not only ensured that their operations continued despite the challenges posed by the pandemic but also enabled them to optimize the value they derived from their efforts.

This adaptability to the circumstances exemplified the resilience of informal waste collectors. Their ability to think creatively and modify their operations ensured that their livelihoods, though

impacted by the pandemic, remained functional. In this regard, they demonstrated that while formal restrictions may impede their activities, they possess the resourcefulness to adapt and continue their vital role in waste management.

### **(ii) Devising new waste collection methods**

In response to the challenges posed by the COVID-19 pandemic, owners of informal waste collection centers demonstrated ingenuity by developing innovative approaches to waste collection. This adaptability allowed them to navigate the restrictions and continue their operations.

A key initiative they undertook was to leverage the permission obtained from local councils to use their vehicles for transporting essential goods. Seizing this opportunity, owners of informal waste collection centers embarked on a unique outreach effort. They reached out to households, sharing their contact numbers and informing residents that they were available to purchase economically viable waste at a more competitive price. This proactive communication served a dual purpose – it ensured the availability of valuable waste materials and enabled the collectors to maintain a reliable stream of income during a challenging period.

*"One of the ways we adapted was by using our vehicles not only for transporting essentials but also for connecting with residents. We gave them our numbers and let them know that we were still interested in buying waste. It was a win-win situation for both sides,"*

*(Semi Structured interview with owners, 2022.12.15)*

This innovative method of waste collection resonated with residents. The direct and personalized outreach made it easier for households to contribute to waste management while adhering to safety precautions. It also highlighted the resilience and determination of owners of informal waste collection centers to continue their work in the face of adversity.

By embracing this approach, owners of informal waste collection centers managed to secure their income during a period of uncertainty. Their ability to think creatively and adapt to changing circumstances showcased their commitment to waste management and their communities.

In conclusion, the innovative waste collection mechanisms adopted by owners of informal waste collection centers exemplify their resilience and determination to overcome obstacles.

### **(iii) obtaining loans from informal lenders and using savings**

In the face of the economic challenges precipitated by the COVID-19 pandemic, owners of informal waste collection centers demonstrated resilience by adopting various coping strategies,



including the strategic use of loans and personal savings. The financial uncertainties that accompanied the pandemic compelled waste collectors to seek alternative sources of funding to sustain their operations and address immediate needs.

One of the significant strategies employed was obtaining loans from informal moneylenders. Owners of informal waste collection centers turned to these lenders as a lifeline during these trying times. Despite the higher interest rates associated with such loans, which often reached around 25% P.A., collectors recognized the urgent need for financial support. As one collector expressed,

*"In our time of trouble, the only option was to seek support from informal lenders. The interest rates were steep, but it was the only way to cover our expenses."*

*(Semi Structured interview with owners, 2022.12.17)*

The loans acquired from informal moneylenders served multiple purposes. Waste collectors used the funds to cover operational expenses, manage household costs, and even repay pre-existing loans. This strategy allowed them to navigate the financial challenges posed by the pandemic and sustain their waste collection activities. By tapping into these loans, they could bridge the gap between reduced income and mounting expenses, ensuring the continuity of their operations and livelihoods.

In addition to loans, some owners of informal waste collection centers leveraged their personal savings to manage expenses during the crisis. The unexpected nature of the pandemic disrupted prior financial plans, compelling collectors to tap into their savings to meet various financial commitments. A collector shared their experience,

*"I had saved up with the intention of improving my house, adding a kitchen and bathroom. However, the pandemic changed everything. I had to dip into my savings to cover expenses, just like many others."*

*(Semi Structured interview with owners, 2022.12.17)*

This adaptive approach enabled some waste collectors to navigate the financial turmoil without relying on additional loans. However, it also highlighted the challenges faced by those who did not have substantial savings to fall back on.

#### **(iv) Diversification of income sources**

The COVID-19 pandemic prompted owners of informal waste collection centers to adopt innovative approaches, among which diversification of income sources emerged as a pivotal

coping strategy. In the face of economic disruptions, these collectors displayed remarkable resilience by exploring new avenues to sustain their livelihoods and contribute to their communities.

Beyond their traditional roles, some collectors ventured into providing day loans within their communities. This practice not only brought in supplementary income but also fostered a sense of solidarity during these trying times.

To bolster their income, many waste collectors acquired licenses to transport and sell essential items, such as essential foods, allowed them to tap into burgeoning demands while generating income. As one collector noted,

*"Selling essential items was a way to adapt to the new situation. People needed these goods, and I could meet that demand. Also you get a sense of satisfaction that you helped people "*

*(Semi Structured interview with owners, 2022.12.17)*

Additionally, leveraging their vehicle permits, some collectors capitalized on emerging opportunities. The scarcity of LP gas due to lockdown restrictions prompted them to provide alternative cooking solutions, such as coconut shells and derived coal. This adaptability not only met the demand for cooking materials but also emphasized their role as solution providers within their communities.

The diversification of income sources showcases the ingenuity and adaptability of owners of informal waste collection centers in the face of the COVID-19 pandemic. By embracing novel income streams and creative practices, they shielded themselves from economic collapse.

#### **(v) Exploitation of informal waste workers**

In response to the economic strain inflicted by the pandemic, owners of informal waste collection centers employed a controversial coping mechanism: the reduction of expenses related to informal waste workers. Amid the necessity to cut costs, these collectors prioritized minimizing payments provided to their workforce. This strategy not only aimed to alleviate financial pressures but also exposed an unfortunate side to the coping strategies adopted.

One of the immediate effects of this approach was the reduction of salaries for informal waste workers, often slashing their wages in half. This drastic measure aimed to significantly decrease the collector's financial burden associated with labour costs. This move, however, stirred a sense of discord among the waste collection community. As one waste collector put it,

*"Reducing the salaries of our workers was a difficult decision. We were stuck between the need to save money and the responsibility towards those who have been supporting us all along."*

*(Semi Structured interview with owners 2022.12.14)*

Moreover, some collectors seized the opportunity presented by the pandemic to increase efficiency by extending the working hours of informal waste workers. This was achieved by directing workers who were residing at the collection establishments to engage in more labor-intensive tasks, such as segregating and processing the collected waste.

An informal waste collector stated that this practice exerted them,

*"As the pandemic hit, our collectors started looking for ways to keep the business afloat. We were all in this together, trying to survive. So, they asked us to work longer hours, to really make the most out of the waste we collected. It wasn't easy – we were already dealing with the fear of the virus, and then the workload increased."*

*(Semi Structured interview with owners, 2022.12.14)*

While collectors provided basic necessities such as meals, water, and occasional recreational substances to workers staying at their establishments, the intensified workload was seen by some workers as exploitation.

In conclusion, the exploitation of informal waste collectors, whether consciously or inadvertently, underscores the complexity of the coping strategies undertaken by collectors in response to the COVID-19 pandemic's economic challenges. While this strategy may have temporarily alleviated financial burdens, it also raises ethical concerns about fair labour practices and worker well-being.

#### **(VI) Reducing the quality of life**

In response to the economic strain caused by increased expenses and reduced income, owners of informal waste collection centers resorted to employing a coping strategy that involved diminishing their quality of life. This approach focused on curtailing household expenses, particularly in terms of food consumption and cooking practices. Informal waste collectors acknowledged that their previous cooking habits were no longer sustainable. Instead of preparing the usual three to four curries per meal, they opted for one or two curries, a change aimed at conserving food items and maximizing their utility.

Reflecting on this adaptation, an informal waste collector shared,

*"In better times, providing for my family wasn't an issue. But when the pandemic hit, it affected not just us as workers, but also our families. The responsibilities of managing food, electricity bills, phone bills, and reloads fell on me. So, after discussions with my spouse, we agreed to cook simpler meals to save money."*

*(Semi Structured interview with owners, 2022.12.14)*

This involved preparing dishes like lentils often accompanied by a side of soya meat, eggs or dried fish, which proved to be more cost-effective than elaborate multi-course meals.

The change in cooking methods was necessitated by the rising cost of cooking essentials, particularly LPG gas. Due to increased demand and limited mobility, the price of gas soared, and obtaining gas cylinders became a challenge. An informal waste collector pointed out,

*"LPG gas prices shot up during that period because everyone was at home and unable to venture out. Shops holding gas stocks would pretend they were out, selling cylinders at inflated prices in the black market."*

*(Semi Structured interview with owners, 2022.12.08)*

In response, many households, including those of informal waste collectors, transitioned to using alternative cooking fuels such as wood and coconut shells, which were more accessible and cost-effective. As one waste collector clarified,

*"LPG gas went quite up at that time, because everyone was at home and no one could go out to buy LPG gas. Therefore, in our home, we started to cook with wood and coconut husks. Because they were plentiful at local shops, instead of spending more on LPG gas, we resorted to these alternatives."*

*(Semi Structured interview with owners, 2022.12.08)*

These adjustments allowed owners of informal waste collection centers to significantly cut down on household expenses. However, it was not just the quantity of food that changed, but also the nutritional composition. Previously, a balanced meal consisted of proteins, carbohydrates, fibers, vitamins, and other essential nutrients. Yet, due to the financial constraints imposed by the pandemic, meals became simpler, often focusing primarily on protein and carbohydrate-based curries.

In conclusion, the strategy of reducing the quality of life, as adopted by informal waste collectors, highlighted the extent to which economic hardships prompted individuals to make fundamental changes in their daily lives. Balancing financial realities with maintaining a decent standard of living led to alterations in meal preparation, cooking methods, and even nutritional intake.

### 3.5.2 COPING AND MITIGATION STRATEGIES EMPLOYED BY INFORMAL WASTE COLLECTORS

This section delves into the dynamic approaches that waste collectors employed to navigate the adverse impacts of the pandemic on their livelihoods and well-being. Through an in-depth exploration of their coping mechanisms, the authors aim to provide insights into the ingenuity and strength that underpin the informal waste collection sector in BUC and DMMC during times of crisis.

#### (i) Obtaining loans

In their pursuit of survival amidst the COVID-19 pandemic, informal waste collectors resorted to a significant coping strategy: obtaining loans. This strategy was born out of the need to manage the day-to-day expenses that sustained their livelihoods, as well as to settle existing debts. Central to this approach was the inclination of owners of informal waste collection centers to seek financial assistance from various quarters, primarily including informal waste collection establishment owners and informal money lenders.

The symbiotic relationship between owners of informal waste collection centers and the owners of collection establishments provided a route for obtaining loans without incurring the burden of high-interest rates. As one waste collector expressed,

*"It was easier for us because we didn't have to pay an interest for the money that he took, and also because we knew him, unlike informal lenders, we could get multiple loans from him."*

*(Semi Structured interview with informal waste workers, 2022.11.11)*

This mechanism often involved a tacit agreement where the worker would work for free at the establishment for a few days in exchange for the borrowed funds. This strategy, though a means of avoiding the steep interest rates of other lenders, also led to the accumulation of substantial debts owed to the establishment owners.

However, as the pandemic continued and the collection of waste faced challenges, the sustainability of these loans was put to the test. The reduction in the volume of waste collected, compounded by the overarching impact of the pandemic on the informal sector, strained the

ability of informal waste collectors to honour their repayment commitments. As an informant attested,

*"I only realized how much of a difficult situation that I've got myself into when the shops opened. As then I was not paid my salary for seven days. And still I had some money left over to be paid."*

*(Semi Structured interview with informal waste workers, 2022.11.11)*

This financial burden further compelled informal waste collectors to negotiate reduced salaries or alternative payment arrangements to meet their loan obligations.

In addition to loans from establishment owners, another avenue for securing funds was through informal money lenders. These lenders imposed substantial interest rates, often ranging from 20% to 25% P.A., exacerbating the financial pressure on waste collectors. The precarious financial situation also led to instances where collectors were unable to meet repayment deadlines, resulting in the seizure of collateral items such as TVs, bicycles, and radios.

While loans served as a short-term solution for managing immediate financial needs, the unforeseen consequences of reduced waste collection and economic instability during the pandemic disrupted the repayment capacities of informal waste collectors. This predicament highlighted the vulnerability of these workers to external financial pressures and the fragility of their income sources.

#### **(ii) Obtaining support from charitable individuals, organizations and local council**

In the wake of the COVID-19 pandemic, informal waste collectors adopted a multifaceted approach to cope with challenges, including seeking support from charitable individuals, organizations, and local councils. This collaborative response provided a lifeline for those grappling with economic vulnerabilities during the pandemic.

During the pandemic, many Sri Lankans united to support families affected by the virus, particularly those in economically vulnerable positions. Informal waste collectors capitalized on this collective effort by obtaining assistance from various sources. For instance, they received dry rations from charitable organizations and individuals. This assistance, although not sufficient for long-term sustenance, helped alleviate the financial strain. Altering their eating habits, such as consuming rice porridge for breakfast, showcased their ability to maximize the use of provided resources.

One informal waste collector explained,

*"Of course, I obtained different goods and dry rations provided by charitable individuals and organizations in order to reduce the expenses I had to bear. Especially these individuals gave us rice, dal, salmon, tinned salmon, dry fish, onion, garlic, and coconut powder."*

*(Semi Structured interview with informal waste collectors, 2022.11.11)*

This assistance, although not comprehensive, alleviated some of the immediate financial burdens.

Their adaptability in maximizing the received support became evident as informal waste collectors altered their eating habits. The following was noted by a worker, underlining the lengths they went to optimize the aid they received.

*"The rice porridge was a very filling food. Sometimes you could go on in the morning without having a request,"*

*(Semi Structured interview with informal waste collectors, 2022.11.21)*

Additionally, local councils stepped in to offer assistance, recognizing the unique challenges faced by informal waste collectors. They provided dry rations and financial support to mitigate the economic impact of the pandemic. An elected council member stated,

*"Using the available money, DMMC decided that we should support the vulnerable communities and poverty-ridden communities. Informal collectors were also selected as poverty-ridden families."*

*(Semi Structured interview with elected member, 2022.12.212)*

This action underscored the recognition of informal waste collectors' challenges and the commitment to providing assistance.

However, these coping strategies extended beyond immediate relief. They highlighted the complex interplay between various sectors of society. The act of seeking assistance not only eased financial burdens but also fostered a sense of community belonging. As informal waste collectors put it, this support went beyond just material aid; it reinforced the notion that they were not facing the challenges alone.

### **(iii) Engaging in different income earning activities in the lockdowns**

Engaging in diversified income-earning activities emerged as a prominent coping strategy among informal waste collectors during the challenging times of the pandemic. This strategic

approach allowed them to explore new avenues of income generation beyond their usual waste collection endeavors.

One notable example involved some informal waste collectors joining lorries that transported essential food items to local residents. These waste collectors contributed to the distribution process and were compensated with 2000 rupees per day for their services. In addition to monetary compensation, they were also provided with leftover food items. This illustrates how informal waste collectors adapted to the changing circumstances by assisting in essential services while earning a daily wage. One worker remarked,

*"I was part of the team that helped distribute food. We earned 2000 rupees each day and got some food too. It also allowed me to get out of the house. I was feeling sick as I could not go out and be free. This job helped me to get out and also I could buy food for cheap as I went to markets"*

*(Semi Structured interview with informal waste collector, 2022.12.12)*

Another innovative tactic involved collecting and selling marketable foods and vegetables such as jackfruits and breadfruit. These waste collectors recognized the demand for such produce and capitalized on the opportunity. By supplying these items to transportation vehicles or directly to their neighborhoods, they created a supplementary source of income. This approach not only showcased their resourcefulness but also addressed the needs of the community for fresh and essential food items. As one waste collector described,

*"I collected mainly jackfruits and sold them to the traveling vehicles. I could easily sell the fruits and make an income. Sometimes, I bartered the fruits for vegetables and rice."*

*(Semi Structured interview with informal waste collector, 2022.12.15)*

One waste collector's experience highlights the direct link between their efforts and the ongoing demand for food products. The worker's involvement in the distribution of food underscores the interconnectedness of various informal sectors in a time of crisis, where collective efforts supported both the workers and the recipients of their services. Their willingness to participate in essential services like transporting food items underscores their dedication to the community's well-being.

Engaging in different income-earning activities enabled informal waste collectors to adapt to the changing economic landscape while contributing to the local economy. By seizing opportunities



within their immediate environment, they not only managed to sustain themselves but also played a role in maintaining essential services and community well-being.

#### **(iv) Cultivating vegetables at home**

Cultivating vegetables at home emerged as a strategic response among informal waste collectors to counter the financial challenges brought about by the pandemic. With the closure of shops and a reduction in waste collection, their income streams were significantly affected. Additionally, the combination of reduced income and escalated prices of essential items made it increasingly difficult for these workers to make ends meet.

In light of these challenges, informal waste collectors resorted to cultivating vegetables at their own residences. By growing vegetables such as brinjals, pumpkins, okra, and tomatoes in pots and bags, they created a sustainable source of fresh produce. This practice not only provided them with a consistent supply of nutritious food but also alleviated the financial strain caused by the rising costs of essential groceries. As one worker expressed,

*"I grew vegetables in pots and bags such as pumpkins, brinjals, okra, tomatoes, etc. It helped me a lot when the second lockdown came. It reduced the amount I had to spend on food items. On the worst days, we could survive on them. I still grow vegetables and guava at home."*

*(Semi Structured interview with informal waste collector, 2022.12.15)*

The decision to cultivate vegetables at homesteads exemplifies their proactive approach to addressing both financial constraints and food security concerns. Notably, this practice holds the potential for long-term benefits beyond the immediate crisis. By honouring their gardening skills and learning to sustain themselves through homegrown produce, these workers are equipping themselves with valuable knowledge and resources for the future.

The cultivation of vegetables at home not only provided a practical solution to their financial challenges but also empowered them to take charge of their sustenance. The practice of cultivating vegetables at home serves as a testament to the resourcefulness of informal waste collectors. By embracing home gardening, they not only addressed immediate financial constraints but also established a means of self-sufficiency and resilience. This strategy underscores their determination to counter economic uncertainty and create sustainable solutions within their own living spaces.

### 3.6 DISCUSSION

The COVID-19 pandemic unleashed a wave of unprecedented challenges across the globe, affecting various sectors of society. Among the hardest hit were those engaged in informal economies, where vulnerability is often magnified. One such sector deeply impacted by the pandemic was the informal waste management sector in the BUC (Boralesgamuwa Urban Council) and DMMC (Dehiwala-Mount Lavinia Municipal Council) regions of Sri Lanka. This chapter delved into the key impacts of the COVID-19 virus on this sector and explored the coping strategies employed by owners of informal waste collection centers and workers in response to these challenges.

The informal waste management sector in the DMMC (Dehiwala-Mount Lavinia Municipal Council) and BUC (Boralesgamuwa Urban Council) regions has been profoundly impacted by the onslaught of the COVID-19 virus. The findings from this study underscore the severity of these impacts on both owners of informal waste collection centers and workers, highlighting a range of challenges that have reverberated throughout the sector. One of the most pressing consequences has been the significant reduction in income, affecting the financial stability of both collectors and workers alike. This reduction has far-reaching implications, as many of these individuals are the primary breadwinners for their families, making it challenging to meet essential needs such as food, shelter, and healthcare.

The impact of COVID-19 extends beyond financial hardships, manifesting in the overall quality of life for those engaged in the informal waste management sector. The reduction in income has forced waste collectors and workers to make significant changes to their everyday lives, including altering their dietary habits and compromising on essentials. This has given rise to a marked decrease in the quality of life for these individuals and their families, underscoring the multifaceted nature of the pandemic's impact on their well-being.

Furthermore, the families of informal waste collectors have been profoundly affected by the pandemic's fallout. The reduced income and altered living conditions have trickled down to impact the lives of their dependents, leaving families struggling to cope with the sudden changes brought about by the pandemic. The lack of a safety net or formal support systems has exposed the vulnerability of these families, pushing them to the brink of financial instability.

The findings also illuminate the unsettling increase in indebtedness within the informal waste management sector. The reduction of income, coupled with rising costs of living, has pushed many waste collectors and workers towards borrowing money from informal moneylenders. This strategy, while providing a temporary reprieve, comes at the cost of high interest rates and

further financial strain. This situation accentuates the need for accessible and affordable financial support mechanisms that can buffer the sector during times of crisis.

A notable observation from the chapter is the vulnerability of informal waste workers compared to owners of informal waste collection centers. The lack of savings, support systems, and the necessary skills to pivot to alternative income sources, and has left informal waste collectors in a precarious position. This susceptibility has led to the exploitation of workers by collectors, ranging from underpayment and inhumane working conditions to extreme working hours. Moreover, the exploitation has extended to lending money to workers at exorbitant interest rates, further exacerbating the economic strain on these already marginalized individuals.

In conclusion, the findings highlight the dire need for comprehensive disaster preparedness within the informal waste management sector of the DMMC and BUC regions. The impacts of the COVID-19 virus have laid bare the sector's vulnerabilities, emphasizing the urgent requirement for safety nets, support systems, and accessible financial mechanisms. Addressing these challenges is crucial not only for the well-being of the individuals engaged in the sector but also for the overall resilience of the waste management ecosystem in the face of future crises.

## 4. CONCLUSION

In conclusion, the informal waste management sector within the DMMC and BUC areas of Sri Lanka has emerged as a crucial yet often marginalized component of waste management. This working paper delved into the intricate dynamics of this sector, shedding light on its multifaceted nature, challenges, and the impact of the COVID-19 pandemic.

The study reveals that informal waste collectors have evolved beyond their role as mere waste collectors. They have become community assets, engaging in a wide array of activities that cater to diverse neighborhood needs. Their resourcefulness and adaptability have enabled them to promote sustainability while improving their own financial circumstances. This multifaceted approach has positioned them as essential contributors not only to waste management but also to the economic fabric of their communities.

Within this sector, a complex web of employment arrangements exists, with distinct modes of employment carrying their own implications. This intricate tapestry intertwines livelihoods with familial dynamics, economic constraints, and unique forms of compensation. Understanding these connections is pivotal in formulating effective interventions that enhance the sector's sustainability and the well-being of its workers.

However, negative perceptions still plague the discourse around informal waste management in Sri Lanka, hindered by misconceptions labeling workers as thieves or drug addicts. Such misconceptions impede policy interventions and collaboration, obstructing efforts to address the challenges faced by this sector effectively.

The challenges faced by owners of informal waste collection centers also come to the forefront. The volatility of income, harassment by authorities, lack of support from governments, and operational intricacies all underscore the vulnerability of these center owners. Understanding these challenges is imperative for crafting comprehensive solutions that address the sector's complex realities.

In response, the paper underscores the dire need for comprehensive policy interventions and disaster preparedness within this sector. The multifaceted impacts and coping strategies illuminated in this study underscore the urgency of developing safety nets, support systems, and accessible financial mechanisms that can bolster the resilience of the informal waste management ecosystem.

To navigate these complexities and challenges effectively, it is imperative to not only recognize the contributions of informal waste collectors but also to understand their lives and realities

deeply. A holistic approach, encompassing societal context, operational intricacies, and economic dynamics, is vital for fostering support, recognition, and strategies that uplift this vital yet often overlooked sector. As this paper elucidates, addressing the informal waste management sector's challenges and fostering its sustainability requires a comprehensive and collaborative approach that acknowledges its inherent complexity and significance.

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