

# Exploring Municipal Waste Management Practices in Sri Lanka: Post-Pandemic Adaptations and Insights



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## Working Paper Series of the SPIRIT Project on Transformations of waste management in South Asia during and after COVID-19

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*The Working Papers are openly accessible through the repository of the University of Lausanne (<https://serval.unil.ch>) and the project website (<https://lifeofwaste.wordpress.com/>) which also contains blogs, research stories, and videos on sustainable waste management, as well as working papers of the research project “Challenges of municipal solid waste management: Learning from post-crisis governance initiatives in South Asia” that preceded the SPIRIT project. The Working Paper Series is edited by René Véron and Swetha Rao Dhananka.*



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# 1. Introduction

The SPIRIT Project, funded by the Swiss National Science Foundation, aims to transform waste management practices and policies in South Asia during and after the COVID-19 pandemic, with a focus on gender equality and sustainability. As part of its ongoing efforts, the SPIRIT project undertook a series of field visits to local councils across the country. These visits aimed to gain a deeper understanding of the waste management practices employed during and after the COVID-19 pandemic, focusing on areas outside the Dehiwala-Mt. Lavinia Municipal Council and Boralesgamuwa Urban Council.

The field visits targeted major councils with distinct waste management challenges and unique contexts. By engaging with administrative officials and waste management officers, the SPIRIT team gathered valuable insights into how municipal waste systems adapted to pandemic-related disruptions. The discussions also provided an opportunity to explore innovative practices, assess ongoing challenges, and share research outputs from the R4D Project.

The following table outlines the schedule of field visits carried out under the SPIRIT Project:

|     | Date                            | Local Council                  |
|-----|---------------------------------|--------------------------------|
| 1.  | 7 <sup>th</sup> October 2024    | Puttalam Urban Council         |
| 2.  | 10 <sup>th</sup> October 2024   | Matara Municipal Council       |
| 3.  | 22 <sup>nd</sup> October 2024   | Trincomalee Urban Council      |
| 4.  | 30 <sup>th</sup> October 2024   | Monaragala Pradeshiya Sabha    |
| 5.  | 31 <sup>st</sup> October 2024   | Katharagama Pradeshiya Sabha   |
| 6.  | 11 <sup>th</sup> November 2024  | Ampara Urban Council           |
| 7.  | 25 <sup>th</sup> November 2024  | Dambulla Municipal Council     |
| 8.  | 26 <sup>th</sup> November 2024  | Anuradhapura Municipal Council |
| 9.  | 11 <sup>th</sup> December 2024, | Akurana Pradeshiya Sabha       |
| 10. | 12 <sup>th</sup> December 2024  | Nuwara Eliya Municipal Council |
| 11. | 13 <sup>th</sup> December 2024  | Badulla Municipal Council      |
| 12. | 13 <sup>th</sup> December 2024  | Mahiyanganaya Pradeshiya Sabha |



## 2. SPIRIT Project Engages with the Puttalam Urban Council

The SPIRIT Project team recently held a productive meeting with the Secretary and officials of the Puttalam Urban Council to discuss ongoing municipal solid waste management practices and explore opportunities for improvement. The meeting, which took place on the 7<sup>th</sup> of October 2024, was attended by L.B.G. Prithika, Secretary of the Puttalam Urban Council, along with the Additional Secretary, Waste Management Officer, Waste Management Supervisor, and Community Health Officer.

The discussions focused on the Council's current strategies, workforce dynamics, and key challenges faced in managing municipal solid waste, especially in the post-pandemic context. The SPIRIT Project team was represented by Professor Nishara Fernando, researcher Mr Malith De Silva, and junior researcher Ms Yeshani Fernando. Their engagement with the Council officials highlighted the need for more inclusive waste management practices and effective policy adaptations to ensure sustainability and community well-being.



Professor Nishara Fernando in discussion with the Secretary of the Puttalam Urban Council.

During the meeting, the SPIRIT team and the Council officials shared their experiences and insights, covering a range of issues including the impact of COVID-19 on waste collection,

the role of women in the waste management workforce, and segregation and recycling efforts at the household level.

Following the fruitful discussion, the SPIRIT Project team visited the Council's open dumping site and waste management facility in Manal Kundru. The visit provided the team with an on-ground understanding of the current waste management practices, challenges in waste disposal, and the environmental and social impacts of open dumping.



**The SPIRIT Project team visiting the waste management facility at Manal Kundru**

Through such partnerships and engagements, the SPIRIT Project aims to contribute to the development of more equitable and sustainable waste management practices, enhancing resilience and promoting gender equality in waste management systems across South Asia. The team looks forward to building on this initial engagement and working closely with the Puttalam Urban Council to implement actionable strategies that can serve as models for other local authorities in the region.

### 3. Meeting with the Former Mayor of the Matara Municipal Council

As part of the data collection activities under the SPIRIT Project, Professor Nishara Fernando recently met with the former Mayor of the Matara Municipal Council to discuss key aspects of municipal solid waste management in the region. The meeting, held on 10th October 2024, explored various challenges and policy shifts in waste management, particularly in the post-COVID context.

During the meeting, Professor Fernando and the former Mayor addressed how the Matara Municipal Council has adapted to changing waste management practices following the COVID-19 pandemic. They reviewed shifts in waste collection methods, the need for updated policies to improve segregation and disposal processes, and the environmental risks posed by open dumping. Workforce challenges, including the need for more gender-inclusive practices, were also highlighted, with a focus on increasing female participation in the sector and enhancing overall operational efficiency.



Professor Nishara Fernando sharing research outputs with the former Mayor of the Matara Municipal Council



Both parties acknowledged the importance of sustainable solutions like composting to mitigate environmental impacts and improve waste processing facilities. Professor Fernando commended the efforts of the Matara Municipal Council in addressing these complex issues and expressed optimism about continuing to support their initiatives. The meeting reinforced the importance of collaboration between researchers, local authorities, and communities in building resilient and sustainable waste management systems.

As the SPIRIT Project progresses, it aims to further investigate the post-pandemic impacts on waste management, fostering more inclusive and equitable solutions across South Asia, with Matara serving as a key case study.

#### 4. Meeting with the Secretary of the Trincomalee Urban Council

On the 22<sup>nd</sup> of October, 2024, Professor Nishara Fernando and Mr Malith De Silva, held a meeting with the Secretary of the Trincomalee Urban Council at the council premises. The focus of the meeting was on the municipal solid waste management practices within the Trincomalee Urban Council area. The Superintendent of Waste Management also participated in this crucial discussion. This meeting was organised as a part of a data collection initiative for the ongoing SPIRIT project, which aims to analyse waste management issues in various urban areas in Sri Lanka and Nepal. The conversation covered a range of topics related to solid waste collection, disposal, and treatment, as well as the management of the labour force involved in these processes.

Key points of the discussion included the challenges faced before and after the COVID-19 pandemic, with an emphasis on new challenges that have emerged in waste management post-pandemic.



Professor Nishara Fernando sharing r4d outputs with the  
Secretary of the Trincomalee Urban Council

The team also discussed informal waste management practices in Trincomalee. The SPIRIT team delved into the collaborative opportunities between formal and informal waste management sectors, drawing comparisons from the Western Province to demonstrate the successful integration of the two sectors to improve the efficiency of waste management.

The meeting concluded with an optimistic outlook on improving the current waste management systems in the Trincomalee Urban Council, leveraging shared knowledge and continued collaboration between stakeholders. Also at the meeting, Professor Fernando shared the books titled "Municipal Waste Management in Sri Lanka" and "Waste Management in Ovita", co-authored by himself and Mr Malith De Silva and generated under the r4d project, with the Secretary for their reference.

## 5. The Meeting with the Monaragala Pradeshiya Sabha

On 30<sup>th</sup> October 2024, the SPIRIT Project team held a constructive meeting with representatives of the Monaragala Pradeshiya Sabha to discuss the region's municipal solid waste management practices and identify opportunities for improvement. This engagement was attended by Professor Nishara Fernando, researcher Mr Malith De Silva, and other key stakeholders from the Pradeshiya Sabha. The meeting facilitated a mutual exchange with project partners, including the Secretary, Waste Management Officer, and Chief Clerk of the Pradeshiya Sabha.



**Professor Nishara Fernando discussing with Secretary of the Monaragala Pradeshiya Saba**

The discussions focused on waste collection, disposal, and management practices before, during, and after the COVID-19 pandemic, emphasizing the challenges and the innovative solutions implemented by the Pradeshiya Sabha. As part of a dissemination activity, three significant publications were shared with the officials: *"Municipal Solid Waste Management in Sri Lanka. A Study of Municipal Solid Waste Management in Dehiwala-Mt. Lavinia Municipal*

*Council & Boralesgamuwa Urban Council of Sri Lanka*”, its Sinhala translation, and “*Waste Management in Ovita. An Underserved Relocated Settlement in Dehiwala - Mt. Lavinia Municipal Council*”. These books are outputs of the R4D Project titled, Challenges of Municipal Solid Waste Management - Learning from Post-Crisis Governance Initiatives in South Asia.



**Professor Nishara Fernando sharing r4d outputs with the Secretary of the Monaragala Pradeshiya Sabha**

The meeting was a productive exchange of knowledge and insights, reinforcing the collaborative effort to enhance waste management strategies in the region. The SPIRIT team looks forward to continuing its work with the Monaragala Pradeshiya Sabha, focusing on the implementation of practical solutions and sustainable waste management practices.



## 6. Exploring Waste Management in the Katharagama Pradeshiya Sabha

On 31<sup>st</sup> October 2024, the SPIRIT Project team visited the Katharagama Pradeshiya Sabha to learn about their waste management initiatives and exchange ideas on improving sustainable practices. The session took place at the Pradeshiya Sabha's Resource Recovery Centre and Composting Site, where Professor Nishara Fernando and researcher Mr. Malith De Silva, engaged in meaningful discussions with the Waste Management Officer of the local council.



**Professor Nishara Fernando in discussion with the Waste Management Officer of the Katharagama Pradeshiya Sabha**

The focus of the visit was to understand how the council manages its waste streams, particularly in the wake of the challenges presented by the COVID-19 pandemic. The Waste Management Officer guided the team through the facility, showcasing the ongoing operations, such as compost production and material recovery efforts. The discussions centred around identifying areas where waste management practices could be optimised. Discussion topics

included waste segregation at the household level, operational gaps, and exploring ways to engage the local community more effectively.



Professor Nishara Fernando sharing r4d outputs with Waste Management Officer of the Kathragama Pradeshiya Saba

The team also shared insights and findings from previous studies conducted in other regions. As part of knowledge sharing, publications from the r4d project were introduced to the Waste Management Officer. The materials were well-received, sparking conversations on adapting some of these ideas to suit the unique context in Kataragama.

The visit not only provided a platform for exchanging ideas but also set the stage for potential collaborations for building more robust waste management systems in the region. The SPIRIT Project team expressed their commitment to support the council's efforts through ongoing research.

## 7. A Visit to Ampara Municipal Council

On 11<sup>th</sup> November 2024, Professor Nishara Fernando from the SPIRIT Project team engaged in a productive discussion with the Secretary of the Ampara Municipal Council. The meeting, held at the Council's administrative offices, focused on understanding the current municipal waste management practices and identifying actionable steps to enhance sustainability and efficiency.

During the session, the Secretary provided an overview of the council's waste management system, emphasising the ongoing efforts and challenges faced by the council in maintaining effective operations. Professor Fernando shared insights from the SPIRIT Project's research and highlighted examples of successful waste management strategies implemented in other regions.



Professor Nishara Fernando sharing r4d outputs with the Secretary of the Ampara Municipal Council

A significant part of the dialogue revolved around identifying areas for improvement, such as better waste segregation at the source, improving resource recovery initiatives, and promoting community involvement in waste reduction practices. To complement the discussions, Professor Fernando presented several research publications developed under the r4d project. These included detailed studies on municipal solid waste management practices and case studies from other councils. The meeting concluded with a shared commitment to fostering collaboration and supporting the council's efforts to develop sustainable waste management solutions.



## 8. SPIRIT Project Engages with Dambulla Municipal Council

On 25<sup>th</sup> November 2024, the SPIRIT Project team met with the Commissioner of the Dambulla Municipal Council to gain insights into the council's waste management operations. The meeting was attended by the Chief Public Health Inspector and the Chief Clerk of the council, creating a collaborative platform to address the challenges and opportunities in waste management within the Dambulla area.

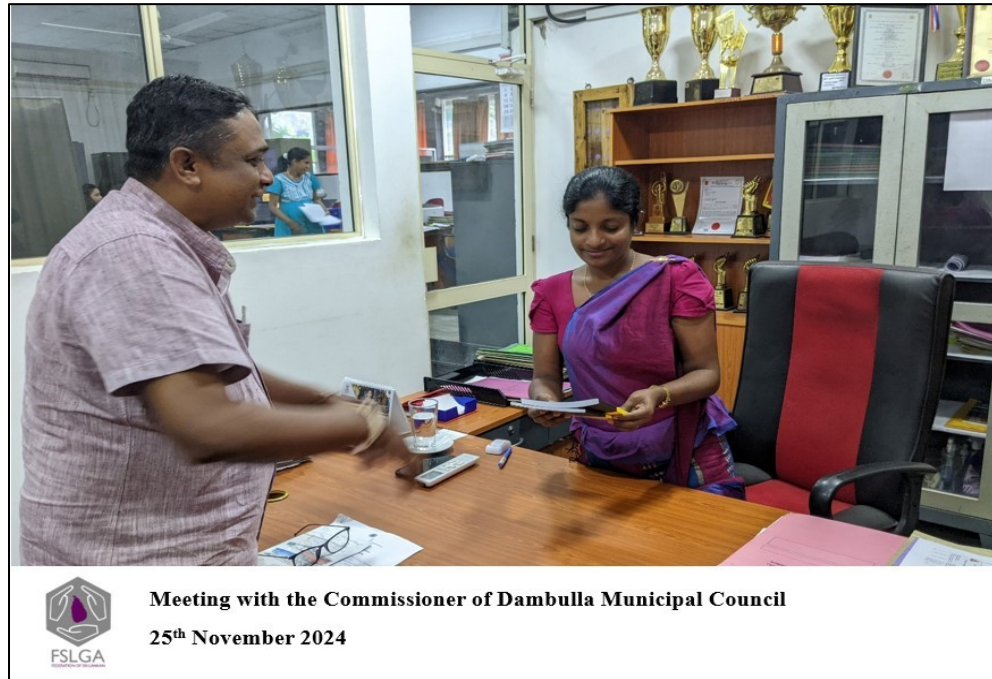


**Professor Nishara Fernando sharing r4d outputs with the  
Commissioner of the Dambulla Municipal Council**

The discussion explored waste management practices across the council, with a specific focus on the changes necessitated by the COVID-19 pandemic. Officials shared their experiences in adapting to pandemic-related challenges and maintaining effective waste disposal and resource recovery systems. A significant part of the dialogue concentrated on two key areas within the council's jurisdiction: the Dambulla Special Economic Centre, a major hub for agricultural trade, and the Dambulla Raja Maha Viharaya, a historic temple



attracting many visitors. These locations presented unique waste management challenges due to their high activity levels and diverse streams of waste generation.



**Professor Nishara Fernando sharing r4d outputs with the  
Commissioner of the Dambulla Municipal Council**

Following the discussion, the SPIRIT Project team shared outputs from the R4D Project with the council officials. These included: *“Municipal Solid Waste Management in Sri Lanka, A Study of Municipal Solid Waste Management in Dehiwala-Mt. Lavinia Municipal Council & Boralesgamuwa Urban Council of Sri Lanka”*, its Sinhala Translation, and *“Waste Management in Ovita: An Underserved Relocated Settlement in Dehiwala-Mt. Lavinia Municipal Council”*. These publications provided valuable insights and case studies, fostering a productive exchange of ideas on improving waste management in Dambulla.

As part of the visit, the SPIRIT team also visited the council’s Waste Recovery Centre and dumping site to observe the on-ground operations and challenges. The site visits allowed for a deeper understanding of the council’s waste management framework and the areas needing attention.

## 9. Discussions with Anuradhapura Municipal Council

On 26<sup>th</sup> November 2024, the SPIRIT Project team met with key officials of the Anuradhapura Municipal Council to explore strategies employed in municipal waste management. The meeting was held at the council premises and was led by the Medical Officer of Health, with the participation of the Chief Public Health Inspector, Area Public Health Inspector, and the Waste Management Officer.



**Professor Nishara Fernando sharing r4d outputs with the Medical Health Officer of the Council**

The discussions primarily centred around waste management activities in Anuradhapura, with a special focus on addressing the challenges posed by the city's religious sites. As a historic and sacred city, Anuradhapura experiences a significant influx of pilgrims and tourists, creating unique waste management demands. The participants shared their experiences in managing waste generated by these activities and outlined the council's ongoing efforts to ensure cleanliness and environmental sustainability in and around the sacred areas as well as the residential areas.

The SPIRIT Project team shared key outputs from the R4D Project to support the council's work. These resources provided valuable insights into sustainable practices and solutions for complex waste management scenarios, sparking constructive dialogue on how such practices could be adapted to the Anuradhapura context. The engagement with Anuradhapura Municipal Council highlighted the importance of collaborative efforts in addressing waste management challenges, particularly in culturally and historically significant locations.

## 10. Waste Management Practices in Akurana Pradeshiya Sabha

On 11<sup>th</sup> December 2024, the SPIRIT Project team visited the Akurana Pradeshiya Sabha to engage in a meaningful discussion on municipal waste management practices. The meeting was attended by the Chief Administrative Officer, Work's Officer, and the Environment Officer from the council. The Principal Investigator Professor Nishara Fernando and Researcher Mr Malith De Silva joined the discussions representing the SPIRIT Project.

The discussions focused on the council's waste management practices related to collection, disposal, and recycling activities, with particular attention paid to the periods before, during, and after the COVID-19 pandemic. The team sought to understand how these practices evolved and adapted to the unique challenges presented by the pandemic.

Council officers shared their experiences, highlighting key aspects of their work. They discussed waste segregation and the use of incineration for non-recyclable materials, emphasizing their efforts to improve waste processing efficiency. The officers also addressed the impacts of waste management practices on the ethnically diverse communities of the area, illustrating the need for inclusive approaches that cater to varying needs.



Professor Dr. Fernando at the incineration facility in Akurana



Challenges faced during the pandemic were a significant part of the conversation. The officers outlined operational difficulties, such as disruptions in collection schedules and increased waste volumes, and explained how these challenges prompted changes in their strategies.

The team also visited the council's waste incineration facility to observe its operations. This provided an opportunity to better understand the processes of managing non-recyclable waste and to assess the facility's role in the council's overall waste management system.

Professor Nishara Fernando and Mr Malith De Silva contributed to the discussions by sharing insights and findings from the SPIRIT and r4d projects. Their input provided comparative perspectives and practical recommendations for addressing the council's challenges while enhancing its waste management practices.



**Sharing r4d outputs with the officials of the local council**

The SPIRIT Project team shared key outputs from the r4d Project to support the council's work. These publications included: "Municipal Solid Waste Management in Sri Lanka, A Study of Municipal Solid Waste Management in Dehiwala-Mt. Lavinia Municipal Council & Boralesgamuwa Urban Council of Sri Lanka", its Sinhala Translation, and "Waste Management in Ovita: An Underserved Relocated Settlement in Dehiwala-Mt. Lavinia Municipal Council".



## 11. Meeting between the SPIRIT Project Team and the Nuwara Eliya Municipal Council

On 12<sup>th</sup> December 2024, the Principal Investigator Professor Nishara Fernando and researcher Mr. Malith De Silva from the SPIRIT project met with the Chief Public Health Officer of the Nuwara Eliya Municipal Council to discuss their municipal solid waste management practices. The meeting took place at the Municipal Council office and addressed key aspects of waste management in the city.

During the discussions, the focus was on both formal and informal waste management activities, including door-to-door waste collection, intermediate waste handling, and final disposal. Special attention was given to the council's efforts in facing challenges encountered during and after the COVID-19 pandemic. Discussions spanned several topics including waste segregation initiatives, the production and collection of infectious waste, and the safety of waste collectors during this period.

As Nuwara Eliya is a popular tourist destination, the council faces a significant increase in waste production due to the influx of local and foreign tourists, especially around April. The Chief Public Health Officer highlighted the strategies employed by the council to manage this seasonal surge in waste effectively.



**Meeting with Officials of the Nuwara Eliya Municipal Council  
12<sup>th</sup> December 2024**

Sharing key publications of the r4d project with officials of the  
Nuwara Eliya Municipal Council

The SPIRIT project team shared their research experiences and findings with the council officer, drawing from their work on the r4d and SPIRIT projects. They presented key publications, generated by the projects, to support the council's ongoing efforts: *"Municipal Solid Waste Management in Sri Lanka: A Study of Municipal Solid Waste Management in Dehiwala-Mt. Lavinia Municipal Council & Boralesgamuwa Urban Council of Sri Lanka"* (and its Sinhala translation), and *"Waste Management in Ovita: An Underserved Relocated Settlement in Dehiwala-Mt. Lavinia Municipal Council"*.

## 12. SPIRIT Team Collaborates with Badulla Municipal Council on Solid Waste Management

On December 13, 2024, the SPIRIT project team met with key waste management officials from the Badulla Municipal Council to discuss pressing issues and strategies in municipal solid waste management. The meeting, held at the council premises, brought together prominent officials, including the Commissioner, Chief Public Health Officer, and Engineer of the council, alongside representatives from the SPIRIT project. The agenda of the meeting revolved around waste collection, disposal practices, and overall management within the council area, with a particular focus on the challenges experienced during and after the COVID-19 pandemic. These discussions aimed to identify effective strategies to strengthen waste management systems in the face of ongoing and future crises.



**Professor Nishara Fernando sharing the r4d project outputs with officials**

Professor Nishara Fernando, the principal investigator of the SPIRIT project, and Mr. Malith De Silva, participated in the discussions. They presented key publications, generated by the r4d project, to support the council's ongoing efforts: "Municipal Solid Waste Management in Sri Lanka: A Study of Municipal Solid Waste Management in Dehiwala-Mt. Lavinia Municipal Council & Boralesgamuwa Urban Council of Sri Lanka" (and its Sinhala translation), and "Waste Management in Ovita: An Underserved Relocated Settlement in Dehiwala-Mt. Lavinia Municipal Council".

### 13. SPIRIT Team Engages with Mahiyanganaya Pradeshiya Saba on Solid Waste Management

On 13<sup>th</sup> December 2024, the SPIRIT project team held a significant meeting with the waste management officials from the Mahiyanganaya Pradeshiya Sabha to discuss the state of municipal solid waste management in the area. The meeting, which took place at the council premises, was attended by the Secretary of the council, the Environment Officer, the Chief Clerk, and the Waste Management Supervisor.

The discussions centred on the council's waste collection and disposal practices and the overall management of municipal solid waste, with a particular emphasis on the challenges and adaptations experienced during and after the COVID-19 pandemic. The meeting aimed to explore ways to enhance the efficiency and resilience of the waste management system in the area.



Professor Fernando sharing the r4d outputs with officials

Professor Nishara Fernando, the principal investigator of the SPIRIT project, and Mr Malith De Silva, a researcher with the initiative, represented the SPIRIT team. The SPIRIT project team shared their research experiences and findings with the council officer, drawing from their work on the r4d and SPIRIT projects. They presented key publications, generated by the projects, to support the council's ongoing efforts: *"Municipal Solid Waste Management in Sri*



*Lanka: A Study of Municipal Solid Waste Management in Dehiwala-Mt. Lavinia Municipal Council & Boralesgamuwa Urban Council of Sri Lanka” (and its Sinhala translation), and “Waste Management in Ovita: An Underserved Relocated Settlement in Dehiwala-Mt. Lavinia Municipal Council”.*



Visit to the dumping site of the local council

In addition to the meeting, the SPIRIT team had the opportunity to visit the council’s dumping site and recycling centre. These visits provided a firsthand look at the waste management operations and challenges faced on the ground.