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What Replaces the State? Waste Governance Beyond Municipal Failure in Makana, South Africa

Marc Kalina

mkalina@uwc.ac.za

University of the Western Cape

Ncebakazi Makwetu

University of Fort Hare

Catherina Schenck

University of the Western Cape

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Abstract

Across South Africa, local municipalities responsible for basic service delivery face growing financial, infrastructural, and institutional strain. In many towns and rural municipalities, waste collection has become intermittent, uneven, and uncertain. Yet waste does not disappear when municipal systems weaken. This article examines how waste management is organised under conditions of sustained municipal service failure in Makana Local Municipality. Drawing on 55 qualitative interviews across the waste system, it moves beyond accounts of service delivery breakdown to examine what replaces the state. Findings show that declining municipal waste services do not produce a governance vacuum, but a fragmented assemblage of municipal actors, private providers, informal workers, and community initiatives that sustain waste management in practice. However, these arrangements remain unstable, shifting labour, cost, and risk onto households and under-resourced communities, with important consequences for inequality, responsibility, and local service provision.

1. Introduction

In fact, sometimes when the rubbish is collected we are all shocked and surprised that today they are actually collecting…

In Makana Local Municipality, in South Africa's Eastern Cape Province, waste collection has become an event rather than a routine. As the quote above makes clear, what should be an ordinary municipal service is instead experienced as intermittent and uncertain. Refuse accumulates at street corners and along open verges, sometimes for days, sometimes for weeks, before being torn open by animals or scattered by wind. Residents burn waste to clear space, carry it to nearby fields or riverbanks, or deposit it at informal dumping sites that expand and contract with each cycle of accumulation and removal. Businesses pay privately for disposal where they can. Community groups organise clean-ups. Informal workers recover value where possible. When collection does occur, it is partial and uneven, one street cleared while another is left untouched, before the process begins again. What appears as the breakdown of municipal waste services is, in practice, the emergence of a dispersed and uneven set of arrangements through which waste continues to be managed.

In South Africa, responsibility for waste management lies primarily with local government (DFFE, 2020). Yet municipalities operate under growing financial, infrastructural, and administrative strain, often while managing competing demands for water, sanitation, electricity, roads, and housing (Kalina et al., 2024; Kalina & Schenck, 2024; Moloto & Lethoko, 2018). Across many towns and rural municipalities, waste services have become intermittent and uneven, reflecting broader patterns of institutional deterioration, ageing infrastructure, constrained resources, and uneven capacity (Kalina & Schenck, 2024; Moloto et al., 2020). Under these conditions, the gap between constitutional mandate and lived reality continues to widen. Yet this gap is not left unfilled. Waste continues to be managed through a shifting set of arrangements involving households, informal workers, private actors, community initiatives, and intermediary programmes that partially compensate for unreliable municipal provision.

Recent scholarship has documented the deterioration of municipal services and its uneven impacts on residents, particularly in relation to persistent spatial and socio-economic inequalities. In South Africa's small towns, where apartheid-era divisions remain deeply embedded, failures in service provision often intensify existing inequalities, shaping who is able to cope with disruption and who is left exposed to its consequences (Moloto & Lethoko, 2020). However, much of this work has treated municipal failure as an outcome to be explained rather than a condition that reorganises governance itself. Previous work in Makana has examined how residents experience and respond to disruptions in waste services (Kalina et al., 2024); this article moves beyond household coping to examine how waste management is reconstituted in practice under these conditions. When local government can no longer reliably perform its functions, how are essential services sustained? Who assumes responsibility for their provision, and with what consequences for access, equity, and governance?

Drawing on 55 qualitative interviews conducted across Makana's waste system, including municipal officials and workers, residents, private service providers, informal waste workers, and civic actors, this article examines how waste management is organised under conditions of sustained municipal service failure. We trace the everyday arrangements through which waste continues to be collected, moved, and managed, and examine how responsibilities are assumed, negotiated, and displaced across a fragmented landscape of actors. Findings show that the retreat of municipal waste services has not produced a governance vacuum, but a dispersed and unstable assemblage of municipal programmes, private providers, informal workers, and community initiatives that collectively sustain waste management in practice. However, these arrangements do not consolidate into a stable or equitable system. Instead, they persist through repetition, improvisation, and continual reassembly, while redistributing the labour, cost, and risks of service provision downward onto households, informal workers, and under-resourced communities. At a time when municipalities across South Africa are under increasing strain, the question is no longer simply how to restore failing systems, but how to understand and engage with the fragmented arrangements already sustaining service delivery in practice.

2. Rethinking Waste Governance Beyond Municipal Failure

Much of the literature on municipal service delivery in the Global South, and South Africa in particular, has framed failure in terms of breakdown, absence, or decline. Within this framing, the state is understood as either functioning or failing, present or absent. Where services deteriorate or become inconsistent, analysis has tended to focus on the widening gap between constitutional mandate and lived reality, and on the uneven impacts of this gap across different populations and spaces (Kalina & Schenck, 2024; Kalina et al., 2024; Sethunya & Mlambo, 2022). This work has been important, particularly in post-apartheid South Africa where deeply embedded spatial inequalities shape both access to services and exposure to their absence (Kalina, 2020; Kalina, 2021). Yet framing failure primarily in terms of absence risks obscuring what emerges in its place. Waste does not stop accumulating, and it does not stop moving. Even where municipal services become intermittent or unreliable, alternative arrangements emerge through which waste continues to be managed in practice.

Rather than treating failure as an endpoint, this article approaches it as a condition that reorganises governance itself. It shifts attention away from a binary understanding of state presence or absence and towards governance as something enacted across a dispersed set of actors, practices, and sites. Under conditions of uneven state presence, governance does not disappear; it is reconfigured. Municipal institutions remain formally responsible for service delivery, but provision becomes partial, intermittent, and uneven. At the same time, households, informal workers, private providers, civic actors, and intermediary programmes assume growing roles in sustaining the everyday functioning of waste systems. Governance, in this sense, is not simply implemented from above through formal institutions. It is continuously produced through situated practices that emerge in response to breakdown, constraint, and necessity (Richmond & Müller, 2025).

2.1. Fragmentation, Assemblage and the Provision of Services

Across a range of urban contexts, scholarship on infrastructure and governance has increasingly moved away from viewing systems as coherent and bounded entities, instead conceptualising them as assemblages: socio-material formations produced through the contingent alignment of multiple actors, practices, and infrastructures (Eadson & Van Veelen, 2021; Richmond & Müller, 2025). What matters within this framing is not simply that many actors are involved, but that systems are actively made through their interactions. As McFarlane (2011a; 2011b) argues, infrastructure is continually produced through everyday practices and institutional arrangements rather than operating as a fixed technical system. Similarly, Simone's (2004; 2018) work on African cities illustrates how services are sustained through improvisation, coordination, and social relations that emerge alongside, and often within the gaps of, formal systems. Fragmentation, in this sense, does not imply the disappearance of governance. Rather, it produces a different form of governance, one that is dispersed, relational, and uneven.

Waste systems, particularly in cities of the Global South, have long operated through such hybrid arrangements. Municipal services coexist with informal labour, private actors, and household practices that collectively sustain material circulation (Gidwani, 2015; Lindell, 2019; Velis, 2017; Wittmer, 2023). In South Africa, reclaimers have played a longstanding role in recovering and redirecting materials, often in advance of, or alongside, formal recycling systems (Makina & Lawhon, 2022; Samson et al., 2022; Schenck & Blaauw, 2011). Recent efforts to integrate reclaimers through policy frameworks such as the Waste Picker Integration Guidelines (DFFE & DSI, 2020) do not enter empty systems, but rather seek to reorganise arrangements that already exist. As Samson et al. (2024) note in relation to separation initiatives, municipal systems are often introduced as though informal infrastructures of recovery are absent, despite reclaimers already performing sophisticated forms of post-disposal recovery.

Under conditions of municipal strain, these overlapping arrangements become increasingly visible. Waste continues to be managed through a range of practices that extend beyond formal municipal provision: households burn or relocate waste, businesses organise private removal, informal workers recover materials, and community initiatives organise clean-ups (Kalina et al., 2024; Niyobuhungiro et al.,

2025). These practices do not cohere into a singular alternative system, nor are they formally coordinated. Rather, they form a fragmented and shifting assemblage through which waste continues to move. Importantly, these arrangements are contingent and uneven. Different configurations of actors and practices emerge across time and space, producing different outcomes depending on available resources, infrastructures, and forms of support. Understanding waste governance in these terms shifts the analytical focus. Rather than asking whether systems are functioning or failing, it becomes necessary to examine how waste management is assembled in practice, how responsibilities are assumed or displaced across different actors, and how these arrangements produce uneven outcomes.

2.2. Inequality, Labour, and the Redistribution of Burden

Understanding waste governance as a fragmented assemblage of actors and practices also brings its distributive consequences into view. While waste continues to be managed under conditions of uneven municipal provision, the labour, cost, and risks of doing so are redistributed across the system. This redistribution is not neutral. Existing inequalities shape who is able to compensate for service disruption and who is left to absorb its consequences. For households, this may involve burning waste, transporting it to informal dumping sites, or paying privately for removal where possible (Kalina et al., 2024). For informal workers, it often means performing essential labour under precarious conditions and without formal recognition or support (Gutberlet & Uddin, 2017; Schenck et al., 2019; Samson, 2020). Community organisations and civic actors similarly take on responsibilities through clean-ups and localised waste initiatives that partially compensate for municipal gaps (Kalina & Schenck, in press-a; Kalina & Schenck, in press-b). While such practices are often framed as resilience, participation, or active citizenship (Anantharaman, 2014; Limon et al., 2020), these framings can obscure the extent to which responsibility has been displaced onto actors operating with limited resources and institutional support.

The cumulative effect is a system in which the costs of service provision become unevenly distributed. These costs are not only financial, but temporal, physical, and social, shaping how different groups experience degraded environments and navigate everyday life. In contexts such as Makana, the reconfiguration of governance therefore does not simply diversify who provides services. It reshapes who carries the burden of doing so. This perspective directs attention not only to how waste continues to be managed, but to whose labour sustains these arrangements, under what conditions, and with what implications for inequality.

3. Methodology

This study is situated in Makana Local Municipality, a predominantly rural and small-town municipality in South Africa’s Eastern Cape Province that has experienced sustained disruptions to municipal waste collection, reflecting broader patterns of institutional strain across South Africa’s local government landscape. The article builds on earlier work conducted in Makhanda (formerly Grahamstown), the municipality’s urban centre, which examined how residents experienced and responded to disruptions in waste services (Kalina et al., 2024). Whereas that study focused primarily on household experiences and coping strategies, the present analysis examines how waste management is organised across the wider

municipality under conditions of sustained service disruption, extending attention to the broader set of actors, practices, and arrangements through which waste continues to be managed in practice.

The analysis draws on 55 qualitative, semi-structured interviews conducted between late 2023 and early 2025 with actors across Makana's waste system, including municipal officials and waste workers, private service providers, informal waste workers, community organisations, and residents from urban, peri-urban, and rural areas. Participants were selected through purposive and snowball sampling, with initial interviews designed to capture key roles within the system and subsequent interviews tracing connections across actors and sites. Interviews were conducted by Author B, who lives and works within the municipality, facilitating access to participants and enabling relationships developed through previous research in Makhanda to support recruitment.

Interviews explored participants' roles within local waste systems, experiences of service disruption, and the strategies through which waste is managed, moved, or redirected under conditions of intermittent or absent municipal provision. Interviews were conducted in English and isiXhosa where appropriate, audio-recorded with participant consent, and transcribed and translated for analysis. Ethical approval was granted by [redacted for review]. All participants provided informed consent prior to participation, and responses were anonymised. Data were analysed thematically, with coding focused on how waste management is organised in practice across the municipality and how responsibilities for service provision are assumed, negotiated, displaced, or bypassed under conditions of uneven municipal provision. Particular attention was paid to the relationships and arrangements through which waste continues to move, including how municipal services are partially performed, substituted, or circumvented, and how these arrangements interact unevenly across different sites and contexts.

4. Findings

4.1. Intermittent State Presence and the Limits of Provision

Across Makana, waste collection has not stopped. Municipal services remain present, but they have become inconsistent, uneven, and difficult to anticipate. Respondents across the system describe a pattern in which collection happens irregularly, if at all. As one civil society respondent working on public accountability issues explained, "a collection that should happen four times a month might only happen twice," while others described a more general pattern in which "sometimes they come, sometimes they don't". Collection is no longer experienced as a routine, scheduled service, but as an intermittent intervention that households and businesses cannot reliably plan around. In some cases, this uncertainty is anticipated. One respondent described choosing not to put out refuse because they expected collection would not occur: "last week Wednesday, I did not take out my refuse… I thought they might not come. In fact, they did not". Service disruption is not experienced as exceptional. It becomes embedded in everyday decision-making.

The distribution of service is similarly uneven. Informal settlements and peripheral areas experience more severe and prolonged disruptions, yet even formally serviced areas cannot rely on consistent collection. As one civil society respondent noted, “they prioritise the more formal areas… and maybe leave out the informal areas”. The distinction between serviced and unserviced areas begins to blur, not because services have formally disappeared, but because delivery becomes so inconsistent.

Municipal actors largely explain this deterioration through constraint. A Municipal Councillor responsible for waste governance described “a severe degradation in the frequency and reliability of collections,” linked to ageing vehicles, maintenance failures, and broader financial pressures. Other respondents pointed to similar challenges, including broken trucks, procurement failures, and a lack of protective equipment. These explanations matter, but they do not alter how the system is experienced on the ground. For many respondents, the effect is indistinguishable from absence. Businesses, in particular, describe a situation in which municipal collection has effectively ceased. As one retail business owner explained, “the municipality doesn’t collect it… we stack the bags and then once a week we load them on our vehicle and take them to the rubbish tip”. An informal waste picker working across multiple neighbourhoods described service delivery more bluntly: it is “going down. Dismally”.

Despite this deterioration, responsibility is rarely in question. Across interviews, accountability remains located with the municipality. As the same Municipal Councillor noted, “the constitutional and legislative mandate… rests unequivocally with the Makana Local Municipality,” even while acknowledging that “our practical capacity to meet that responsibility… has been compromised”. What emerges is therefore not a story of complete withdrawal, but of intermittent and unstable state presence. Municipal services continue, but unevenly and unpredictably, creating the conditions within which alternative arrangements begin to emerge.

4.2. Substitution and Self-Provision Across Makana’s Waste Systems

In practice, waste management in Makana does not stop when municipal services fail. It continues through a dispersed set of actors who assume responsibilities that would ordinarily sit with the municipality. Across interviews, this substitution is not described as occasional or exceptional. It has become routine.

For businesses, substitution is often direct. Waste is removed through private arrangements or internal labour. One retail business owner explained, “the municipality doesn’t collect it… we stack the bags and then once a week we load them on our vehicle and take them to the rubbish tip”. Others described paying private collectors to remove waste at additional cost. As one store manager noted, “we have to hire… and then they collect it… we pay from our own pocket because [of a] failed municipality”. These arrangements are not framed as optional, but as necessary to maintain basic operations. As another respondent put it, “we pay for that service and we don’t get it”.

At the household and community level, waste is similarly managed through improvised responses to unreliable provision. In areas where collection is irregular or absent, residents are often “left to… find their own ways to manage it,” including burning waste, redirecting it to nearby open spaces, or organising informal removal. In some cases, this extends beyond solid waste. One community activist described how sanitation failures lead residents to “throw human waste into the nearby stream”. These practices are not presented as choices. They are responses to situations in which waste cannot simply remain where it is.

Collective responses also emerge. Community groups and volunteers organise clean-ups and maintain public spaces in ways that partially substitute for municipal functions. As one volunteer explained, “it’s not our job, but if we don’t do it, no one will”. This labour is repetitive and often frustrating. Dumping sites are cleared only to return. “We’ve cleaned it so many times, but within a week it’s back,” another respondent explained. Alongside these responses, intermediary arrangements have emerged that partially fill gaps in municipal provision. These include private collectors, informal transport systems, and externally funded initiatives such as the Social Employment Fund (SEF), which has expanded street sweeping and waste removal in some areas. One local business owner reflected that “if it wasn’t for [the project] … we would have a big problem,” noting that SEF workers often remove waste when municipal collection is delayed or absent.

What forms is not a set of isolated coping strategies, but a broader reorganisation of service provision. Waste management continues through a dispersed set of actors who absorb responsibilities that formally remain municipal. This displacement is uneven and often unrecognised, but widely understood by those involved. As one clean-up volunteer reflected, “we’re not doing this because we want to replace the municipality… but it shouldn’t be like this”.

4.3. Improvised Infrastructures and Alternative Pathways of Waste

Even when municipalities do not move waste, waste still moves. What changes are the pathways through which it circulates, and the spaces into which it is redirected. Across Makana, respondents describe a set of improvised and uneven arrangements through which waste is displaced away from homes and businesses, redirected into surrounding environments, or eliminated at source.

Dumping is one of the most visible of these pathways. In areas where collection is absent or unreliable, waste is routinely redirected into nearby open spaces, road verges, and the edges of settlements. As one community activist in Joza explained, “everyone who has no other viable option [ends up dumping]”, particularly in lower-income and historically disadvantaged areas where municipal services are more limited and less reliable. Over time, these spaces become normalised sites of disposal. Another community member described how waste is “just thrown anywhere… and then it piles up,” eventually coalescing into informal dumping grounds. As waste repeatedly accumulates in the same places, former collection points, roadside spaces, and open land become de facto waste infrastructures. Even where these sites are cleared, respondents described how they quickly re-emerge.

In other cases, waste is eliminated at source through burning. Respondents described this as a routine, if undesirable, response to failed collection. One resident reflected that people are told to “keep [their] rubbish inside… maybe burn it… and just when you see the truck coming then take it out”. Yet burning is unevenly available. In denser areas such as Joza township, respondents noted that there are often no safe or open spaces to burn waste. As one resident explained, “we can’t burn it; there are no safe spaces to burn it… once [bins] fill up, people dump around them”. Here, waste is more likely to spill into roadsides, open fields, and shared spaces.

These alternative pathways are not limited to solid waste. Respondents described how failures across waste and sanitation systems intersect, with one volunteer noting that residents may “dump human waste as is” when no viable alternatives exist. In other cases, waste enters local water systems. As one civil society respondent cautioned, “if they are dumping near water… and folks are using that water… that’s going to be problematic”. Waste therefore moves across infrastructures, linking failures in collection to broader environmental and health risks. Waste also circulates through improvised transport systems. Across different sites, respondents described waste being moved through wheelbarrows, donkey carts, informal collectors, or manual transport for disposal or resale elsewhere. These movements are often localised and uncoordinated, but they are central to how waste continues to be managed.

What unites these practices is not their form, but their function. Waste cannot remain where it is generated. It is burned, dumped, carried, redirected, or informally transported through a set of uneven pathways shaped by available space, density, mobility, and access to infrastructure. Municipal systems have not disappeared, but where they fail, these improvised arrangements become critical to how waste continues to move through everyday life.

4.4. Fragility, Repetition, and the Failure to Stabilise

What emerges from these dynamics is not a system that settles into a new equilibrium, but one that remains persistently unstable. Waste continues to be managed across Makana, yet the arrangements through which this occurs do not consolidate into a coherent or durable system of provision. Instead, they require continual activation. Services are not restored so much as repeatedly reassembled through shifting combinations of municipal interventions, private action, informal labour, and household practices. As one civil society respondent reflected, “change happens temporarily. They would clear out a dump site, and then it becomes what it was before”. Waste management persists, but through repetition rather than stabilisation.

This instability is particularly visible in the cyclical nature of waste accumulation and removal. Across the municipality, respondents described a recurring pattern in which waste accumulates, is partially cleared, and then returns. A community volunteer working in Joza explained, “we’ve cleaned it so many times, but within a week it’s back. Sometimes it’s worse than before”. Efforts to clean or rehabilitate spaces are repeatedly undone, not because they are ineffective in themselves, but because the

conditions that produce accumulation remain unchanged. As another respondent put it, “you cannot clean an area now, leave it unmaintained… and expect it to be as clean as before”.

At the same time, the functioning of these arrangements is highly contingent. Whether waste is removed or left to accumulate depends on unevenly distributed actors, resources, and interventions. In some areas, programmes such as the Social Employment Fund (SEF) temporarily sustain a degree of continuity. As one respondent noted, “if it wasn’t for the [SEF] project… we would have a big problem… municipality on its own is failing”. Elsewhere, outcomes depend on whether households can pay for private removal, access informal transport, or find ways to manage waste directly. Even community-led interventions remain conditional. As one volunteer explained, “we pile it in one spot and hope the municipality will collect it. Sometimes they do, sometimes they don’t”.

What emerges is therefore not an alternative system that replaces municipal provision, but a fragmented arrangement that persists through continual improvisation and repetition. Waste is moved, redirected, or temporarily cleared, but rarely resolved. Responsibilities remain formally municipal, yet the practical work of sustaining the system is repeatedly absorbed by households, volunteers, businesses, and informal actors operating under conditions of uncertainty. As one volunteer reflected, “we’re not doing this because we want to replace the municipality… but it shouldn’t be like this”.

4.5. Uneven Geographies of Burden

The instability described above does not affect all actors equally. While waste continues to be managed across Makana, the responsibility for doing so is unevenly distributed across both groups and spaces. The absence of reliable municipal provision does not produce a shared burden. Instead, it redistributes the labour, cost, and risks of waste management onto those differentially able to absorb them.

For businesses, this burden often takes a direct material form. Across interviews, respondents described organising and paying for waste removal themselves through private arrangements or internal labour. As one business owner explained, “the municipality doesn’t collect it… we stack the bags and then once a week we load them on our vehicle and take them to the rubbish tip”. Others described paying private collectors to remove waste, despite continuing to pay for municipal services. As one respondent put it, “we pay for that service and we don’t get it”. Yet the capacity to compensate for municipal failure is uneven. Access to vehicles, labour, and financial resources allows some actors to partially mitigate disruption in ways that remain unavailable to others.

At the level of households and communities, the burden takes a different form. In areas where services are inconsistent or absent, residents are required to manage waste directly through burning, dumping, informal transport, or repeated clean-up efforts. As one respondent noted, people are “left to… find their own ways to manage it”. These responses are not framed as choices, but as necessary forms of adaptation under conditions of unreliable provision. In more densely populated and historically under-serviced areas, particularly Makhanda’s townships, available options are often further constrained. Waste is more likely to accumulate in shared spaces or be redirected into nearby environments, shifting

both the labour and risks of waste management onto households and communities without the resources required to manage them safely.

Collective responses, including community-led clean-ups, occupy an intermediate position within this landscape. Such efforts play an important role in maintaining local environments, yet they also represent a further redistribution of responsibility. Sustained through unpaid labour, personal resources, and obligation to place, these initiatives partially compensate for municipal gaps without altering the conditions that produce them. As a result, the work remains repetitive, often undertaken under conditions of frustration and fatigue.

These dynamics are further shaped by spatial inequalities across the municipality. While service disruptions are experienced widely, their consequences vary considerably. Formal residential and commercial areas, despite experiencing irregular services, are more likely to access alternatives such as private collection, community coordination, or direct engagement with municipal actors. Informal settlements and peripheral areas, by contrast, experience more sustained disruptions alongside fewer alternatives. As one respondent observed, services tend to “prioritise the more formal areas… and maybe leave out the informal areas”.

The cumulative effect is a system in which the costs of waste management become unevenly distributed across both actors and space. These costs are not only financial, but temporal, physical, and environmental, shaping how people live and work within degraded conditions. In this sense, the reconfiguration of waste governance in Makana does not simply diversify who provides services. It restructures who carries the burden of doing so.

5. Discussion

These findings suggest that what is commonly framed as municipal failure is better understood as a reconfiguration of waste governance. In Makana, the deterioration of municipal service delivery has not resulted in the absence of waste management, but in the emergence of a dispersed and uneven set of arrangements through which waste continues to be managed in practice. This finding aligns with work that conceptualises urban systems as assemblages, constituted through the contingent alignment of multiple actors, practices, and infrastructures rather than through the operation of a singular, coherent system (McFarlane, 2011a; 2011b; Simone, 2004; 2018; Richmond & Müller, 2025). However, the findings extend this framing in an important way. In Makana, governance is not only assembled across multiple actors, but assembled through instability. Waste continues to move, yet the arrangements through which this occurs remain provisional, contingent, and repeatedly reassembled. Rather than consolidating into a durable system of provision, practices such as dumping, burning, private collection, and community clean-ups sustain waste management in the moment while reproducing the conditions that make their continued repetition necessary. Fragmentation, in this sense, is not a temporary disruption on the way to recovery. It is the condition through which the system continues to function.

At the same time, the findings suggest that fragmentation alone is insufficient to produce a durable system of governance. Waste continues to be managed across Makana, but the arrangements through which this occurs remain weakly coordinated, unevenly resourced, and dependent on continual improvisation. Stability is not produced automatically through the multiplication of actors. It depends on forms of coordination, recognition, institutional support, and resource alignment that remain largely absent in Makana.

Understanding waste governance in these terms brings its distributive consequences into sharper focus. As the findings demonstrate, the continuation of waste management under conditions of municipal strain depends on the redistribution of labour, cost, and risk across the system. Municipal responsibility remains formally intact, yet in practice service provision is displaced onto households, informal workers, businesses, and community actors. This supports and extends existing work on the uneven redistribution of burden under conditions of constrained service delivery (Kalina, 2020; Kalina & Schenck, in press-c; Samson, 2015; 2020). In Makana, however, this redistribution is closely tied to instability. Because arrangements fail to stabilise, the burden does not diminish over time. It is repeated. Households continually manage waste at the point of generation, often through practices carrying environmental and health risks. Community actors repeatedly organise clean-ups that must be undertaken again and again. Businesses absorb recurring costs of private provision, while informal workers continue to sustain material circulation without formal recognition or support.

These findings also complicate framings of participation, resilience, and decentralised service provision within the waste sector. Community-based waste management, informal labour, and private provision are often framed as adaptive or resilient responses to institutional constraint (Anantharaman, 2014; Limon et al., 2020). While these framings capture important dimensions of how systems function in practice, they risk obscuring the conditions under which participation occurs. In Makana, such practices are less expressions of choice than responses to necessity, emerging in the absence of reliable alternatives and often at considerable cost to those involved.

The key issue, then, is not only the decline of municipal service delivery, but the form of governance that emerges in its wake. Waste management continues, but through a fragmented and unstable assemblage that redistributes responsibility downward and outward across the system. This challenges approaches that seek to restore a singular model of state-led provision without engaging with the arrangements already sustaining waste management in practice. At the same time, Makana suggests that fragmentation alone is unlikely to produce a more equitable system of governance. Without meaningful coordination, institutional support, and redistribution of resources, compensatory arrangements remain fragile and uneven, dependent on the continued labour of those least able to absorb its costs.

6. Conclusions

This article has argued that the decline of municipal waste services in Makana does not result in the absence of governance, but in its reconfiguration. Waste continues to be managed, but through a

fragmented and unstable assemblage of actors and practices that collectively sustain service provision under conditions of uneven municipal capacity. Municipal services remain present, yet increasingly intermittent and unreliable, creating the conditions within which households, informal workers, community initiatives, businesses, and intermediary programmes assume growing roles in managing waste in practice. In this sense, what appears as municipal failure is better understood as a reorganisation of governance itself.

At the same time, the findings suggest that the multiplication of actors alone does not produce a stable or equitable system of provision. Across Makana, waste management persists through continual improvisation, repeated intervention, and the ongoing redistribution of labour, cost, and risk downward across the system. Waste is moved, but unevenly. Spaces are cleaned, but temporarily. Community interventions, informal transport systems, private provision, and the labour of waste workers sustain the everyday functioning of local waste systems, yet they do so under conditions of fragility and limited institutional support.

This presents a difficult, but necessary, tension for both policy and practice. On the one hand, the findings reinforce the continued importance of the state. The constitutional mandate for waste service delivery remains with municipalities, and the uneven and often harmful conditions documented throughout this article underscore the urgency of restoring reliable and equitable public services. Efforts to improve waste management cannot sidestep the state. They must engage with it, and in many cases, push it to act.

At the same time, the realities of waste management on the ground cannot be reduced to institutional absence or collapse. The arrangements that sustain waste management in Makana are not peripheral anomalies, nor are they temporary substitutes awaiting replacement. They are the systems through which waste is currently managed. Ignoring them, or attempting to displace them through narrowly technocratic interventions, risks undermining existing forms of provision and reproducing exclusion, particularly where informal workers and community actors are marginalised or displaced without viable alternatives.

The challenge, then, is not simply how to restore municipal service delivery, but how to support more durable and equitable forms of governance from the fragmented arrangements already operating in practice. This requires forms of coordination, recognition, and institutional support that strengthen, rather than displace, the actors already sustaining the system, while avoiding the continued informal offloading of responsibility onto those least able to absorb it. For informal workers, this means meaningful forms of integration and livelihood support. For community initiatives, it requires resourcing, coordination, and institutional backing rather than indefinite reliance on unpaid and repetitive labour. Ultimately, Makana points to a system that persists through instability rather than moves steadily towards resolution. Waste is managed, but unevenly; responsibility is shared, but unequally. The task ahead is therefore not simply to restore what has been lost, but to build more durable and inclusive

forms of waste governance from the uneven arrangements already sustaining everyday service provision.

Declarations

Consent for publication

All participants provided informed consent for the use of their data in this study and for the publication of findings derived from it. No identifiable personal information is included in this manuscript. Where anonymised quotations are presented, these have been included with the explicit consent of participants.

Competing interests

The authors have no competing interests to declare.

Author Contribution

M.K. conceptualised the study, conducted the analysis, and wrote the main manuscript. N.M. conducted the fieldwork and contributed to data collection. M.K. and C.S. secured funding for the project. C.S. provided supervision and editorial input throughout the research and writing process. All authors reviewed and approved the final manuscript.

Data Availability

All underlying data are available upon reasonable request

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