POLITICAL (IN)VISIBILITY AND GOVERNANCE DISCONNECTS: dealing with waste in Addis Ababa and Faisalabad

Abstract

As many other large cities of the Global South, Addis Ababa and Faisalabad have struggled with improving their solid waste management (SWM) systems. The political economy of this sector alongside local attitudes towards waste work create a complex governance environment where solutions are far from obvious. To trace social, political and institutional change in the SWM systems of these cities, our comparative analysis followed an interdisciplinary approach anchored in three key governance arenas: the institutional and policy frameworks that have been set up to tackle the problem, the role and agency of the various actors involved, and the actual practices of dealing with waste. Despite substantial institutional differences between the cities, our findings show that the level of service delivered to users and the lives and livelihoods of waste workers are analogous. Both come remarkably close to adopting an integrated approach to SWM. However, without a detailed understanding of the place-based socio-economic and politico-cultural features of these SWM systems, imported principles or best practices cannot be properly contextualised. As complex human systems, successfully addressing the governance disconnects in the SWM setups of Addis Ababa and Faisalabad will not hinge on better technical solutions. Rather, it will depend on the responsible authorities' ability to create an environment where existing 'formal' and 'informal' practices and actors can coexist and interface with one another in mutually beneficial ways.

Keywords: Global South; hybridity; informality; place-based governance; solid waste; urban governance.

Introduction

This article provides an analysis of the governance of solid waste management (SWM) in two cities of the Global South: Addis Ababa, in Ethiopia, and Faisalabad, in Pakistan. We focus on governance because this is often the domain in where the success – or indeed the failure – of the effective delivery of essential urban services is determined (Rossetti and da Cruz 2022). Making these infrastructure services available with the suitable levels of safety and quality, requires massive capital investments, advanced technical expertise and administrative capacity. Governance is upstream of all these requirements: without getting it right, the capital cannot be raised, and the skills cannot be developed or effectively utilised.

From the array of services essential to thriving communities, the focus on municipal SWM is justified not only by its strong links to public health and human welfare, and its environmental impact, but also by the unique nature and economics of this service (Beall et al. 2022). Whereas the intrinsic value of public goods like water or energy is easily perceived by residents and decision-makers alike, waste is, by definition, valueless. As Massarutto (2012) puts it, the 'fundamental equation of waste management' is as follows:

$$V_{waste} = max\langle [P_R - (C_{SC} + C_{PR})]; [-(C_{UC} + C_{TD})] \rangle < 0 \quad (1)$$

where the economic value of the discarded material (V_{waste}) is the highest value between:

A. The market price of the material, if it is reusable or recyclable (P_R), minus the cost of collecting and separating the material from other wastes (C_{SC}) and the cost of other preparation for recycling activities (C_{PR});
B. The cost of collecting the material as part of an undifferentiated stream (C_{UC}), plus the cost of treatment (if there is treatment…) and final disposal (C_{TD}).

In general, both (A) and (B) have negative values, otherwise the materials would not be discarded in the first place: they would not be considered waste. However, in cities of the Global South where there is an oversupply

of labour and wages are extremely low, (A) can render a positive value.[1] Hence, when local and regional governments are not able, or willing, to fulfil their responsibilities as providers of this crucial public service, people take matters into their own hands and establish informal – or private and exclusionary – systems of service delivery (Wilson et al. 2019).

We selected Addis Ababa and Faisalabad for our comparative analysis because of the similarities, but also the differences between the two cities. Regarding the former, the cities are of a similar size – an estimated population of 3.7 million in Addis and 3.2 in Faisalabad – and they have similar wealth levels per capita. In both cases, there is strong control being exerted over the cities by central powers – the Ethiopian Federal Government in the case of Addis Ababa (Rode et al. 2020), and the Punjab Provincial Government in the case of Faisalabad (Beall et al. 2022). These centralised powers also share a predilection for political ideals of modernisation but, in the case of the waste sector, have proceeded cautiously when it comes to widespread privatisation, particularly when it involves foreign investors (Alene 2018, Gazdar and Bux Mallah 2022). Finally, the key operational player is publicly owned in both cities. This is, however, where the similarities end. Addis Ababa is a national capital, and while Faisalabad is a provincial economic hub, it is dwarfed politically by the provincial capital Lahore and national capital, Islamabad (while Karachi remains Pakistan's commercial and industrial capital). In terms of SWM, while in Addis Ababa the Cleaning Management Agency is owned/controlled by city government, the Faisalabad Waste Management Company is a not-for-profit owned by the provincial government of Punjab. The key divergence between the two, however, is the ways in which different identity markers of ethnicity, caste and religion seem to map on to economic disadvantage in the allocation of waste work in these cities.

Our aim in this article is to contribute to the literature on urban governance by presenting new empirical data from the Global South – more specifically, on how governance can get in the way of the effective delivery of essential public services. All infrastructure services pose difficult challenges to local administrations around the globe (Bel et al. 2010, Hefetz and Warner 2012). However, despite being regarded by many as "the most important service a city provides" (Hoornweg and Bhada-Tata 2012, p. IX), SWM services have added problems that must be factored into the analysis.

The point of departure for this research is the recognition that current academic insights on SWM and 'best practice' examples coming from cities of the Global North are not working in cities of the South, particularly in fast-growing urban areas in Africa and Southeast Asia. A range of internationally recognised frameworks and principles – such as 'integrated SWM' (see Beall et al. 2022) – exist to guide policy, but their relevance to on-the-ground practices is often limited. And, despite the broad agreement on principles and their underlying goals, views can differ on how best to pursue them., There is general consensus on minimum standards related to technical and environmental dimensions but divergence on the importance of social aspects of SWM (Wilson et al. 2013, Pastor et al. 2024). With these challenges in mind, our research question is as follows: "*What* are the governance arrangements for SWM in cities of the Global South and *why* are these failing to translate widely agreed principles into practice?"

Because they shape perceptions, traditions and behaviours – both of and towards waste workers and users of waste services – we argue that answering this question requires an understanding of the unique nature of SWM services and the political economy of the sector. These features have produced a governance puzzle that, to date, remains unresolved. Our analysis of the two case studies makes inroads into understanding and addressing the governance obstacles impeding the effective delivery of integrated SWM (ISWM). The next section reviews existing knowledge on SWM governance and explains how a place-based approach may help identify governance disconnects, a necessary first step towards solving this puzzle.

[1] It is worth highlighting though that, as wages increase (which, naturally, is or should be a societal objective), it follows from equation (1) above that so does the temptation for illegal disposal (dumping). This is because the cost of selective collection (C_{SC}) and preparation for recycling (C_{PR}) will necessarily also go up, and costs of safe and effective undifferentiated collection (C_{UC}) and proper disposal and treatment (C_{TD}) are generally also high (Massarutto, 2012).

Urban governance and solid waste

In this article, urban governance is understood as the set of conditions that shape how public decisions are made, policies are implemented, and services are delivered in and for cities – emerging from the interplay of politics, rules (formal and informal), available resources, and the relationships established between relevant actors (Rhodes 1997, Pierre 2014, da Cruz et al. 2023). The subsections below will briefly review what is already known in this regard for the specific case of the SWM sector and outline the rationale for the analytical framework adopted in this paper.

The governance of a distinctive service

Most municipal solid waste is generated by households (Kaza et al. 2018, Kumar et al 2022). Depending on the socioeconomic fabric of the city in question, other sources generating significant amounts of municipal waste are small businesses, markets, industry, and other public services (like hospitals). In addition to comprising larger quantities, household waste is also the most difficult to collect, sort, treat and dispose of (World Bank 2021). The sheer number of dwellings, the differences in neighbourhood accessibility across cities' geographies (due to disparate infrastructure and built environment conditions), the diversity of materials and their combined volume and weight, all make collecting, managing and processing urban waste an extremely complex *technical* exercise (Marques and da Cruz 2015). Furthermore, the intersection of cultural practices, values, and waste work, the localised and unequal distribution of the disamenities arising from dealing (and not dealing) with solid waste across urban populations, the lack of residual value in some waste (see Introduction), and the ubiquity of free riding (using the system without contributing to its costs), also make this an extremely complex *social* problem (Gazdar and Mallah 2022).

ISWM emerged as a response to these problems. This normative framework provides a strategic approach to managing waste that aims to handle all aspects of the lifecycle of waste in a coordinated, environmentally sound, and socially inclusive manner (Wilson et al 2013, Beall et al. 2022). In theory, ISWM involves the simultaneous consideration of waste generation, collection, transport, sorting, recycling, treatment, and final disposal including all their technical, economic, environmental, and social dimensions. It also embeds key principles such as the 'waste hierarchy'[2] and 'lifecycle thinking'[3] (Kaza et al. 2018). In practice, cities in the developing world have struggled to implement ISWM policies. The most commonly identified challenges include the complex coordination required across multiple agencies, underfunding (revenue from service users is often insufficient), and the limited uptake of new technical solutions by service users (UN Habitat 2010, Hoornweg and Bhada-Tata 2012).

Despite the integrated view of the system, in an idealised form, SWM services can be categorised into three different 'market segments' (Massarutto, 2006): the primary, secondary, and tertiary markets. The primary market comprises 'retail' services – i.e. user-facing – such as waste collection, street cleaning and transport of small quantities to storage or sorting sites. The secondary market corresponds to 'wholesale' services, which include the transport of large quantities of waste between transfer stations (if they exist) and landfills or sorting and treatment facilities, and waste treatment/final disposal (e.g. landfilling, incineration, or mechanical biological treatment). The tertiary market consists of waste recycling activities (da Cruz et al., 2013).

From high- to low-income countries, SWM "is usually the one service that falls completely within the local government's purview" (Hoornweg and Bhada-Tata 2012, p. IX). But the different technical and economic features of the various market segments can shape the governance models employed. Generally, 'retail' services fall under the exclusive responsibility of city administrations. In contrast, 'wholesale' services require capital investments that often exceed municipal debt capacity. For this reason, it is common to see neighbouring municipalities enter intergovernmental cooperation agreements – either among themselves or with higher tiers of government (Hefetz and Warner 2012, da Cruz et al. 2013). Finally, since recyclables have

[2] This policy principle sets out waste prevention as the priority, followed by reuse, recycling, energy recovery (e.g., through incineration) and, as a measure of last resort, disposal (e.g., landfilling).
[3] Typically, this means considering environmental impacts across the entire life of materials introduced in the market.

market value, recycling activities are typically handled by the private sector.[4] That city governments are responsible for ensuring service provision does not mean they necessarily produce SWM services directly (Rossetti and da Cruz 2022). In fact, influenced by the principles of economy and parsimony promoted by New Public Management (NPM) reforms (Hood 1991), many city administrations began contracting out SWM services – especially during the 1990s and 2000s, when NPM reached its peak (Hefetz and Warner 2012). However, the empirical evidence on actual cost savings from these reforms is mixed at best (Bel et al. 2010). As repeatedly shown by recent research coming from the field of urban studies, infrastructure assets and infrastructure services reveal patterns and insights that transcend the realm of the technical (Cirolia et al. 2021). In the case of solid waste, its composition encapsulates socioeconomic dynamics that range from hyperlocal cultural practices to the effects of globalisation (consider, for instance, the abrupt rise of plastic packaging in the bins, streets, landfills, dumpsites, rivers and beaches of our cities over the last couple of decades). And the systems put in place by local, regional, and national governments for dealing with it reveal their political and administrative priorities (Knowles 2022). These patterns of infrastructure and service delivery also underscore the importance of attending to the specific geographies and institutional landscapes of individual cities, a concern central to place-based approaches to urban governance (Barca et al 2012).

Though there are certainly electoral and legitimacy gains to be had by shielding citizens from the disamenities of solid waste (e.g. bad smell, visual impact, health risks), these are likely dwarfed by the ones accrued through other infrastructure investments, such as building new roads or modern railway systems (da Cruz 2018, Rode et al. 2020). Furthermore, the decades-long neglect of the sector has led to the emergence of incredibly intricate 'informal' or, more commonly, 'hybrid' systems of delivery across the Global South (see, e.g. Beall 1997, Ali 1997). These systems can be more or less safe, more or less fair, and more or less effective in collecting, sorting and storing the recyclable materials and disposing of the unwanted ones. Either way, they provide the foundation upon which thousands of livelihoods are built. Disturbing these established systems by trying to impose new models of governance is socially and politically risky. Academic research and, increasingly, policy actors, recognise the benefits of integrating networks of informal providers into the formal, though not necessarily formalised, systems of SWM. But the suitable governance solutions to achieve this remain elusive (Beall et al. 2022).

To create an economy around waste management and a system where economic returns depend on collecting and sorting as much discarded material as possible is often antithetical to the ultimate objective of reducing waste generation. This problem exists in the Global North, too (Marques and da Cruz 2015). Indeed, no matter how much international organisations promote the 'waste hierarchy', economic incentives are often conducive to more, not less, waste (not to mention the historical failure of decoupling waste generation from economic development). In the Global South, perverse incentives often extend to practices such as desperate waste workers opposing separation at the source (i.e., the sorting of different materials by households themselves) – another internationally recognised best practice – as this reduces their access to recyclable waste and their ability to extract extra income from their work (Gazdar and Mallah 2022).

From internationally agreed principles to place-based governance

There is no single discipline equipped to fully capture the complexities of governing and managing waste in major or rapidly growing cities of the Global South (Beall et al. 2019). Furthermore, existing theories of urban infrastructure governance, while conceptually rich, have been predominantly developed in and for high-income contexts. As such, they offer limited explanatory power for the layered and hybrid social, political and institutional arrangements seen in places like Addis Ababa and Faisalabad.

A key analytical strength of the concept of *governance* is that it requires no a priori assumptions regarding who the key actors are or how power is exercised (da Cruz and Rode 2024). Its open-ended scope invites us to look beyond government, toward the multi-scalar interactions and relational conditions that shape policymaking, implementation, and service delivery in urban settings (Rhodes 1997, Pierre 2014). To further deepen this analytical strength and better connect governance theory to empirical realities on the ground, we draw on the concept of 'place-based governance'. Theoretically, place-based governance draws from institutionalist and

[4] Nevertheless, local governments remain responsible for 'preparation for recycling' activities that consist of specific waste streams across the 'retail' and 'wholesale' segments (Marques and da Cruz 2015).

relational approaches in political science, geography, and planning (Pierce et al. 2010, Beer 2023). This approach foregrounds the importance of territorial specificity, material infrastructures, and localised sociopolitical dynamics. Unlike 'place-neutral' approaches, which assume the fungibility of policies across space, place-based governance emphasises the embeddedness of institutions and the importance of local knowledge, agency, and networks (Barca et al 2012). It is especially relevant for service systems like SWM, which are deeply entangled with urban form, everyday social practices, and informal economies.

In our case-study cities, the interplay between formal and informal service arrangements, the fragmented nature of authority, and the embeddedness of waste work in everyday social and economic life all point to the need for a governance perspective that is rooted in place (Bjerkli 2015, Beall et al. 2022, Gazdar and Mallah 2022). We therefore use place-based governance as a lens to interpret how SWM systems are shaped not just by institutional form or policy design but also by the lived realities of residents and waste workers, infrastructure legacies, and local power configurations. This perspective also helps explain why/how international 'best practices' – no matter how technically sound – may fail if not appropriately tailored to the specific urban, social and cultural geographies in which they are deployed.

To operationalise this approach, the comparative analysis offered below adopts an interdisciplinary, exploratory, and open-ended framework, anchored in three fundamental governance arenas (Hudson and Leftwich 2014, da Cruz et al. 2023): (1) the institutional and policy frameworks that have been set up to deal with the problem of waste in the city, (2) the role and agency of the various actors involved, and (3) the actual practices of delivering solid waste services, in particular, to low-income communities. The decision to structure the analysis around these governance arenas reflects both conceptual reasoning and empirical necessity. Together, they allow for a multi-scalar, relational understanding of governance that moves beyond static institutional models and instead traces how governance is enacted, adapted, and contested across the SWM system – from the neighbourhood to the wider urban region. This framework aligns with recent calls in urban studies and development research for more grounded, practice-oriented approaches to urban governance in the Global South (Cirolia et al. 2021).

Methodological approach

We initiated our investigation with a review of secondary sources to paint a picture of the past and present of the SWM sector in Addis Ababa and Faisalabad, both in terms of operational aspects (e.g. collection, transport, storage, and disposal of waste) and in terms of policy and institutional developments (Beall 2022, Gazdar and Mallah 2022, Desta 2022). Having established this baseline, we then relied on local researchers to collect primary data through dozens of interviews and site visits with public officials, waste workers and residents in different neighbourhoods of both cities.

Given the impacts of the global pandemic, our plans to 'follow the waste' were marred by the health risks posed to researchers and participants, restrictions to travel, and the strict social distancing rules enacted in the case-study cities. Still, a detailed photographic documentation of the various stages of the 'life cycle' of solid waste carried out by local researchers, alongside interviews with the various actors involved at each step (residents, waste workers, civil servants and experts in the sector), allowed us to triangulate the official narrative reported in the secondary sources with original data. It also allowed us to develop an understanding of the 'trail' that solid waste leaves through the cities and of the jurisdictions and relationships between actors – sometimes complementary, other times conflicting – that materialise at the various interfaces (Rode et al. 2020).

The characteristics of the organisational and social structures enabling the movement, temporary storage and final disposal of waste can vary substantially across its many possible paths. Goading non-recyclable solid waste to the most desirable destination(s) – the official landfill and/or, in the case of Addis Ababa, the waste-to-energy incinerator – requires much more than just the proper infrastructure, equipment and administrative capacity. It also requires a detailed understanding of the political, cultural, and socioeconomic conditions that are leading some stray materials to clog drains and rivers, sit in illegal dumps, and contaminate public spaces. Hence, in addition to outlining waste flows, a governance research approach requires not only documenting the various agencies involved and mapping out their respective jurisdictions but also, through detailed

fieldwork, understanding local level organising, the social and economic status of waste workers, and policy responses to them in both case study cities.

In Faisalabad, the second author conducted fieldwork between April and November 2020 in three phases. First, through online interviews with key informants from the Faisalabad Waste Management Company (FWMC), the Faisalabad Development Authority, and local academic researchers. Second, during a field visit in October 2020, which involved in-person interviews and multiple site visits. Third, a local PhD student – hired under the supervision of the second author's institution – conducted additional site visits. In total, 19 interviews and two informal group discussions were carried out as part of this effort.[5] Respondents were recruited via snowball sampling, whereby initial informants recommended additional participants in successive waves. Additionally, an independent research organization, the Collective for Social Science Research (CSSR), was contracted to supplement the fieldwork with further interviews and site visits, focusing primarily on formal and informal waste workers.[6]

In Addis Ababa, the bulk of the fieldwork was conducted by a local research organization, ENDA-Ethiopia, between June and October 2021. ENDA-Ethiopia has extensive experience in sustainability research in Addis Ababa, particularly in SWM. Two sub-cities were selected as research sites: Kirkos, representing an inner-city area, and Gulelle, a more peripheral one. A total of 44 individuals were interviewed, including waste workers, local government officials, and residents.[7] The field team conducted site visits to four woreda offices, three transfer stations, the Reppie dumpsite, street sweepers' work sites, a small SWM enterprise, one community garden, and residential communities in two woredas. Finally, the third author conducted additional key informant interviews via telephone.

With this multi-method, qualitative approach, our aim was piecing together the whole system at various scales – neighbourhood, city-wide, and regional – with the view of identifying the gaps that need to be filled by new research and policy interventions.

Contextual analysis

Addis Ababa

The institutional set-up of the SWM sector in the Ethiopian capital has had two main moments over the last 20 years: the reforms enacted in 2003 and 2011. During the 1990s, informal waste collectors and a handful of micro-enterprises would deliver services to those able and willing to pay for them. Formally, the responsibility for SWM in the city lied with the Addis Ababa Health Bureau (Alemu 2017), but the reach of this agency was limited to households near main roads – and, even for these cases, the service was so unreliable that the disposal of waste in open fields and riverbanks became common practice (Bjerkli 2013). By the beginning of the millennium, the informal waste workers were operating an efficient service, collecting household's waste once or twice a week. However, service coverage was quite uneven, mostly restricted to the most well-off areas.

[5] Participants included senior government officials (eight interviews), formal waste workers (two interviews), informal waste workers (three interviews with multiple individuals and two focus groups), as well as academics and SWM experts (six interviews).

[6] CSSR researchers conducted a total of 20 key informant interviews between May and July 2021. A semi-structured interview guide was used to explore the SWM sector broadly and to support the identification and selection of specific research sites. Four neighbourhoods were selected for site visits based on their high concentration of households from traditional waste worker communities: Barkatpura, Ghousia Town, Dar-ul-Ahsan, and Jhugiyan (Satiana Road).

[7] Interviews were conducted with team leaders from three waste collection associations (nine interviews in total), two scavengers at transfer stations, 18 street sweepers, two scavengers at the Reppie dumpsite, seven residents, three woreda-level environmental protection experts, one environmental engineer who led the Reppie rehabilitation project, one environmental activist, and one urban scholar.

In 2003, the Addis Ababa City Administration established the Sanitation, Beautification, and Parks Development Agency (SBPDA) and assigned it the responsibility for overseeing SWM in the city (Desta 2022). This was done in parallel with a process of decentralisation of competencies to lower tiers of government, namely, to sub-cities and *kebeles*, where each had its own SWM manager.[8] The crucial role of the informal sector was recognised by the administration who sought to formalise them through licencing (Bjerkli 2013, Alene 2018). The SBPDA further enabled them by placing containers throughout the city where workers could discard the non-recyclable waste (and so that it could then be transported to the only existing dumpsite known as Koshe, Repi or Reppie). The ensuing proliferation of collectors resulted in a race to the bottom which undermined the livelihoods of workers and led to the need of further intervention by the city administration.

The solution found by the city administration was replacing the diverse system of semi-formal collectors by government-supported small or micro enterprises (SMEs) operating in exclusive (i.e. monopolised) zones. More than improving the efficiency and coverage of waste services, the ruling party saw this as an opportunity to tackle the huge problem of unemployment within urban youth – a situation which had already led to conflict in 2001 (Alene 2018, Gebremariam 2017) – ahead of the 2005 national election (Bjerkli 2013). However, this strategy was abandoned in 2009, when SMEs were denounced by some as opportunistic 'rent seekers' and the city administration sought to transform them into cooperatives owned by the waste workers themselves. Informal workers were not allowed to use municipal containers (which led to additional illegal dumping) and other types of assistance, such as equipment and customer acquisition, was exclusively channelled to sanctioned operators (Alene 2018).

Another key change introduced as part of this re-organisation was the collection of waste management fees as a percentage of water consumption. This is at odds with the 'polluter pays' principle established in the National Environmental Policy (since tariffs are not linked to quantity of waste generated), but it was seen as a pragmatic solution to avoid creating another incentive for illegal dumping (Desta 2022). Furthermore, households do not pay the waste workers directly; instead, they pay the decentralised city administration structures, who in turn reward the operators. This allows the bureaucratic machine to keep leverage over these actors and effectively control them. Indeed, past research has found that despite the push by global organisations such as the World Bank for the adoption of so-called 'good governance' ideals – like decentralisation, accountability and partnerships with non-state actors – the re-organisations that flowed from these pressures did not truly challenge established ways of exercising power, which have endured through the new structures of the city administration (Bjerkli 2013).

Finally, in 2011, the SBPDA was replaced by the Cleaning Management Agency (CMA), whose main mission is coordinating the decentralised SWM structures, facilitating the transport of bulk waste to Koshe, and dealing with the contractors in charge of final disposal (incineration and landfilling) (Desta 2022). The current policy framework, published in 2019, tries to instil a 'zero waste strategy' and a new set of norms, practices and relations among multiple overlapping local and international actors (AACA 2019). In a nutshell, in Addis Ababa, the inherently political nature of SWM– as a key aspect of state-society relations in service delivery, a source of municipal cost and revenue, or a source of jobs– has played a critical role in its evolution.

Faisalabad

Over the last few decades, Faisalabad's SWM sector experienced a sort of 'late NPM' transformation, moving from a more traditional public sector type of organisation to a more market-like approach (FWMC 2015). The changes can be understood as having had three main phases. The first phase (1987-1999) corresponded to the democratisation process after a decade of military control. Plagued by political instability and characterised by a highly centralised system and the absence of an elected mayor or city government, solid waste services were managed through administrators appointed by the Punjab Provincial Government. Waste workers were employees of the Faisalabad Municipal Corporation, the local government body, with all the rights and benefits of a public sector employee, for example (Beall 2022): job security, lump-sum payment and pension at the time

[8] Historically, Addis Ababa had been divided into four administrative levels: city-wide, sub-cities, *woredas* (districts), and *kebeles* (neighbourhoods). The number of sub-cities, woredas and kebeles have been constantly changing over the years. Recently, the kebeles have been abolished. Currently, the city is comprised of 11 sub-cities overseeing 120 woredas (da Cruz and Rode 2024).

of retirement, and the ability to offer the job to a blood relative. These workers were mostly Punjabi Christians, an historically marginalised minority community (Gazdar and Mallah 2022).

The second phase (2000-2013) started soon after the military takeover of the federal government in 1999. With it came the roll out of elected local government systems throughout the country in 2001 (via central government orders known as Local Government Ordinances – LGOs). The (non-elected) Faisalabad Municipal Corporation was replaced by the City District Government Faisalabad, an elected body formally under the Punjab's Local Government & Community Development Department. During this period SWM responsibilities were decentralised to the elected local governments that administered development funds. In theory, this was done without the interference of the provincial administration; however, provincial politics were still highly influential (according to interviews with senior officers from the Faisalabad Development Authority and the Faisalabad Waste Management Company, 21 October 2020). In 2008, the local government body was re-named once again, this time to Faisalabad Metropolitan Corporation (FMC), and ran by an administrator from 2008 to 2016.[9] The SWM department of the FMC stopped hiring permanent employees and the practice of enrolling 'daily wage sweepers' emerged. The presence of Afghani scavengers expanded and their social status slowly improved, being accepted as necessary/useful human resources in the city (interviews with local key informants, 20 and 21 October 2020).

The third phase (2013-present) brought about profound institutional reforms in the sector. It started with the introduction of a new Local Government Act (LGA) in 2013, scrapping the local government system as per the 2001 LGO. The new system curtailed the powers of local government and ensured more provincial control (Hussain et al. 2020). Although direct democracy still formally applies, the last elections for the FMC were held precisely in 2016. The FMC still has a SWM department, but it only plays a strategic role and handles aspects related to the previously hired permanent employees. Since Tehsil Municipal Administrations (administrative subdivisions of the city) were unable to take on SWM effectively, responsibility for SWM services was centralised by the Punjab Government in a newly created public company, the FWMC (FWMC, 2015). All existing SWM operation assets and employees were transferred from the FMC to the company. The delegation of services is regulated by a Services and Asset Management Agreement between the FWMC and FMC. This 'corporatisation' process was seen by many as a first step towards privatisation, as was the case in Lahore, the capital of the Punjab province (Ashraf et al., 2016). With the stated intent of promoting higher efficiency and limiting pollical influence over the management of the services – two classic arguments of the NPM paradigm in general, and the process of corporatisation in particular (Bilodeau et al., 2007) – the company was structured with an autonomous Board of Directors who runs it. New waste workers – still usually Punjabi Christians, though now mostly only male – are typically hired on a daily wage contractual basis (interview with FWMC key informant, 21 October 2020). Currently, the FWMC operates in 39 waste management zones across 157 Union Councils with around 2,300 permanent sweepers and 2,000 daily wage workers (Gazdar and Mallah, 2022).

Despite the many institutional changes over the last 30 years, Faisalabad still does not have an integrated strategy for SWM. Collection of recyclable material, for example, at the source or at the disposal site, has yet to be explored or addressed by the FWMC. Both senior and junior managers at FWMC are unsure about the extent to which Afghani scavengers have infiltrated into the SWM collection and recycling stream in the city (interviews with FWMC senior and junior officers, 20-22 October 2020). And though the FWMC is meant to have jurisdiction over SWM across the whole city, in reality, private gated compounds and some areas developed by the Faisalabad Development Authority (another Punjab government agency) are not covered by the company and solid waste is dealt with directly by their private residents' associations. The FWMC also fails to collect waste from peripheral areas of the city that are more rural in nature. Currently, Faisalabad residents are not charged any SWM fees. The FWMC is funded by the provincial government of Punjab through taxes from various sources.

[9] Elections for the FMC were eventually held in 2016. Technically, the local electoral process is non-partisan. In reality, key candidates are supported by mainstream political parties. The Pakistan Muslin League (Nawas Shareef Group) won the 2016 election.

Comparative Analysis

Institutions and policy frameworks

As described above, both cities have witnessed radical change in their SWM systems over the last two decades. The institutional reforms were prompted by a very real need that the administrations had of dealing (or being perceived as dealing) with the problem of solid waste piling up in the city. But the ideological orientation and political management of the process in each city were very different. The trends, consequently, are almost diametrically opposed. Whereas Addis Ababa sought to decentralise SWM responsibilities to sub-cities and woredas, Faisalabad centralised them in an agency controlled by the Punjab province (which has a population of over 100 million).

The Ethiopian capital saw in the waste sector an opportunity to also deal with, from the government perspective, the even bigger problem of youth unemployment.[10] But the intervention consisted more of a process of 'formalisation' than privatisation, especially when it comes to 'retail' SWM services. To streamline this process, the city government even deployed the Micro and Small-scale Enterprise Development Bureau as vital channel for organising unemployed people into cooperatives that became vital actors in the collection of waste and preparation for recycling activities. In the 'wholesale' segment, there was an opening up to private sector participation, but control very much remained in public hands (Desta 2022). In Faisalabad, conventional NPM arguments around 'efficiency' and 'political manoeuvring' or 'control of corruption' were employed to justify the (re)centralisation and corporatisation of services, paving the way to the potential privatisation of the whole sector.[11] Despite these arguments, the FWMC is *de facto* under significant influence of Punjab's Local Government & Community Development Department, as the funding is routed through them (interview with FWMC senior manager, 21 October 2020).

By effectively repealing the autonomy and democratic legitimacy of local government, the Punjab province forcibly eliminated a source of ideological and political opposition coming from the city. Even if those local voices and political organising remain active on the ground, they go unheard and unregistered for official purposes (however, FWMC's Board of Governors ensures the representation of some influential stakeholders from the city). In the case of Addis Ababa, given Ethiopia's ethnic federalism and the political geography of the ethnically diverse capital, these multiscalar relationships are much harder to smooth over in such a unilateral way. Political affiliation and negotiation play a vital role in shaping the interplay among tiers of government horizontally (between the city administration and the neighbouring Oromia region) and vertically (with the federal government). The ethnolinguistic/identity-based political contestations both at the federal and regional levels have a direct impact in the ways in which the city government interacts with the Oromia region in its effort to provide SWM services. The closure of a newly built, and much needed, 48 million USD sanitary landfill on the outskirts of Addis Ababa in mid-2016,[12] and the resulting crisis in waste collection and disposal in the city, is directly related to the tensions derived from these political contestations (Fekade 2016, Tsige 2016). After a mere seven months of operation, the perceived unfair treatment of residents and farmers from the area where the new landfill was located led to conflict and protests in the Oromia region. Faced with the pressures of rapid urbanisation within its own boundaries and the impossibility of transferring the disamenities around waste disposal to the neighbouring region, the city administration has to this date failed to find a suitable location for a new waste treatment and disposal facility.

Despite these fundamental differences, there are also some shared threads. In line with international advice (Beall et al. 2022), the two cities endeavoured to integrate the various activities concerning SWM by institutionalising them under a single entity. Recently created, both the CME and FWMC are responsible for

[10] The ruling party lost to opposition parties in the city in the 2005 national election. This highly contested ballot subsequently led to the spread of youth protests and post-election violence in the capital (Gebremariam 2017).

[11] As has happened in Lahore where, after company formation, SWM services were contracted out to international companies (Ashraf et al. 2016).

[12] In the Sendafa area of the Oromia Regional State, locally named Chobe Woregenu, and about 35 km away from the centre of Addis Ababa.

overseeing the whole life cycle of solid waste and have jurisdiction over the entire city. However, despite the strong legal mandate, these agencies have not been given the necessary means to do this effectively.[13]

In terms of policy frameworks, Addis Ababa exhibits a higher degree of sophistication. Whereas Faisalabad lacks a SWM policy or plan,[14] Addis' 2011 ISWM Policy is clear in its vision for the sector and the institutional arrangement it aspires to nurture (AACA 2019). The policy aims to change the residents' attitude towards waste disposal and foregrounds the 'waste hierarchy' as a guiding principle, also making reference to other international principles such as the notions of 'polluter pays', 'zero waste' and 'inclusive SWM'. The stated objective of the framework is making Addis Ababa a role model in the continent with regards to its cleanliness. However, these principles have mostly not been realised on the ground. Historically, the focus of the reform process had been on redressing the failures of the centralised system. But despite the fact that the new policy and strategy attempt to introduce a systemic approach to SWM – by focusing on changes in norms and practices, involving both governmental and non-governmental actors, and advocating for a sustained process of financial and resource mobilisation – it it remains a top-down exercise that failed to build on the lived experience of informal actors who, for a long time, have perceived and handled discarded materials as potentially valuable resources.

Actors and relationships

Both the 2003 and 2011 change of policy and strategies in Addis Ababa brought in new actors and facilitated the emergence of new set of relations in the SWM system. Above all, as a key consequence of the government's decentralisation initiatives which brought new micro-enterprises and cooperatives into the system, the existing (informal) actors were side-lined. More generally, key manifestations were the increased intensity of contestations among new and transformed actors in the sector, the inclusion of international actors, and, most importantly, the role of national politics in the city's entire governance dynamics. An example of the latter was the fact that both waste workers and administrators at all levels were required to register as members of the ruling party in order to gain access to jobs or licences (Bjerkli 2013, Alene 2018). A 2011 survey conducted in 20 woredas across all sub-cities of Addis Ababa revealed interesting patterns in the socio-demographic composition of the cohort of individuals collecting solid waste from households and small businesses, both formal and informal (ENDA 2011). The majority of these workers were women (70%), between the age of 19 and 35 (65%), with an education level below the eighth grade (86%).[15] However, there were no relevant associations between waste work and ethno-linguistic or religious groupings in Addis Ababa (the proportion of the various groups amongst respondents reflect the overall proportions across the city). Carried out a decade after this survey, our fieldwork across four different woredas confirms these trends.

The only exception with regards to the role of ethnicity/group identity in Addis Ababa's waste sector may be found in the recycling stream. Despite the aggressive formalisation tactics employed by the city administration, itinerant buyers of recyclable waste (locally named 'Qorales') continue to operate in Addis Ababa – though their numbers have reduced considerably.[16] Their economic subsistence is made possible because some households prefer to keep recyclables separate from undifferentiated waste so they can sell them to Qorales. Ocasionally, Qorales also buy these materials from the formal waste collectors. They then sell the recyclables to dealers based at the informal waste market Min alleh/allesh tera located in Merkato. The itinerant buyers and the wholesalers are linked through close-knit networks based on ethnic affinities and both tend to identify as Gurage (Bjerkli 2015). Furthermore, on occasion, both administrators (e.g. at woreda level) and informal waste workers come from the same traditional community groups – which can lead to more lenient enforcement practices such as allowing them to use municipal containers (Alene 2018).

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[13] Given the dearth of reliable data in both cities, it is difficult to estimate just how much solid waste 'goes missing' across the various steps of its life cycle. For example, in Faisalabad, FWMC officers claimed in interviews that about 75% of the generated waste reaches the dumping site. At the same time, Punjab's Local Government and Community Development Department reports a 63% figure in their website (LGCD 2024).

[14] Although the recently published Master Plan suggests there may soon be one (FDA 2023).

[15] Over 60% of these individuals were working six days per week, and an average of six hours a day. Only 10% of the respondents indicated that they had proper tools and clothing for their work.

[16] These individuals walk through neighbourhoods saying 'qorqoro alleh/yallew?' (meaning 'do you have scrap metal to sell?' in Amharic). Addis Ababans call them 'Qorales' by shortening the call.

A third and final type of key frontline waste workers in Addis Ababa are the 'Mentekos' (literally meaning 'the hook', a reference to the tool used by these individuals to go through solid waste in search of valuable material). These informal scavengers operate both at the dumpsite and across the city (streets, storage sites, the landfill) and are sometimes the focus of tension with other waste workers, being accused of stealing recyclables and/or spilling bagged waste across the streets:

> *…they simply pick plastic bottles and other valuable items when they get it sorted and stored in one place. Besides, if they find anything valuable which is not identified as waste. They can easily pick and go. If they are caught and asked why their response is they thought it was waste* (low-income resident in district 09 of Kirkos sub-city, 24 June 2021).

Historically, the approach of Qorales and Mentekos to solid waste has been fundamentally different to that of the city administration. Whereas, up until very recently, solid waste was merely a nuisance for the city, for those actors it has always been a resource.

In Faisalabad, the emergence of new actors had little to do with government intervention – although the opposite can be said about the removal of old actors, such as the Faisalabad Municipal Corporation. Technically, municipal sweepers are not responsible for collecting solid waste from domestic or commercial premises along their beat (Gazdar and Mallah 2022). That is done either by householders themselves, by privately hired sweepers and cleaners or, by municipal sweepers paid informally for this work (Beall 2022). Despite the change in FWMC's hiring practices (from secure to precarious jobs), most 'formal' waste workers continue to be Punjabi Christians. These individuals originate from 'low caste' Hindu communities who converted to Christianity during the colonisation period and for decades have been involved in handling municipal waste and bearing the stigma of 'contamination' (Aqeel and Gill 2021). However, two other communities have been claiming space in the city's SWM sector, particularly when it comes to the recycling stream.

One of these is the Changar Muslim community, an indigenous nomadic group recently (and some say tentatively) converted to Islam (Gazdar and Mallah 2022). Given the lack of alternative economic opportunities, individuals from this community have sought to carve a livelihood out of collecting, sorting, and selling recyclable materials. This process is usually mediated by 'kabaris' (mostly also Changar), middle-dealers that sell recyclables onwards to manufacturers and other users (see Figure 1).

Figure 1. Kabari shop in Faisalabad.

The other is the Afghan community which has become an important player in Faisalabad's SWM system (interviews with local key informants, 20-22 October 2020). The Afghani 'parallel SWM economy' has grown to such an extent that some of the members of this community (who often refer to themselves as 'Pashtuns', taking the limelight away from their refugee status) have become successful business owners. They rent space, hire other Afghan workers, and provide them with vehicles and other equipment so they can collect recyclables

throughout the city and bring them back to their yard, which also provides space for workers' accommodation. Socially, there are two 'types' of Afghan waste workers: the scavengers that roam around the city to pick recyclable material or go through unsorted waste at transfer stations and "put their hands in the dirty waste" (interview with Afghan scavenger at the sorting yard, 21 October 2020), and the ones that only handle dry recyclable waste. Due to their highly organised and aggressive market approach, some tensions have arisen between the Afghan scavengers and waste workers from FWMC, especially the Punjabi Christians:

> *…these people* (Afghan scavengers) *come and unload the garbage dumping bin, spear the garbage bags to take away the recyclable material, and the mess is left for us to clean* (FWMC contractual worker, 20 October 2020).

Other FWMC employees, however, see both Changar and Afghan waste workers as people that help at the transfer stations (see Figure 2) and dumping sites by loading/unloading solid waste and in return pick up recyclable materials (interview with Deputy manager FWMC, 20 October 2020).

Figure 2. Scavengers at a transfer station in Faisalabad.

In Pakistan's patriarchal order, working women and their mobility outside the home is a signifier of low social status (Gazdar and Mallah 2022). Furthermore, very few low-income Muslim women choose this sector to earn a livelihood because of the risk of dealing with blood and bodily discharges is potentially polluting/contaminating (Beall 2006). Within FWMC's cohort of low-income Punjabi Christian sweepers, however, a significant number of waste workers are female – though notably not at the supervisor level, and this trend is likely to change once the older, permanent employees of the Faisalabad Municipal Corporation era, a significant share of which were female, retire (new contractual/daily wage recruits are almost all male).

Beyond the messy process of collecting waste from households and consigning it to the various possible paths (streets, informal dealer's yards, dumpsites…) – that is, the 'retail' segment of SWM – a different set of actors come into focus in both cities. Recycling is completely 'on the market', with very limited strategic intervention by the state. 'Wholesale' waste services are dominated by governmental entities, occasionally supported by other national and international actors.

As discussed in the previous section, whereas, in Addis Ababa, control over the sector is exerted at the city level (although with critical interfaces to federal, regional, sub-city and woreda levels), in Faisalabad, SWM powers and responsibilities have been allocated to the level of the province. The Pakistan Muslim League (Nawaz) political party was instrumental in devising the current system with an emphasis on economic liberalism. Curbing nepotism, petty corruption, and the use of waste services for political gain were central arguments of the public narrative endorsing the centralisation and corporatisation of the SWM sector. However, the FWMC has not been able to completely prevent these practices (Gazdar and Mallah 2022). For example, powerful local politicians (e.g. members of the provincial and national assemblies elected from various constituencies of Faisalabad) are still able to assign sweepers to specific areas or receive extra services at their properties:

> *Before the establishment of the FWMC, the politicians would just keep the sweepers at their places and areas, this has decreased substantially with the formation of the company. But the practice is not completely eradicated as sweepers are often called to do works if some VIP is coming or if there is an event happening such as political gathering* (FWMC manager, 20 October 2020).

Another influential actor in Faisalabad's SWM system is the business community. As an industrial city, the markets' associations and businesses' representatives are key allies of the FWMC when it comes to SWM in certain areas of the city. The company's current chairman is himself an industrialist and the board of directors also has representatives from manufacturing industries.

Unlike Faisalabad, the involvement of (formal) private companies is quite widespread in Addis Ababa's 'wholesale' SWM segment. Over three dozen private companies are tasked with transporting bulk waste to the Koshe disposal site. Some of these companies own their own trucks, other use CMA's vehicles. The waste-to-energy scheme was also a private sector-led initiative that included UK and Chinese companies. The project of building a 50-megawatt waste incineration plant on the Koshe site involved Ethiopia Electric Power (a federal government entity) and the city administration. At a cost of 95 million USD, the plant was completed after a two-year delay and managed to only produce half of the originally foreseen energy output. At the same time, following the 2017 solid waste landslide which killed 116 of the local community of scavengers, the rehabilitation of the Koshe dumpsite was carried out successfully through a partnership between the city administration, JICA, and UN Habitat. The two million USD project mitigated the risks of landslide, generation of methane gas, and leachate.

> *The project helped to put terracing surrounding the entire Koshe site to prevent the occurrence of landslide. Then, out of the 36 hectares, a two-hectare area which is more susceptible to landslides was identified to implement a rehabilitation project using the Fukuoka Method. The method helped to reduce the bad smell, to instal ventilation, a drainage system to collect polluted water and a leachate treatment pond* (interview with the project manager, 23 October 2020).

The rehabilitation of the Koshe site created job opportunities for the young people who lived around the area (Figure 3), as well as knowledge and technology transfer for the professionals in the city administration. NGOs such as ENDA, Lem Ethiopia and others have also been engaged in organizing the actors across the city's informal recycling system and raising the awareness of the community through local projects on waste reduction (Desta 2022).

Figure 3. Young people employed as day-labourers at the Koshe dumpsite, Addis Ababa (UN Habitat 2019).

The key actors across the various SWM activities in both cities are summarised in Table 1. Looking through the list, it is noticeable that 'retail' services are mostly delivered through small-scale actors – both formal and informal. The substantial involvement of larger private companies, city administrations, and other national and international players only becomes relevant when large quantities of solid waste have to be dealt with. Despite political discourse and policy intentions, SWM services around the selective collection and sorting of

recyclables are mostly performed by informal workers in both cities. Large-scale recycling activities are completely on the market.

Table 1. Key actors involved in the SWM sectors of Addis Ababa and Faisalabad.

Activity	Addis Ababa	Faisalabad
Waste generation	Households, businesses, industries	Households, businesses, industries
Collection	Informal workers (mostly unorganised), cooperatives, micro and small enterprises	FWMC sweepers (mostly Punjabi Christians), informal workers (Changars and Afghanis), privately hired sweepers, private companies (in gated communities), Faisalabad Development Authority
Sorting	Informal workers (mostly unorganised)	Informal workers (mostly Afghani)
Storing	Woreda administrations	FWMC
Preparation for recycling	Informal iterant buyers (Qorales) and scavengers (Mentekos)	Informal scavengers (mostly Afghani but also Changar)
Bulk storage and supply of recyclables	Informal dealers based in Merkato	Kabaris (backgrounds can vary, but larger businesses tend to be Changar)
Transport	Private companies, CMA	FWMC
Disposal	Addis Ababa City Administration, Oromia Regional State, Federal Government, Ethiopia Electric Power, UK and Chinese companies	FWMC, Punjab Province
Recycling	Private companies	Private companies
Strategy and coordination	Addis Ababa City Administration, CMA, Federal Government	FWMC, business community
Support (capacity building, funding, etc.)	JICA, UN Habitat, other international actors (private companies, INGOs, donors, etc.)	FWMC
Advocacy and lobbying	Civil society organisations (local and international)	Business community, local influential politicians

As we have seen, the relationships between these actors take different forms. They range from the near absence of relations (e.g., between informal workers and government authorities at all levels), through the merely contractual (e.g., between formal collectors and district administrations/SWM agencies), all the way to the political (e.g., between the city authorities and the surrounding administrations, the State of Oromia in the case of Addis, and the Punjab Province in the case of Faisalabad).

Processes and practices

The complex interactions between institutions, policies, actors and the relationships they form crystalise into the everyday practices of dealing with solid waste. Some of these practices are more visible. They leave a paper trail through multiscalar bureaucracies, are discussed in management meetings and voiced in political debates. Others go completely unnoticed in policy circles or, at best, are tacitly accepted. But even if they are politically neglected, these activities remain essential for thousands if not millions of people in Addis Ababa and Faisalabad on a daily basis. The inability, or unwillingness, to see the whole system for what it is leads to critical governance disconnects. Table 2 provides an overview of all these SWM practices and Figure 4 provides a simplified illustration of the various paths that solid waste can take in both cities.

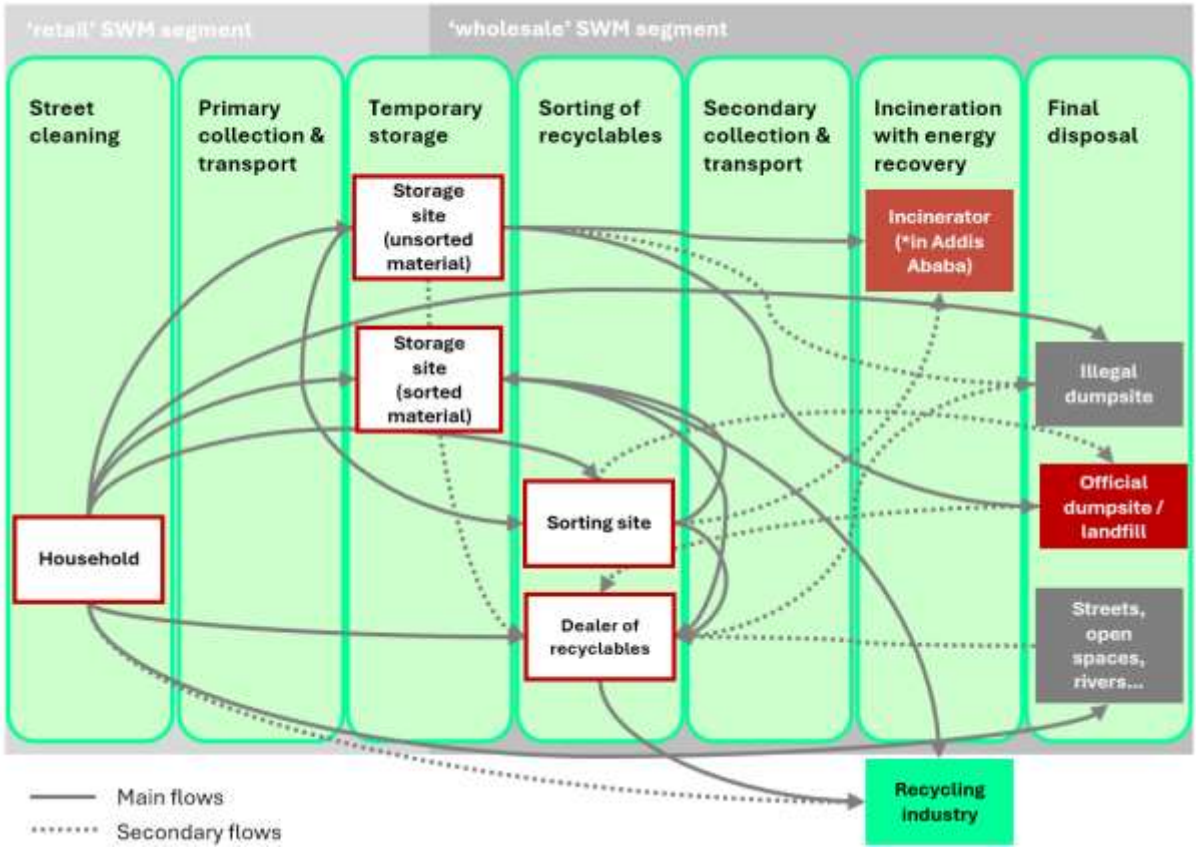

Figure 4. The flow of household solid waste in Faisalabad and Addis Ababa (simplification).

In Addis Ababa, on the back of a well-established developmental tradition (da Cruz and Rode 2024), the concurrent objectives of organising the urban poor, creating job opportunities for unemployed youth, and cleaning up the city were pursued more or less equitably across the city. Through our fieldwork, we learned that solid waste services are provided to households regardless of their socio-economic status, type of dwelling, or any other social markers. The services are financed through a fee collected as part of the water bill – 20% of water bill for households, 40% for businesses (Desta 2020) – but waste workers' cooperatives or micro/small enterprises receive payment from woredas based on the amount of waste they collect.

At this user-facing level, things are a lot more complicated in Faisalabad. Households are not formally charged a fee for FWMC's services but their willingness-to-pay is conveyed through the agreement of an informal fee with municipal or private/informal sweepers that help clean their streets and take waste from their homes. The amount depends on a case-by-case bargain between sweepers and residents. In low-income settlements it might be very low to none, but in middle-income neighbourhoods it may range from 100-200 Rupees per month per household. Regarding municipal sweepers, the operations are overseen by a FWMC manager supported by three deputy managers. Each deputy is responsible for an area of the city, and each area is divided into 'zones' (there is a total of 39 operational zones), further divided into Union Councils (for a total of 157 across the city). There are three or four 'supervisors' in each area, one per each Union Council. The sweepers meet their supervisors at 5.30am and attendance is registered via iris scanner (attendance is again registered at the time of signoff to ensure that the employee is performing the duty himself/herself and no one is working in his/her place). Municipal sweeper jobs were historically quite coveted because, in addition to all the benefits of the (old) permanent contracts, they allowed for extra income through informal work during their rounds and/or in the later hours of the day. However, due to the change in policy – but also the long working hours during festivals, taxing physical labour, long commutes and unhealthy working conditions – the new generation of Punjabi Christians is opting for other occupations (especially the more educated ones that consider being better off in other sectors such as healthcare; interviews with sweepers, 20 October 2020). Afghan waste workers do not offer door-to-door collection services and they generate income only from selling recyclable waste.

In both cities, the integration and coordination between formal and informal SWM practices either occurs organically or does not occur at all, often leading to conflict and solid waste going awry. The policies, strategies and legal frameworks fail to recognise and connect these parallel but often interfacing worlds. This is particularly the case for the preparation for recycling activities. In Addis Ababa, for example, Qorales, Mentekos and the dealers at Merkato all feed into registered private companies involved in recycling. But the initial failure to adequately integrate informal workers in the decentralisation of SWM services seems to have a lingering effect which impacts the whole sector. This includes the generation of data. Currently, the only reliable SWM data in the city comes from the Reppie waste-to-energy facility.

Whether or not policy principles such as the waste hierarchy are in place, the reality on the ground shows that administrations are singularly focussed on collecting and removing as much solid waste as possible from urban areas. The squalid conditions of the final disposal sites in both cities are yet another symptom of where the emphasis has been placed (see Figure 5; and also Knowles 2014, Yasin and Usman 2017). In Faisalabad, there are two dumpsites accumulating the solid waste that does not end up along natural creeks or 'nalas'. The only engineered landfill site in the region is in Lakhodair, near Lahore. Faisalabad's solid waste mostly never reaches this site. The idea of building a landfill serving Faisalabad has been discussed for many years, but the process has been mired by political rifts (interview with FWMC manager, 21 October 2020). The main dumpsite currently in use, 'Muhammad Wala', where waste is dumped without soil cover, opened in 1992 and is 15 km away from Faisalabad,.

Figure 5. Scavengers working at the Reppie dumpsite, Addis Ababa.

The usual arguments around administrative capacity and political will are of course important elements of the story here as well (Xie and Mito 2021, Watson and Khan 2010). The support from international actors is welcomed by the institutional actors on the ground, both in terms of resources and advice. However, support on how to address the governance disconnects in these cities – and other cities like these – is not readily available. There are virtually no roadmaps to guide these place-based processes. Yet, our findings suggest that, to be effective, solutions need to come from the bottom as much as from the top.

Table 2. The more visible and less visible processes of delivering solid waste services in Addis Ababa and Faisalabad. (first column for Addis Ababa adapted from Xie and Mito, 2021).

	Addis Ababa		Faisalabad	
SWM processes	**Practices of the various institutions responsible for SWM**	**Informal practices**	**Practices of the various institutions responsible for SWM**	**Informal practices**
Street cleaning	Groups of street cleaners are hired by woredas and supported by trucks operated or contracted by sub-city governments. The CMA raises awareness of the communities and supports the woredas through provision of equipment (e.g. bins).	Mentekos roam the city looking for recyclables (and are sometimes accused by residents and other waste workers of stealing sorted recyclables and/or of spilling bagged waste across the streets).	Sweepers (mostly Punjabi Christians) are hired by FWMC and, most times, given wheelbarrows, *jharoos* (large brooms made of straw) and small wooden boards to use as dustpans.	Powerful local politicians exert their influence to assign sweepers to specific areas. Afghan scavengers roam around middle- to high-income neighbourhoods and industrial areas to collect recyclable waste from streets or the bins installed by the FWMC (FWMC sweepers complain about this as they spread the waste to find recyclables).
Primary collection and transport	Cooperatives or micro and small enterprises (mainly youth groups) are contracted and supervised by woredas. The CMA transfers funds to the woredas based on the amount of solid waste collected, provides skip points and containers, and conducts training and capacity building activities.	Qorales do selective collection and pay small amounts to households.	FWMC sweepers transport the waste using light equipment such as wheelbarrows. Depending on the areas they are serving and amount they are earning, sweepers may have their own donkey carts or motorised three-wheelers (Qingqis).	FWMC sweepers often charge an informal fee to households. Informal workers (e.g. Changar) operate for a fee in underserved areas.
Temporary storage	Sites and equipment provided by woredas and sub-cities, coordinated by CMA.	Mentekos go through stored waste in search of recyclables.	Sweepers keep the recyclable material until they are off duty (when they take recyclables to kabari shops). Non-recyclables are deposited in bins or at transfer stations.	Informal scavengers (mostly Afghani but also Changar) scour the city for valuable recyclables and store them. They are allowed to operate at transfer stations and other official sites because they help manage the waste streams.
Sorting of recyclables	No substantial role other than light support to recyclers in market development by the CMA.	Dealers in Merkato organise the materials sourced to them by Qorales and Mentekos and sell them to recyclers.	No substantial role.	The kabaris and/or highly organised Afghan yards at the city periphery connect scavengers and sweepers selling recyclables 'on the side' to manufacturers who need the materials.
Secondary collection and transport	Private companies are contracted by sub-cities and use their own or government vehicles. The CMA coordinates sub-cities, purchases and allocates waste trucks to sub-cities, and supports them through a fleet management system.	No relevant practice was registered beyond formal operations.	From transfer stations, solid waste is transported to dumpsites in large FWMC trucks.	No relevant practice was registered beyond formal operations.
Incineration with energy recovery	Ethiopian Electric Power (a federal agency) has responsibility over the operation of the incinerator. The CMA oversees transport of waste to incinerator and the disposal of fly ash.	No relevant practice was registered beyond formal operations.	Not applicable.	Not applicable.
Disposal	The CMA is responsible for the operation of the Koshe landfill.	A group of 200 to 300 Mentekos recover any recyclable material that somehow makes its way to the Koshe disposal site (they also collect discarded food). A large quantity of solid waste never makes it to Koshe and is dumped illegally in the river, vacant lands, streets and drains.	The FWMC is responsible for the operation of the Muhammad Wala site.	As soon as the FWMC trucks are off-loaded dozens of scavengers that live in the vicinity go through the solid waste and separate saleable material. As in the case of Addis, a large amount of waste generated in Faisalabad never reaches this site.

Conclusion

Deep analysis of the SWM systems of these two cities, taking into account their respective technical, social and, importantly, political economy aspects, shows they are indeed very different contexts. There are clear distinctions in terms of governance arrangements, as well as their social organisation and cultural practices. However, when it comes to the level of service delivered to users and the lives and livelihoods of waste workers, our research shows that the differences dissipate. The similarities around outcomes, come down to the interplay between the nature of the service and the politics around it. Our comparative analysis shows that place-based governance is not merely a contextual lens but a critical explanatory device – one that reveals how imported principles and reforms interact with local political cultures, informal networks, and the deeply situated everyday realities of service delivery.

By definition, there is not a lot of residual value in solid waste. There is value in SWM services – healthy, clean and functional cities – but in low-income urban communities perceptions of this value are often not very high, especially when seen in the light of competing demands. At the same time, the provision of these services requires substantial capital investments in processing, moving, storing and recovering or safely disposing of waste. From the point of view of users, once the discarded materials are outside the home and, perhaps, also the streets, what happens to solid waste is no longer visible – certainly not as visible as a job, a bus, a school or a hospital – and therefore of little concern to voters. Consequently, in cities beset by so many other problems, SWM is rarely seen as a political priority (Beall et al. 2022). This insight was echoed by numerous local officials and waste workers we interviewed, who spoke of insufficient political interest in solid waste beyond crisis moments.

Indeed, in addition to environmental impacts, improper SWM poses serious public health risks – such as the proliferation of vector- and water-borne diseases – and sustained neglect often leads to tragedies, including deadly waste landslides (e.g. as in Addis Ababa), or flooding caused by creeks being clogged with discarded material (e.g. as in Faisalabad). Pressed by realities on the ground, authorities in both case-study cities activated internationally sanctioned principles, with various degrees of popularity or contemporary support, in pursuit of their wider political agendas. For example, ISWM through institutionalisation (in both cities), 'corporatisation' and arms-length management (in Faisalabad), and 'waste hierarchy' or 'zero waste' (in Addis Ababa). But without a detailed understanding of the socio-economic and politico-cultural features of the SWM sector, imported principles cannot be properly embedded. Whereas the importance of local 'embeddedness' has been often reported in seminal contributions of the development literature (Tendler and Freedheim 1994), our findings show that this concern was not appropriately reflected in the various governance reforms in both cities. Which means that the guiding principles have not been as helpful as they could have been, and may even have distracted from more fruitful, place-based interventions.

Internationally advocated ideas may not be ready-to-wear, yet this is not to say that principles, governance models or technical solutions should be cherry-picked by administrations in their deployment. In Addis Ababa, the new SWM strategy has an ambitious vision and builds on the years of strong implementation capacity of the EPRDF-led developmentalist approach at the national and city levels. The establishment of the waste-to-energy facility, the first of its kind in Africa (Gergel 2021) and the partial rehabilitation of the Reppie landfill after the March 2017 landslide are testament to this drive and capacity. But this preoccupation was neglectful of primary collection and fell short in understanding and integrating the filigree of informal actors involved in the city's SWM system. The main driver has been to redress the failures of the centralised system through a decentralisation of responsibilities, nevertheless keeping tight hierarchical control through the various administrative levels. The post-2005 political atmosphere in Addis Ababa cemented the government drive of using SWM activities as key avenues for youth employment (Alene 2018). This reflects partial recognition of waste collection practices, although the effectiveness, safety, and fairness of the system in collecting, sorting, storing and disposing the materials, at best, came as an afterthought.

In Faisalabad, the late embrace of NPM ideals did not put a stop to the discretionary influence of powerful politicians. Furthermore, the corporatisation of the services and reform in hiring practices, though careful and incremental in execution, did nothing to change the social status of waste workers or to disrupt the long history of marginalisation of their communities. Despite some major political shifts at the provincial and city levels, the 'contaminating' nature of solid waste remains a critical factor in Faisalabad's SWM system, which has led to

reinterpretations, rather than the abolition, of the notion of untouchability – from a feature of the Hindu caste system to a hierarchy of religious identity in a supposedly egalitarian Islamic setting (Gazdar and Mallah 2022).

The SWM systems of both cities show some awareness of the potential of street-level service delivery, but they remain institutionally fragmented. The reliance of the service on a wide range of actors (many of them informal) is not sufficiently acknowledged, rendering practices on the ground as *ad hoc*. Significant disconnects in the system between door and dumpsite/landfill means that a considerable amount of solid waste finds its final resting place in the creeks and streets of low-income neighbourhoods.

As complex socio-technical systems (Cirolia et al. 2021), addressing the disconnects in the SWM setups of Addis Ababa and Faisalabad will not involve univocal or optimal technical solutions (Mitleton-Kelly 2015). Rather, governance reforms are needed to create an environment in which existing actors can continue doing what they do well, coexist and actively interface with one another in mutually beneficial ways, and in which new or renewed actors are empowered and incentivised to also deal with the materials without residual value (e.g., non-recyclables). This, however, may require campaigns to enhance their social recognition, better integration between decentralised and centralised governance structures, and the injection of more capital into the SWM systems. Our findings suggest that successful governance reform depends less on compliance with external best practices and more on how reforms are articulated through the social fabric and relational configurations of the city – a point that pushes forward recent debates on place-based governance in urban service delivery.

Given our objective of exploring the governance of SWM in Addis Ababa and Faisalabad, it may seem odd that we devote most of our attention to what is happening at the street level. Yet scholars in this field are aware that 'governance' is the product of the interaction of a plethora of actors and factors at various scales. Still, only a few of these tend to take centre stage in theoretical debates and practice discourse, for example: legal frameworks and institutional arrangements, funding and finance, knowledge and skills, politicisation and corruption. There are strong reasons for investing in these arenas. But these foci are also explained by their 'measurability' and their overlap with disciplinary boundaries and established theories, often developed in the North. In the interstices of these major research arenas, however, lie complex and fleeting socioeconomic dynamics that nevertheless scale up to have enormous impact on outcomes (Beall 2006). In not raising the profile of these dynamics, we risk developing inadequate theoretical frameworks and deploying ineffective or counterproductive practical interventions. It was with this in mind that we followed the waste and registered what we saw in these cities, from low-income neighbourhoods to the many places it tends to end up in.

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