



Fordham University
Fordham Research Commons

Senior Theses

International Studies

Winter 2-1-2024

Waste In Relation to Populism: The Case of Tunis

Aya Khadija Guen

Follow this and additional works at: https://research.library.fordham.edu/international_senior



Part of the [Near and Middle Eastern Studies Commons](#)

Waste In Relation to Populism: The Case of Tunis

Aya Khadija Guen

aguen@fordham.edu

International Studies Thesis

Fordham University - Lincoln Center

Fall 2023

Thesis Advisor: Aseel Sawalha

Seminar Advisor: Caley Johnson

Table of Contents

Abstract	3
Introduction	4
Methodology and Limitations	5
Literature Review	7
<i>Jardim Gramacho and the catadores</i>	7
<i>Lahore's Waste Infrastructure: Caste and Labor</i>	9
<i>Buenos Aires' Re-representation</i>	10
<i>Cairo's Zabaleen Town</i>	10
Case Study	19
<i>Early Historical Background</i>	19
<i>The Arab Spring, Democratization, and Autocratic Backsliding</i>	20
<i>Today's Waste Management Sector</i>	22
<i>Ministry and Government</i>	22
<i>Private-Sector Recycling</i>	24
<i>Local Initiatives</i>	26
Analysis	27
Conclusion	31
Bibliography	33

Abstract

Throughout this body of work, I explore the challenges faced regarding proper waste management and its interconnectedness in political developments. Specifically, I examine this subject in the case of the greater metropolitan area of Tunis. Having lived in Tunisia each summer since I was born, I have seen the many stages of the country's waste issue. I came to my research to discover the conditions that have led to illegal dumpsites and Tunisia's growing waste management issue. The waste management sector regressed post-2011 revolution. With this, I have always assumed that the waste issue is intertwined with the country's political and governmental issues. Going to Tunisia this past summer with this question in the back of my mind, I have come to discover much more about this subject and its significance. I have discovered the world of *barbechas* (waste collectors) and privatized recycling companies. Three entities are involved in Tunisia's waste management: privatized companies, the government's role, and local groups. I have gathered the following research articles and books that will help me put into more detail and perspective Tunisia's waste management issue, which can also be seen as a global issue. The framework I have chosen to approach this research with is infrastructure and urbanism.

Introduction

The concept of waste management includes the regulation of the collection, transport, and proper disposal of waste generated, as well as, recycling, and treatment. Waste management as we know it is an essential component of environmental sustainability and public health. Waste management also has effects on the surrounding environment in psychosocial aspects. The way societies manage their waste can have profound impacts on ecosystems, human health, and the overall well-being of communities. As populations grow and urbanize, the volume of waste produced rises, necessitating appropriate waste management solutions to prevent environmental degradation and health dangers, as well as cohesive social environments. The complexity and importance of waste management are influenced by several factors, including waste reduction strategies and proper disposal methods. By looking at these aspects, one may learn more about how effective waste management systems are, how environmentally conscious a community is, and how much waste management regulations include sustainable practices. When discussing waste management, it is important to inquire about governmental policies and regulations, as well as the extent to which elected officials are committed to developing a framework for efficient waste disposal.

Waste management is a chronic issue globally, predominantly affecting economically developing countries due to fast-growing urbanization (citation). Thus, waste management issues are concentrated mainly in urban areas in the global south. It is critical for nations to adequately deal with their waste for the concern of the environment, its citizens, and the trickling effects that improper waste management creates. Before discussing the waste management issue in Tunisia, I want to elaborate on why I am researching this topic in this country. I will study waste management in Tunis, the capital city of Tunisia. The geographic placement of the land allows

for vulnerability and exploitation from developed neighboring Mediterranean countries such as Italy in its exportation of waste shipments to Tunisia. The issue of waste management exacerbates the internal political turmoil in the country, democratic backsliding, as well as economic crises. In this regard, waste such as illicit dumpsites (see *Fig. 1*), waste fires (see *Fig. 2*), and other forms of waste pollution are often the most visible and physical manifestations of an inefficient government. During the democratic transition, waste dumping sites became common across Tunis and worsened the citizen-state relationship under the precarious new government. Uday Desai, in *Ecological Policy and Politics in Developing Countries: Economic Growth, Democracy, and Environment*, argues that democracy is dependent on economic development, and due to this dependence, economic growth and prosperity generally result in environmental pollution (1998). This inverse relationship between democratization and environmental protection has many consequences for Tunisia, the only democracy to come out of the Arab Spring. In the past decade, this fledgling and vulnerable democracy has seen many different governments come into power, resulting in fractured policy between successive ruling parties, and no concrete and continuous environmental policy. Later in my case study, I will focus predominantly on the quality of life of those working in informal waste management sectors and those living in neighborhoods near illegal dumpsites and, the psychological effect it has on the people.

Waste management research is often focused on the immediate environmental concerns and the failures of a government to address a population's needs. Nevertheless, this research will explore the ways in which waste management in Tunisia has implications for infrastructure, psychosocial relationships, the informal economy, transnational corruption, and obstacles to democratization.

I will seek to address the growing waste management issue in Tunisia and its relation to how Tunisia's government may continue its lack of proper adequacy in the waste management sector with the ties of privatized recycling companies, local waste collectors, i.e., *barbechas*, and local initiatives. By the end of this assessment, I would like readers to question: how might the Tunisian government develop further environmental policy and planning concerning infrastructure, privatized recycling, local initiatives, and waste collectors (*barbechas*)?

Methodology and Limitations

I reached my explanations by strictly researching the waste management sector in Tunisia, explicitly considering the contrast before and after 2011. Through both formal and informal interviews, I examined how Tunis residents feel about the government, a common talking point among Tunisians. When discussing the topic of waste with Tunisians, the issue of pollution and proper waste management became topics of debate. Indeed, casual conversations about waste and trash dump sites are synonymous with the government's failures during the democratic transition, frustrations towards the political class, and, ultimately, political apathy. While I have chosen to examine the greater metropolitan area of Tunis, this issue is not specific to any region. In reality, waste management concerns are left unchecked across the whole country and disproportionately affect specific populations. I continue to prove its relation to the hardships a country may experience when not adequately addressed.

I approach the topic of waste management in the city of Tunis by investigating academic research on the unregulated waste management sector, social stigmas associated with this sector, how changes in the government affect this sector, and the impacts of privatizing solid waste management. To demonstrate these issues, I have investigated scholarly research from around the

world that presents similar tropes to what is occurring in Tunisia; I have listed materials from Rio De Janeiro, Brazil; Buenos Aires, Argentina; Lahore, Pakistan; and Cairo, Egypt.

I have not relied heavily on statistical information but rather on academic sources in this analysis. This is partly due to the difficulty in accessing the Tunisian government's infamously inefficient bureaucracy and outdated online information on the Ministry of Environment's website. I have also relied on formal and informal interviews conducted in various neighborhoods throughout the greater metropolitan area of Tunis. I have conducted ten informal interviews with various age groups in cafés, on the beach, and at the homes of relatives at family gatherings. I have conducted two formal interviews, one with a worker in the privatized recycling sector and one worker in a non-profit sustainability sector.

My methodology could be strengthened through more interviews and a larger sample size. In my time in Tunisia, I was not able to meet with officials within the Ministry of Environment nor other non-profit environmental associations found via social media. I contacted five local non-profit environmental associations through social media and WhatsApp, who work either directly or indirectly with waste. I found it challenging to set up interviews as some members of the associations were in different countries or had time scheduling conflicts. In furthering my research on this subject in the future, I hope to be able to conduct formal interviews with these local associations as well as with officials at the Tunis' Ministry of Environment.

Literature Review

Waste management affects the quality of life of those working in informal sectors of waste management and those living in neighborhoods near illegal dumpsites. One aspect of this

is the psychological effect it has on the citizens of Tunis, and the subsequent citizen-state relationship.

Nevertheless, when focusing on waste management, what needs to be considered are the domestic policies the country has implemented regarding the issue, the government, and local initiatives. These policies affect quality of life, employment, waste collectors, recycling initiatives, social media groups, and civic society as a whole. While inspecting scholarly work, it's essential to keep in mind the theoretical framework I'll be applying to approach this research: infrastructure and urbanism.

Jardim Gramacho and the *catadores*

“Reclaiming the Discarded - Life and Labor on Rio’s Garbage Dump” by anthropologist Kathleen M. Millar explores questions of the human condition that emerge within the material conditions of work, economy, and urban life in Latin America. Her book offers an ethnographic study of Jardim Gramacho (a garbage dump on the outskirts of Rio de Janeiro), where *catadores* (waste pickers) collect recyclable materials. This ethnography sheds light on the informal economy, highlighting *catadores* ways of making their livelihoods off waste collection and creating a complex ecosystem of labor and commerce. *Catadores* are excluded from the formal labor sector, additionally experiencing social marginalization, economic hardships, and overall stigmatization. It further delves into the environmental impact and waste management issues, providing both a global perspective and an in-depth, localized understanding of the lives and experiences of those working in this informal waste economy. Millar ultimately questions the normativity of paid work, its relationship to informality, and traditional conceptions of trash. By doing so, she explains the central role of waste in social reform initiatives. This book provides in-depth anecdotes from people who work in this sector and their livelihoods, which I was not

able to do during my time in Tunisia. I was, however, able to conduct interviews with individuals working at a private recycling company that relies on informal waste collectors. Through this book, I was able to see that the *catadores* of Jardim Gramacho are the societal equivalent of the *barbechas* of Tunisia, waste collectors who earn a living by collecting plastic waste to hand to the recycling companies. This book is a narrative-driven, immersive ethnography of the *catadores*, but does not focus on government policies or their efficacy.

Lahore's Waste Infrastructure: Caste and Labor

“Life Beyond Waste: Work and Infrastructure in Urban Pakistan,” by Waqas Q. Butt, is a historical and ethnographic account that examines how waste work has been central to organizing and transforming the city of Lahore. Butt (2023) specializes in research regarding waste, castes, work, and labor, in his introduction, he writes:

On the other hand, those who would be considered of low- or noncaste, or “nonagriculturalists,” have historically performed various kinds of work and labor in the countryside but lacked control over and ownership of land. While many have acquired land and experienced upward mobility, access to those same sources of power, wealth, and status enjoyed by upper-caste groups considered “agriculturalists” has been closed off to or severely limited to low- or noncaste groups considered “nonagriculturalists,” especially waste workers like those with whom I conducted fieldwork. Just as the hierarchy’s characteristic of caste-based relations in Punjab have diminished or been undone over the years, other kinds of relations and forms of life have emerged in urban centers across Pakistan that draw upon these historical inequalities and interdependencies. (p. 11)

Further in his ethnographic account, he examines how waste workers who are drawn predominately from low or non-caste groups have become essential components of urban life. The reproduction of waste work has resulted in a “distributed process that unfolds around caste-based relations, urban life, and lives and livelihoods of waste workers, their kin, and many other actors further along the value chains of waste” (Butt, 2023, p. 24-25). This work brings together a variety of concerns—materiality of waste and value, histories of caste, stigmatized labor, urbanization, and global circuits of development and capital—to unpack the unexpected socio-political processes by which urban life is currently unfolding across South Asia and globally. Butt examines through the lens of waste work in a collective way; rather than telling stories of exclusions, violence, and exploitation, he formulated his book around the reproduction of life. Waste collectors' work endures that life goes on across Lahore and beyond.

According to Waqas Q. Butt, caste, class, and religion must be taken into consideration while evaluating processes that produce life in a city like Lahore, because they have fundamental elements of urbanization throughout South Asia. This idea that Butt underlines is undoubtedly essential to consider, especially regarding the social stigmatizations that waste collectors experience today.

Buenos Aires' Re-representation

In “Re-representing the City: waste and public space in Buenos Aires, Argentina in the late 2000s,” Kate Parizeau investigates the shift in urban neoliberal governance strategies in Buenos Aires at the end of the 2000s. While doing so, Parizeau explains that the introduction of

a regime of public space has had implications for the waste management sector (as well as informal waste collectors). Parizeau documents the government's attempts to re-represent the city as being receptive to investment and tourism while excluding framings of *cartoneros* (informal waste collectors, i.e., *barbechas*) and other marginalized urbanites. Parizeau exposes the regime as “contradictory and unstable” (2015, p. 284). Parizeau’s case study exhibits an “analytical focus on moments of shift and renewal in urban processes of neo-liberalization” (2015, p. 284), revealing the priorities and agendas of urban elites, which are backed by municipal governments, through the implementation of the public space regime. It also draws attention to the contradictions and inconsistencies inherent in neoliberal urbanisms, and the opportunities for opposition, resistance, and renegotiation of urban neoliberal agendas, such as protest, discursive revisions of the city and its uses, and the formation of ad hoc alliances (Parizeau, 2015, p. 284).

Cairo’s Zabaleen Town

In “The impact of privatization of solid waste management on the Zabaleen garbage collectors of Cairo,” Wael Salah Fahmi studies the Zabaleen town: the town of garbage collectors. This article was published in 2005 and was presented at the International Housing Conference of the European Network of Housing Research (ENHR), held from 2–6 July 2004 at the Cambridge Centre for Housing and Planning Research (Fahmi, 2005, p. 155). Wael Salah Fahmi’s background is in architecture; he researches the development of urban poverty areas, population eviction, and resettlement. Wael Salah Fahmi has been working on Greater Cairo's urban expansion issues, concentrating on the restoration of historic Cairo and the nearby "Cities of the Dead" informal settlements. He is an associate professor of architecture and urban design at Helwan University in Cairo (Fahmi, 2005, p. 155).

With this in context, Fahmi investigates Cairo's implemented privatization of local solid waste management, highlighting its detrimental consequences on the city's economy and the Zabaleen communities' urban settlement system. The official development policy states that the privatization of solid waste services is essential to overall government plans for rehabilitating regions of historic Cairo. However, the goals of the rehabilitation programs frequently favor commercial and business interests, while endangering the interests of the local people. The results of Fahmi's study highlight the importance of initiatives that aim to reduce poverty within the Zabaleen and in growing the recycling sector, as well as in creating new avenues for collaboration and partnership between the garbage collectors' association (Gammiya), grassroots groups, local governments, and multinational waste management companies. Fahmi emphasizes the need for the low-income Zabaleen to draw from the sustainable flow of local resources while looking for new ways to support acquiring land and developing it for improved housing standards, essential services, and environmental quality. This is done to promote sustainable livelihoods and better opportunities for the urban poor (Fahmi, 2005, p. 155).

Fahmi considers these problems from the perspective of the Zabaleen settlement at Muqattam. Providing a brief history of this particular settlement, a description of the Zabaleen Environmental Development Programme (ZEDP), which was coordinated by the neighborhood NGO Environmental Quality International (EQI) and was funded by the World Bank in the early 1980s. The article also describes the evolution of the Zabaleen garbage-recycling system. After that, it consults survey results from 2004 and contrasts them with the conditions described in 1981 and 1993. The Zabaleen and other stakeholders' opinions about the current proposals to alter Cairo's solid waste management system and to relocate their settlement and recycling operations are also presented (Fahmi, 2005, p. 155-156).

Fahmi includes the context of the historical background of the Zabaleen people and that they emerged in the second migration to Cairo in search of work due to economic hardship. The Wahiya (people of the Dakhla Oasis) initially took over the responsibility of collecting and disposing of waste in Cairo. The Zabaleen had purchased waste for pig fodder and emerged as garbage collectors and recyclers. With an emphasis on kinship relationships, they have preserved their community while maintaining ties to their rural roots through interfaith marriage and extended family living as Coptics. Access to waste and collection rights remained under the Wahiya authority; the Wahiya served as a bridge between Cairo's houses and the Zabaleen. Residents paid a charge to the Wahiya for waste collection services, although the Zabaleen often did not obtain a portion of this money. They chose to pay the Wahiya for access to the garbage instead. The Environmental Protection Company (EPC) was established as an outcome of a 1989 agreement between the two groups. As part of this agreement, the Wahiya hired the Zabaleen to collect and dispose of solid waste. Subsequently, the Zabaleen's involvement in solid waste management became more official. The Wahiya oversaw service delivery, handled home billing, controlled the system, and promoted the business's offerings. The Zabaleen gathered and transported the waste, many of whom might otherwise be homeless and jobless.

This historical account demonstrates the various positions and relationships that the Wahiya and Zabaleen play in the city of Cairo's waste management system, as well as how they have been incorporated into the city's waste disposal procedures and how the Environmental Protection Company has grown to become a significant player in local government initiatives to improve Cairo's waste management.

Fahmi expands on the Zabaleen Muqattam community, stating that in the Greater Cairo Region (GCR), the Zabaleen are currently dispersed across seven waste collection villages. Due

to urban growth, the majority of these towns have been relocated to more remote areas. The largest Zabaleen community is located east of Cairo, at the base of the Muqattam mountain. This settlement is a part of the same administrative unit as the squatter community of Manshiet Nasser. Land densification and diversification have been facilitated by the settlement's secure tenure and high land prices as a result of its location. Between 1981 and 1993, the settlement's population increased by almost nine percent annually, from 5,514 people in 1981 to 15,157 people in 1993. The Zabaleen of Muqattam is home to over 20,000 people, the majority of whom depend on or engage in waste-related enterprises. The town shares many characteristics with other Zabaleen settlements, including a high rate of animal diseases, illiteracy, unfavorable environmental circumstances, and low salaries. Though the settlement's population has more than tripled since 1981, its physical limitations have scarcely adjusted. The two main growth strategies have been vertical extension and densification. The plots have grown from 905 in 1981 to 1,387 in 1993. The average household income in 1983 was estimated to be 70 Egyptian Pounds (about US\$ 11.50 in January 2005), which puts locals in the bottom 10 percent of urban income earners nationwide (Fahmi, 2005, p. 157).

Fahmi then delineates the Zabaleen Environmental Development Programme's (ZEDP) impact on the Muqattam settlement in Cairo. Fahmi notes that in 1981, the Muqattam Zabaleen community became the focus of the World Bank-funded ZEDP. Over the course of a decade, it received significant financial support from international donors. The local NGO Environmental Quality International (EQI), which coordinated ZEDP, became responsible for the improvement of many of the community's living conditions. Improved housing, sewage removal, power, and road infrastructure were among these. The program also promoted health programs to lower newborn mortality and encouraged more children, particularly girls, to participate in school. To

maximize the value of waste, ZEDP launched a small-industries project focused on establishing locally based recycling businesses. It gave Zabaleen families funding to buy machinery for rug weaving and recovering plastic and set up a composting plant, which attempted to convert organic waste into marketable fertilizer. The method also reduced the need for unhygienic landfills by assisting in the proper disposal of organic waste. Given the improvement of the Muqattam settlement's physical condition, the Zabaleen community had not fully engaged in participation and had been dependent on EQI. Since representation was frequently in the hands of the board of programme directors, most of whom were outsiders, it failed to recall the necessities of the community at large. Thus, there was a divide between the rich and the poor, which intensified power dynamics and conflict-causing factors already present. The garbage collectors' association, Gammiya, had initially changed from a non-profit into a group focused on community development. Under the ZEDP, it contributed to the funding of micro-enterprise recycling industries, revenue-generating waste-processing activities, and the mechanization of waste collection. The interests of the local community were no longer adequately represented as it eventually came to be dominated by community leaders (Fahmi, 2005, p. 157-158).

Fahmi notes that through community-based micro-enterprises operated by the Zabaleen, it has made a substantial contribution to Cairo's waste management and provided jobs and income for the local community. Fahmi then highlights the evolution of land tenure practices among the Zabaleen. The community's tactics for securing land tenure had changed over time, from when they had secure tenure even though they lacked legal titles to the ZEDP project's efforts to control land ownership by transferring legal titles to the occupants. Fahmi overviews ownership claims regarding residents claiming land ownership based on squatting, informal acquisitions, and a few legal transactions (Fahmi, 2005, p. 158-159).

In his background overview, Fahmi discusses the privatization of waste management systems in Cairo and the proposed relocation of Zabaleen's movements and residents. Fahmi mentions that international waste management companies had started taking over Cairo's waste collection routes, exploiting a potentially lucrative market. As well as the proposition from Cairo's governorate of relocating the Zabaleen activities (waste collection, recycling, animal rearing, etc.) to Cairo's eastern desert settlement in Qattamiya in order to improve living conditions for the Zabaleen communities (Fahmi, 2005, p. 159).

In the following, Fahmi discloses his 2004 study, administered in January and February of that year. The study was conducted by a small area survey of a hundred households. Households were selected using random sampling, collecting additional quantitative data on housing history, construction, service facilities, spatial patterns, and household size. Focus groups and in-depth interviews were conducted in the study where Fahmi could gather Zabaleen households' perspectives on existing housing, infrastructure, and development conditions. As well as the settlement's future. Fahmi found that conditions were contrasted with those noted in 1981 (at the start of EQI) and in a physical survey conducted in 1993 (following an incident that drew waste collectors to the public's attention). The sampling was made to represent primary and secondary stakeholders. Primary stakeholders included 40 local garbage collectors and five community leaders, with whom in-depth interviews were conducted. The Wahiya and other local Egyptians were the non-resident primary stakeholder groups least impacted by the relocation plans. Secondary stakeholders included political representatives, CCBA (Cairo Cleaning and Beautification Authority) officials, as well as employees of both the EEAA (Egyptian Environmental Affairs Agency) and global waste management corporations (Fahmi, 2005, p. 160).

Fahmi discloses his findings through land use changes in the Muqattam settlement, housing conditions, infrastructure, stakeholders' attitudes toward the privatization programme, and proposed relocation plans and their reactions. In the physical land use changes in Muqattam, the author finds a decline in *zeriba*-only plots (plots for pig-rearing) meanwhile, the author finds growth of mixed-land use (combining residential, *zeriba*, and commercial activities), as well as the growth of more urban activities within the settlement, and an influx of rural migrants to the Muqattam settlement (Fahmi, 2005, p. 160-161). In the housing conditions and transformations, the author finds an increase in the number of houses and new structures of multi-story buildings. The Zabaleen had also adopted adaptable, temporary tin buildings as dwelling options in response to their history of shaky settlement and evictions. The author discovered that the Zabaleen, despite not having a legal claim to their land, had invested in themselves to raise the standard of their housing due to anticipated government-sponsored urban growth. This economic transformation was facilitated by the small industries project and the Gammiya-initiated credit programme. The author finds the creation of local contracting and subsidiary services and industries (carpentry, sale of construction materials, and household appliances) (Fahmi, 2005, p. 161). Despite these improvements in the quality of housing, the 2004 study reveals that one-third of the survey respondents expressed anxiety over decaying housing stock and the possibility of being evicted due to poor maintenance and environmental degradation (Fahmi, 2005, p. 162). Regarding infrastructure changes, the author discusses the introduction of infrastructure improvements, challenges with the provision of water supply and sanitation, concerns regarding public spaces and infrastructure, and the potential disruptive impact of recent changes -- such as privatization and state relocation plans on the Zabaleen settlement and its residents (Fahmi, 2005, p. 162-163). Concerning stakeholders' attitudes towards the privatization programme and

proposed relocation plans, stakeholders' opinions are diverse, reflected by their roles and interests. While other stakeholders place more emphasis on the project's broader environmental, political, and technological concerns, residents are primarily worried about economic and security difficulties (Fahmi, 2005, p. 163-166).

The responses of the various subgroups of stakeholders are in relation to six major themes that are closely related to the proposed relocation plan and privatization plan. The major themes are recycling activities and housing conditions, community livelihood and social cohesion, political aspects, technical improvements, community empowerment and networking, and environmental awareness. Fahmi expresses that the Zabaleen raised concerns about their security of land tenure, ownership documentation, compensation, alternative housing, and accessibility to services, especially those working in small-scale recycling businesses. They were hesitant to accept the suggested relocation plans because they were concerned about losing their sources of income (Fahmi, 2005, p. 166). He also remarks that the five interviewed Gammiya representatives expressed dissatisfaction with their lack of participation in the early stages of the waste-restructuring project. They emphasized their anxiety about Zabaleen's fate as a product of the privatization plan due to potential damage to the local economy as well as the disruption of social bonds, community networks, and the economic structure. They demanded job opportunities for the Zabaleen, and a strategy to fight poverty (Fahmi, 2005, p. 166-167). Concerning the political aspects, Fahmi finds that officials from the Cairo Cleaning and Beautification Authority (CCBA) deemed that the procedures used by the Zabaleen were considered unclean, who instead supported investors and companies setting up recycling facilities. Local Cairo residents are more concerned about their municipalities' inability to pick up garbage from their homes than with the waste disposal location. Fahmi elaborates that Cairo's

homes are asked to pay a monthly fee depending on their electricity bill to cover privatized waste collection costs. Residents in Cairo who desired to keep the custom of depending on the Zabaleen for waste collection voiced their opposition. Fahmi adds that the extra monthly payment made to households was recently declared invalid by the High Administrative Court as illegal and unconstitutional (2005, p. 167). Regarding technical improvements, opinions from secondary stakeholders were instead expressed; employees from international businesses and the Egyptian Environmental Affairs Agency (EEAA) spoke about the advantages and difficulties of recycling facilities. Although foreign businesses intended to hire and train Zabaleen, some alleged lesser pay. The predicted average recovery rate was 50% (Fahmi, 2005, p.167-168). Pointing to the theme of community empowerment and networking, local NGO Community, and Institutional Development (CID), respondents voiced concerns about the privatization's effects on the Zabaleen community. They emphasized the negative social repercussions of the move and suggested including the Zabaleen in the contracts of foreign businesses (Fahmi, 2005, p. 168). Lastly, Fahmi cites that the local NGO, the Association for the Protection of the Environment (APE), collaborated with the Zabaleen, combining income-generating activities with services for health and literacy. APE and Gammiya disagreed on the advantages of moving trash management to Qattamiya, as APE argued in favor of the proposal to move trash services to Qattamiya, saying that doing so may enhance the settlement's environmental conditions by keeping animals and rubbish away from Zabaleen households. Gammiya asserted that APE failed to promote the interests of the Zabaleen. Fahmi further notes that APE is expected to play a part in establishing and overseeing new recycling initiatives, with Zabaleen serving as paid laborers (Fahmi, 2005, p. 168-169). Fahmi concludes by serving several key points from the 2004 study, highlighting the complexity of the Zabaleen community, the potential roles of local

NGOs, and the challenges associated with government-led resettlement schemes. At the same time, it asserts the importance of Zabaleen's empowerment in negotiating for their rights and better living conditions.

Case Study

Early Historical Background

Following Tunisia's independence from French colonial rule in 1956, Tunisia began to establish a more organized system of waste management, as prior to this colonial rule, there were no proper environmental regulations in order. Habib Bourguiba served as Tunisia's first president from its independence until 1987. Immediately after gaining independence, waste management was not a national priority. Tunisia faced many different challenges, such as nation-building, economic development, and social reforms, all of which were targeted by Bourguiba's modernization project. Nevertheless, there were significant developments in the waste management sector in his reign. The development of municipal garbage collection was one of the first waste collection infrastructure investments as the government aimed to address the immediate need for waste disposal infrastructure. This was instituted in addition to improvements in sanitation and public health, including waste disposal facilities and landfills. During this post-independence era, recycling initiatives were launched in several cities and urban areas but neglected rural regions, which later exacerbated the Tunisian government's regional inequalities.

Urbanization and industrialization grew throughout the 1980s and 1990s, leading to increased waste generation. Consequently, Tunisia was faced with increasingly pressing waste

management challenges. This is noted within Ben Ali's administration (1987-2011), whose regime initiated several reforms, including waste management. For environmental regulations and awareness, the regime aimed to promote recycling initiatives through campaigns such as Labib -- a fennec fox, the official mascot of the environment -- who I grew up seeing throughout greater Tunis. Following suit, the creation of ANGED -- Action Nationale de Gestion des Déchets (The National Waste Management Agency) -- under the supervision of the Ministry of Local Affairs and the Environment, was tasked with coordinating and implementing waste management policies and initiatives. The national solid waste management program was entrusted with establishing regulated landfills and renovating illicit landfills. In other words, Ben Ali's regime further signified the importance of local governance by having municipalities play a significant role in managing their own waste collection and disposal. This is not to exclude the authoritarianism of his regime, as the regime exacerbated income inequality and human rights abuses. Overall, the effectiveness of these initiatives and reforms has varied over the years, and waste management difficulties have remained.

The Arab Spring, Democratization, and Autocratic Backsliding

The Arab Spring -- known as the 2011 uprisings, swept across several countries in the Middle East and North Africa, from Morocco to Bahrain. The roots of the 2011 Tunisian uprising -- known as the Jasmine Revolution -- were marked by Mohammed Bouazizi's self-immolation in protest against harassment from Sidi Bouzid's local officials, igniting widespread protests throughout the country. Thus, the Jasmine Revolution significantly affected Tunisia's political climate, as days later, citizens demanded political reform from Ben Ali's regime, economic opportunities, and an overall end to authoritarian rule. This resulted in the fall of the political regime and the departure of the country's President, Ben Ali. Tunisia underwent a

series of political and institutional changes, building a robust civil society and welcoming large amounts of funding from Western governments, NGOs, IFIs, and multilateral institutions alike.

The new constitution was lauded with the consensus of building a democracy founded on rights and equality for all. Article 45 of the constitution concerns the environment and proceeds with the state's guarantee of environmental protection. It states, "The state guarantees the right to a healthy and balanced environment and the right to participate in the protection of the climate. The state shall provide the necessary means to eradicate pollution of the environment" (2014, 8). These achievements happened in contrast with other countries, such as Libya or Syria, which plunged into civil war, or Egypt, which experienced a brutal autocratic crackdown.

However, this initial success and optimism soon gave way to the new realities of Tunisia. Despite the new constitution, the new government was plagued with many of the same problems in some nuance. For example, each of the disjointed successive governments had different policies on almost everything, including public services and the environment. There was little continuity between each ruling coalition, resulting in stagnation, inefficient bureaucracy, and crumbling public services. In the face of economic crises, health crises, and food shortages, the Tunisian democracy was not delivering on its promises of 'bread, freedom, and dignity.' On October 23rd, 2019, a relatively unknown political outsider, Kais Saied, was elected President, whom Tunisians saw as an alternative to the cronyism they considered synonymous with the ruling political class. During his presidency, nearing the end of July 2021, he dismissed the prime minister and suspended the legislature, as he also declared a partial suspension of the 2014 constitution in September 2021. He has governed by decree ever since. Saied has eliminated the separation of powers and placed key institutions directly under his authority, including "the Independent High Authority for Elections (ISIE) and the Supreme Judicial Council" of the

precarious young democracy (SWP, 2022). In July 2022, the former constitutional law professor hand-crafted the constitution into a referendum and carried out a self-coup. This referendum had extremely low voter turn-out, as the Tunisian population had either become partially apathetic regarding politics or were boycotting the vote in protest. Since then, he has continued consolidating his autocratic rule and cracking down on dissidents. Despite this, avenues of opposition remain through Tunisia's relatively strong civil society. However, the failures of the democratic transition were largely what contributed to Saied's populist rise to power. Suppose Tunisia is to move forward and build a fair and functional government that serves the needs of all Tunisians. In that case, Tunisia must start with the issues that regard the most marginalized peoples, specifically all waste management. Western observers have failed to explore how the elusive solutions for Tunisia's political challenges are interconnected with waste management and urban infrastructure. These matters go hand in hand when investing in a better Tunisia.

Today's Waste Management Sector

Ministry and Government

Jon B. Alterman, Natasha Hall, and Will Todman write a report for the CSIS (Center for Strategic and International Studies) Middle East Program, titled *Sustainable States – Environment, Governance, and the Future of the Middle East* (2021), in which they dedicate a chapter to Tunisia. This report delves into the beginning of the Arab Spring and the continuance of Sidi Bouzid's locals' discontent with the lack of local development, increasing unemployment, and insufficient public services. The report emphasizes the urgency of the government's role and the people's needs. Alterman et al. expressed the discontentment of Tunisians due to the ANGED toxic waste scandal, which resulted in the arrest of Tunisian Minister of Local Affairs and Environment Mustapha Aroui. In this highly publicized case, Tunisian customs officers stumbled

upon hundreds of containers of suspicious cargo in the port of Sousse, only to discover that it contained tons of putrid household and hospital waste shipped from Italy (Alterman et al., 2021, p. 48). This angered the Tunisian public, and they demanded to know why the Tunisian government would import another country's garbage when it failed to manage its waste effectively (Alterman et al., 2021, p. 48). Later, it was revealed that this was a result of a transnational waste corruption scandal, in which industrialized countries pay developing countries to take offload their waste (Alterman et al., 2021, p. 48).

With the congestion of the COVID-19 pandemic, the pandemic has resulted in the production of waste at an even higher rate. This results in developed nations such as Italy not knowing what to do with the influx of waste and shipping the exports of waste to developing nations such as Tunisia. It is observed that the developed world approaches waste management with little regard for where the garbage ends up, operating under the paradigm of "out of sight, out of mind."

On top of importing waste, the Tunisian government has been shown to be extremely inefficient and, at times, outright neglectful of waste management. The report notes that "the municipalities [though being] responsible for waste collection, were not able to achieve financial or administrative autonomy, and some rural areas were not covered by any municipalities, meaning no one was responsible for waste collection" (Alterman et al., 2021, p. 48). The report later discusses ANGED's relatively new operation of managing packaging waste, ECO-LEF. In 2001, this state-run system began and was the first to launch a packaging waste management system in the MENA region. ECO-LEF is a public-private partnership to contain, classify, and resell used plastic materials to recyclers (Alterman et al., 2021, p. 48). Where the local and national governments have failed to provide waste management services due to a combination of

corruption and economic nosediving, private companies have stepped in to pick up the slack, primarily in recycling, where there are profits to be made.

Private-Sector Recycling

The German Federal Ministry for Economic Cooperation and Development initiated the *Prevent Waste Alliance*, which published a country report on Tunisia's waste management sector, specifically on the ECO-LEF system. The alliance – including authors Agnes Bünemann, Jana Brinkmann, Dr. Stephan Löhle, and Sabine Bartnik -- provides an overview explaining that the private companies participating in ECO-LEF are not active in the system's management. Noting that the waste pickers (*barbechas*) employed in the informal sector supply the majority of the recyclable materials in an indirect manner (Bünemann et al., 2020). *Barbechas* in Tunisia sort out waste found in dump sites in neighborhoods, collect recyclable materials, and then sell these materials to middlemen for less money than they would otherwise be able to. According to the *Prevent Waste Alliance*, they cannot use ECO-LEF's storage facilities. It is noted that the ECO-LEF system is now going through a reformation process due to the noticeable decline in the number of recyclable materials collected under the system.

This past summer, I visited a small, private-sector recycling center in Bou Mhel El-Bassatine, a town on the southern outskirts of the Tunis area within the Ben Arous Governorate. Luckily for me, when I arrived, the machines had lost power temporarily, and I was able to interview the floor manager of "2 a Plast" who was overlooking the machinery. I was given a tour of the facility and witnessed its recycling process. Large bags of plastic would be dropped off by *barbechas*, which would be cleaned and chopped into extremely small pieces of plastic. These shards would then be taken to the primary recycling center in large car-sized bags.

The manager I spoke with detailed the materials the recycling center receives, such as packaged paper and cardboard, archives (newspapers), plastic (such as bottles, bags, wrappers, etc.), textiles, and used tires. The manager explained to me that despite all this recyclable material, Tunisia does not have the right to recycle its own recyclable materials; to create sustainable materials, they must sell their waste to countries like France, Italy, Japan, etc. He elaborated on this and told me that Tunisia, like Turkey, exports its plastic for monetary value. Despite the work that private companies have done for waste management, the primary motivator is profit, and those materials that are not profitable to recycle remain discarded. Like other private recycling companies, the manager informed me that his company pays *barbechas* more per pound of recyclable material than the government does.

The *barbechas* form the on-the-ground backbone of Tunisia's waste management sector as they supply the waste materials informally to these centers for profit. Despite their significance to waste collection, they experience heavy stigmatization and work in unstable and precarious conditions. They often have to sort through massive illicit dumpsites, risking contamination, cuts from glass, heatstroke, as well as many other health risks associated with the job. In addition to being essential to waste management, they have become integrated into everyday social structures, as many Tunisians take it upon themselves to hand off their collection of the week's recycling directly to *barbechas*. In all my informal interviews, there was mention of constant interactions with their local *barbechas*. One interviewee, a friend named Karim – a young male adult living between Tunis and Paris – explained that he collects his weekly disposal of plastic water bottles in plastic bags and directly hands them off to “a *barbecha* on the street, just to make their lives easier.” The same approach was also shared with me by my family

members including my grandmother, my aunt, and my cousin. Tunisians of all ages take this approach as it is prioritized in Tunisian culture to look out for one another.

Local Initiatives

After the revolution, Tunisia saw an increase in the waste throughout the country due to the waste collector strikes demanding better salaries. This situation motivated locals to take matters into their own hands. Tunisian sustainable initiatives dispersed, and some initiatives organized beach clean-ups and camping trips via social media and campaigns on littering (Alterman et al., 2021, p. 49).

Though these initiatives are run by local Tunisians who want to see the country do better in combating the waste management issue, these initiatives need to be more sustainable in the long run as they are focused on community organization and donations to fund local projects (which often leaves the rural areas of Tunisia out of these projects). While the private and non-profit sectors of waste management have expanded in recent years, this is only a band-aid solution to a much larger problem that requires immediate government attention. The government is responsible for providing a legal framework and collective action to combat the waste management issue in holding up its 45th article in the constitution.

One of these Tunisians working in the non-profit sector is Lotfi Hamadi, who returned to Tunisia following the Arab Spring. He established the nonprofit organization "Wallah We Can" in 2012 with the intention of addressing social challenges pertaining to kids through sustainable, entrepreneurial, and environmentally friendly means. Among other projects, the group has produced reusable menstruation products, erected solar panels for schools in areas where electricity is scarce, and established self-sufficient school kitchens. I discussed the subject of waste management with Hamadi, and he stated, "the same people that you see dumping trash in

dumpsites or littering on the street, if you went to their homes, you wouldn't see a speck of dust, and it would be pristinely clean." Indeed, Tunisians have been living under authoritarian rule for almost all of its modern history, and their relationships with the state are far from positive. Tunisians don't have a civic relationship with the state. In many ways, trash and its disposal are interlinked with expressing anger towards the government and the state. He said that in a post-revolutionary country, the people are expected not to respect the country (with its history of lack of trust between the state and citizens). When the government doesn't provide proper waste management (in some localities, there is none to speak of), it breaks the social contract between the state and citizens. When individuals start dumping trash in illicit dumpsites or setting fires to clear neighborhoods from landfills, it is not an act of malice. Rather, it is a response to the neglect their neighborhoods and communities experience and an expression of discontent, disillusionment, and anger with the political elite. On this point, Hamadi states that "pollution isn't necessarily a bad action" – on an individual level, much of it can be traced to the psychosocial citizen-state relationship.

Analysis

The literature I have presented has drawn a comparison to other developing nations around the world, examining their disparate responses to waste management issues and the efficacy of their policies or lack thereof.

Anthropologist Kathleen M. Millar's perspectives on life and labor in Rio De Janeiro's Jardim Gramacho (a garbage dump on the outskirts of Rio de Janeiro), where *catadores* (waste pickers) collect recyclable materials. Millar calls into question the category of informality (informal economy, waste workers – also described by her as "an elite invention that

pathologized the urban poor,” (2018, p. 131), the standard generalizations on garbage, and the ongoing normativity of wage work. Millar iterates the fundamental role of waste and how it lies in the works of social reform initiatives and the relations of inequality. With this, Millar’s assessment of the Jardim Gramacho in Brazil resonates with the ongoing issues that echo in Tunis.

Waqas Q. Butt examines in his ethnographic account the centrality of waste workers in organizing and transforming Lahore, Pakistan. The framework Butt explores in his research is centered on the collective action of waste work. Butt’s delves into the social stigmatization revolving around caste, class, and religion in his work. The objective case Butt makes in his research focuses on the reproduction of life. Rather than concentrating his research on stories of marginalization, abuse, and exploitation, he formulated his argument around the importance of waste and waste workers and its significance to the reproduction of life. The activity of waste collectors keeps Lahore and its surrounding areas going. Butt’s assessment transforms the way most people view the work surrounding waste and emphasizes its importance, which I believe is critical to understand when delving into the topic of waste management. It is crucial to consider those whose livelihoods are encompassed in waste. This literature provides an interesting provocation, as Tunisia is known to boast their strongest labor union in the Arab world, the Union Générale Tunisienne du Travail (UGTT), and the formalization of this marginalized caste of the Tunisian workforce would holistically steer waste management policy.

As mentioned, Kate Parizeau’s work regarding the neoliberal governance shift in Buenos Aires in the late 2000s and its call for the implementation of a public space policy affecting the waste management sector as well as informal waste collectors. I found Parizeau’s study engaging due to the changing of the regime, alluding to its similarities within Tunisia post-Arab Spring

and its many changes in government. In both countries, there is a focus on instability and contradiction in respect to their fellow regimes. Parizeau notes this description of neoliberalism as a variety of contextual local elements that have influenced the uneven application of neoliberal urban tactics in Buenos Aires, which stand to be evident in the waste management sector. The framework of Parizeau's study is in the concept of actually existing neoliberalism. In relation, post-revolutionary Tunisia obtained funds from Western and multilateral institutions benefitting the country's civil society, despite that, the funds did not achieve stability for the urban spaces and in the waste management sector in particular. The text also includes direct sentiment from *cartoneros*, expressing the representation of integral contributors to urban life in protests. As well as quotes from *cartoneros* defending the value of their work. This study contributes to my research as it accounts for the effects of the governmental regime, its relationship to the waste management system and public spaces in the city, and the sentiment of local *cartoneros*. This study does express little opinion of Argentinian citizens living/working in this space and their feelings towards the regime other than those working informally in the waste management sector. Stating that "in 2008 alone, the following groups were targeted by the Ministry of Environment and Public Space with fines, removal, or threats; street vendors, dog walks, fair vendors, transvestite sex workers, sidewalk café operators, billboard posters, and residents of a downtown shantytown who tried to bring construction materials into their neighborhood in order to improve their building stock" (Parizeau, 2015, p. 290). Though the paper mentions this, it does not assert direct personal statements or sentiments from those affected and their views on the regime and waste management sector. I find that the sentiments of everyday people coexisting with these environments are often left out of the conversation when it comes to the government's policies when it comes to waste. We've seen that without a proper say

in the matter, local people have taken matters into their own hands. Leading to local initiatives which we have seen grow throughout the years in Tunis.

Dr. Wael Salah Fahmi's work on the Zabaleen and the impact of privatization of solid waste management demonstrated a well-grounded case study of informal waste management and its effects on the local people, economy, and political sphere. In this case study, Fahmi highlights the ongoing battle between the Zabaleen people and their rights versus the Egyptian government's plans that could endanger the interests of the local people but can benefit governmental interests. Fahmi conducts his survey through changes in the (Zabaleen) Muqattam settlement's land usage, housing conditions, infrastructure, stakeholder attitudes toward the privatization initiative, and suggested relocation plans and their responses. The comments brought upon from his survey of the different stakeholder groupings are connected to six main themes: housing conditions and recycling efforts, social cohesiveness and community livelihood, political issues, technological advancements, community networking and autonomy, and awareness of the environment.

I serve this scholarly work as an extreme case of informal waste management and the challenges that could be faced when a community of people serves as the waste management sector in a developing urban city. This is to note as an example of how a country with a growing population without a governmental legal framework of waste management and the implementation of that framework can lead to a city of local waste workers aiding in collecting and disposing of the capital's waste.

Within my case study, I have chosen literature around the specificities of Tunisia's growing waste management issue. I put into perspective Tunisia's governmental situation, providing a historical context of the post-revolutionary country. Understanding the many

governmental changes Tunisia went through post-2011 can assess the value of psychosocial citizen-state relationships. As I noted previously, the changes that Tunisians have gone through with the government, local municipalities, and overall regulation addresses attitudes that can be held towards their surrounding environment. The waste in itself is not an issue as it spawns as an expression of the anger and resentment many still feel toward the government. The improper disposal of the waste is emblematic of the government's failure to repair the basic citizen-state relationship during the democratic transition. It is in the way of proper disposal of waste that the government can alleviate this relationship by showing the care and effort put into the country and its citizens. Waste management is presented as an issue globally. Still, in the case of Tunisians, I emphasize that when adequately taken care of, it can present hope and prosperity for the country. The issue has remained a visual reminder of the government's ineffective nature during the democratic transition and the failure to provide its citizens with essential public goods and services.

Conclusion

I have demonstrated scholarly work revolving around the informal sector of waste management, social stigmatizations rotating around this work, shifts in government and its relation to the effects on waste management, and the impact of privatization of solid waste management within the Zabaleen. As well as informal and formal interviews I have conducted in my time in Tunisia (June and July of 2023).

I iterate that focusing on implementing proper waste management can greatly improve people's psychological relationships with the government. In many ways, the waste people see in the once-clean streets serves as a daily reminder of the failures of the democratic transition. This psychological relationship between state citizens is not mentioned much in the literature research

I have come across but is prevalent in Tunisians' daily lives and is often left out of the narrative of research.

I believe this research offers insight that the issue of waste management needs to be addressed for Tunisia's sake. In addressing this issue properly, it could provide psychological, economic, social, environmental, and political benefits to the country. I emphasize the importance of the Tunisian government in providing a legal framework for waste management to be held more responsible. Overall, I see waste management as a growing issue that needs to be addressed immediately as it can accumulate more difficulties in local people's livelihoods and become harder to manage in the future. I also emphasize the importance of prioritizing waste management in a holistic approach that doesn't exacerbate the regional disparities throughout the country, as this has been a major issue from French colonial rule, which was highly focused on extraction.

I believe my research brings forth questions about Tunisia's rampant waste management and populism, as well as the need for further investigation. Tunisia is internationally seen as one of the only successes that came out of the Arab Spring. If there is a strong relationship between the environment, waste management, and political change, then with the growing climate crisis, the relationship between political stability and the environment deserves to be a subject of more attention.

These private and informal means of waste management have emerged particularly since the Arab Spring in the context of an inefficient bureaucracy and a weak, precarious democracy. Incorporating those in the informal waste management workforce into the formal one will not only guarantee *barbechas* protection from exploitation but, will also help build the strong civil society and labor union influence that Tunisia boasts. The unionization and formalization of

these *barbechas* would allow Tunisia, which is home to the largest and most powerful labor union in the Arab world, to direct its waste management programme. The *barbechas*, who possess true on-the-ground knowledge and expertise. Eventually, the Tunisian government will need to integrate *barbechas* from the largely privatized informal recycling sector into its official and public infrastructure if it hopes to address waste management from an all-encompassing perspective.

French colonial development prioritized coastal economic development to serve their extractive agenda, leaving a lasting legacy on the severely neglected infrastructure of the interior that continues to this day. It was these semi-urban areas of the interior, namely Sidi Bou Zid, that birthed the Jasmine Revolution and continue to demonstrate their social unrest. Yet from lower and middle-class neighborhoods of Tunis to rural oases in the interior of Tunisia, dumpsites have become common, water has become polluted, and trash fires fill the air. The grievances of marginalized Tunisians are indeed irrevocably intertwined with infrastructural neglect, and waste management serves as a daily visual reminder of these government failures. If Tunisia is ever to bounce back from its current autocratic backsliding fueled by anti-government populism, it must holistically revive this basic infrastructural service and repair the fragile citizen-state relationship.

Unlike the fates of Libya and Syria which plunged into civil war, and countries like Egypt which experienced a brutal autocratic crackdown, Tunisia has made significant leaps in bounds during its democratic transition. Certainly, the struggle for basic services in Tunisia represents a larger symbolic struggle for all Arabs fighting for political justice, representation, and productive robust urban spaces.

Pictures from Tunisia, June-July 2023



Figure 1: Outskirts of a growing neighborhood in the south of Tunis. Industrial waste from construction can be found wherever new houses are built.



Figure 2: A waste fire in Djerba, Tunisia, outside a residential area. An intentional waste fire to clear the waste from farmland.



Figure 3: Machinery at the “2 a Plast” recycling facility at Bou Mhel, Tunisia.



Figure 4: Plastic sorting process entering the machinery at “2 a Plast,” Bou Mhel, Tunisia.



Figure 5: Workers in “2 a Plast,” Bou Mhel, Tunisia.



Figure 6: The outside of the office where I spoke with the floor manager of “2 a Plast”, Bou Mhel, Tunisia.



Figure 7: The collection of clean, shredded, plastic waste in a collected bag at “2 a Plast,” Bou Mhel, Tunisia.



Figure 8: Collected bags filled with clean, shredded plastic waste. The collected bags are ready to be taken to the main recycling center.



Figure 9: Pollution outside of “2 a Plast,” Bou Mhel, Tunisia.



Figure 10: A man taking bags of trash to a neighborhood dumpster on the outskirts of Tunis.



Figure 11: A neighborhood dumpster in Djerba, Tunisia.



Figure 12: A recycling bin next to the neighborhood dumpster in Djerba, Tunisia.



Figure 13: Another perspective of the neighborhood dumpster and recycling bin in Djerba, Tunisia.

Bibliography

Alterman, J. B., Hall, N., & Todman, W. (2021). TUNISIA. In *SUSTAINABLE STATES: Environment, Governance, and the Future of the Middle East* (pp. 37–52). Center for Strategic and International Studies (CSIS). <http://www.jstor.org/stable/resrep32148.7>

Bünemann, A., Brinkmann, J., Löhle, S., & Bartnik, S. (2020). Country Report - Tunisia <https://prevent-waste.net/wp-content/uploads/2023/06/Tunisia.pdf>

Butt, W.H. (2023). *Life beyond Waste: Work and Infrastructure in Urban Pakistan*. Stanford University Press, 2023.

Constitution de la République tunisienne [Tunisia], January 2014, available at: <https://www.refworld.org/docid/54c25ac94.html> [accessed 7 November 2023]

Desai, U. (1998). *Ecological Policy and Politics in Developing Countries: Economic Growth, Democracy, and Environment*. Albany, NY: State University of New York Press

Fahmi, W. S. (2005). *The impact of privatization of solid waste management on the Zabaleen garbage collectors of Cairo*. *Environment and Urbanization*, 17(2), 155-170. <https://doi.org/10.1177/095624780501700212>

Millar, K. M. (2018). *Reclaiming the Discarded: Life and Labor on Rio's Garbage Dump*. Duke University Press. <http://www.jstor.org/stable/j.ctv11312kd>

Parizeau, Kate. (2015). *Re-Representing the City: Waste and Public Space in Buenos Aires, Argentina in the Late 2000s*. *Environment and Planning A*. 47. 284-299. 10.1068/a130094p.

Werenfels, I. (2022, June 14). *No time to lose as Tunisia's president consolidates authoritarian turn*. Stiftung Wissenschaft und Politik (SWP). [10.18449/2022C41](#)