Waste management in Tripoli: A temporary crisis or a long-lasting imbroglio?

Abstract

The armed conflict between the Libyan Arab Armed Forces and forces loyal to the Government of National Accord (GNA) from April 2019 led rapidly to a major waste management crisis in Tripoli. While the crisis ended in June 2020, with the military operations, it flagged up some of the key service provision challenges for the Libyan authorities.

This policy brief analyses the role of state authorities and municipalities in service provision in Libya; asks how it has developed since 2011; and how it changed during the 2019-2020 waste management crisis. It also sheds light on structural issues, such as: the absence of policy planning; the gaps in the state administrative structure; the overlapping prerogatives of specialised bodies; as well as obstacles to decentralisation.

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Introduction

In April 2019, the Libyan Arab Armed Forces (LAAF) led by Khalifa Haftar and the forces supporting the Government of National Accord (GNA) clashed in the south of the capital, Tripoli. The GNA's priorities were subsequently to change, as it focused its efforts on achieving security and stability in Tripoli and on military operations in the western region. The fourteen-month conflict affected the public services sector by increasing power outages, interrupting water supply, and hampering waste management in the city. As such quality of life suffered in the capital.

Within a few months, waste had accumulated in the streets and landfills. The authorities failed to find adequate solutions. In late 2019, with the conflict still raging, the build-up of waste became an administrative and environmental crisis threatening public health and hindering the population’s movement. The crisis also led to tensions and confusion amongst the authorities and local government organisations.

It was not until the conflict ended in June 2020 that Tripoli’s waste crisis was finally resolved. The permanent landfill in Sidi al-Sayeh became operational once again, and a campaign to clean up the city was launched in August. However, the crisis raised questions. Was this merely a temporary issue linked to exceptional security, economic, and political circumstances? Or was it, in fact, rooted in deeper legal and administrative factors, compounded during a period of open conflict?

This policy brief explains the role of state and municipal authorities in providing waste management services in Tripoli; how this role has developed since 2011; and particularly how it has developed since the waste crisis. It also looks at the challenges facing waste management policies. This includes: the overlapping responsibilities of administrative authorities in the city; the weak role of local government; the weakness of the administrative structure in Tripoli generally; and the lack of planning in the capital.

1. The 2019 waste management crisis in Tripoli

1.1 How the crisis began

The waste management crisis in Tripoli began with the armed conflict that broke out between the GNA and the LAAF in April 2019. Waste accumulated after waste transport trucks were unable to reach the city’s permanent landfill in Sidi al-Sayeh. This was due to its location on the front where fighting was. This landfill had previously received the solid waste produced in the municipalities of Greater Tripoli, after it had been collected from interim landfills in the city.

With the Sidi al-Sayeh landfill rendered inaccessible, waste began to accumulate in three interim landfills in Tripoli: the Abu Slim landfill; the Tajoura landfill; and the Sawani landfill in Hay al-Andalus municipality. However, given that these landfills were temporary and of limited capacity, waste management services in Tripoli were quickly affected. The rate of waste production also spiked due to the displacement of families, who fled from fighting in areas like Ain Zara and Abu Slim in southern Tripoli, towards the city centre. In the course of just one month, waste accumulated significantly in Tripoli Centre, Souq al-Jum’a, and Hay al-Andalus municipalities. There the areas available for waste collection were small and population density was high.

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1 Al-Jazeera, “Tripoli is thirsty ... the other side of Haftar’s war on the Libyan capital,” 2 September 2019, https://bit.ly/3orUil1
4 The area of the municipalities is as follows: Tripoli Center: 18 km²; Tajoura: 1,200 km²; Souq al-Jum’a: 48 km²; and Abu Slim: 12.8 km².
By Ramadan of that year (May 2019), the municipalities most affected by the waste crisis in Tripoli led waste collection campaigns in coordination with the General Services Company-Tripoli, the authority responsible for transporting and collecting waste. Nonetheless, municipal officials continued to complain about the quality of waste collection services, and the Abu Slim landfill – the main landfill, where most of the city’s waste was transported – reached capacity. This was all compounded by the fact that the salaries of waste collection and transportation workers were delayed.\(^5\)

Souq al-Jum’a municipality described the deteriorating waste management services in July as “a recurring [issue], and an ongoing environmental problem.”\(^6\) In the third quarter of 2019, the main problem facing waste collection and transportation services was the lack of sufficient interim landfills to accommodate the quantities of waste generated. In September, the General Services Company-Tripoli, closed the Abu Slim landfill, after waste had reached a height of 25 meters, weighing in at over 250,000 tons.\(^7\) The Sawani landfill was also closed. The Company

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maintained that it was only responsible for operating landfills, not for finding alternative ones. It declared that there were no alternative sites for receiving the rapidly accumulating waste.

After the closure of the Abu Slim and Sawani landfills, a dispute arose among the municipalities over the landfills that fell within their respective jurisdictions. Waste transferred from outside a given municipality was considered “incoming waste,” and not the municipality’s responsibility. Therefore, some municipalities refused to receive waste transported from neighbouring municipalities. Meanwhile, waste continued to accumulate in municipalities that lacked interim landfills, such as Tripoli Centre and Souq al-Jum’a.

1.2 Effects of the crisis on Tripoli residents

The waste crisis, with informal landfills and other interim landfills reaching their maximum capacity, had significant health and environmental consequences for the residents of Tripoli, while also impeding other service sectors in the city. For example, after waste accumulated in the streets, and near residential areas, residents opted to start fires in the informal landfills in attempt to get rid of associated stenches, pollution, traffic jams, and eyesores. This kind of crude incineration of waste, however, meant the burning plastic, and sometimes medical waste. There were emissions of toxic gases and carcinogenic compounds.

Another consequence of these informal landfill fires was operational breakdown in the electricity sector. During the crisis, the turbines of a power plant in southern Tripoli broke down as a result of the smoke emissions from a nearby informal landfill. It fell temporarily out of service, further exacerbating the power outage crisis in the city.

An additional danger from open landfills comes in the form of gases emitted from the decomposition of organic matter in untreated waste. For example, fires and explosions continue to occur from time to time in the de-commissioned Ain Zara landfill. According to environmental sanitation experts in Tripoli, open, untreated landfills were time-bombs, filled with highly flammable methane gas. They were either to be shut-down or vented to allow the escape of combustible gases.

Another service that was impaired by the accumulation of waste was the drainage of rainwater from the city’s streets. In September 2019, waste build-up peaked with the onset of the rainy season. As a result, non-biodegradable materials such as plastic and solid waste clogged the rainwater drainage gutters on the roads. On the one hand, the blockages posed a challenge to the General Sewage Company, while on the other, the infrastructure, damaged by flooding, increased the economic burden on the state. At the public level, the blockages resulted in increased traffic congestion.

1.3 A disorganised response to the crisis

The GNA’s response to the crisis in 2019 was disorganised. This was, in part, a result of administrative overlaps in waste management prerogatives. For example, the budget was distributed among the municipalities and General Services Company-Tripoli without clear demarcations. This resulted in administrative and legal disputes, as well as objections – due to each party receiving only half of their share of the budget – and further added to the confusion in waste management.

In their efforts to overcome the waste crisis, the municipalities and the General Services Company-Tripoli worked almost entirely independently of each other, with no clear coordination or budget. They sought out different solutions.

The Souq al-Jum’a municipality disposed of...
its waste in an interim landfill that it established on the borders of Maitiqa International Airport, after gaining the approval of the Environment General Authority. However, this landfill failed to comply with the set regulations, according to the Environmental Sanitation Office. Meanwhile, the Tripoli Centre municipality coordinated with its counterpart in Souq al-Jum’a, and employed the Maamoura landfill outside Tripoli – in cooperation with the armed group guarding it – to get rid of its waste. The municipalities of Tajoura, Abu Slim, Ain Zara, and Hay al-Andalu, meanwhile, continued to use the interim landfills in their municipalities or the larger public areas available to them.

The waste management crisis began to ease with the cessation of the armed conflict in Tripoli in June 2020. In July, the United Nations Development Program (UNDP) in Libya helped provide waste collection containers for the municipalities of Tripoli Centre, Souq al-Jum’a, Tajoura, Hay al-Andalus, and Ain Zara. By August, the city showed growing concern for collecting waste from the streets, as the General Services Company-Tripoli began clearing the interim landfills and launched a campaign to clean up the main streets in Tripoli. By October 2020, the municipality of Souq al-Jum’a announced that the Maitiqa landfill would be gradually shutdown. These efforts led to a notable improvement in waste management and collection services.

2. Who is responsible for waste management in Tripoli? The historical background of waste management services

Waste management services in Tripoli had faced challenges for several years due to a lack of efficiency. They were officially established in 2004, when the General Services Company-Tripoli was founded and tasked to oversee waste management as an independent public company affiliated to the Libyan government. The company operated under this structure until 2011. Its affiliation shifted, though, to the Tripoli Municipal Council, then to the Ministry of Public Utilities and Housing from 2012 until 2014, and finally, from 2015 and 2020, to the GNA’s Ministry of Local Government.

The period between 2004 and 2011 witnessed plans to involve the private sector in solid waste management in Tripoli, albeit not at the decision-making level. As a result, there was a gap between plans and laws, on the one hand, and implementation, on the other. This weakened the role of the private sector and its opportunities for investment in waste management, and had a negative impact on the implementation of development projects. Though waste management had improved somewhat before 2011, “the situation changed as a result of the lack of security in the country and as a result too of rampant corruption in the government sector.” Subsequently, “successive governments neglected waste management and services in general, although they allocated sizeable funds and enormous budgets towards them.”

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16 Interview with an engineer from the Environmental Sanitation Office, Tripoli, ibid.
20 The responsibilities of the General Services Company in Tripoli include the following: collection of garbage; street cleaning; drainage of rain water in emergencies; trees trimming; ardens and public green spaces; and general improvement of the city’s appearance. The company has undergone a series of administrative structural changes since its establishment.
22 Interview with an architect and former expert in utilities and housing administration, Tripoli, 21 October 2020.
23 Ibid.
After 2011, the waste management sector underwent several structural changes, as political changes were taking place in the background. The state, however, lacked a coherent policy, and waste management efforts floundered, affecting the quality of services. For example, according to the 2015 organizational structure of municipalities, the offices of research, statistics, and decision support in each municipality were tasked with recommending strategic policies to the local authorities. The shutdown of these offices affected the decision to support waste services.

### 2.1 Waste management structure

Tripoli lacks a clear organizational structure for waste management in terms of the authorities designated at the municipal and governmental levels. The current waste management structure starts at the Ministry of Local Government, whose tasks include setting local management policies and supervising waste management by overseeing both local utilities and environmental sanitation. Under the Ministry are the municipalities and the General Services Company-Tripoli. At the same time, the Environmental General Authority, the Environmental Sanitation Offices of the Ministry of Local Government, and the municipalities all act as watchdogs to oversee waste management. Below is a diagram with the structure of waste management services in Tripoli:

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25 This has weakened the Geographic Information Systems Unit’s ability to submit proposals to the Ministry of Local Government regarding solid waste management.
26 According to Resolution No. 55 of 2012, approving the organizational structure and the terms of reference of the Ministry of Local Government, and the organization of its apparatus.
27 According to Administrative Law No. 59 of 2012 regarding the establishment of municipalities.
28 Established in 2003, it represents the main supervisory body in charge of implementing legislation regulating environmental protection, and monitoring activities and transactions related to the environment and pollutants.
29 Data for 2020.
The cycle of waste management is unsustainable, as it involves mainly accumulating waste in open landfills and leaving it untreated. First, waste is carried by waste transport trucks from residential and public areas to the interim landfills inside or outside Tripoli; namely the Abu Slim, the Sawani, the Tajoura, and the Maitiqa landfills, and occasionally, the Maamoura landfill outside the city. There, the waste should undergo treatment before being transported to the permanent Sidi al-Sayeh landfill south of Tripoli.

In terms of waste management execution, the General Services Company operates according to the laws governing its establishment before 2011. The Company supervises the collection and transportation of waste in cooperation with a consortium of companies, and thus receives the largest share of funding from the waste management budget. However, there is an overlap between the prerogatives of the General Services Company-Tripoli and the municipalities responsible for waste management in Tripoli.

According to Law No. 59 of 2012, establishing the municipalities, and its implementing regulations, the municipalities’ prerogatives include monitoring the level of public hygiene, and the collection and disposal of waste. Although the municipalities also have waste management prerogatives, neither the prerogatives nor the bodies responsible for coordinating between the central and local governments – namely, the governorate authorities – have been activated. These factors further impeded the municipalities’ administrative and financial ability to manage waste in their jurisdictions.

2.2 Disputes and tensions

Disputes between the municipalities and the General Services Company-Tripoli

To address the crisis, the government attempted to facilitate, with policies, the shift to waste management decentralisation. One of these was Resolution No. 1011 of the Presidential Council of the GNA in September 2019. The Resolution stipulated that six municipalities in Tripoli would undertake cleaning activities using a portion of the budget originally allocated to the General Services Company-Tripoli. Accordingly, the Council tasked the Ministry of Local Government to open bank accounts for depositing taxes, which municipalities would be able to use as an additional funding source. Within two months, a committee was formed. Its role was to distribute the public cleaning budget among the municipalities and the General Services Company.

Legal disputes arose between the municipalities and the Company after the Resolution was implemented. In a letter sent by Souq al-Jum’a municipality to the Presidential Council in December 2019, the municipality noted the government’s failure to transfer the pledged public cleaning allocations. Instead, the committee responsible for the distribution of the allocations transferred only half of the funds to the municipalities, and the other half to the General Services Company-Tripoli. Moreover, the municipality protested that the General Services Company-Tripoli had failed for several years to improve public hygiene and claimed that the municipality had made more
efforts in that direction than the Company. Finally, it described the government’s weak support in waste management as a “war against the transition to local governance,” and demanded that the budget allocated to it be transferred alternatively through the Ministry of Finance.

In response, the General Services Company-Tripoli took legal accountability measures regarding Resolution No. 1011. It requested that the Law Department of the Supreme Judicial Council issue a legal opinion on the Resolution supporting the decentralisation in waste management. The Council’s response stated that the Resolution was illegal and in violation of the law establishing the municipalities and the General Services Company-Tripoli law. The Council, thus, opposed the transfer of both the General Services Company’s prerogatives and its budget to the municipalities.

Resolution No. 1101 was, indeed, aimed at supporting an active role for municipalities in waste management, especially given the accumulation of waste in Tripoli between September and December. However, it also highlighted the repercussions of not having implemented Law 59 – which grants municipalities financial and administrative independence – prior to that. The result was that the Resolution’s implementation led to a confusion in the prerogatives of various parties. These in turn, impaired the waste collection system. This was visible on the ground with a noticeable decline in waste transportation services, coinciding with the rainy season, and the accumulation of waste on the streets which led to closures and water drainage blockages.

**Inter-municipal tensions**

The waste crisis of 2019 also led to the emergence of tensions among the municipalities. The absence of the governorate as an administrative unit to coordinate between municipalities, combined with poor waste collection service funding, prompted each municipality to form its own independent relationships with other stakeholders. In an act of self-governance, some municipalities cooperated with armed groups to secure exclusive access to the landfills, which hindered, in turn, other municipalities from providing their own waste management services. At the Tajoura and Abu Slim landfills, for instance, which were guarded by armed groups, transport trucks from outside their areas were turned away.

During the crisis, the municipalities with the highest population density faced challenges in disposing of their waste, especially in the absence of interim landfills within their territories. For example, Souq al-Jum’a municipality issued a statement in October 2019, in which it held both the General Services Company-Tripoli and Tajoura municipality responsible for “their lack of cooperation in receiving the waste of the Souq al-Jum’a municipality to the interim landfill in Tajoura.” In response, the Environmental Sanitation Office in Tajoura stated that the landfill was closed and out of service, and that it could only accommodate the waste from Tajoura municipality. Consequently, the Souq al-Jum’a municipality created a temporary landfill in Maitiqa, despite it failing to meet the regulations for the construction of an interim landfill.

Although the waste crisis ended in June 2020, waste management services have continued to operate without a clear system. Both central

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38 Maitiqa landfill (2019-2020)
41 Law Department’s response to Book No. 9/862, 21 June 2020.
42 According to the Law to establish municipalities in 2012, Tripoli was divided into 13 municipal councils under the name Greater Tripoli Municipality. This encouraged further decentralisation, with more municipal branches acquiring self-governing powers.
43 There are interim landfills in the municipalities of Hay al-Andalus (Sawani landfill), Abu Slim (Abu Slim landfill), and Tajoura (Tajoura landfill).
46 According to the Tripoli Environmental Sanitation Office, the landfill does not match local specifications for the construction of an interim landfill. Work continued on the landfill even after the conflict ended in June, and its gradual closure was announced in October 2020.
and local institutions in Tripoli suffer from a lack of regulatory and legal frameworks for waste management, as well as poor communication and coordination between local solid waste management institutions. This suggests that the waste management crisis in Tripoli was not merely caused by the challenges arising from the armed conflict. This is borne out by the emergence of another waste management challenge immediately after the crisis ended. In September 2020, a new interim landfill was established in the al-Naqliyah Camp, in the Airport Road area. Though the residents of the area objected to its construction, and though it did not meet landfill regulations, it opened nonetheless.

**Conclusion**

The armed conflict in southern Tripoli in 2019 triggered the waste crisis and highlighted the weakness of the waste management sector; a weakness exacerbated by the absence of public policies, planning, and integrated coordination between the authorities. The waste crisis was only deemed a priority when waste accumulated in the streets; and, once it was removed and disposed of, the crisis was considered to have been resolved.

Current waste management policy in the capital might be described as a “clean-up approach,” and the terms “cleanliness” or “services” – officially used to describe waste management – illustrate the outdated methods of waste management employed. The General Services Company-Tripoli, for example, believes that it is not responsible for reducing waste, or establishing facilities to treat and recycle rubbish. Instead, it considers its role to be limited to collecting, transporting, and disposing of waste in landfills, whether permanent or interim.

However, the waste management sector requires a coherent public policy that allows, firstly, for the implementation of sustainable and long-term plans on the basis of local economic, social, and political conditions, as well as sound environmental management; and secondly, an integrated public policy that coordinates between the central and local levels, while involving all relevant parties and stakeholders in providing waste management services.

The waste management crisis has demonstrated the need to face up to the overlapping prerogatives of the General Services Company-Tripoli, which is affiliated with the Ministry of Local Government, and the municipalities, with respect to waste management. The crisis has also shed light on the need to develop and to implement legislation to regulate waste management, in the shift to decentralisation from central to local government. For example, both Laws No. 59 of 2012 and No. 13 of 1984, regarding the establishment of municipalities and public cleaning services grant, respectively, municipalities and public services companies the prerogatives to collect and transport waste. However, neither law mentions any mechanisms or regulatory measures for coordinating waste management activities. Therefore, the shift to local government requires a decision by the cabinet to dissolve the bodies whose prerogatives overlap with those of local government, and to distribute waste management prerogatives among the municipalities and public service companies.

One solution that could promote the role of municipalities in waste management services would be to grant them financial independence. The municipalities currently receive their funding from the Ministry of Local Government, whereas Law No. 59 grants them the right to access diversified sources of funding. Doing so could secure a sustainable stream of revenues for the municipalities.
which would be independent of the government budget, and which would have simpler legal and administrative procedures.\textsuperscript{54}

Moreover, there is a lack of policies involving the private sector in the waste management process. As a result, the significant role that the private sector plays in investment and waste recycling remains limited.\textsuperscript{55} According to some experts,\textsuperscript{56} the private sector is still not ready to propose solutions in waste management. Moreover, the necessary structures for facilitating its role have not yet been established. Experts also argue that investing in waste management is unprofitable from the perspective of business owners seeking a quick turnover, and that instability is not conducive to costly projects, due to their potential economic risks.\textsuperscript{57} For this reason, the role of the private sector is typically limited to companies or individuals who own vehicles which can be used for the collection and transportation of waste.

It is worth noting here that private companies receive funding for waste transportation and collection from the General Services Company-Tripoli, according to contracts which name them as “national contributing companies.” This dependence on state funding by the private sector weakens it and impedes its operations.\textsuperscript{58} Experts in the Environmental Sanitation Office have also noted that private waste collection companies tend not to receive their financial allocations from the government for long periods of time; sometimes waiting for more than a year.

Civil society failed to play any effective role in monitoring or developing solutions with regards to waste management services. Instead, its role was limited to awareness-raising. For instance, some organizations satisfy themselves to raising awareness and explaining the best practices of waste disposal methods to various groups in society. They consider awareness-raising to be an important way to reduce waste, as it targets the source of the problem: homes. The role of civil society organizations in holding waste management service providers accountable remains limited. Accordingly, it is imperative to support civil society organizations and to involve them as stakeholders in any policies or plans aimed at developing waste management, and to provide them with the personnel and data needed to enable them to play a more effective role.

It is important finally to note that international organizations work to support the Libyan governments in the transitional phase of the current challenges. Among their priorities is support for the municipalities during the shift to decentralization and the provision of services. In this sense, logistical support is provided in the form of equipment and vehicles to facilitate the municipalities’ provision of public services.\textsuperscript{59} However, it is not clear whether this support aids sustainability in waste management. After all, the municipalities are still not legally, financially, or administratively entitled to conduct their waste management duties. In addition, the authorities responsible for waste management lack the qualifications and the ability to develop strategic plans for waste management, something which may render such logistical support ineffective. Experts stress that waste management does not need urgent or short-term solutions. Rather, it needs long-term strategic support.\textsuperscript{60}

\textsuperscript{55} Jalal Ibrahim Al-Triki, ibid.
\textsuperscript{56} Interview with an engineer from the Environmental Sanitation Office, Tripoli, ibid.
\textsuperscript{57} Phone interview with an environmental expert and professor at the Faculty of Science at the University of Tripoli, 19 November 2020.
\textsuperscript{58} Interview with an engineer from the Environmental Sanitation Office, Tripoli, ibid.
\textsuperscript{59} Ibid.
\textsuperscript{60} Ibid.
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