



State Comptroller of Israel | Local Government Audit | 2022

Systemic Audit

Collection and Burial of Waste in Local Authorities



Collection and Burial of Waste in Local Authorities

Background

One of the essential services each local authority must provide to its residents is waste collection from public space and collection of household waste, trimmings and junk within its jurisdiction. The local authority's employees or contracted workers remove waste from the containers to the transfer station by designated trucks. Waste screening and volume reduction are performed at the transfer station and then the waste is transferred to landfills or recycling facilities. The waste volume generated in Israel per year, relative to population size, is considerably higher than the volume of waste other countries generate every year. The local authorities deal with growing amounts of waste and bear considerable expenses required for waste collection.



Key figures

680 kg

average waste weight per capita in Israel in 2019. The average waste weight per capita in Israel is greater than the average waste weight per capita in OECD countries – 538 kg per capita

12%–30%

range of waste collection price increase paid by the audited authorities as part of their engagement with a new waste collection contractor

83%

of the waste in Israel is buried as opposed to 42% of the waste in OECD states 53% in the United States and 35% in OECD countries in Europe

NIS 2.8–35.7 million

range of waste collection expenses paid by the five audited authorities in 2020

16,407 complaints

of **Beit Shemesh, Hod HaSharon** and **Yavne** residents related to waste. In the Municipality of **Rahat** and the Local Council of **Zemer** there was no record of residents' complaints that year

approx. NIS 886 million

were allocated as part of three government resolutions related to regulation of waste management in non-Jewish local authorities. Out of which the Ministries of Environmental Protection and Interior approved supports amounting to NIS 792 million (89%). The local authorities used NIS 385 million (43% of original allocations and 49% of approved supports)

68%

of the waste generated in Israel is buried in the south. In 2020, 3.15 million tons of waste, out of 4.66 million tons collected across Israel, were buried in the south

15 out of 257

local authorities published a by-law of excess waste collection from business sources



Audit actions



From June to December 2021, the State Comptroller Office audited waste collection management from 2018 to 2020 within the jurisdiction of five local authorities (the audited local authorities): **Beit Shemesh**, **Hod HaSharon**, **Yavne** and **Rahat** and the Local Council of **Zemer**. Supplementary examinations were conducted at the Ministry of Environmental Protection, Ministry of Interior and the West Negev cluster of local authorities. The audit included five main domains: service provided to residents and advancement of service quality in the local authorities; waste collection gaps between Jewish and non-Jewish authorities and action taken to minimize gaps; waste burial; innovation in waste collection; by laws related to collection of excess waste generated by business sources.

Key findings



Rate of waste burial in Israel – the average rate of waste burial in Israel (83%) is significantly high compared to the average rate in OECD countries (42%), in the U.S. (53%) and in European OECD countries (35%).








Lack of competition between waste collection contractors – it was found that although in some of the audited local authorities several contractors submitted bids to waste collection tenders, the local authorities were engaged with a single contractor for years¹ (**Beit Shemesh** – 14 years and 10 years, **Hod HaSharon** – 8 years, **Yavne** – 15 years and **Zemer** – 8.5 years). It was further found that in tenders initiated by **Beit Shemesh** there was no actual competition between waste collection contractors, because in some cases only one contractor placed a bid and in other cases a second contractor placed a bid but the bid was rejected because it did not meet tender requirements. It was found that following each of the tenders, the service cost in the audited authorities increased by 12% – 30%. Amongst the reasons for price increase: lack of sufficient competition between waste collection contractors and landfills and transfer stations owned by contractors.




Fines imposed by the local authorities on waste collection contractors – in 2020, **Hod HaSharon** imposed fines amounting to NIS 43,743 which were offsetted from the total cost of waste collection (NIS 24.86 million) and **Yavne** offsetted fines amounting to NIS 428,560 from the total cost of waste collection (NIS 24.41 million). **Beit Shemesh** and **Rahat** did not force the contractor to pay the fines and in the Local Council of **Zemer** there was no enforcement.


¹ Referring to terms of engagement which are sometimes continuous and when a contractor wins the tender process.




-  **Waste management regulation in non-Jewish local authorities** – the three government resolutions made in recent years to assist the non-Jewish authorities advancing their waste management programs and the significant budgets the Ministries of Environmental Protection and Interior allocated for the improvement and regulation of waste management were not fully implemented. The local authorities implemented the budgetary allocations at a rate of 43% of the original allocations and 49% of the approved supports. Out of NIS 886 million that were allocated for the three resolutions, the ministries approved supports amounting to NIS 792 million (89%) and the local authorities used approx. NIS 385 million.
-  **Residents' satisfaction** – none of the five audited local authorities (**Beit Shemesh**, **Hod HaSharon**, **Yavne** and **Rahat** and the Local Council of **Zemer**) conducted a waste – related satisfaction survey amongst its residents.
-  **Municipal call center** – 100 local authorities (half of which are non-Jewish local authorities) out of the 257 local authorities in Israel do not operate a municipal call center.
-  **Remaining land resources available for waste burial in Israel** – in 2020, 4.66 million tons of waste were buried in landfills in Israel and the remaining waste burial volume at the end of 2020 amounted to 14.41 million ton/cube. Thus, five landfills are expected to close down in the course of 2022 and in three to four years there will be no approved land resources for waste burial in Israel.
-  **Entry fee to landfills and waste transfer** – the gaps between entry fees to the various landfills might reach 300%. Moreover, the entry fees the landfills charge different clients – local authorities included – vary and the difference might reach a 100%. In 2020, 68% of the waste generated in Israel was buried in the south of Israel. While examining the routes of waste transfer, it was found that amongst the audited local authorities, there were significant differences in terms of distance and routes. **Yavne** and **Rahat** transfer their waste to landfills located 31km and 21km away (respectively) – while **Hod HaSharon** and the Local Council of **Zemer** transfer their waste to landfills located at a distance of 139km and 227km. **Beit Shemesh** was forced to transfer its waste to the Ef'eh Landfill located at a distance of 131km, (instead of the Ganey Hadas Landfill located at a distance of 77km) which added another 54km to the route. The municipality could have transferred the waste to the Dudaim Landfill, which is adjacent to the Ganey Hadas Landfill, but the entry fee to Dudaim is NIS 171.27 per ton of waste, which is NIS 98.27 higher (135%) than the entry fee to Ganey Hadas which is NIS 73 per ton. Waste transfer from different locations in Israel and waste burial in the south have a high financial price as well as environmental price reflected in traffic congestion and emissions of pollutants.



 **Supervision of prices charged by waste collection contractors and of transfer station fees entry** – not all the local authorities have the privilege of selecting the transfer station, due to the limited number of adjacent transfer stations. The local authorities are "trapped" by those transfer stations and are forced to pay the entry fees dictated by them. Although the Supervision Order states that both transfer stations and waste collection contractors must submit a report pertaining to their fees and revenues to the Ministry of Environmental Protection, the Ministry has not formed its final recommendations regarding transfer stations yet. As for the waste collection contractors, the Ministry of Environmental Protection did not collect data from 2019 and 2020, under the Supervision Order, and did not form relevant recommendations.

 **Usage of technological tools in waste management** – the Local Council of **Zemer** does not use technological tools (such as waste management system and application, cameras and detection sensors attached to the trucks) to improve waste management in its jurisdiction and monitor the work performed by waste collection contractors. **Rahat** almost does not use waste management technological tools, however, as of the audit completion, it was in the midst of preparing a tender for the assimilation of such tools. **Beit Shemesh** does not perform initial weighing² of trucks operated by the waste collection contractor who collects waste across the new neighborhoods despite the requirement indicated in the contract.

 **By Laws regarding excess waste generated by business sources** – 15 (approx. 6%) out of the 257 local authorities have completed the by-law approval process and published it. Yavne published the by-law. The four additional audited municipalities did not publish the by-law; **Beit Shemesh** and **Hod HaSharon** have submitted their calculations to be approved by the Ministry of Environmental Protection; the Municipality of **Rahat** and the Local Council of **Zemer** have not advanced the by-law.



Services provided to residents and advancement of service quality in local authorities – the State Comptroller Office commends the actions taken by the Human Capital Development Department in the Ministry of Interior in cooperation with Mifam Emek Yizrael and Mifam Ma'ale Adumim and the training they provide. The purpose of the training is to increase awareness of the importance of the quality of service provided to residents and to improve and optimise the level of service the local authorities provide to their residents.

Waste management collaboration – the Association of Cities Act, 1955, allows local authorities to associate and form an association of cities, which is a cluster of local authorities, to encourage regional development and advancement of different types of collaboration amongst the members of the association. The State Comptroller Office

² Weighing the waste collection vehicle as it enters the local authority at the start of every workday.



commends the collaboration between the Municipality of **Rahat** and West Negev Cluster and the actions taken to improve the waste collection unit in general and the establishment of the enforcement unit in particular.

Key recommendations



Service provided to residents and advancement of service quality in the local authorities – it is recommended that all local authorities, and the local audited authorities in particular, conduct occasional satisfaction surveys amongst the residents regarding all the services provided to the residents, including waste collection. The survey findings may be useful for the authority's management and advance improvement of such services. It is recommended that the Human Capital Development Department in the Ministry of Interior help the local authorities that do not operate a municipal call center, to establish one to improve the services provided to their residents. Such call centers will document residents' calls, reported hazards, the way those hazards are handled and the time it takes to handle them.



Waste collection gaps between Jewish and non-Jewish local authorities – it is recommended that the Ministries of Environmental Protection and Interior examine improved ways of handling support requests from non-Jewish authorities, to take advantage of the supports they are entitled to expand the financial resources available to them and to minimise waste management related gaps between Jewish and non-Jewish authorities.



Mixed waste management Sites – the Ministry of Environmental Protection should find regional solutions for waste management, so that waste management and waste volume reduction actions are performed close to the area where waste is generated. Such solutions might reduce local authorities' expenses related to waste transfer and minimize environmental damages. The Ministry of Environmental Protection should cooperate with the Planning Administration and Israel Land Authority to expand burial sites in the short term until the burial minimization strategy is implemented in the long term. The Ministry of Environmental Protection should implement its strategic plan. It should recruit the local authorities, which are an important factor concerning plan implementation and adhere to the milestones that were set while ensuring the deadlines are met. Full implementation of the plan will significantly improve waste management in Israel, which will be then positioned alongside developing countries in Europe.



Landfills entry fees and competition between waste collection contractors – the Ministry of Environmental Protection in cooperation with the Competition Authority should examine the rate of entry fees charged by landfills, the broader picture of waste collection tenders initiated by all local authorities and the cross ownerships between the



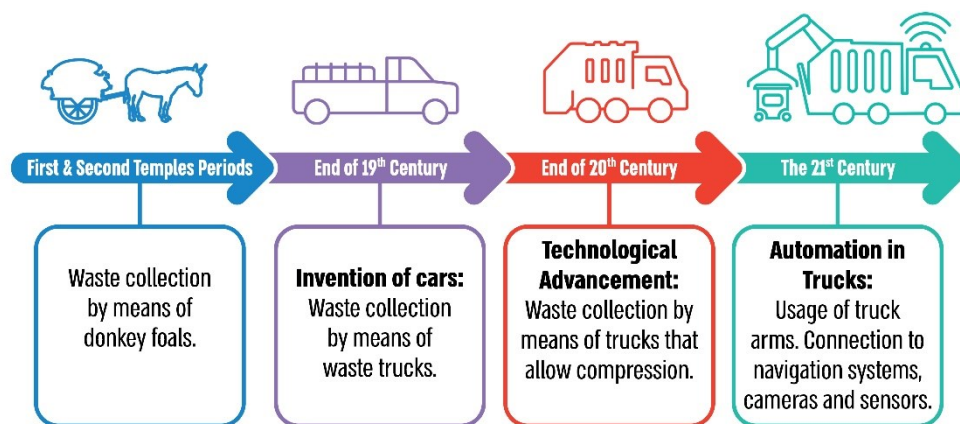
contractors and the stations, to help the local authorities minimize the costs of these services.



Beit Shems and shortage of burial sites – Beit Shemesh, with the help of the Ministry of Environmental Protection, should advance immediate solutions for waste burial. It should reach some understandings with the landfills regarding the volume of waste it is allowed to bury and the entry fees to each of the landfills. At the same time, the municipality and all other local authorities should initiate educational activities for the residents, emphasizing the importance of minimizing the volume of waste to be buried in the end.



Monitoring waste collection contractors by means of technological tools – it is recommended that the Local Council of **Zemer** require that waste collection contractors install detection sensors in the trucks as specified in the contract to monitor the contractor's work. It is recommended that **Hod HaSharon, Yavne** and **Rahat** and the Local Council of **Zemer** consider installing cameras in the trucks. It is recommended that **Beit Shemesh** performs initial weighing and that the Local Council of **Zemer** operates a municipal weighing station and supervises waste weighing when trucks enter and exist its territory to make sure that the charges comply with the amounts that were collected



Summary

In the past decade the rate of waste generation growth has been approx. 2.6% per year on average. Such growth rate means that the local authorities should plan their waste management and use technological tools to collect data and provide high quality, efficient services to their residents. It should be noted that the level of waste management services in non-Jewish authorities is lower than in Jewish ones. In recent years some decisions were



made by the government and budgets were allocated to help these local authorities advance their waste management systems, however, the decisions were not fully carried out. Burial sites in Israel are becoming scarce while waste amounts constantly grow.

The shortage of burial sites leads to an increase in waste collection costs and might lead to burial of waste in undesignated areas.

The crisis caused by the shortage of burial sites means that all relevant factors, led by the Ministry of Environmental Protection, should join forces to find and implement solutions. The local authorities should reduce the amount of waste generation and the amount of waste transferred to burial.