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# ILLEGAL WASTE DUMPING: CHALLENGES AND ENFORCEMENT MEASURES OF LOCAL AUTHORITIES IN SELANGOR, MALAYSIA

# (LAMBAKAN SAMPAH HARAM: CABARAN DAN LANGKAH PENGUATKUASAAN PIHAK BERKUASA TEMPATAN DI SELANGOR, MALAYSIA)

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#### Abstract

Illegal dumping constitutes a significant environmental and public health threat in Malaysia, particularly in Selangor. This study explores the factors contributing to illegal dumping, and actions taken by local authorities to encounter the issue. It also aims to understand the enforcement methods utilized by local authorities in mitigating this issue. Interviews were conducted with five Selangor local authorities to gather input between April to September of 2024. Findings showed that the local authorities conduct constant monitoring of hotspots identified as prone to illegal dumping, engaged local communities to monitor the situation, and collaborate with other agencies to take legal actions against the perpetrators. Their duties were however, impeded by several factors such as economic constraints, insufficient waste management infrastructure, and inadequate regulations for illegal dumping. They lack the manpower in monitoring the illegal dumping activities, and the penalties to deter the perpetrators were not effective. It is thus deduced that to mitigate illegal dumping more efficiently, stricter regulations are required apart from public awareness campaigns, imposing higher penalties and enhanced cooperations among the Department of Environment, Land Office, and the communities.

**Keywords**: Sustainability, illegal dumping, local authorities, waste management, environmental threat

#### Abstrak

Pembuangan haram merupakan ancaman besar kepada alam sekitar dan kesihatan awam di Malaysia, terutama di Selangor. Kajian ini meneliti faktor yang menyumbang kepada pembuangan haram, serta beberapa tindakan yang diambil oleh pihak berkuasa tempatan untuk menangani isu ini. Ia juga bertujuan memahami kaedah penguatkuasaan yang digunakan oleh pihak berkuasa tempatan dalam mengurangkan masalah ini. Temu bual telah dijalankan dengan lima pihak berkuasa tempatan Selangor untuk mengumpulkan maklumat. Hasil kajian menunjukkan pihak berkuasa tempatan melakukan pemantauan berterusan terhadap 'hotspot' yang dikenal pasti sebagai lokasi pembuangan haram, melibatkan komuniti setempat dalam pemantauan dan bekerjasama dengan agensi lain untuk mengambil tindakan undang-undang terhadap pesalah. Bagaimanapun, tugas mereka dihalang oleh beberapa faktor seperti kekangan ekonomi, infrastruktur pengurusan sisa yang tidak mencukupi dan peraturan yang lemah terhadap pembuangan haram. Mereka

kekurangan tenaga kerja untuk memantau aktiviti ini, manakala hukuman mahkamah yang dikenakan tidak cukup berkesan untuk menakutkan pesalah. Dengan itu boleh disimpulkan bahawa untuk menangani pembuangan haram dengan lebih berkesan, diperlukan peraturan yang lebih ketat selain kempen kesedaran awam, penggunaan hukuman lebih berat dan kerjasama rapat antara Jabatan Alam Sekitar, Pejabat Tanah dan komuniti.

Kata Kunci: Kelestarian; Pembuangan haram; Pihak berkuasa tempatan; Pengurusan sisa; Ancaman alam sekitar

#### **INTRODUCTION**

Illegal dumping in Malaysia poses a serious threat to the environment and the country. Over the years, there has been a steady growth in illegal dumping. As of December 2024, the Department of Environment (DOE) on behalf of the Ministry of Natural Resources and Environmental Sustainability (NRES) had received 99 complaints about the illegal disposal of scheduled waste nationwide (Bernama 2024). Illegal dumping is prevalent in both urban and rural areas, but certain regions experience higher incidences. States such as Selangor, Penang, and Johor are notable hotspots due to their high population densities and industrial activities. Selangor alone accounts for about 30% of the country's illegal dumping cases (Selangor State Government 2021). Between 2018 and 2023, Hulu Langat recorded 215 incidents of illegal dumping, with 57 active hotspots remaining as of mid-2024 (Fathil 2024). In Putrajaya, 59 illegal dumpsites were found in 2023. Johor Bahru and Iskandar Puteri in Johor reported 257 and 101 illegal dumpsites, respectively, between 2017 and 2022 (Aingaran 2024).

#### **Problem Statement**

With around 7,000 tonnes of waste being produced every day, Selangor, the largest and most populated region of the country has become a state deposited with the most waste production in the nation (KDEB Waste Management 2024). The Malaysian Space Agency (MySA) noted that approximately 1,400 locations throughout Selangor have been used as illegal dumping sites (Md Zain 2022). The waste includes a mix of household, industrial, and hazardous garbage. Cases of illegal dumping have predominated urban areas such as Klang, Serdang, and Gombak where the rapid industrialization and higher population densities tend to exacerbate the problem.

The state government has detected more than 100 illegal dumping sites operating around Selangor. Several organizations from various premises use illegal contractors to carry out their waste disposal activities and dump the wastes in illegal sites identified as hotspots (KDEB Waste Management 2024). The State Local Government and Tourism Committee had identified 57 active illegal garbage disposal sites while the Subang Jaya City Council recorded 18 dumping sites, and the Hulu Selangor Municipal Council had acknowledged 13 sites (Bernama 2023). The Housing and Local Government Minister stated that in the year 2023, a total of 2,093 illegal dumpsites were salvaged by government funds amounting to RM1.6 million which also removed a total of 6,410 tonnes of waste (Aingaran 2024).

Despite illegal dumping being a local issue, there is not much academic research that had documented the enforcement actions implemented by the local authorities in solving the illegal dumping issue. The previous studies investigate the issue of illegal dumping in general e.g. Rahim et al. (2021) which discussed the challenges in reducing illegal dumping activities in the construction industry, or the studies were in the form of case study e.g. Ibrahim et al. (2021) which discussed the impact of illegal toxic waste dumping in Pasir Gudang, Johor. Considering the important roles of local authorities in waste management, it is pertinent to delve into their efforts in Selangor to deal with the issue of illegal dumping and the challenges faced by them in the enforcement of legal actions relating to illegal dumping.

#### LITERATURE REVIEW

# Types of Illegal Dumping

Illegal dumping, often referred to as fly-tipping, is the unauthorized disposal of wastes in locations that were not designated for waste management (Liu et al. 2021). The wastes being discarded include household garbage, construction debris, industrial waste, and hazardous materials which are discarded in various public areas, roadsides, private lands, natural areas, or other inappropriate sites, without government permission. Illegal dumping is also defined as the disposing of wastes in areas that were not authorized or designated for waste disposals, and this includes public spaces, vacant lots, and natural habitats (SWCorp 2024).

Illegal dumping instances are diverse, involving various kinds of wastes generated both in the urban, and rural areas. Globally, the architecture, engineering, and construction (AEC) industry generates a significant amount of the garbage specifically, construction and demolition wastes (CDW) (Blaisi 2019). These wastes contain materials like concrete, bricks, and wood, and they account for roughly 30% of the country's illegal dumping activities. Renovation works contribute to 70% of the country's construction waste production (Rahim et al. 2017).

# **Illegal Dumping Causes**

Selangor's budding economy, rising lifestyle demands, higher living standards, expanding population, and industrialization, and urbanization are some of the factors contributing to the generation of higher wastes (SWCorp 2024). Research indicates that illegal dumping in Selangor was driven by several factors, such as socio-economic conditions (Nanda & Berruti 2021, Syafrudin et al. 2023), inadequate waste management infrastructure (Ramadan et al. 2022), poor awareness (Hulu Selangor Municipal Council 2025), and regulatory shortcomings (Abdul Rahman 2023). High charges incurred for disposing wastes is the main reason encouraging people to engage in illegal dumping (Hamilton et al. 2013). The rapid expansion of Malaysia's construction industry is another reason causing companies to participate in illegal waste dumping waste, in the effort to save costs (Habizah et al. 2024; Chang & Kumar 2021).

It was also noted that areas with poor waste management infrastructure were more likely to experience higher rates of illegal dumping. Nanda and Beeruti (2021) noted that insufficient waste collection services, and limited access to proper disposal facilities contributed significantly to illegal dumping. This problem is more common in rural locations with no collection services (Seng et al. 2018). Social dynamics also play a crucial role in illegal dumping. Communities with lower levels of social cohesion and civic engagement tend to experience higher rates of illegal waste disposals. Public awareness and attitudes about waste management practices can significantly impact waste dumping behaviors because many individuals do not fully grasp the environmental, and legal implications of their actions.

# Impact of Illegal Dumping

Environmentally, illegal dumping can lead to significant pollution. Waste materials can leach into the soil and water, contaminating natural resources, thereby causing serious harm to the surrounding environment (Siddiqua et al. 2022; Ngalo & Thondhlana 2023). Construction wastes can create an imbalanced ecosystem, altered living conditions, possible pollution, loss of natural resources, energy consumption, and waste generation (Mohamed, Liu & Zaini 2025). Unauthorized solid waste sites are often used as open burning areas by irresponsible parties. As a result, the air quality in the affected areas will deteriorate, and the sites generate breeding grounds for vectors such as cockroaches, flies, rats, and mosquitoes, which can become agents of sicknesses, spreading dangerous outbreaks such as dengue, and leptospirosis (SWCorp 2024). The cost of rehabilitating illegal dumping sites can be exorbitant due to large-scale damage caused to the environment. The Selangor State Government (2021) estimated the cost of cleaning up illegal dumpsites in the state to be approximately RM10 million annually. The cost includes expenses related to manpower, equipment, and disposal.

#### **Enforcement and Challenges**

Ahmad et al. (2019) pointed out that the local government acting as regulators of waste practices had to develop their own rules and regulations, such as on educating the community to manage wastes efficiently and effectively. Chang and Kumar (2021) concurred that weak law enforcement control, the lack of elements, inadequate proper practices, and the prevalence of some irresponsible parties among the government authorities had caused contractors to commit malpractices. The lack of awareness among the community contributed to the situation, and this is also exacerbated by the poor or inconsistent training sessions performed on sustainable development practices. All of these had contributed to the issue of illegal dumping of wastes in illegal dumping sites while hindering the local authorities from resolving the issues at large.

#### **METHODOLOGY**

This study uses the qualitative approach to gain a comprehensive understanding of the situation from the perspectives of local authority representatives who are directly involved in waste management and enforcement. The research involves five local authorities across Selangor, purposefully selected to provide a representative mix of urban, and suburban areas that face varying challenges with illegal dumping. These local authorities were chosen based on factors such as population density, geographic location, and the prominence of illegal dumping issues in the region. By including local authorities from both more densely populated urban areas, and smaller, more rural districts, the study aims to capture a wide range of experiences and insights related to the management of waste and the fight against illegal dumping.

The study involves in-depth, face-to-face interviews, and focus group discussions that were conducted between April and September of 2024. The subjects comprised personnel from relevant departments such as Department of Solid Waste Management and Public Cleaning of a local council and Department of Municipal Services with two to five participants selected from each of the five local authorities that were spread out in four districts in Selangor. The districts and local authorities included in the study were from Petaling, Klang, Kuala Selangor, and Gombak. Each interview, and discussion sessions lasted between 90 to 120 minutes. The sessions were audio recorded, and further substantiated through note taking. The aim was to maintain a secure protocol and confidentiality. The interview recordings were then transcribed verbatim to capture every detail of the conversation. The transcriptions were analyzed through a coding process using the Nvivo software to identify key themes and patterns.

## FINDINGS AND DISCUSSION

# Profile of The Local Authorities

The five local authorities in Selangor that were involved for the interviews and focus group discussions comprise a mixture of city and municipal councils. The city councils such as Shah Alam City Council and Klang Royal City Council are responsible for the comprehensive urban planning and management of their cities (Selangor State Government 2023). Municipal councils like the Selayang Municipal Council (MPS) focuses on local infrastructure and services.

In the section below, the qualitative data is presented verbatim and accorded a note or symbol, 'LA' to indicate local authority and the numbering (e.g LA-1) to indicate the local authority that participated in the interview and discussions. Five local authorities that participated are accorded the notes or symbols for the sake of anonymity as follows; LA-1, LA-2, LA-3, LA-4, LA-5. Table 1 provides a comparative overview of five local authorities, detailing their jurisdiction sizes (in square kilometers), population figures, and core responsibilities.

Council	Area (km²)	Population	Summary of Key Responsibilities
LA-1	$97.2 \text{ km}^2$	~807,879	Local authorities are responsible for a wide
LA-2	1,194.6 km <sup>2</sup>	~302,219	range of functions, including urban planning
LA-3	161.8 km <sup>2</sup>	~968,930	and development control, infrastructure
LA-4	545.6 km <sup>2</sup>	~770,630	maintenance, waste management and public
		•	sanitation, environmental protection, licensing
LA-5	$\sim$ 573 km <sup>2</sup>	~902,025	and enforcement, as well as community and
			socio-economic development.

Table 1. Profiles of Selangor Local Authorities

# Illegal Dumps on Private or State Land and Unauthorized Land Use

The improper disposal of waste in unauthorized areas are particularly concerned with highly populated urban areas, locations with inadequate waste collection infrastructure, and areas under rapid expansion (Aingaran 2024). Operators typically opt for abandoned and secluded locations, regardless of whether the land is government-owned, privately owned, reserved, or without clear ownership (The Sun 2020). Illegal landfills predominantly appear on secluded private or state-owned properties, often in remote areas outside regular surveillance (Razak 2020; Yusry 2022).

#### Officer from LA-1 mentioned that:

".....This area is also known for illegal dumping..... especially on private land around *Petaling Jaya Selatan* (PJS)." (LA-1)

PJS is the southern part of *Petaling Jaya* and includes areas like PJS 1 to PJS 10. These are primarily residential and mixed-use areas, but some parts may have underutilized or vacant land that is vulnerable to illegal dumping activities.

#### Similarly, LA-3 stated that:

"...the issue of illegal dumping on private land has become widespread, to the point where it resembles a landfill site at DS5 Seri Kembangan." (LA-3)

Royal Klang City Council noted many of these dumps are on state government or private land, where enforcement is limited unless landowners themselves request action (Yusry 2022). Hulu Selangor Voluntary Local Review (2023) identifies illegal waste disposal on privately owned residential land, especially in high-rise flats. In many cases, there is no formal agreement or documented consent between the landowner and the waste operator. Instead, operators act independently, identifying vacant or poorly monitored land often in remote or less accessible areas and begin using it as an illegal dumpsite.

## The representative from LA-3 mentioned that:

"However, there are also landowners who do not give their consent or permission, meaning the operator appoints themselves and brings all the trucks from around Selangor to dump on that land, then they level it out." (LA-3)

Once a location is identified, the operator will encroach upon the land, begin clearing and excavating the area to fill it with waste, and later cover and level the site once it reaches full capacity (The Sun 2020).

These activities typically occur without the landowner's awareness or approval, and in some instances, the landowners including government bodies were unaware until reports surfaced (Mok 2019). In *Kapar*, the Royal Klang City Council found that out of 11 private land owners, three could

not be contacted, and others were unaware of dumping until massive trash accumulations prompted action (Bernama 2023).

# Economic Motives: High Disposal and Transportation Costs

Proper waste management often incurs costs, which some individuals and companies seek to avoid through disposing wastes in unauthorized locations. Shah Alam City Council (2021) confirms that high disposal and transportation costs are driving factors behind illegal dumping in Selangor, particularly on private properties. To offset these costs, residents and businesses seek unauthorized dump sites.

The officer from LA-2 mentioned:

"Among them are cost and location. Some of these illegal sites do not charge operators, so they can save a lot of costs by dumping illegally here." (LA-2)

The Solid Waste Management & Public Cleansing Corporation (SWCorp) reports that legal tipping fees in Selangor vary based on location and waste type, typically ranging from RM30 to RM64 per tonne, for sites like *Bukit Tagar* and *Dengkil*, excluding haulage and logistics expenses (Rangga Syed Ismail, Rasdi & Karuppiah 2022). Example of legal tipping fees for comparison is *Bukit Tagar* charges RM49/tonne, *Sungai Kertas* RM11/tonne, *Dengkil* RM10/tonne, and *Tanjung* 12 RM55/tonne (The Sun 2020).

Meanwhile, illegal dumpers commonly charge only RM10–60 per trip and can reap profits of up to RM1,000/day by avoiding legal cost (The Sun 2020). This massive cost differential strongly motivates contractors and individuals to choose illegal disposal instead of legal, regulated channels.

Illegal dumping in Selangor is often orchestrated by organized syndicates, including secret societies or gangs, with dump site guards and threats used to deter enforcement. Contractors and unauthorized waste processors deliberately bypass logistics and landfill fees, especially in high-margin urban zones, making illegal dumping a clear profit-driven enterprise. Construction companies are the primary offenders in illegal dumping, often using third-party waste pick-up services to bypass official processes and costs (Waste Management Association of Malaysia 2023). Some operators even erect fences to conceal their activities, accepting all types of waste as long as payment is made based on the agreed rates (The Sun 2020).

In comparison to LA-2, representative from LA-1 added that,

"If it's an external contractor, they could actually dispose of bulk waste in places like *Knang* or *Jeram*, but they need to pay. Since it's far, they choose the easy way and just dump it indiscriminately." (LA-1)

#### Landowner Involvement and Land Misuse

Landowners sometimes collaborate with dump operators by leasing or allowing access. The Waste Management Association of Malaysia (WMAM), (2023) highlighted that some landowners even lease their land for illegal dumpsites, fostering a "secondary industry" of dumping.

This is supported by LA-3 officer statement:

"...the operator has an agreement with the landowner. This incident involves a large area." (LA-3)

Similarly, representative from LA-4 stated:

"When we inform the owner that the land has been encroached upon, the owner must take appropriate action. Action will still be taken against the landowner. It is possible that the landowner may pretend not to know about the issue, but in reality, they may have discussed with the operator to lend the land for a certain fee." (LA-4)

Other landowners claim ignorance, suggesting they were unaware that their land was being abused. In Kuala Langat (Jalan Sijangkang Utama, Teluk Panglima Garang), a landowner's unused agricultural land was turned into an illegal waste-burning site. The waste dumped at the site is commercial or industrial solid waste and not e-waste (Shahrul Annuar 2024). The situation in Kampung Sri Sentosa and Kampung Sri Aman has worsened, with land reclamation activities involving construction debris and household waste becoming more widespread, leading to serious environmental and safety concerns for the local community (Selangor Journal 2025).

#### The LA-3 officer mentioned:

"The operator uses the excuse that this is land filling, not waste dumping. In other words, they did not apply for a landfill site but for land filling. In reality, what is being done is disposal. The area is very large, and if we look at it, it really looks like a waste disposal site." (LA-3)

Additionally, representative of LA-4 mentioned that:

" .... that individual has misused the land. For example, we found that the land was agricultural land but was being used as a dumping site. So, the individual has violated the land use conditions." (LA-4)

"There was an issue previously, where they were dumping waste to fill the land for construction purposes but did not submit any application for earthworks to the council." (LA-4)

#### Non-Compliance by Public and Contractors

Some individuals have developed a habit of discarding bulk waste along roadsides and on vacant land. In some cases, they even travel beyond their own neighbourhoods to dispose of waste illegally (Rajendra 2024). Residents prefer not to store waste at home, dump it on roadsides or hidden areas. This is supported by LA-1 representative statement that:

"... For instance, there is an individual who doesn't want waste placed in front of their house, so while they go to work, they dump it anywhere, like on the roadside where there is already a pile of rubbish." (LA-1)

Many residents are unaware of proper disposal methods or consequences of illegal dumping. The Hulu Selangor Municipal Council has received a high number of complaints at the location which is a hotspot location for illegal dumping. Construction debris, bulky items, and household waste are among the types of garbage commonly found along the roadside in the area. This shows that the mentality of the community is still low in keeping the environment clean (MPHS 2025).

"... people don't know where to dispose of waste. They take the easy way out and dump it anywhere, such as construction waste or waste from renovation processes." (LA-1)

Kuala Selangor Municipal Council (MPKS) issued a compulsory requirement that all factories and industrial premises under its jurisdiction must appoint KDEB Waste Management Sdn Bhd, the council's appointed waste contractor for unscheduled industrial waste. MPKS' state Local Government Committee chair, Ng Sze Han, stated:

"This is a council requirement to ensure all unscheduled industrial waste is disposed of properly at registered disposal sites..." (Chan 2022).

This closely aligns with LA-1's implication of using an approved panel during renovations or industrial works.

"This is why, when doing renovations, we require them to use our panel." (LA-1)

"...we have issued an order that every business premises that wants to use the waste collection service must appoint our panel of contractors." (LA-3)

Failure to comply with assigned disposal schedules contributes to illegal dumping. According to Klang Royal City Council in 2024, 15 industrial waste contractors were removed from its approval panel due to failing to submit monthly disposal reports and breaching contract terms. One lagging contractor was even caught illegally dumping and burning waste along a roadside in *Kampung Jawa*, demonstrating direct consequences of non-adherence to disposal schedules (Mykmu.Net. 2024).

"... a contractor has been given a schedule but doesn't comply." (LA-1)

In December 2023, Sepang Municipal Council issued 30 Notices to Correct (NTC) to KDEB Waste Management contractors for multiple instances of uncollected (undone) jobs. Many residents have reported poor service in bulk waste removal and lacklustre general cleaning (Nair 2023).

# Inadequate Waste Management Infrastructure

The availability and accessibility of waste management infrastructure are critical in shaping illegal dumping behavior. Local authorities have consistently pointed out that areas with limited access to dumpsters, recycling centres, and waste collection services tend to experience higher rates of illegal dumping (Syafrudin et al. 2023). Klang responded to widespread dumping of large items by investing RM2.1 million in free bulk waste collection. The council cleared 55.5 tonnes of dumped items, showing that without accessible bulk waste services, residents resort to illegal dumping (Rajendra 2024). For instance, squatter settlements that are excluded from regular waste collection schedules often have residents who resort to illegal disposal methods caused by a lack of viable alternatives.

"It's like there is a squatter settlement where we don't collect waste, so where do they dispose of it? Of course, it ends up as illegal dumping." (LA-2)

On TNB reserve land in *Taman Bakti, Kuala Langat*, makeshift dwellings housing nearly 200 migrant workers lacked basic sewage and waste collection. No formal garbage or sewage systems existed, so occupants discharged all waste directly into nearby drains and waterways highlighting how infrastructure scarcity leads to informal disposal methods (Selangor Journal 2020). A 2021 study by Selayang Municipal Council noted that without access to designated bins, residents especially in low-income areas frequently dumped waste indiscriminately (Ahmad 2021).

# Patterns and Timing of Dumping

Dumping often occurs at night to avoid detection by authorities and nearby residents. The cover of darkness makes it easier for offenders to operate without being seen, reducing the chances of being caught or fined. This tactic is commonly used by irresponsible waste contractors, individuals, or illegal syndicates who want to bypass proper disposal procedures and fees.

"The dumping happens at night, so no one sees it." (LA-5)

Residents near the Orang Asli Hospital on Jalan Gombak are upset that their forest has become a dumping site for irresponsible individuals. The problem has worsened, with more food delivery packaging being thrown there. Dumping happens almost daily, usually at night. Although the

Selayang Municipal Council hired a company to manage the area, the contractor often just uses an excavator to push the rubbish into the ravine (Vengadesan 2019).

Overflowing bins are a common issue in many areas, especially when they are misused by individuals or businesses who are not authorized to use them. Business owners along *Jalan Besar Selayang Baru in Batu Caves*, Selangor, are utterly exasperated by overflowing rubbish bins and blocked drains in their commercial district due to irresponsible actions of illegal dumpers (Wahab 2025).

Large bins provided for specific residential or commercial use often become full overnight because outsiders dump their waste illegally. These may include construction debris, bulky items, or commercial waste that exceeds normal household amounts.

"Usually, they target the large trash bins. So, they come at night. Then, by daytime, suddenly the bins are full." (LA-1)

Local authorities have observed that communities with a strong social cohesion and collective norm, can prevent illegal dumping issues. This can lead to fewer littering incidents and fewer experiences of illegal dumping.

#### REGULATORY AND ENFORCEMENT

Many local authorities have expressed their frustrations with the regulatory and enforcement challenges they faced in encountering illegal dumping. In Selangor, a large-scale illegal dumping on private land had transformed the area into a dumping site. The operators contended that this activity constituted land reclamation rather than waste disposal, as they had applied for a reclamation permit instead of a landfill permit. However, the reality is that actual waste disposal was taking place, with the extensive area visibly resembling a waste dumping site.

Local authorities play a crucial role in preventing illegal dumping through a variety of enforcement mechanisms, such as fines, penalties, and the monitoring of high-risk areas. LA-4 mentioned that enforcement practices are prevalent upon complaints received from residents.

"Once complaints are received from the public, we will conduct investigation, especially if the area concerned is a hotspot for illegal dumpsites, such as areas which are far from public areas as well as lands which are not easily accessible. At the local authority level, we will conduct surveillance of the illegal dumpsite itself, an inquiry on the owner of the land and monitoring of the frequency of the

illegal dumping practices done on the sites. Once investigation is complete, we will take enforcement action involving a number of agencies which include the land office and other internal departments within our local authority itself."

(LA-4)

According to LA-4, once complaints are received from the public, investigation will be conducted at the alleged illegal dumpsites especially if it involves a hotspot for illegal dumpsites. Enforcement action will be taken depending on the outcome of the investigation. This is in line with the practice in other countries as mentioned by Van Rooij et. al. (2018) that enforcement of law chiefly relied on complaints by citizens. This shows the importance of the involvement of public when it comes to eradicating illegal dumping problem.

LA-1 and LA-3 also mentioned about involvement of other departments in taking enforcement action for illegal dumping issue.

"When it comes to illegal dumping, the Enforcement Department is the one who will issue compounds against the perpetrators..." (LA-1)

"Enforcement action is taken based on surveillance and complaints. We have another unit called Cleanliness Control Department (*Bahagian Kawalan Pembersihan*) which is tasked with daily

surveillance (of the areas under the jurisdiction of the local authority). Our officers are divided into zones which is further divided into a smaller area assigned to each officer." (LA-3)

This reflects the fact that illegal dumping issue cannot be tackled through one party only as it involves various department in the local authority itself as well as the involvement of other governmental agencies.

## Compounds and Seizure of Vehicle Involved in Illegal Dumping

Both LA-2 and LA-4 explained that illegal dumping activity is considered a nuisance hence penalties involve compounds which run to a maximum amount of RM1,000.00 may be imposed on the driver of lorry or any other vehicle that dumped wastes on the dumpsites.

"The only action we can take is imposing compounds on the lorries but we are not there all the times, waiting for them to come and illegally dumped the wastes" (LA-2)

"Illegal dumping is an offence under s. 4 of the Collection, Discard and Disposal By-laws 2007, and parties who are found guilty can be subject to a compound up to RM1,000.00." (LA-4)

This was confirmed by a newspaper report quoting Selayang Municipal Council (MPS) deputy president who stated that the maximum fine for dumping waste was RM1,000 and the vehicle used would be seized. The vehicle owner has to pay up to RM5,000 for its return (Sheila 2023).

#### Closure of Access Route Through Barrier and Ditches

According to LA-4 and LA-3, the local authorities would also cordon the area by placing barriers at the entrance of illegal dumpsites.

"The first action we will take is closing the access route. We will put rocket barrier and dug ditches (surrounding the illegal dumpsites) because illegal dumping is usually committed by lorries or motorcycles hence ditches were dug so they cannot access the site...we will also confiscate the lorries and the Roll-on Roll-off bins (caught red-handed at the illegal dumpsites)." (LA-4)

"We will take action by putting a large 1 tonne brick block at the illegal dumpsite entrance. We will also sealed the site and dug ditches...that is the only action we can take as short-term and long-term solution...as we have cleared the sites of waste dumped illegally as well sealed the entrance to the site, the owners of the site are responsible for further monitoring of the sites, particularly if the land belongs to any government body." (LA-3)

For instance, it was reported that Subang Jaya City Council has sealed a 1km-long access road by digging a trench and placing concrete barricades at the road's entrance to prevent lorries from entering the illegal dumpsite (Grace 2024). Unfortunately, as reported by the Star (2025), despite the above measures taken, illegal waste disposal and illicit land use persist in Kuala Selangor Municipal Council area of *Kampung Sri Sentosa* and *Kampung Sri Aman* in *Ijok*.

In addition to the above, LA-4 stated that CCTV monitors are also installed to capture the perpetrators red-handed as a measure to discourage further dumping of waste on the dumpsite.

"Many of the illegal dumpsite is monitored by CCTV to capture the plates number of the vehicles (transporting the illegal waste and dumping them at the sites) and we will conduct a vehicle registration number search through Road Transport Department (JPJ) system in order to obtain information on the owners of those vehicles. Then we will issue compounds to the owner of the vehicle under Section 4 (for causing nuisance) ...we have staffs called *Pengawas Perbandaran* (municipal supervisor) who will suggest the hotspot areas for illegal dumping so we can erect CCTV there to capture the perpetrators. We have 12 CCTVs wherein we have appointed a

company who is tasked with identifying illegal dumping perpetrators and issue compounds against them. In 2023, 1168 compounds were issued against individuals and companies involved with illegal dumping activities." (LA-4)

LA-1 also introduced a deterrence called Mobile CCTV that is movable as a preventative measure.

"If there is any area that needed surveillance...we will erect a pole (to install the CCTV)...'mobile' means if surveillance is no longer needed at a particular place, the CCTV will be moved to other areas. It is only erected as temporary measure... when actions have been taken against the illegal dumpers, and the area has been cleared of the waste, we will move the CCTV..." (LA-1)

The usage of CCTV was proven to be a success in identifying the culprit who illegally dumped waste in Klang (Rajendran 2025). The practice is also being practiced in other countries as explored by Pathak et.al. (2024) which critically examines the utilization of CCTV cameras and real-time object detection to address the issue of illegal dumping from moving vehicles.

## Injunction Civil Suit Against Illegal Dumpsite Operators and Landowners

An injunction civil suit can also be issued to the illegal dumpsite operators, and the people who owned the lands used as illegal dumpsites. LA-3 had filed for an injunction order against the operator of the illegal dumpsites and the eight proprietors of the lands in *Bukit Serdang 5*, *Seri Kembangan*.

"This is the first time this action has been taken by a local authority in Malaysia.... we filed an injunction action against the (illegal dumpsite) operator...the operator has signed an agreement with the land owners and it involves a very large area...the operator brought lorries from all over Selangor to dump wastes on the land and then they will level the ground to bury the waste." (LA-3)

The injunction action was filed at the Shah Alam High Court to stop waste disposal activities within the area (Jaafar 2023). Once the order is granted by the court, the illegal dumpsite operators and the owner of the lands have to stop their activities immediately.

"...Worldwide Landfills Sdn Bhd has estimated that restoring the land to its original condition will would cost around RM3.8 million." (LA-3)

Criminal legal action can also be filed under Section 82(5) Local Government Act 1976 (Act 171) for causing nuisance, under Section 18 Town and Country Planning Act 1976 (Act 172) for unauthorised development, and under Section 70A(9) Street, Drainage and Building Act 1974 (Act 133) for carrying out earthworks without permission from the local authority. Illegal dumping and operating illegal dumpsites are also considered to be a criminal offence which is punishable by fine and imprisonment. It is admitted by one of the local authorities that even though the act is a crime which is punishable by law, they are facing difficulties in apprehending the perpetrators.

"This issue is really difficult to control. In fact, this act is a crime and can lead to prosecution. However, it is challenging to catch the perpetrators because the operators at the site are always changing." (LA-4)

# Local Authorities Collaboration with the Residents

Other than taking legal actions against the perpetrators, the local authorities also cooperate with local residents in dealing with illegal dumpsite issues. LA-1 collaborated with the residents to encounter illegal dumping and illegal dumpsite issues.

"We utilized the residents' WhatsApp group (to encounter illegal dumping activities)...we also appointed 7 ambassadors among the residents who are usually pensioners...they were also given monthly allowances of RM1,500.00. They were tasked with conducting surveillance (on their own

neighbourhoods) for any issue relating to illegal dumping and illegal dumpsites as well as issues with cleanliness in general. The ambassadors act as our eyes and ears and are required to submit a monthly report to us...the ambassadors are appointed based on recommendation by the local authority's Council Member." (LA-1)

Niyobuhungiro and Schenck (2021) reported that illegal dumping can be curbed if the community and the authorities support each other.

## Requirement to Appoint Panel Contractor for Industrial Premises

As a condition to renew their operating licences, industrial premises are required by LA-3, LA-4 as well as LA-5 to appoint an industrial waste management contractor among the panels provided by the local authorities itself.

"We have instructed all the commercial premises that intends to appoint a waste collector service to appoint one of our contractor panels...that is the only control measure that we can adopt (to prevent illegal dumping activities) ...if any of the contractor panels on our list was caught dumping waste illegally, we will blacklist the company...which serves as a deterrence to other contractor panels." (LA-3)

"Since 1st March 2024, we have appointed KDEB Waste Management Sdn Bhd's (KDEB) subsidiaries to manage commercial wastes...in the past, it is compulsory for all licensed industrial areas to appoint a waste collector contractor from one of contractor panels registered with us...but since 1st March 2024, all the contractor panels will be absorbed under KDEB's subsidiary and we appoint KDEB to monitor these contractor panels..." (LA-4)

According to LA-5, the above rules is implemented as a result of a number of serious illegal dumpsite issues faced by them previously in areas such as *Batu 14*, *Kapar* which was a secluded area, and not easily accessible. The illegal dumpsite was massive, estimated to cover a space of about five to eight football pitches, and the waste stood almost 10 metres tall. It was being operated for at least three years before it was cleaned up in May 2023. There was also burning of plastic scraps at the site dumpsite, and this can become toxic and cancer forming (Muslim 2023).

"For industrial and commercial areas, we have a condition that they must appoint a panel among 148 waste collector contractor panels provided by us...using a system called 'Clean for You' (in order to renew their licence) ...as we want to control the disposal of wastes. Licence will not be issued if our panel is not engaged. This way, we can control illegal dumpsite issues." (LA-5)

This is a common practice for most local authorities. In the case of commercial and industrial waste, the local authorities have put a condition that the operator/licence holder must appoint a panel contractor or a contractor registered with the local authority using their own cost for management of said waste.

#### Forfeiture of Land by the Land Office

Another legal action that can be taken for cases involving illegal dumpsites is forfeiting the land back to the State. However, this action can only be taken by the land office empowered under Section 128 of the National Land Code 1965 (NLC) in the case of misuse of land. It was mentioned by the local authorities that although the choice to forfeit the land is available, the procedure to forfeit the land is time-consuming and complicated.

"Illegal dumpsite activities sometimes happened because the landowner allows it...the residents paid the landowner to collect the wastes and the landowner ends up burning the wastes on his own land. When complaint is lodged...by the adjacent landowners for instance, we cannot take any action (as it is privately owned land). So, we can only request the Land Office to take action based

on the power vested on them. If it is up to us, we want the land to be forfeited, but if the Land Office is not agreeable, it cannot be done." (LA-2)

"This issue took time as it involves land which is subject to the National Land Code. There are a set of procedure that need to be adhered to in order to forfeit the land...when an issue involved lands, the process is long as the Land Office need to issue notice (in accordance with the National Land Code) and in certain circumstances it dragged up to 90 days..." (LA-4)

# CHALLENGES FACED BY THE LOCAL AUTHORITIES IN THE ENFORCEMENT ACTION FOR ILLEGAL DUMPING

#### Limited Number of Enforcement Officer and Ineffective Penalties

Local authorities in Selangor face significant challenges in controlling illegal dumping due to limited enforcement resources, large areas to monitor, and the high cost of surveillance technologies (Local Government Department, Ministry of Housing and Local Government Malaysia 2021).

"Our enforcement officers already have their own job scopes...we only have 6 enforcements officers here...they have to monitor the waste collection done by the KDEB, settling illegal dumping and illegal dumpsite issues in their areas as well as settling other things too (at the same time)." (LA-2)

Enforcement officers also have difficulties in apprehending perpetrators as the illegal dumpsites' operator change all the time. The illegal dumpers usually dispose of the wastes at night-time and they are also really proactive. This is admitted by four of the local authorities interviewed who raise similar concerns regarding the matter.

"Actually, illegal dumping is an offence and the perpetrators can be prosecuted. However, it is hard to apprehend the perpetrators as the illegal dumpsite's operators changed all the time." (LA-4)

"Even in Taman Harmoni, Ijok, illegal dumping activities has started to occur. If we sealed off the area today and dig ditches at the entrance of the illegal dumpsite, by nighttime the ditches would have already been re-filled again." (LA-2)

"Wastes were illegally dumped at night. So, it is not witnessed by anybody..." (LA-5)

"These illegal dumpers will come at night-time and dump wastes into large refuse chambers...if there are CCTV nearby, we will be able to apprehend the perpetrators. Unfortunately, if there is no CCTV, we will be required to clear the dumpsites." (LA-1)

The local authorities thus need to do stakeout operations at the illegal dumpsites 24/7, or install CCTVs at the area in order to catch the perpetrators. All these precaution measures cost money and manpower.

Another challenge faced by the local authorities in beating illegal dumping activities is the penalty impounded on guilty parties. The low amount in compounds (a maximum of RM1,000.00) is not a strong deterrence to the operators. These amounts should be increased, but the decision to increase the compound amount can only be made by the *Majlis Mesyuarat Kerajaan Negeri* (also known as the EXCO meeting). Moreover, approval takes time.

"RM1,000.00 is intended as early deterrence...we need to refer back the existing laws in order to increase the compounds amount. A number of Enactments need to be amended before compounds can be considered for increment."

Similar challenge is raised by LA-3, who explains that:

"when it comes to the issue of increasing the compounds, it needs to be discussed at the state level and included in the Exco meetings. If it is approved, then the compounds amount may be increased. However, it will take years to get the approval." (LA-4)

# The Illegal Dumpsite Involves Private Land

An additional challenge faced by local authorities in acting on illegal dumpsites is the fact that the area used is a private land. Unless and until leachate from the illegal dumpsites had caused odour pollution, and the residents nearby had filed a complaint, local authorities cannot act against the land owner.

"The illegal dumpsite issue involved misuse of private land. Actions involving misuse of land is under the power of the Local Authority's Engineering Department and the Land Office...we are under the Department of Environmental Management. Complaints on environmental issues are not under our scope of jurisdiction and we cannot take any action until the smell coming from leachate (at the illegal dumpsites) caused odour pollution...then we can take action based on nuisance...for the illegal dumpsite itself, actions will be taken by Engineering Department for conducting earthworks without permission which is an offence and can be compounded up to RM30,000.00." (LA-3)

#### CONCLUSION

Illegal dumping in Selangor is a significant challenge that impacts environmental health, public safety, and economic stability. Local authorities face considerable obstacles in their efforts to encounter illegal dumping. The prevention of illegal dumping requires good education on averting such activities, and on a good waste management infrastructure. Public awareness campaigns can inform individuals about the legal and environmental consequences of illegal dumping. Engaging and conducting more education sessions among the public can also raise their awareness about public health and national sustainability. Effective outreach strategies, such as workshops and informational materials, can be given out to local residents to help them detect and recognize the environmental impact of their waste disposal choices. The more educated they are on the consequences of the issue of illegal dumping, the better the sustainable practices among these residents.

The local authorities need to consider investing in waste management infrastructure, including the expansion of collection services, and the establishment of more disposal facilities. The accessibility of good and convenient disposal options enables operators to dispose their wastes more responsibly. Using technology like surveillance cameras can also be beneficial as it makes it more difficult for offenders to commit their act without detection. The adoption of more proactive measures, such as increased patrols in known dumping areas and publicized penalties for offenders, can significantly deter illegal dumping activities.

This study derived its qualitative data from five local authorities across four districts in Selangor; hence the implications of the findings are confined to a specific geographic area, and the outcome derived may restrict the applicability of the findings to certain places only. Nevertheless, issues surrounding illegal and indiscriminate dumping are reported to happen across many states in Malaysia that require similar implications as the findings of this study. Data derived from local authorities of the other states and other means such as the stakeholders' survey may contribute a more convincing implication for various parties to encounter illegal dumping in the country.

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