



Policy on Paper, Waste in Practice: Evaluating the Effectiveness of Urban Waste Management Policies in Cameroon

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Abstract

The main aim of the study was to critically analyze the Policy on Paper, Waste in Practice: Evaluating the Effectiveness of Urban Waste Management Policies in Cameroon. The study makes use of the survey research design, target population was households in Urban areas in Cameroon, a sample size of 107 households was selected with the help of semi structure questionnaires and the data was analyzed using a descriptive statistic. The results revealed that waste management rules have a considerable impact on household garbage disposal habits in Cameroonian cities, with a noticeable knowledge of penalties or fines indicating a possible prohibitive impact. However, a gap in compliance is highlighted by the policies' alleged lax enforcement, underscoring the need for stronger rules and efficient oversight. Household participation in trash disposal practices is also significantly influenced by socio-economic variables, including income levels and educational attainment, with more education being associated with greater awareness and adherence to appropriate waste management. The fact that various urban areas have distinct customs also implies that garbage disposal habits are influenced by local factors, such as community involvement and infrastructure. The study recommends that, there should be more regular waste collection services. This may be accomplished by assessing existing schedules and making necessary adjustments to better suit community requirements. In order to guarantee prompt collections, minimise overflow, and promote appropriate disposal, local authorities should provide sufficient funds and staff. Start Public Awareness programs; to inform locals of the value of recycling and appropriate garbage disposal, extensive public awareness programs should be created. To reach a large audience, these campaigns might make use of a variety of media, such as social media, community workshops, and local events. Working together with community organisations and schools can help spread the word. The current laws against trash have to be strengthened. This entails making sure that the consequences of inappropriate garbage disposal are consistently enforced and explicitly communicated.

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1. Introduction

In recent years waste generated by households has taken a rapid increase in urban areas in Cameroon and the connection between waste management policies and household waste management practices in urban areas has garnered significant interest from scholars and policymakers alike due to the growth of the urban population, which has led to an increase in waste generation and disposal challenges (Ebekozié *et al.*, 2022; Cheng *et al.*, 2022; Szpilko *et al.*, 2023) ^[9, 7, 33]. In urban settings, as the population increases, the amount of waste generated also rises in dumping areas, and the collection and management of this waste become significantly more expensive (Komar & Kucharczyk-Brus, 2020) ^[17]. This situation is even more complicated in urban areas of Cameroon, such as Douala and Yaoundé, and more recently Buea Urban municipality where dumping sites are often overfilled

with household waste for several months before interventions from the urban councils of the respective areas occur (Al-Wabel *et al.*, 2022; Khajuria *et al.*, 2010) ^[3, 15]. These issues are usually attributed to poor infrastructure and the long distance between households and waste bins, which makes it difficult for the various companies in charge of waste disposal in these urban areas to dispose of waste in the correct spots for collection, and combined with inadequate waste disposal policies implementation with Urban areas (Nanda & Berruti, 2021; Siddiqua *et al.*, 2022) ^[25, 31].

Researchers such as Kumar *et al.* (2024) ^[18], Ebekozien *et al.* (2022) ^[9], Mihai *et al.* (2021) ^[22] argue that waste management practices in urban areas are the major problem in urban habitats, followed by inconsistent implementation of these waste management policies, with the major urban areas leading to varying compliance with waste management policies in different urban areas. According to Kumari and Raghubanshi (2023) ^[19], implementing environmental policies is a critical function of the state and its institutions, which conduct activities to achieve the goals and objectives outlined in policy declarations and this includes individuals, community organisations. However, the common waste management penalty for improper waste disposal in Urban areas in Cameroon has suffered from corruption, which has led to poor implementation when offenders are caught (Ndam *et al.*, 2023; Anyangwa, 2025; Agbor & Matlala, 2024) ^[26, 4, 1]. The increasing share of the population living in cities poses serious challenges to the provision of waste management services by municipalities that are short of funds, deficient in institutional organisation and interest, Urban Councils having poor equipment for waste collection, and lack urban planning (Rotich *et al.*, 2006; Voukkali *et al.*, 2024; Kumari & Raghubanshi, 2023).

Wang *et al.* (2021) ^[37], Muliawaty and Ilhami (2022) ^[24], Ridho *et al.* (2023) ^[29], for better implementation of waste disposal, policies have to be followed with immediate action on the inhabitants who dare violate the laws in waste disposal, due to the possibility that their actions are required by law, households have a significant influence on environmental policy and the waste management practices. Both International organisations and Non-Governmental Organization (NGOs) that have a big influence on environmental policy are the United Nations, its Environment Programme (UNEP), and the United Nations Commission for Sustainable Development (UNCSD) can better collaborate with the local government to better implement better option household management practices and this can be done by negotiating and accepting voluntary norms and agreements, shape state policy at the both at the national level and local level (Gunung, 2023; Azis, 2022; Rohmatika & Paksi, 2025) ^[12, 5, 30]. NGOs contribute significantly to international environmental cooperation, mainly by helping the government get reliable information to support and promote specific environmental initiatives (McCormick, 2023; Hung *et al.*, 2022; Green & Hadden, 2021) ^[20, 13, 11], and in most cases, political parties, the political system, non-governmental organisations, or public opinion act as indirect mediators for public participation in the creation of environmental policy (Akerboom & Craig, 2022; Kingston *et al.*, 2023) ^[2, 16].

In most urban towns in Cameroon, waste separation has been a problem as many households do not take time to separate non-degradable waste from non-degradable; they are usually mixed and dumped on the same spot; this also is grossly

because these households have not been provided with dust bin which helps them to separate the waste, even if done at home it is waste of time even the local council who are in charge of managing household waste has not put any efforts of collecting these household waste separate where they have a single truck at the dumping to collect all waste generated by households whether degradable waste or not as a result of this poor approach of managing household waste you find that the streets littered with plastics papers and bottle everywhere sent to the street by rain runoff and usually blew by wind to the streets. The local council has made no provision for households to separate their waste, making waste management through collection difficult. To further complicate the situation, the dumping area is located along a major road site with no designated dumping bin; this leaves the habitat unable to breathe well as a result of air pollution caused by the decay of household waste. Osborn (2001) outlined major categories of solid waste generation as residential wastes, which include household wastes, which are not limited to food waste, fruit and potato peels, rubbish and ashes, industrial waste, which has two components as hazardous, flammable, corrosive and irritant wastes which pose health and environmental dangers (Kellenberg, 2015; Bromokusumo, 2022).

In developing country like Cameroon, with growing ecological footprint on the environment quality, community engagement remains one of the most imitated policies instituted to keep towns clean. Each week, a half day is typically set aside for general cleaning, during which all business activities are halted from morning until noon. This policy is enforced by each urban city commune, which conducts inspections, and any violations result in penalties. However, the productivity of this particular policy remains questionable since many continue to violate it; not by opening their shops, but by remaining at home and not cleaning until noon. Therefore, the effectiveness of such a policy (keeping towns clean) needs to be verified. In response, this study aims to examine the influence of waste management policies on household waste management practices in urban Cameroon. The current study is based on three major significant; The purpose of this study is to critically appraise Policy on Paper, Waste in Practice and evaluating the Effectiveness of Urban Waste Management Policies in Cameroon. It will also offer strategic recommendations to address common challenges and enhance waste management policies within urban areas in Cameroon, contributing to improved environmental quality. It is against this backdrop that the study seeks to investigate Waste management Policy on Paper, Waste in Practice Effectiveness, and Urban Waste Management Policies in Cameroon.

2. Literature Review

Waste Management

Understanding waste is crucial before discussing effective waste management. "Waste" encompasses unwanted or unserviceable materials. Essentially, it denotes any substance discarded after fulfilling its use or deemed worthless, defective, or ineffective (Bromokusumo, 2022). The trade of waste across borders for further processing, disposal, or recycling is known as the global waste trade. Waste management, therefore, refers to the various methods by which households manage their solid and liquid waste, including elimination, destruction, processing, recycling, reusing, or regulating waste. In Cameroon, waste disposal is

a serious problem as the waste generated by households is poorly managed by the authority (Local Council), household waste stays on the dump sites for several months before an attempt is made to remove. There is a possibility that most of the household waste decays at the collection points before it is even collected. This situation has resulted in several harms to both the environment and the health of individuals in urban areas. The waste has become a breeding ground for mosquitoes, which transmit malaria to the population. Malaria poses a significant threat to children under the age of five and pregnant women, who are particularly at risk due to increased mosquito bites. In addition to health problems, poor waste management degrades the environment, creating a repulsive smell along the streets, as waste is often found strewn along the roadside.

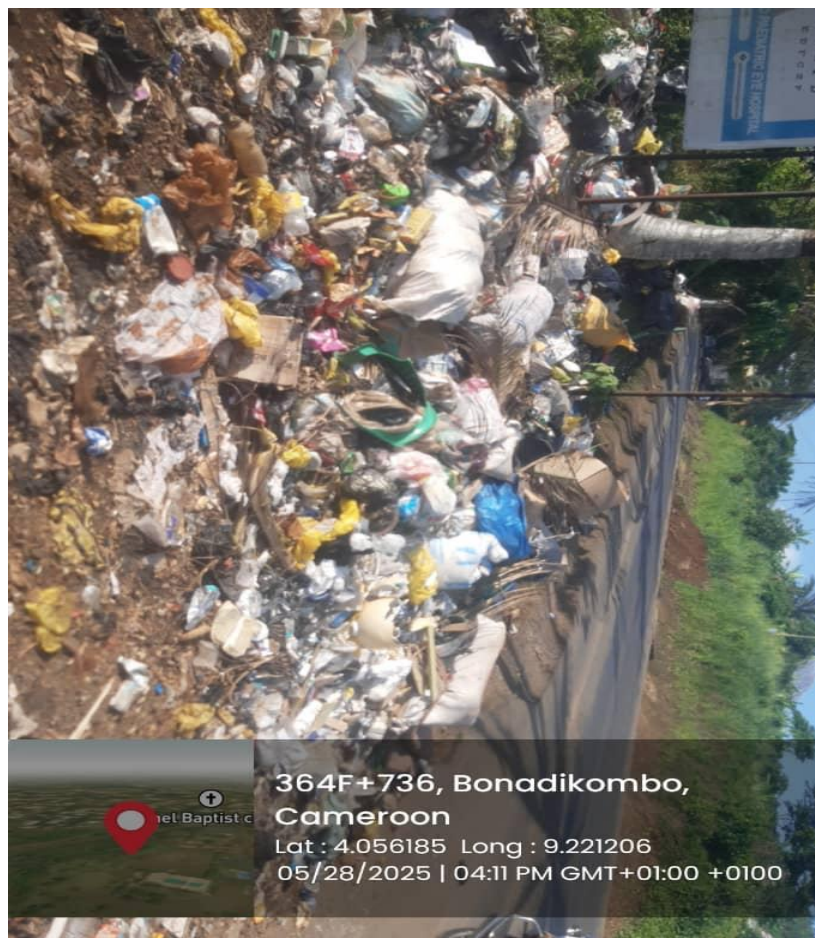
Waste Management Policies

In Cameroon, the county council is responsible for ensuring the efficient collection, treatment, and disposal of solid waste. However, managing solid waste has become increasingly challenging. Consequently, plastics are often incinerated improperly or burned outdoors, releasing toxic chemicals such as furans and dioxins that threaten the health of people in slums and contribute to sewage blockages as well as urban air and water pollution. The central government, as well as local governments in their various municipalities, have enacted various laws that must be followed, accompanied by warnings and penalties for the random dumping of waste by households in inappropriate sites.

Fines as policy to prohibit the irregular disposal of household waste

In order to lessen the negative effects on both people and the environment, policies must be implemented effectively to address the negative effects of trash and plastic pollution on the environment. Common strategies for reducing the quantity of trash generated include reducing, reusing, and recycling certain waste kinds. However, several stakeholders must participate in waste management procedures like recycling, landfilling, composting and burning. Recycling may be a less effective waste management technique if various agents do not participate in the process. Therefore, waste management and preventing the effects of improper waste management depend on regulations that improve recycling efficiency at all levels, and some of these penalties or fines are directly applied upon violation

Individuals' quality of life is influenced by their surroundings, which include the air they breathe, the water they drink, and the things they use in their environment, such as various chemicals (Uchendu, 2016) ^[34]. Because human interactions with the environment can be complex and harmful, environmental health laws and regulations are intended to regulate and safeguard the environment (Uchendu, 2016) ^[34]. Effective management requires adherence to solid waste rules, even if some may be challenging for people and businesses to follow. There may be risks to the public's health and the environment if these rules are broken. Therefore, county governments must find a balance between upholding the law and permitting innovative and creative approaches to solid waste management.



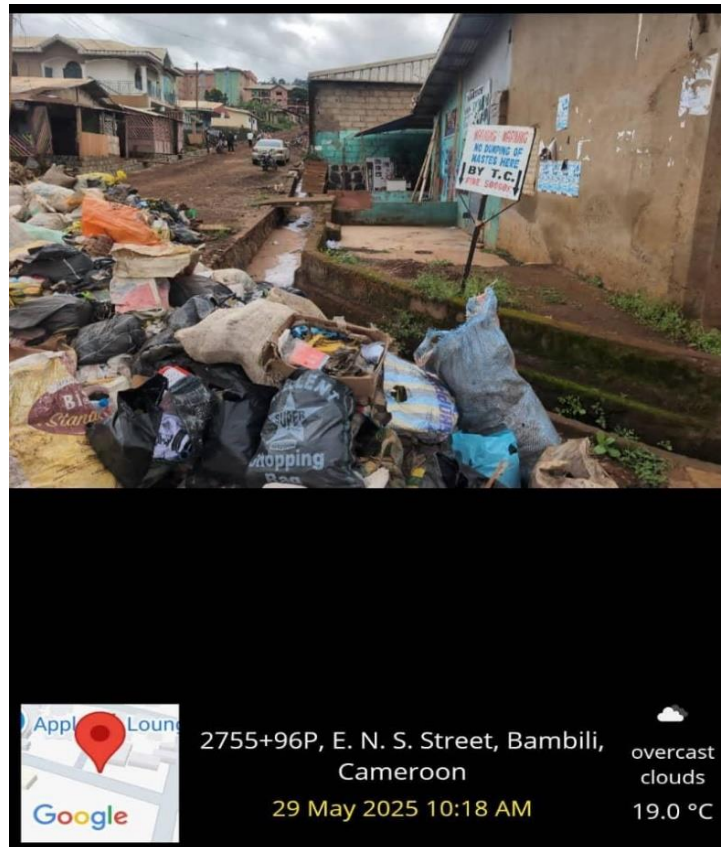
Source: Fieldwork (2025)

Fig 1: Improper waste disposal by household along roadside

Individuals in particular areas that experience illegal residential waste disposal might receive general warnings in the form of a notice board and fines written on the signboard, creating awareness of violating the policy. These fines range from monetary to seizure of properties that were used to empty waste into the areas; the monetary fines apply to hundreds to thousands of CFA francs, depending on the individual municipality or council of that particular city. The property of the individual is usually seized by the city council authority, and they are asked to perform some community tasks like removing the waste to the right place, before he or she can obtain their property. When these methods are not respected by the community, the fines or penalties are usually doubled or increased to maintain effectiveness.

Household Management Practices

Africa, particularly in urban areas of Cameroon, faces significant waste management challenges due to rapid urbanisation, inadequate infrastructure, and budget constraints. The continent generates over 125 million tonnes of municipal solid waste each year, with much of it poorly managed (UNEP, 2018) ^[35]. Various factors contribute to Africa's inadequate waste management, including a lack of political commitment, insufficient funding, weak organisational structures, ineffective laws, low community awareness, violence, corruption, and political instability (Zhang *et al.*, 2024) ^[38].



Source: Fieldwork (2025)

Fig 2: Improper waste disposal by household and penalty warning on Sign Board

In Limbe, Cameroon, poor solid waste management practice by household has led coastal residents to use the sea as a dumping ground for solid and liquid waste instead of making the effort to reach proper disposal sites (Kansuah, 2020) ^[14]. This behaviour has serious consequences for the marine ecosystem, as drains, rivers, and open dumping areas serve as entry points for waste materials like plastics into these water bodies. Plastic waste can take a long time to break down into

small particles known as microplastics, which pose serious threats to marine life and the overall health of aquatic ecosystems (David *et al.*, 2020) ^[8]. Many marine species suffer from the harmful effects of accidentally ingesting or accumulating waste that their bodies can't process (Moore, 2008) ^[23]. Consequently, this leads to injury or death, ultimately decreasing biodiversity and disrupting the food chain.



Source: Fieldwork (2025)

Fig 3: Limbe (Bota Sea Shore) Marine life suffers when garbage, particularly plastic, is not disposed of properly

Marine life suffers when garbage, particularly plastic, is not disposed of properly. Plastic is a component of several potentially dangerous compounds that might leak into the environment (Rajmohan *et al.*, 2019)^[28]. Solid waste disposal into the marine environment results in long-term health effects and physicochemical changes that are accompanied by the presence of both organic and inorganic pollutants (Bhat *et al.*, 2022)^[6]. Furthermore, a new study indicates that high concentrations of chemicals and microplastics may affect a species' capacity to perform ecophysiological activities (Franzellitti *et al.*, 2019)^[10].

Empirical Review

Kaza *et al.* (2018), Sweden and Germany, for instance, have effectively reduced the quantity of garbage disposed of in landfills by implementing waste management systems. Inadequate infrastructure, low public awareness, and a lack of funding are some of the issues that developing nations deal with when it comes to garbage management (Browning *et al.*, 2021). These difficulties lead to the employment of unsustainable garbage disposal techniques that harm the maritime ecosystem, such as open dumping and burning. According to Jambeck *et al.* (2015), certain nations, such as Indonesia and India, have significant difficulties in handling plastic garbage, which eventually contributes to marine contamination.

West African cities like Lagos and Accra have serious waste management problems, according to research done there. Informal trash picking, ineffective garbage collection services, and insufficient disposal facilities are the main causes of environmental deterioration and marine pollution (Oteng-Ababio *et al.*, 2013)^[27]. Monrovia, the capital of Liberia, is a prime example of the problems that many African cities face: there is no comprehensive framework for waste management, no legislation defining the responsibilities of waste generators, and decision-makers are unwilling to create and implement an integrated and sustainable management system (Mensah, 2006)^[21]. Public ignorance about the causes of Liberia's escalating waste management issues concerning human health and the marine environment (Sika Abrokwa *et al.*, 2024)^[32].

Collaborative efforts are emphasised in the recommendations for developing a waste strategy in Liberia and other developing countries in order to minimise waste, recycle, recover resources, and promote sustainable waste management practices for communities, small businesses, corporations, and government institutions (David *et al.*, 2020)^[8].

Methodology

Research design

The study makes use of survey research design. A survey research design since it involved a large population study. It allows researchers to gather information on the attitudes, opinions, and behaviours of a specific population. These designs are particularly useful when studying large populations or when seeking to generalize findings to a larger population.

Study Population

The target population for this study consisted of households in Urban areas, Cameroon. By examining their experiences and perspectives, this research aimed to gain insights into the influence of the waste management policies within urban areas in Cameroon.

Sample Size

The sample size was selected based on the unknown populations of Cochran (1954). When the size of the population is unknown, the sample size can be calculated based on Cochran's formula, and may be considered especially appropriate in situations with large unknown populations (Cochran, 1954). The size was determined using Cochran's formula below;

$$\text{Sampling Size } n_0 = \frac{Z^2pq}{e^2} \quad (1)$$

Where,

Z is the abscissa of the normal curve that cuts off the tails (gotten from Z table e is the desired level of precision

P is the estimated proportion of an attribute that is present in the population and q is 1 – p

With

$z = 1.96$ (at type1 error of 5%)

$p = 7\%$, $e = 5\%$, and $q = 1 - p$

$$\text{Sample Size} = \frac{(1.96) (1.96) \times (0.07) \times (1-0.07)}{(0.05) (0.05)}$$

= 99

Participants This was the minimum samplers size ; however, they made use of 107 participants who gave their concern, which was sufficient enough to get insight into the current study

Sampling Technique

The research employed a simple random sampling technique to select participants who possessed specific characteristics and experiences relevant to the study's objectives (Rai & Thapa, 2015). Participants were randomly chosen from among households in Urban areas in Cameroon.

Data Source

The study makes use of both primary and secondary sources of information. Primary sources of information refer to firsthand accounts or original data that is directly related to the topic being studied. This includes standard structural questionnaires, surveys, and observations. On the other hand, secondary sources of information involve analyzing and interpreting existing primary sources or data collected by others. These include books, articles, reports, or scholarly

papers that provide an analysis or synthesis of primary sources. By utilising both primary and secondary sources of information, researchers gather a comprehensive understanding the subject under study.

Data Collection instruments

The primary method of data collection involved administering questionnaires to key informants. The study utilized structured, self-administered questionnaires designed to cover all variables pertinent to the study. A questionnaire, as defined by Saunders and Kulchitsky (2021), is a research tool that consists of a series of questions focused on specific issues under investigation, which respondents complete on a self-administered basis.

Estimations Technique

In the context of the current study on the waste management policies within urban areas in Cameroon, the estimation uses for the current study was mostly descriptive statistic, which results was presented into tables and graphs

Reliability of Instrument

The last and foremost test is the ability of a case study to demonstrate that the operations of a study (data collection, procedures) can be repeated, yielding the same results. Reliability assesses the consistency of the results of the study over time (Hayashi *et al.*, 2019). To ensure the reliability of the questionnaire, a pre-test was conducted on a much smaller sample to ensure that the items on the instruments were within the reach of the respondents.

4. Results

Table 1: Demographic information

Items	Categories	Frequency	Percent (%)
Gender	Female	55	51.4
	Male	52	48.6
	Total	107	100.0
Age of respondent	18 to 30	80	74.8
	31 to 45	23	21.5
	46 to 60	4	3.7
	Total	107	100.0
Level of education	Secondary school	17	15.9
	University degree or higher	89	83.2
	Vocational training	1	.9
	Total	107	100.0
Household Size	1	12	11.2
	2-4	31	29.0
	4-6	32	29.9
	above 6	32	29.9
	Total	107	100.0
	100,001 to 200,000	20	18.7
	50,000 to 100,000	35	32.7
	Above 200,000	31	29.0
	Below 50,000	21	19.6
	Total	107	100.0

Source: Field work (2025)

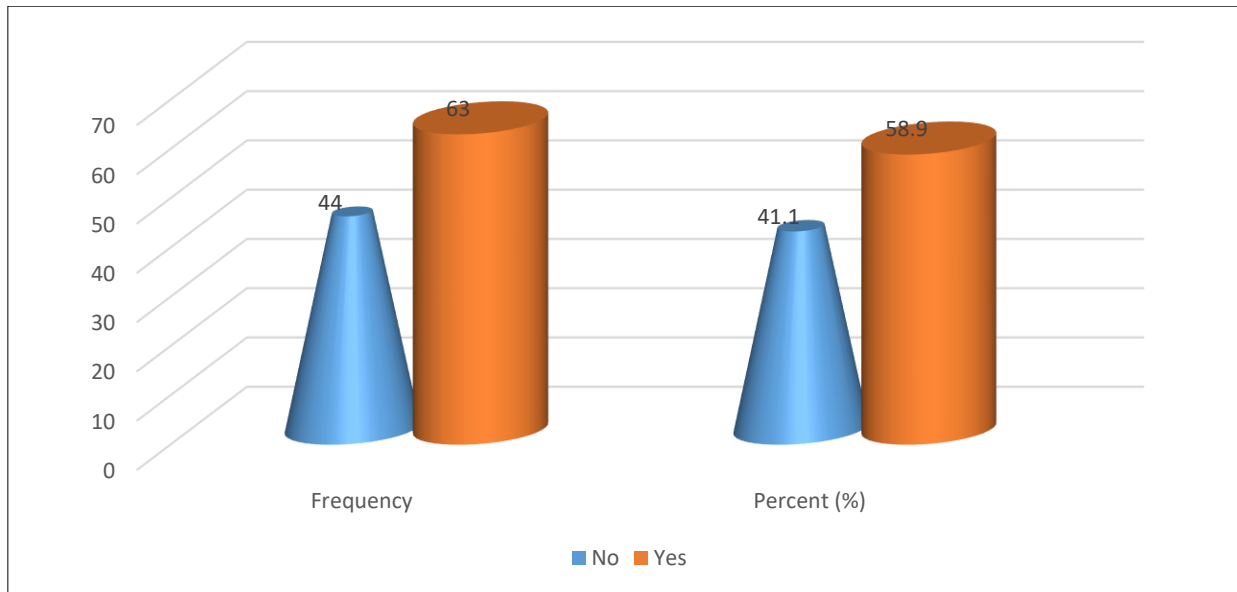
The finding in table 1. revealed that majority of the respondent 55 (51.4%) were female, followed by 52 (48.6%) males, this show more female are to waste disposal than male. The finding further revealed that large number of participants 80 (74.8%) were in age group of 18 to 30 years of age and the minority age group 46 to 60 years of age accounted for 4 (3.7%) and majority 89 (83.2%) respondent had university

degree and the minority 1 (0.9) with a vocational training certificate, this shows that our respondents were knowledgeable enough to participate for this study. The finding further revealed majority 32 (29.9%), had up to 4 and 6 above members with the minority 11(11.2%) with just him alone in house, however, this show that a single household is able to generates a very large quantity of waste within each

study areas. The finding also revealed the majority 35 (32.7%) has an average monthly income of 50,000 to 100,000, which still within minimum wage range of 47, 000 FCFA, however, the minority 20 (18.7%) fall with average

income bracket of 100,001 to 200,000. The majority still within this average bracket make waste management significant problem in these urban and rural areas in Cameroon.

Awareness and Perception of Policies for Waste Management and Household waste practices



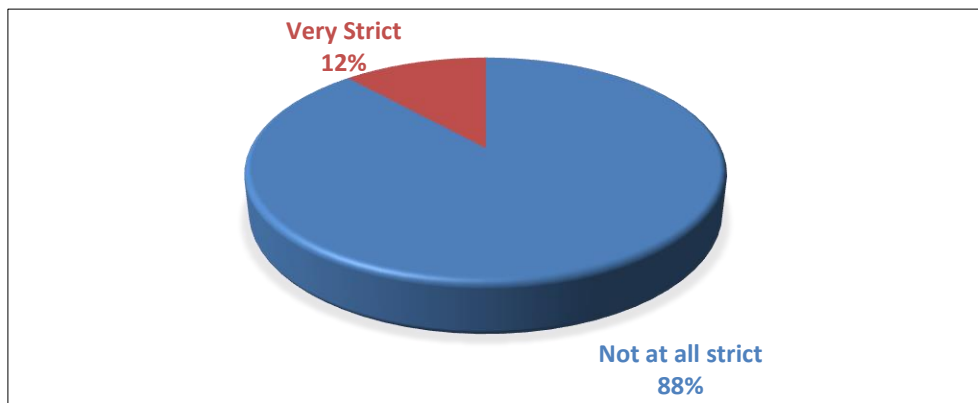
Source: Field work (2025)

Fig 1: Household awareness on fines or penalties associated with incorrect disposal of household waste

The majority of respondents (58.9%) to the poll about knowledge of fines or penalties for improper home garbage disposal said they are aware of such restrictions in their city, while 41.1% said they are not. This implies that a majority of

participants is aware of the possible repercussions of inappropriate residential trash disposal, underscoring the need for more education and awareness campaigns for those who are unaware.

If yes, how strict do you think the current enforcement of these fines is?



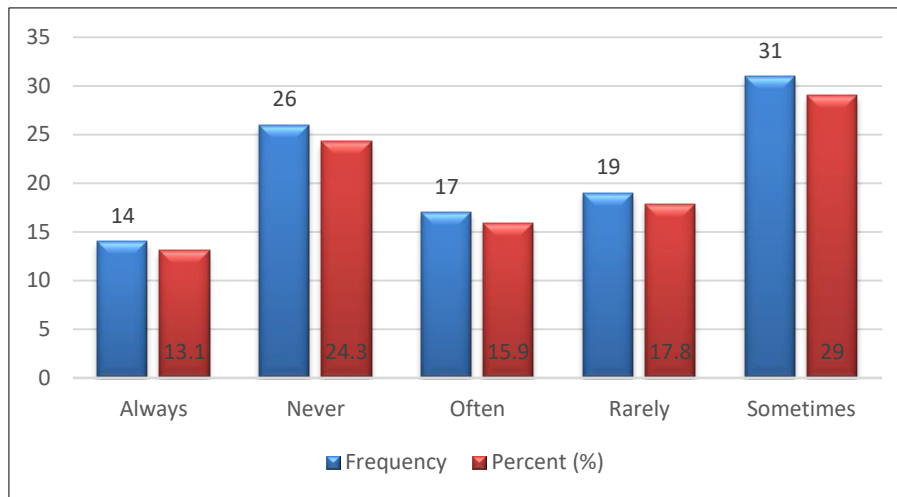
Source: Field work (2025)

Fig 2: Household if the fines or penalties associated with incorrect disposal of household waste is strict or not

The finding shows that majority of respondents (88.4%) to the question on the perceived strictness of the existing enforcement of penalties for incorrect disposal of household waste large number affirm the fines put in place they are not strict at all, while just 11.7% say that it is strict. This striking

disparity reflects a widespread belief that enforcement procedures can be weak, pointing to the need of stricter laws and more monitoring to improve waste management techniques' efficacy and compliance.

How often do you separate your household waste into recyclables and non-recyclables?



Source: Field work (2025)

Fig 3: How often do you separate your household waste into recyclables and non-recyclables

Finding reveals that Participants' answers to the poll on how often household garbage is separated into recyclables and non-recyclables show a diverse attitude. Of those surveyed, just 13.1% said they "always" segregate their garbage, while 24.3% said they "never" do so. Furthermore, 29.0% said they "sometimes" segregate their garbage, 17.8% said they

"rarely" do so, and 15.9% said they "often" do so. This distribution indicates that while some people follow trash separation procedures, a sizable fraction either do not prioritise or use these techniques seldom, underscoring the need for more education and understanding of the advantages of recycling.

Table 2: What type of waste disposal method do you primarily use

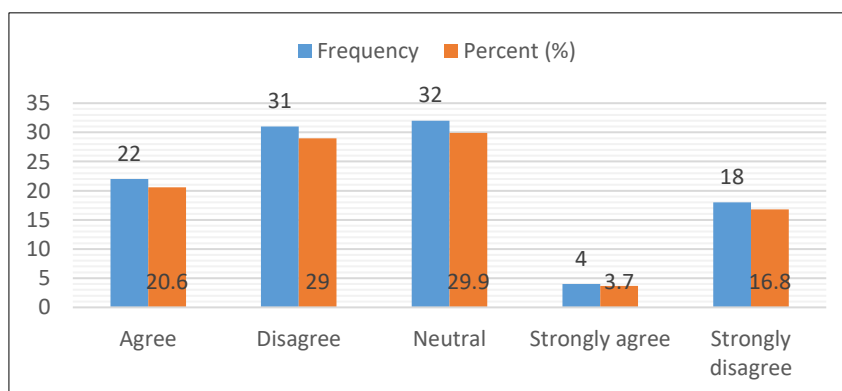
	Never	Rarely	Sometimes	Often	Always
Recycling	9(8.4%)	39(36.4%)	6(5.6%)	36(33.6%)	17(15.9%)
Burning	17(15.9%)	10(9.3%)	18(16.8%)	16(15.0%)	46(43.0%)
Landfill	10(9.3%)	28(26.2%)	15(14.0%)	20(18.7%)	34(31.8%)
Composting	10(9.3%)	27(25.2%)	14(13.1%)	24(22.4%)	32(29.9%)

Source: Field work (2025)

The finding reveals a diverse habit among respondents are shown by the survey findings about preferred garbage disposal techniques among households. Burning was revealed as the principal disposal technique "always" by a majority percentage (43.1%), suggesting a heavy dependence on this practice. Recycling, on the other hand, was less common, with just 15.9% of participants saying they recycle "always" and 36.4% saying they recycle "rarely." Significant participation was also shown in landfill usage, as 31.8% of

respondents "always" used this strategy. Composting received a reasonable amount of support, with 29.9% of respondents saying they "always" compost, but a sizable portion still just "sometimes" (22.4%). All things considered, these results point to a worrying tendency towards burning and landfill use, indicating the need for more thorough instruction on environmentally friendly trash disposal methods.

Do you feel that waste management policies are communicated effectively to the public?



Source: Field work (2025)

Fig 3: How household feel that waste management policies are communicated effectively to the public

Participants express a high degree of dissatisfaction with the efficacy of communication on waste management policies, according to survey results. The majority of respondents (29.0%) disagreed with the statement that these rules are effectively conveyed, while just 20.6% agreed. Furthermore, 29.9% expressed ambivalence or ambiguity on the efficacy of communication by remaining neutral. Just 3.7% strongly

agreed and 16.8% strongly disagreed that communication is successful. According to this distribution, a large number of people believe they don't know enough about waste management regulations, which highlights the urgent need for more public involvement and outreach to raise awareness and encourage compliance.

Table 3: What do you think is the biggest challenge(s) to effective waste management in your area?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Poor enforcement of waste management regulations	11(10.3%)	7(6.5%)	26(24.3%)	27(25.2%)	36(33.6%)
Irregular waste collection	8(7.5%)	10(9.3%)	19(17.8%)	38(35.5%)	32(29.9%)
Long distance to the dumpsite	28(26.2%)	5(4.7%)	28(26.2%)	31(29.0%)	15(14.0%)
Lack of awareness among residents about proper waste management practices	9(8.4%)	14(13.1%)	27(25.2%)	29(27.1%)	28(26.2%)

Source: Field work (2025)

The finding on Table 3. revealed a critical impression of insufficient regulatory monitoring was highlighted by the large percentage of respondents (33.6%) who strongly agreed that "poor enforcement of waste management regulations" is a serious concern, with an additional 25.2% agreeing. Additionally, noteworthy is the fact that 35.5% of respondents said that "irregular waste collection" is a concern, demonstrating how inconsistent services have a big impact on waste management initiatives. Opinions were divided on the "long distance to the dumpsite," with a sizable

percentage being indifferent, but 29.0% agreeing that it presents a difficulty. The "lack of awareness among residents about proper waste management practices" was acknowledged by 27.1% of respondents who agreed and 26.2% of respondents who strongly agreed. These observations highlight the need of improved public education, dependable collection services, and stricter enforcement in order to successfully handle waste management issues.

Table 4: What motivates you (or would likely motivate you) to manage your household waste properly?

	Not at all Motivating	Slightly motivating	Moderately motivating	Motivating	Very motivating
Fines avoidance	17(15.9%)	19(17.8%)	31(29.0%)	33(30.8%)	7(6.5%)
Environmental preservation	15(14.0%)	33(30.8%)	7(6.5%)	16(15.0%)	36(33.6%)
Community pressure	19(17.8%)	27(25.2%)	23(21.5%)	27(25.2%)	11(10.3%)
Comfort	17(15.9%)	21(19.6%)	9(8.4%)	14(13.1%)	46(43.0%)

Source: Field work (2025)

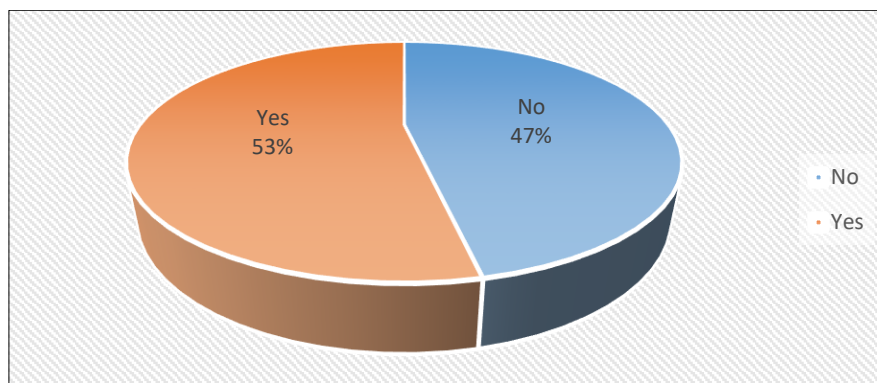
Diverse factors impact respondents' reasons for managing home garbage properly. A significant 43.0% of respondents cited "comfort" as a very motivating element, suggesting a strong desire for a tidy and orderly workspace. Concern for ecological damage was seen in the strong support for environmental preservation, as 33.6% of respondents found it to be very motivating. While just 6.5% of individuals considered avoiding fines to be very motivating, 30.8% of participants found it to be somewhat motivating, indicating that financial penalties may affect behaviour. According to 25.2% of respondents, community pressure is motivating,

indicating that societal expectations are important. Therefore, these results show that environmental concerns and individual comfort are the main drivers of efficient waste management, even if social and economic issues are also important.

The Influence of waste management policies like Fines/Penalties on Household Behaviour

This section comprehensively describes household opinion on the fines or penalty attached to improper waste disposal and their behaviour if fines have been increased.

Do you agree that the current household waste regulations of fines?



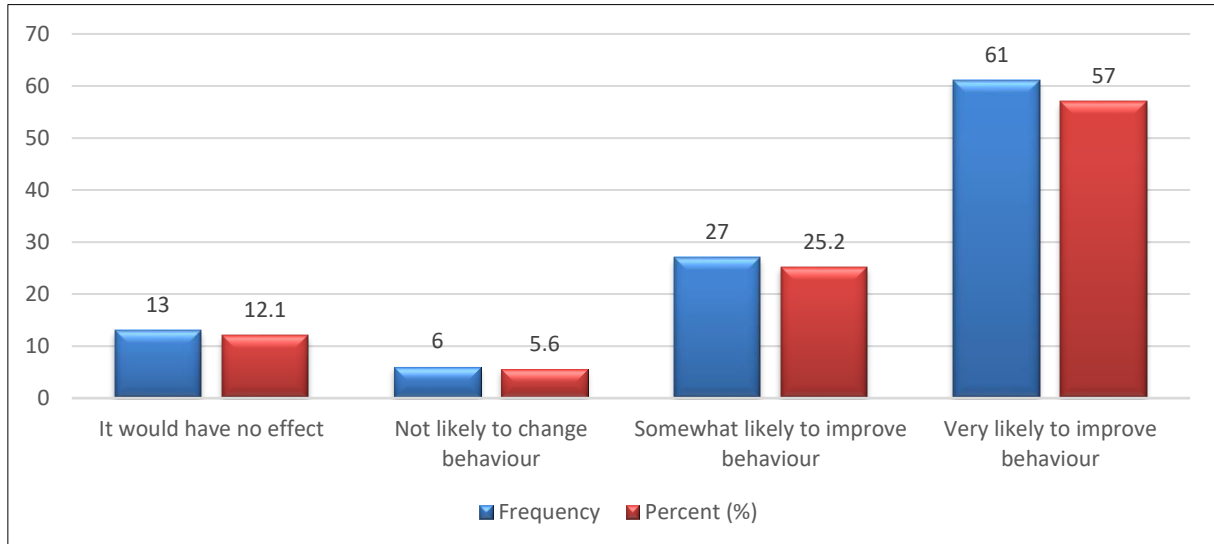
Source: Field work (2025)

Fig 4: Do you agree that the current household waste regulations of fines of up-to 3600 CFA francs for improper waste disposal

The survey's findings on the adequacy of sanctions for inappropriate garbage disposal show that respondents' views are almost evenly divided. A small majority (53.3%) agreed that the existing sanctions of up to 3600 CFA francs are sufficient to promote appropriate garbage disposal, indicating that they are somewhat successful in discouraging

inappropriate behaviour. On the other hand, 46.7% disagreed, suggesting that a sizable section of the populace may not believe that the sanctions are enough to change their behaviour. This section draws attention to the possible necessity for either more stringent penalties or further steps to guarantee adherence to waste management laws.

If these fines were increased by 10%, how likely would this change your waste disposal behaviour?



Source: Field work (2025)

Fig 5: Fines were increased by 10%, how likely would this change your waste disposal behaviour

The finding revealed that higher fines could be a powerful disincentive for inappropriate garbage disposal, as a sizable majority (57.0%) said that such an increase would be "very likely" to modify their behaviour. Further supporting the notion that higher penalties might have a beneficial impact on waste management practices is the fact that 25.2% of respondents said they would be "somewhat likely" to alter their behaviour. On the other hand, just 12.1% said it would have "no effect," and only 5.6% said it was "not likely" to alter their approach. These results demonstrate the possible efficacy of financial incentives in encouraging appropriate waste management as most respondents think that stiffening penalties might improve adherence to waste disposal laws.

5. Conclusion and Recommendation

It is observed that waste management rules have a considerable impact on household garbage disposal habits in Cameroonian cities, with a noticeable knowledge of penalties indicating a possible prohibitive effect. However, a gap in compliance is highlighted by the policies' alleged lax enforcement, as despite the warning and fines that come with the illegal dumping of residential waste, households keep disposing off their residential waste in those areas, areas, and this is usually done in the late hours of the day to avoid being caught by council authority, underscoring the need for stronger rules and efficient oversight. However, these household participations in trash disposal practices area also significantly influenced by socioeconomic variables, including income levels and educational attainment, with more education being associated with greater awareness and adherence to appropriate waste management. The fact that various metropolitan regions have distinct customs also implies that garbage disposal habits are influenced by local factors, such as community involvement and infrastructure.

The majority of these the urban council still faces challenges such as inadequate provision of trash cans and timely removal of waste from the various dumping areas to recycling places, and some communities still do not have appropriate locations allocated by the council for waste disposal, leading to rampant residential waste mismanagement. However, in order to improve waste management efficacy in a variety of urban settings, these findings highlight the significance of customised educational initiatives and legislative changes that target socioeconomic factors with an increase in the number of tons of trash collected per day. All things considered, a comprehensive strategy is necessary to enhance Cameroonian households' trash disposal procedures and promote sustainable habits.

For Policy recommendations, Local government with its collaborators should be more regular waste collection services. This can be accomplished by assessing existing schedules and making necessary adjustments to better suit community requirements. In order to guarantee prompt collections, minimise overflow, and promote appropriate disposal, local authorities should provide sufficient funds and staff. Start Public Awareness programs; to inform locals of the value of recycling and appropriate garbage disposal, extensive public awareness programs should be created. To reach a large audience, these campaigns might make use of a variety of media, such as social media, community workshops, and local events. Working together with community organisations and schools can help spread the word. The current laws against trash have to be strengthened. This entails making sure that the consequences of inappropriate garbage disposal are consistently enforced and explicitly communicated. Local governments ought to provide law enforcement officers with training and involve the public in compliance monitoring. The both central and

local government should promote community involvement, through volunteer programs and cleanup days, promote community participation in trash management activities. Involving locals in these initiatives might help them develop a feeling of environmental responsibility and ownership.

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