

The Impact of Public Spaces' Cleanliness on the Image of the New City Ali Mendjeli, Constantine, Algeria

Mehdi KAGHOUCHE¹, Houria ARIANE²

¹Assistant Lecturer; Faculty of Earth Sciences and Architecture, University of Larbi Ben M'hidi, Oum EL Bouaghi, Algeria.
LAUTES Laboratory, University of Salah Boubnider, Constantine 3, Algeria.

²Associate Professor, Director of the LAUTES laboratory, Faculty of Architecture and Urban Planning, University of Salah Boubnider, Constantine 3, Algeria.

Abstract

The increasing urbanization of the new city Ali Mendjeli in the outskirts of Constantine, linked mainly to population growth, is the cause of population concentration in this urban area, where the improvement of the standard of living of inhabitants has generated large loads of waste. While both urban practices, policies, the population's concentration and consumption in specific areas of this urban space are at the origin of different types of pollution such as visual pollution, olfactory pollution, etc.; loads of garbage make public spaces and their surrounding environment dilapidated. This has often caused the degradation of the inhabitants' living environment and the urban image of this new city. In this article, we examine closely the management of urban cleanliness within the new city, Ali Mendjeli, Neighbourhood Unit 09, Housing Block 01, whose state of affairs is urgently challenging. The objective of our study is to describe the state of play of urban dynamics and suggest an urban cleanliness management process. The obtained results revealed the negative impact of poor management of urban cleanliness on the image of the city.

key words: Urbanization, Waste, Public Space, Urban Image, Urban Cleanliness.

INTRODUCTION

Urbanization in Algeria relates essentially to the considerable increase in the local population, whose concentration in cities has led to a high population density and a rapid urban expansion, causing excessive waste generation (Barles, 2005 ; Chatterjee, 2010), especially with the improvement of living standards and social promotion (Minghua et al., 2008; Seo et al., 2004). This quantity of waste is made increasingly complex and diversified (Mathur, et al., 2020), and varies as a function of the situation of housing areas and season (Balet, 2011). Waste generation in the cities is alarming (Pathak et al., 2020), causing harm and contributing both to the degradation of the living environment of the inhabitants and tarnishing public spaces as well as the image of the city. This has a negative impact on public health (Alfarrarjeh et al., 2018; Kinantan et al., 2018) and the environment equally (Deus et al., 2019; Jules et al., 2016).

Nowadays, public spaces are the subject of a particular interest for the image they give to the city, as they reflect its respective potential historical qualities (Pinon, 1991). Additionally, these public help build a positive image of the city and give it both a reputation and attractiveness (Bassand et al., 2001).

The image of a city and how it is perceived are intrinsically linked to its cleanliness (Bortolotti, 2021), and is the result of a process of constant communication between urban reality and the individual. Having the ability to synthesize the characteristics of a particular space and exert an important influence on human behaviour (Mădălina, 2012), daily generation of all kinds of waste pose a great problem to local authorities to evacuate, dispose of or store, not to mention the consequences they leave in the landscape (Bertrand and Laurent, 2003).

Facing the issue, public authorities should reflect on this issue and act fast, as waste affects the health of our cities as well as the inhabitants' health (Libwa et al., 2017).

Algeria has recently begun to take an interest in the issue of urban and living environment of its inhabitants that has become a major socio-economic and an ecological problem. Despite the introduction of laws and regulations on the living environment and the management of urban waste, the issue of unhealthy and deteriorating living conditions still persists. Furthermore, attempts to achieve these objectives have not achieved the desired effect, and are summed up, under the best possible conditions, by an ad hoc urban improvement programmes in certain public and city spaces.

The new city Ali Mendjeli in Constantine does not come out of this equation, and suffers from multiple problems related to this progressive destruction of the environment, altered by the proliferation of pollution forms and the lack of control of issues related to waste management that is making the new city unhealthy and a space for incivilities.

In this context, we chose to take an interest in a part of the new city Ali Mendjeli, namely *Neighbourhood Unit 09, Housing Block 01* (henceforward NU09-HB01), located at the main entrance east of the city. It is a heterogeneous site in terms of housing, bringing together different types of collective housing, administration offices and business premises, but above all a place of proliferation of household waste often left in chaotic dumps. For this reason, we considered the framework of this study to expose the problem and set the following research questions:

- Does unhealthiness have an impact on the deterioration of the living environment and on the image of a city?
- Does unhealthiness have an impact on the deterioration of the living environment of the new city Ali Mendjeli?
- Who holds responsibility for public spaces' cleanliness in the new city Ali Mendjeli?
- Is the state alone responsible for the uncleanliness and unhealthiness of public spaces?

MATERIALS AND METHODS

Methodology

To achieve our stated objectives, we familiarized ourselves with the topic by undertaking an exploratory research of concepts and notions relating to the subject of urban health, safety and cleanliness. This allowed us to focus our work distinctly and support the development of a more integrated field of research on the matter.

According to Le Petit Larousse (2009), safety is the character of what is safe. For Fijalkow (2000), the external and permanent uncleanliness represents everything that makes urban space a harmful environment. Furthermore, Sy (2006) emphasized that health is an important linkage between space, society and power, representing a multifaceted issue bearing upon politics, society, economics, environment and health.

Moreover, healthiness relates to the improvement of our way of life and the means local authorities provide to improve it, including cleanliness of public spaces. In this respect, it is to mention that urban cleanliness is a relatively recent topic, as the current debate on healthiness considers only the issue of waste and its management, but not urban cleanliness.

Notwithstanding this neglect, urban cleanliness represents a major challenge for local authorities (Jack et al., 2020) that must ensure a better living environment for inhabitants. In fact, urban cleanliness is a vague concept that starts from the objectivity of the individual to the subjectivity of affect, differing from person to person and changing significantly. According to the AVPU (2018), absolute cleanliness does not exist in itself but only in relation to the fictitious perception of people.

Following these few highlights, we formulated our current research statement on urban cleanliness management within *Neighbourhood Unit 09, Housing Block 01* in the new city Ali Mendjeli. In our search for an appropriate methodology for our research, we adopted the principle claiming that any "research method is defined first by procedures and techniques whose purpose is to obtain answers to the posed questions" (Boutillier et al., 2009) (translated by author). For Angers (1997), a method is as a set of rigorous, precise and accurate procedures and procedure, i.e. steps ordered according to a logic adopted to achieve the expected results and the intended purpose. In this regard, Boutillier et al., (2009) claimed that it "is advisable to combine several methods whose argument is to validate the explanations put forward". We undertook the following steps to devise our research.

The State of Play

We provided the state of play on the lack of cleanliness in *Neighbourhood Unit 09, Housing Block 01* and devised a mixed approach (qualitative and quantitative) to obtain relevant materials to structure our research investigation.

Survey

The survey is a quantitative method of gathering information to understand and explain facts (Donfack, 2007) about neighbourhood and household characteristics, meeting therefore our needs to achieve our research objectives. It is one of the most widely used tools for collecting data (Taherdoost, 2016). In this regard, we distributed a hundred and ten (110) questionnaires to the inhabitants of *Neighbourhood Unit 09, Housing Block 01*, composed of about 1100 randomly

chosen dwellings. However, to understand the impact of this on our interpretation, we considered a percentage of 10% of all dwellings in the neighbourhood. All the inhabitants, who were administered the questionnaire, returned it completely filled and sometimes commented. The survey took place in November 2019.

The questionnaire highlighted four dimensions, namely population identification, personal solid waste practices, satisfaction with solid waste collection and, ultimately, the living environment and the overall perception of urban cleanliness.

Observations and Interviews

This is an approach based quintessentially on qualitative data, and aims to describe human behaviour on an objective basis (usually based on the case study). It first applies to measuring and understanding the phenomenon under study, by calling upon judgement, observation and understanding of people's experiences based on ordinal or numerical measurements (Angers, 1997).

For this end and for further depth of investigation, we relied on direct observation of the investigated area and interviewed the inhabitants and the managers of the urban management company of the new city Ali Mendjeli, EGUAM, in charge of the removal of waste within Neighbourhood Unit 09, Housing Block 01.

PRESENTATION OF THE CASE STUDY

Presentation of the New City Ali Mendjeli

Following the design phase completed at the end of 1982 and approved by an inter-ministerial decree N° 16 of 18 January 1988 (DUAC, 2010), the new city Ali Mendjeli was constructed on the plateau of Ain El Bey, as confirmed within the framework of the *Urban Development Master Plan* (UDMP) of Constantine Grouping, approved by Executive Decree N° 98/83 of 25 February 1998. It is located about 20 km from the city centre of Constantine and designed as an extension of the old city to rebalance its urban growth, relieve congestion and absorb its housing needs, amenities and activities. The new city Ali Mendjeli was created on a land property of 1500 hectares for about 300,000 inhabitants (DUAC, 2010) "as a response aimed at relieving the pressure exerted on Constantine" (Lakehal, 2017).

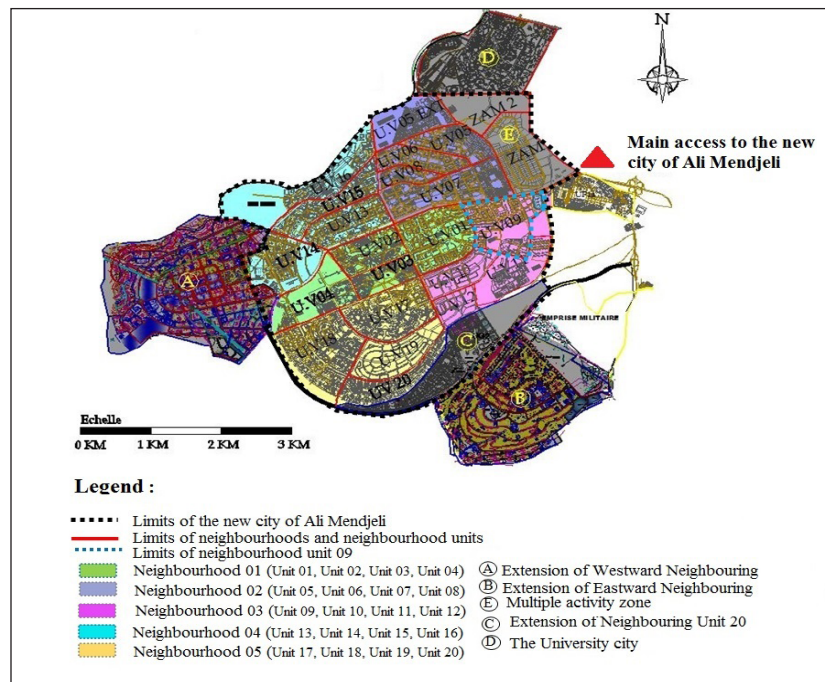


Figure 1. Distribution of neighbourhoods and neighbourhood units in the new city Ali Mendjeli. Source: Base map DUAC, 2020. Implementation: Authors, 2020.

The new city was initially composed of 5 large neighbourhoods, divided into 20 neighbourhood units. Recently, it has been extended further southwards and westwards as displayed above (Figure 1). As a result, this extension of the new city has led to an increasing population, causing an exponential increase in the amount of waste generated in its space and contributing to the degradation of the city's image.

Given the size of the new city Ali Mendjeli (spread over an area of 1500 hectares, excluding extensions), and in order to better organize the collection and transportation of waste within the city, the new city Ali Mendjeli was divided into several collection areas (Table 1), distributed among three stakeholders, namely EGVAM (a public, communal industrial and commercial establishment), PROPREC (*Public Establishment of Cleanliness and Public Health of the Wilaya of Constantine*) and SOPTE (*Versatile Works and Environment Company*) (EGVAM, 2019).

Table 1. Covered areas of waste collection companies in the new city Ali Mendjeli.

Designation	2018	2019	Covered areas
	Quantity Ton/Day	Quantity Ton/Day	
EGVAM	163.08	190	Neighbouring Units 01, 02, 03, 04, 05, Extension of Neighbouring Unit 05, 06, 07, 08, 09, 10, 13, 14, 15, 16 Places referred to as: Les 04 chemins, Guettar El Aich, Bir Dekich, Boulechfar, Brahmia, Belahrach, the 140 logements ruraux, the Belakhouene grouping, the university city.
SOPTE	/	/	Extension of Neighbouring Unit 20, Westward Extension
PROPREC	/	/	Neighbouring Units: 17, 18, 19, 20 and Extension of Eastward Neighbouring

Source: EGVAM, 2020

Presentation of the case study: Neighbouring Unit 09, Housing Block 01

Our work will focus on *Neighbourhood Unit 09, Housing Block 01* (Figure 2), with an area of 12 hectares. The latter was chosen for several reasons, mainly its heterogeneous nature bringing together different social categories. This housing block is also characterized by the presence of collective buildings that combine different habitat types (Table 2): lease-purchase and public rental housing, ranging from buildings of ground floor plus 3 floors to ground floor plus 14 floors. The housing block encompasses a mosque, a school, various administrative facilities and business premises such as a bank, a post office, and laboratory for medical analysis, etc. (Figure 2).

Table 2. Housing programmes types in Neighbourhood Unit 09, Housing Block 01.

Housing programme type		Number of housing units	Total of housing units
Public rental housing		410 housing units	1090 housing units
AADL housing	SOREST	384 housing units	
	SOREM	76 housing units	
	CSECE	220 housing units	

Source : Collected information from OPGI (*Real Estate Management and Promotion Office*) and AADL (*Housing Improvement and Development Agency*) of Ali Mendjeli, Constantine, transposed to fieldwork in 2019

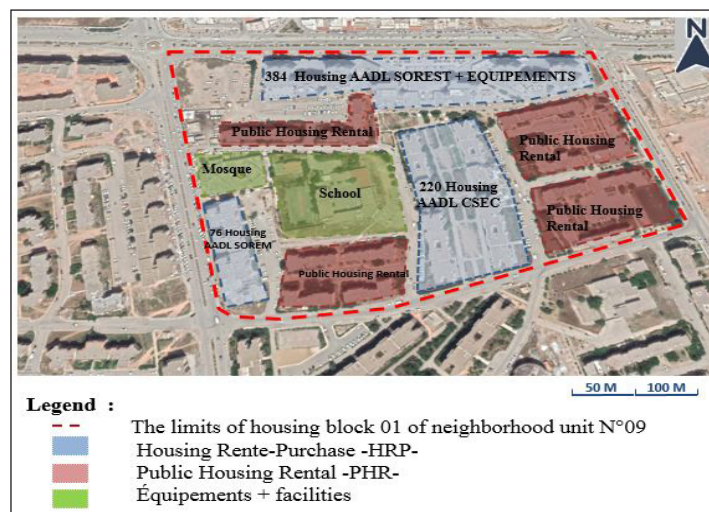


Figure 2. Neighbouring Unit 09, Housing Block 01.

Source: Google Earth base map, 2019. Implementation: Authors, 2020.

RESULTS

General State of Waste Collection in Housing Block 01

Waste collection in *Housing Block 01* is carried out by three cleaning agents and a 07 cubic-meter dust cart. This is unfortunately insufficient given the overall housing block's surface.

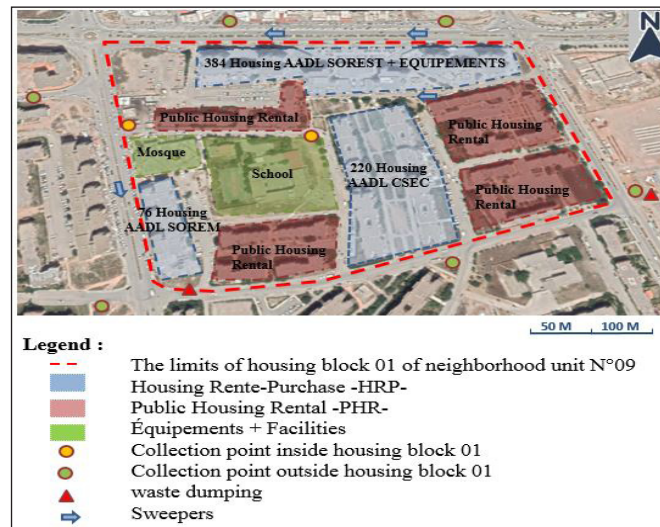


Figure 3. Location of collection points and random waste dumping in Housing Block 01. Source: Google Earth base map, 2019. Implementation: Authors, 2020.

The collection of waste within *Neighbourhood Unit 09, Housing Block 01*, takes place in two ways:

1- The first concerns collection by pick-up point identified in the neighbourhood at a specific location designated as “collection point” (Figure 3), usually consisting of 240 litre garbage bins. This type of collection concerns 5-floor buildings, the majority of which are public rental housing units as well as an important number from the 220 lease-purchase housing units. It should be noted that these buildings are not equipped on the outside by garbage bins as they are insufficient and placed away from the buildings. They are in poor condition and sometimes even not functional (Figure 4). With bins often overflowing, the inhabitants anarchically put the bin bags on the ground in front of the garbage bins, causing random waste dumping (Figure 5).

2-The second waste collection is designated by pre-collection that is mainly found in the so-called “AADL” programme buildings: 384 SOREST housing units (made by the “*East Realisation Company*”), 76 SOREM housing units (made by “*Mila Realisation Company*”) and some 220 CSCEC housing units (made by “*China State Construction Engrg Corp*”).



Figure 4. Insufficient number of garbage bins
Authors, 2020.



Figure 5. Presence of random waste dumping
Authors, 2020.

We noticed during our field trip a flagrant lack of garbage bins in the site. At first glance, this lack of garbage bins seems to be linked to the fact that AADL buildings (SOEST, SOREM, and CSCEC) are equipped with bins inside and equipped with a waste collection tank, but most of them are actually not functional and are, therefore, completely abandoned by the inhabitants. The latter closed some of the waste collection tank system even before its use, fearing that this system will dirty the buildings and cause the presence of nauseating odours and mosquitoes.

For this, some of the inhabitants throw their bins in a site they have created not far from their buildings, becoming forcibly a random waste dumping site (Figure 5), while others, sometimes obliged to cross a long distance to get rid of their waste, choose the nearest waste bins.

POPULATION SURVEY RESULTS

Sampling Characteristics in our Study Case

We surveyed 110 people, 54 males (49.1%) and 56 females (50.9%) (see Table 3). In this respect, the participating inhabitants were of different age groups and it was our objective to have the opinion of participating inhabitants on the urban cleanliness of their immediate environment, mainly public spaces in the neighbourhood.

Table 3. Participating inhabitants' age and gender in Housing Block 01

Age category/Gender	Male		Female		Total	
	Size	%	Size	%	Size	%
Less than 18	3	2.7	7	6.4	10	9.1
Between 19 and 59	44	40.0	46	41.8	90	81.8
More than 60	7	6.4	3	2.7	10	9.1
Total	54	49.1	56	50.9	110	100.0

Source : Authors, fieldwork, November 2019

Most participating inhabitants' age ranged from 19 to 59, representing 81.8% of the overall number of participating inhabitants. The remaining participating inhabitants are evenly divided between age groups under 18 and over 60, with a rate of 9.1% (Table 3).

Waste Pre-Collection and Collection Systems

We found that 90.4% of the inhabitants use garbage bags to put the waste before throwing it into the garbage bins, likely due to lack of financial means, while few inhabitants use other solutions, namely the plastic bucket (9.6%). Moreover, 81% of questioned inhabitants replied that they use garbage bins to put their garbage bags. It should be noted that these garbage bins are placed outside within public spaces, generally near the entrance of car parks. Often, random waste dumping (12.70%) and waste huts (7.30%) visually pollute public spaces and create a bad image of the neighbourhood (Figure 6).

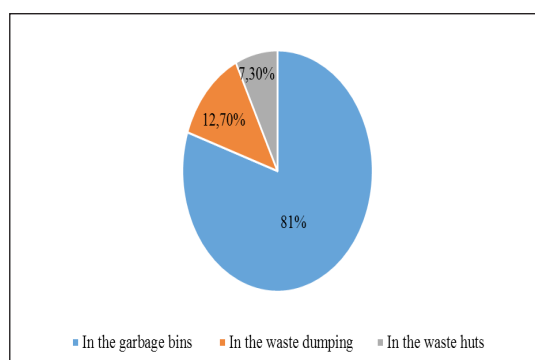


Figure 6. Garbage deposit location

Lack of Garbage and Waste Bins in the Neighbourhood

Despite the use of garbage bins to place garbage bags, the number of bins remains insufficient. Our obtained results show that the majority of inhabitants (69.7%) claimed that the number of garbage bins is insufficient (Table 4). For this reason, these garbage bins overflow once full, causing the presence of litter on the ground and the proliferation of random waste dumping in public spaces. The lack of garbage bins responsible for the emergence of random waste dumping throughout the neighbourhood, prompts inhabitants to put their bins in random and inappropriate locations (Figure 5).

The same thing applies to waste baskets. A flagrant lack of waste baskets was both noticed during our field trip and supported by the answers of the participating inhabitants, as 99.1% of them responded that the number of garbage bins

is insufficient (Table 4). This insufficient number accounts therefore for the presence of a lot of paper and litter on the ground which, in turn, influences the image and cleanliness of the neighbourhood.

Table 4. Availability of garbage and waste bins.

	Number of garbage bins	Number of waste baskets
Sufficient	30.30 %	0.90 %
Insufficient	69.70 %	99.1 %
Total (responses)	100 %	100 %

Proliferation of Random Waste Dumping

The inhabitants exonerated themselves from dropping their garbage bags outside the bins by providing multiple excuses. For the majority (61.80%), garbage bins are often full quickly, inappropriately placed, and their number is usually insufficient. Moreover, 23.60% of participating inhabitants believe that waste bags are impractical because of their limited capacity, as the amount of waste generated per capita is not judiciously assessed by local authorities.

However, few inhabitants (5.50%) think that the problem is the children's awkwardness in inappropriately putting the garbage bags in the right places and, at other times, the unavailability of waste bins close enough to their living area (1.80% of the participating inhabitants as shown in Figure 7).

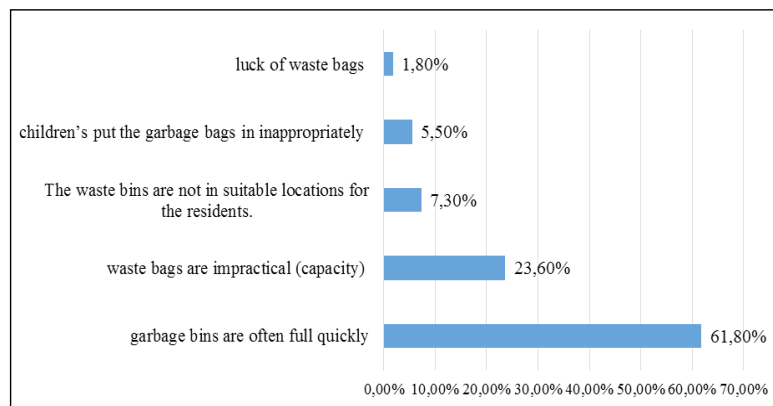


Figure 7. Causes of random waste dumping

Schedule and Frequency of Waste Collection by Dust Carts

While most of the participating inhabitants (75.50%) reported that waste is usually collected in the morning, few participating inhabitants actually provided varied answers (Figure 8).

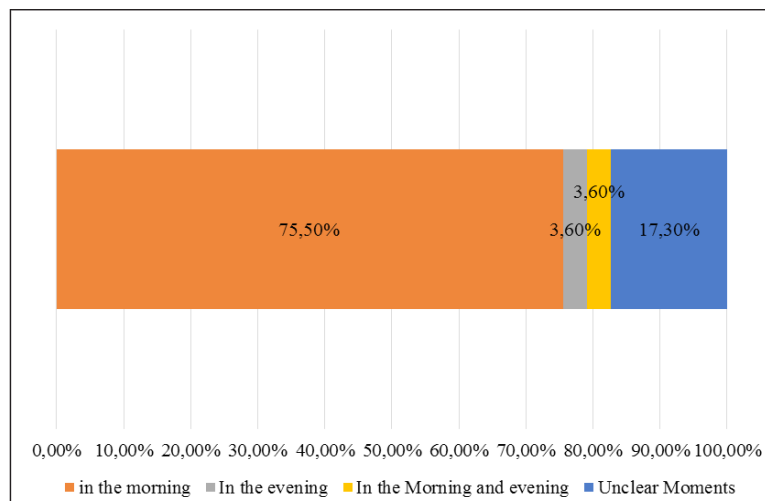


Figure 8. Schedule of waste collection by dust carts

Figure 9 shows that the majority of inhabitants (74.50%) responded that waste collection dust carts pass once a day to collect waste in the neighbourhood (Figure 9).

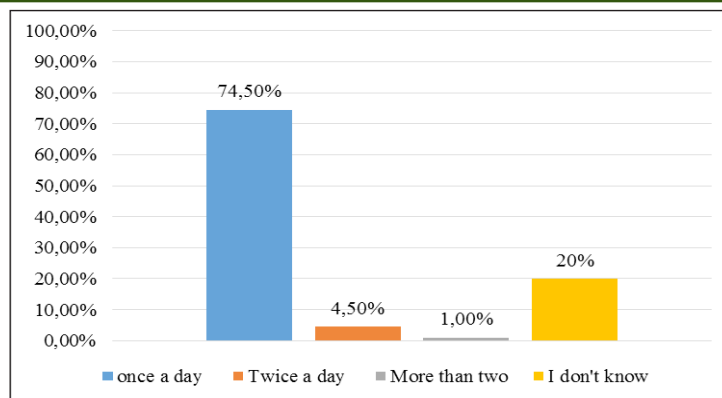


Figure 9. Frequency of waste collection by dust carts

Importance of Urban Cleanliness

Figure 10 shows that questioned inhabitants recognise the importance of urban cleanliness, reflecting therefore their full awareness of it.

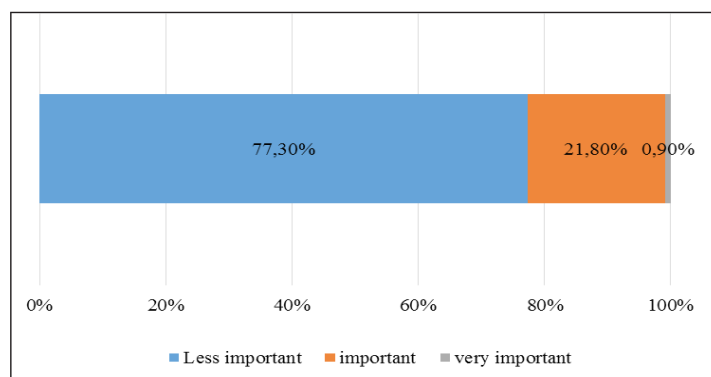


Figure 10. Importance of urban cleanliness for inhabitants

While half of the participating inhabitants (51.8%) were not satisfied with the degree of cleanliness within the neighbourhood, very few ones (1.8%) proved very satisfied with it, and 46.10% were satisfied with the cleanliness in the neighbourhood (Figure 11).

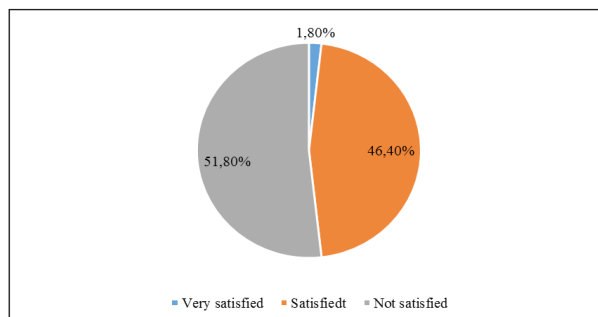


Figure 11. Inhabitants' perception of neighbourhood's cleanliness

Major factors influencing the neighbourhood's cleanliness

According to 36.5% of the inhabitants, the major factor influencing the state of cleanliness in the neighbourhood is primarily the incivility of the inhabitants themselves, while around 15.40% and 15.80% of the inhabitants believe that uncleanliness in the neighbourhood is due to the lack of equipment and the reduced number of cleaning agents deployed by the waste collection company, respectively.

Additionally, almost 30% of the remaining responses are divided between those, on the one hand, who believe that cleanliness in the neighbourhood is neglected by the municipality, the insufficient number of waste collection dust carts, frequency of waste collection, and those, on the other hand, who accuse traders for random waste dumping of their daily unpacking activity (Figure 12).

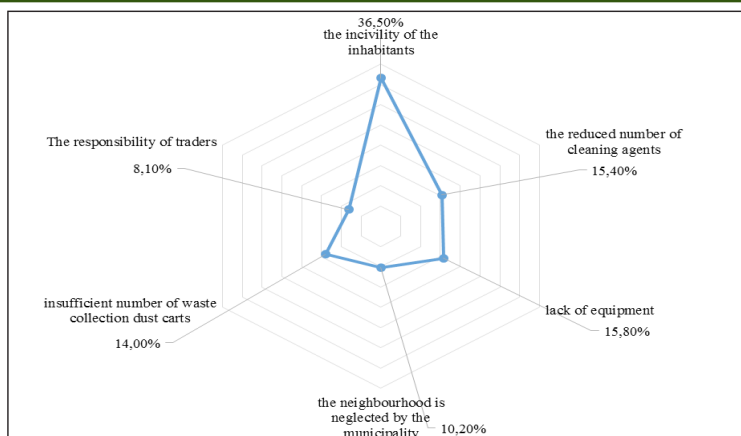


Figure 12. Major factors influencing cleanliness

Improvement of Cleanliness in the Neighbourhood

As regards possible improvement of the neighbourhood's cleanliness, about 24.60% of the participating inhabitants suggest that appropriate locations for garbage bins and baskets have to be well indicated to improve cleanliness in the neighbourhood. Moreover, while 21.10% of the inhabitants suggest that waste collection schedule be fully respected; 18.90% of them call for voluntary cleaning campaigns in the neighbourhood; and 12.80% recommend cleanliness issues to be reported to waste collection companies or municipal authorities (Figure 13).

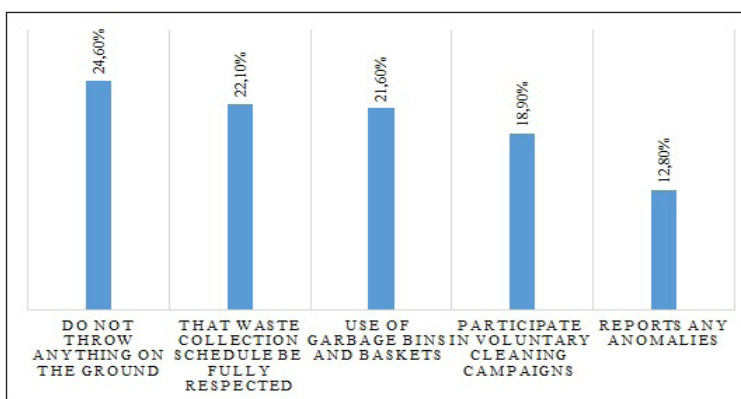


Figure 13. Major factors influencing cleanliness

DISCUSSION

Overall, urban cleanliness management in *Neighbourhood Unit 09, Housing Block 01*, is a serious issue, mainly the waste collection tank system within SOREST, SOREM, and CSCEC buildings, where waste collection tank system does not work and is blocked by the inhabitants themselves for several reasons as explained above. Moreover, there is a significant flawed reading of tasks and disorganisation among the waste collection company, EGUVM and the subsidiary property management agents, GEST IMMO, responsible for bringing out garbage bins located at the entrance of buildings.

During our fieldwork, we noticed that public spaces were overall unclean, mainly due to local inhabitants' incivility and the lack of cleaning agents. It is to note that only three agents are made responsible for cleaning *Housing Block 01* which is insufficient given the large area and the large number of inhabitants there. Added to that, a flagrant lack of waste bins and their degraded condition incite the inhabitants to reach for new locations to put their waste, influencing therefore negatively the overall image of the neighbourhood.

Finally, to have a clean neighbourhood and a better living environment, urban cleanliness must be the concern of state-owned companies, inhabitants and neighbourhood associations all combined. Each party must hold responsible for taking action and actively engage in restoring the neighbourhood's image. As the inhabitants have to respect waste collection policies and act with civility, waste collection companies have to improve their management policies and provide sufficient waste bins and baskets. Waste collection companies have to reinforce cleaning teams with a sufficient number of cleaning agents to meet the required number of staff capable of sufficiently covering entire housing blocks and neighbourhoods.

CONCLUSION

Our study explored cleanliness management and its impact on public spaces, demonstrating the importance of the issue that needs to be carefully addressed. The study proceeded by a description of the state of play of cleanliness within the chosen housing block and employed quantitative and qualitative methods to address the raised questions.

The obtained results showed that the inhabitants are fully aware of the importance of urban cleanliness and the urge to address the issue as it is exercising a significant impact on public spaces and the image of the neighbourhood. Additionally, the obtained results revealed that the inhabitants are not happy with the cleanliness situation in the neighbourhood for which they are held partially responsible because of their incivility and the flagrant lack of an effective waste management system and waste collection means provided by EPIC EGVAM in *Housing Block 01*.

The study suggests that the new city Ali Mendjeli must hold an effective urban cleanliness system based on a clear policy of management of public spaces. The new city is required to communicate and sensitise the inhabitants on good initiatives towards urban cleanliness and introduce disciplinary measures against behaviours affecting public spaces and the cleanliness of neighbourhoods. Likewise, the waste collection company, EGVAM, must effectively manage waste collection schedule to stop fast proliferation of waste and prevent random waste dumping. This is essential to maintain the cleanliness of public spaces, not tarnish the image of neighbourhoods and guarantee a healthy living environment.

ABBREVIATIONS

HIDA/AADL Housing Improvement and Development Agency

CSCEC China State Construction Engrg Corp

DUPAC/DUAC Department of urban planning, architecture and construction of Constantine

CICEAM/ EGVAM Public, communal industrial and commercial establishment of new city Ali Mendjeli

REM/ GEST IMMO Real estate management

HRP Housing Rente-Purchase

REMPO/ OPGI Real Estate Management and Promotion Office

PHR Public Housing Rental

PECPHC/PROPREC Public Establishment of Cleanliness and Public Health of the Wilaya of Constantine

VWEC/SOPTE Versatile Works and Environment Company

MRC/SOREM Mila Realisation Company

ERC/SOREST East Realisation Company

UDMP Urban Development Master Plan

REFERENCES

1. Alfarrarjeh, Abdullah, Seon Ho Kim, Sumeet Agrawal, Meghana Ashok, Su Young Kim, et Cyrus Shahabi. (2018). « Image Classification to Determine the Level of Street Cleanliness: A Case Study ». In 2018 IEEE Fourth International Conference on Multimedia Big Data (BigMM), 1-5. Xi'an: IEEE. <https://doi.org/10.1109/BigMM.2018.8499092>.
2. Angers, Maurice. (1997). Initiation à la méthodologie des sciences humaines. Québec: CEC.
3. AVPU. (2018). le lab' de la propreté urbaine. Paris: le lou u lac.
4. Balet, Jean-Michel. (2011). Aide-mémoire - Gestion des déchets -. 3 ème. Eyrolles. <https://www.eyrolles.com/Sciences/Livre/aide-memoire-gestion-des-dechets-9782100516278/>.
5. Barles, Sabine. (2005). L'invention des déchets urbains : France 1790-1970. Seyssel: Champ Vallon Editions.
6. Bassand, Michel, Anne Compagnon, Dominique Joye, et Véronique Stein. (2001). Vivre et créer l'espace public. Lausanne: Presses Polytechniques et Universitaires Romandes.

7. Bertrand, Jean-René, et François Laurent. (2003). De la décharge à la déchetterie: Questions de géographie des déchets. PU Rennes. <https://www.eyrolles.com/BTP/Livre/de-la-decharge-a-la-dechetterie-9782868478818/>.
8. Bortolotti, Andrea. (2021). s. d. « Brussels Studies , Collection générale ». Brussels Studies, 22.
9. Boutillier, Sophie, Dimitri Uzunidis, Alban Goguel d'Allondans, et Nelly Labère. (2009). Méthodologie de la thèse et du mémoire : Conseils pratiques, exemples. principe. Studyrama.
10. Chatterjee, R. (2010). « MUNICIPAL SOLID WASTE MANAGEMENT IN KOHIMA CITY-INDIA » 7 (2): 8.
11. Deus, Rafael Mattos, Fernando Daniel Mele, Barbara Stolte Bezerra, et Rosane Aparecida Gomes Battistelle. (2019). « A Municipal Solid Waste Indicator for Environmental Impact: Assessment and Identification of Best Management Practices ». Journal of Cleaner Production 242: 118433. <https://doi.org/10.1016/j.jclepro.2019.118433>.
12. Direction de l'urbanisme de l'architecture et de la construction wilaya de Constantine (DUAC). (2010). « Rapport de présentation de l'étude du P.O.S. 1 Ville Nouvelle Ali Mendjeli », Constantine ». DUAC.
13. Entreprise de gestion urbaine de la ville nouvelle d'Ali Mendjeli (EGUVAM). (2019). « Rapport de présentation de l'entreprise de gestion urbaine d'Ali Mendjeli, phase 01 ». EGUVM.
14. Fijalkow, Yankel. (2000). « La notion d'insalubrité. Un processus de rationalisation 1850-1902 ». Revue d'histoire du XIXe siècle. Société d'histoire de la révolution de 1848 et des révolutions du XIXe siècle, no 20/21 (juin): 135-56. <https://doi.org/10.4000/rh19.213>.
15. Jack, Tullia, Manisha Anantharaman, et Alison L Browne. (2020). « 'Without Cleanliness We Can't Lead the Life, No?' Cleanliness Practices, (in)Accessible Infrastructures, Social (Im)Mobility and (Un)Sustainable Consumption in Mysore, India ». Social & Cultural Geography, septembre, 1-22. <https://doi.org/10.1080/14649365.2020.1820561>.
16. Jules, Balumisa Mubolwa, El Kent ATUMISHI Mubangu, et Mourad Madrane. (2016). « Vers une bonne gestion des déchets plastiques et d'autres déchets ménagers dans la commune d'Ibanda, ville de Bukavu en RDC » 20 (1): 9.
17. Kinantan, Bag, A Rahim Matondang, et Juliza Hidayati. (2018). « Waste Management as an Effort to Improve Urban Area Cleanliness and Community Income (Journal Review) ». IOP Conference Series: Materials Science and Engineering 309 (février): 012017. <https://doi.org/10.1088/1757-899X/309/1/012017>.
18. Lakehal, Ahcène. (2017). « La ville nouvelle d'Ali Mendjeli ». Les Cahiers d'EMAM. Études sur le Monde Arabe et la Méditerranée, no 29 (mai). <https://doi.org/10.4000/emam.1365>.
19. Libwa, Dubois MUTUPEKE, Jean Calvin TSHIBUABUA Shamba, Gaston KABUAMBA Milembu, Jacques Issongo, Jean Claude PANI Usandili, et Nkongolo Katolo. (2017). « Problématique de collecte et de gestion des déchets dans la ville de Kananga : Impact sur la sécurité environnementale / KASAI CENTRAL - RDC » 21 (1): 11.
20. Mathur, Anil K, A K Dwivedi, et Shikha Saxena. s. d. (2020)« Solid Waste Management and Methane Generation in Kota City », 8.
21. Minghua, Zhu, Fan Xiumin, Alberto Rovetta, He Qichang, Federico Vicentini, Liu Bingkai, Alessandro Giusti, et Liu Yi. (2009). « Municipal Solid Waste Management in Pudong New Area, China ». Waste Management 29 (3): 1227-33. <https://doi.org/10.1016/j.wasman.2008.07.016>.
22. Paftală-Ciubotărița, Mădălina. (2012). « La ville et ses images. Le cas de la municipalité de Jassy », 16.
23. Pathak, Dhundi Raj, Bandita Mainali, Hossam Abuel-Naga, Micheal Angove, et Ing Kong. (2020). « Quantification and Characterization of the Municipal Solid Waste for Sustainable Waste Management in Newly Formed Municipalities of Nepal ». Waste Management & Research: The Journal for a Sustainable Circular Economy 38 (9): 1007-18. <https://doi.org/10.1177/0734242X20922588>.
24. Petit Larousse illustré - (2009) - Collectif Larousse - Librairie Eyrolles. s. d. <https://www.eyrolles.com/Loisirs/Livre/petit-larousse-illustre-2009-9782035840707/>.
25. Pinon, Pierre, Dominique Dupré-Henry, et Service technique de l'urbanisme France. (1992). Lire et composer l'espace public. Paris: Les Editions du STU.

26. Seo, Seongwon, Toshiya Aramaki, Yongwoo Hwang, et Keisuke Hanaki. (2004). « Environmental Impact of Solid Waste Treatment Methods in Korea ». *Journal of Environmental Engineering* 130 (1): 81-89. [https://doi.org/10.1061/\(ASCE\)0733-9372\(2004\)130:1\(81\)](https://doi.org/10.1061/(ASCE)0733-9372(2004)130:1(81)).
27. Sy, Ibrahima. (2006). « La gestion de la salubrité à Rufisque (Sénégal) : Enjeux sanitaires et pratiques urbaines ». These de doctorat, Université Louis Pasteur (Strasbourg) (1971-2008). <http://www.theses.fr/2006STR1GE04>.
28. Taherdoost, Hamed. (2016). « Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research ». SSRN Scholarly Paper ID 3205040. Rochester, NY: Social Science Research Network. <https://doi.org/10.2139/ssrn.3205040>.

Citation: Mehdi KAGHOUCHE, Houria ARIANE. *The Impact of Public Spaces' Cleanliness on the Image of the New City Ali Mendjeli, Constantine, Algeria*. *Int J Innov Stud Sociol Humanities*. 2022;7(6):180-191. DOI: <https://doi.org/10.20431/2456-4931.0706017>.

Copyright: © 2022 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.