GRADIVA

Volume 63 | Issue 08 | August 2024
DOI: 10.5281/zenodo.13373928

Impact of Slums on the Urban Image and Citizens Health: The Case of Central and Surrounding Areas of Constantine (Algeria)

Nadra Nait Amar [1], Meriem Seghiri [2], Yasser Benzagouta [3], Imane Harkat [4], Mohamed Ikbal Farah [5], Ahmed Alliouche [6] & Radja Fergani [7]

1. University of Constantine 3, Algeria.
2,3,4,5,6. Centre de Recherche en Aménagement du Territoire (CRAT), Campus Zouaghi Slimane, Route de Ain el Bey, 25000 Constantine, Algeria.
7. Leonardo De Vinci Exécutive Education Institute, France.
Email: nadra.naitamar@univ-constantine3.dz

Abstract

The events that followed in Algeria, from the war of independence to the security crisis of the 1990s, contributed directly to the rural exodus and the spread of informal settlements. Far from the myths of insight that some research dogmatically attaches to these vernacular territories. Moreover, far removed from the moral judgements that drive most studies of slums, particularly in Algeria, our research will focus on an urban and above all a health analysis of these areas. Of Algeria's 549,000 slums, this study focuses on five in Constantine. This approach reveals the impact of substandard housing on the urban landscape, but also its effects on the health of its occupants. The results of this research show that shanty towns have a significant negative impact on the environment, public health and the safety of residents. They degrade the local environment, leading to a deterioration in the urban image and quality of life. Unhealthy living conditions encourage the proliferation of infectious and chronic diseases. These impacts are felt by the entire population of Constantine, due to the proximity of the slums to the more formal neighborhood's, posing major challenges for the municipal authorities and requiring coordinated action to improve living conditions and preserve the urban image.

Keywords: *Impact, Slums, Empirical Survey, Environment, Public Health, Urban Image, Constantine (Algeria).*

1. INTRODUCTION

The slum is often a dense grouping of precarious housing where safety and hygiene standards seem to be poorly respected (Mike, 2008). In 2013, there were 549,000 slums in Algeria (Nait-Amar, 2015), housing more than three million people. This urban phenomenon is the result of multiple events: the colonial period (1830-1962), the industrialization programmers of the 1970s and the impact of the security crisis (1992) (Cote, 1994). These slums are scattered across the country, affecting the urban landscape and creating environmental and health risks.

The slums of Constantine, 250 km north of central Algeria, illustrate this urban phenomenon. The particularity of this city, which seems at all times to be a receptacle for the rural exodus, lies in the early appearance of slums. Our study shows the impact of Constantine's slum areas on the city's urban landscape (environmental risks), and the well-being of its inhabitants (health risks). Several surveys were carried out with residents of five slums in Constantine, local administrative officials and medical specialists. The aim is to identify the environmental problems and their impact on the health of the slum residents.

Volume 63 | Issue 08 | August 2024
DOI: 10.5281/zenodo.13373928

2. MATERIALS

The five sites selected for the study are located in the eastern part of the city of Constantine, a strategic region in north-eastern Algeria, characterised by its proximity to the city centre (Fig.1). This location makes these sites crucial areas of interest for understanding the dynamics of informal urbanisation in a rapidly expanding city.

The slums studied are Es-Salam, Djaballah, Oued El Had, Fedj Errih, Zerzara and the BUM. Each of these informal settlements has specific characteristics that reflect both local history and the socio-economic challenges facing the city of Constantine (Fig.2a).

These slums were created on land that could not be built on, characterised by steep slopes, unstable ground and flood-prone areas, making them particularly vulnerable to natural hazards (Fig.2b). These slums were generally built clandestinely, at night, by the owners themselves. This nocturnal construction method illustrates the precariousness of living conditions and the urgent need to find shelter, even to the detriment of town planning and safety regulations.

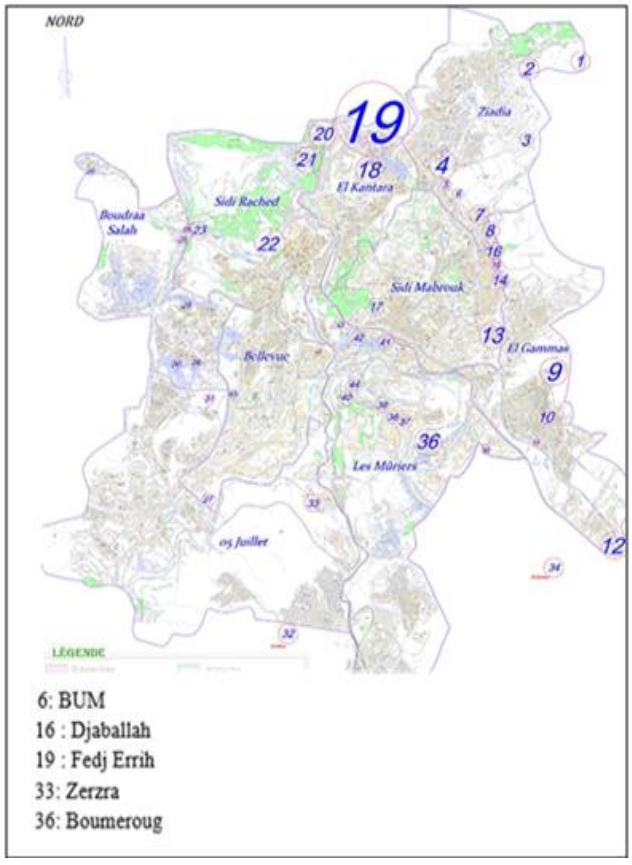

Fig 1: Situation of slums

(Source: Nait Amar N, 2015)

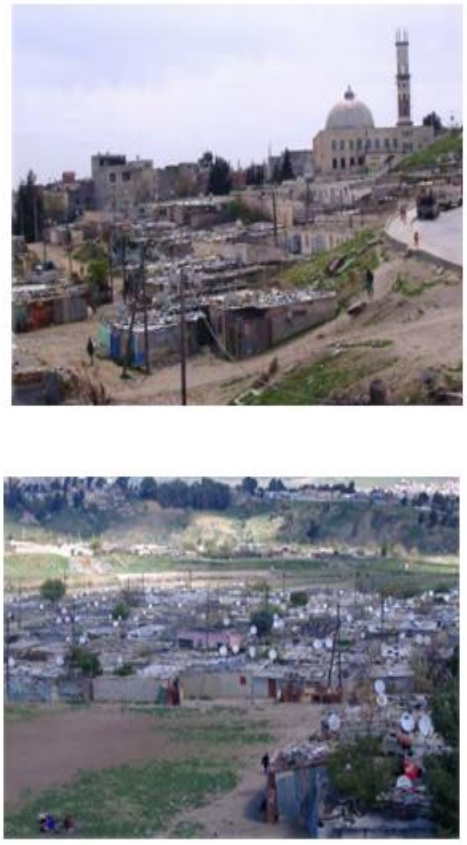

Fig 2: a. b part of Boumerzoug's slum

(Source: Urbanism's Direction; 2011)

3. METHODS

Our rather inductive approach was based on a mixed (qualitative and quantitative) method of analysis (Anadón, 2019), involving questionnaires with the inhabitants of the five slums (tab1), as well as focused interviews (Dépelteau, 2010) with three local authority officials, including the city's chief executive (the former Prefect) and doctors from the DSP.

Volume 63 | Issue 08 | August 2024
DOI: 10.5281/zenodo.13373928

This empirical survey was superimposed on episodes of floating observations (Pétonnet, 1982) punctuated by photographic captures. This analytical process gave rise to a series of statistics on diseases and their environmental impact.

Table 1: Slum's fetaures

Site	Zone	Area m²	shacks	Families	Legal status	Date of creation
Djaballah	16	20859	437	463	State	1950
Zerzara	33	6754	34	34	Private	1953
BUM	6	13700	50	57	State	1953
Fedj Errih	19	350000	881	1283	Domanial	1953
Essalam	36	65700	551	722	State	1989
Total			4890	6131		

(Source: Urbanism's Direction, 2011).

Table 2: Interviews (Authors, 2021)

Slums	Interview	Man /	Woman	Age
Djaballah	72	40	32	20-75
Zerzara	15	10	5	20-75
BUM	35	15	20	20-75
Fedj Errih	85	55	30	20-75
Essalam	65	20	45	20-75

4. RESULTS

These five selected sites are scattered over land that is unsuitable for urban development. The ignominious situation of these centers of inhumanity, where "people who are useless to the city" (Fig3), rats, stray dogs, flies, mosquitoes, sometimes snakes and many other harmful animals coexist, has negative repercussions on the environment as well as on health, hygiene and safety (Fig4).

This wastewater, which comes from a variety of sources and contains a number of substances that are harmful both to humans and to flora and fauna, is highly polluting: there is no sewage system (Keddari et al. 2019) (Table 3).

Fig 3: Oued Boulerzoug cross Slum

(Source: Nait-Amar N, 2015)

Fig 4: Interior of Djaballah's slum

(Source: Nait-Amar N, 2015)

Volume 63 | Issue 08 | August 2024
DOI: 10.5281/zenodo.13373928

All these deficiencies and inadequacies, combined with endemic unemployment that affects young people in particular, mean that the " slum dweller " is, on the one hand, a being who exists by his physical presence in the 21st century and by his way of thinking, and, on the other hand, an individual who belongs, by the place where he lives and the difficulties he encounters, to a distant era that can be likened to the Middle Ages.

Table 3: Wast Production (wilaya of Constantine 2007)

Products	Quantity Tons	Observation
Industrial Waste	415T	Per year
Special Waste	650T	stored by producers in inadequate conditions
Used Oil	342T	stored by producers in inadequate conditions
expired pharmaceuticals	1046T	stored by producers in inadequate conditions
Solie waste	600T	Per year

5. DISCUSSION

Statistics on notifiable diseases are compiled by the Department of Health and the epidemiology department of Constantine University Hospital, not by neighborhood or type of housing in order to assess the impact of substandard housing on health and the environment, but for the whole of Constantine. However, the data collected from these organisations do not tally.

However, according to the D.S (Direction of health), some maladies have either disappeared, such as MTH (no more epidemics for 3 years), or are in clear decline. Our survey can result in falsified information, when the slum dweller is often tempted to hide the truth, to distort it to preserve his dignity, to align himself with a social norm, to defend himself from the gaze of the interviewer, or even to victimise himself. It was necessary to distinguish the parts relating to the person, from those relating to the characters played, exaggerated since each interview was an opportunity to appear better and to try to obtain more (Benzagouta, 2021).

The pathologies identified by the health services are mainly respiratory and infectious, accounting for 60% of general consultations, with children being the most affected (We cannot divulge details or information on age, gender or the slum affected, as the data is subject to medical confidentiality (Table.4).

Table 4: Diseases listed

Pathologies	University Hospital Center CHU (Cases)	Pathologies	University Hospital Center CHU (Cases)
Typhoid	3	Primary infection	4
Dysentery	6	Syphilis	2
Hepatitis A	5	Hydatid cyst	6
Meningitis	15	Hepatitis B	13
Tuberculosis	138	Hepatitis C	4

Industrial activities are located along the Rhumel valley and its main tributary, the Boumerzoug. As the main wadis crossing Constantine, they have always served as reservoirs for the city's wastewater (Keddari et al. 2021).

This wastewater, which comes from a variety of sources and contains a number of substances that are harmful both to humans and to flora and fauna, is highly polluting. Wastewater contains pathogens, in particular bacteria, viruses and helminths (parasitic worms) that can cause illness and even death (Nacer Faruqui et al. 2005).

Volume 63 | Issue 08 | August 2024
DOI: 10.5281/zenodo.13373928

6. CONCLUSION

In Algeria, slums are scattered throughout the country and this urban phenomenon is the result of numerous socio-political and economic events. These informal neighborhoods, often built in a precarious manner using salvaged materials, reflect the complexity of migration dynamics and the inadequacy of housing policies.

The study identified environmental and health problems in the slums, which can have repercussions not only for the residents of the slums, but also for the residents of the city of Constantine, given their social and spatial proximity.

Living conditions in slums are often characterised by limited access to basic services such as drinking water, sanitation and electricity, leading to high risks of communicable diseases and malnutrition. It's fair to say that the slum, a veritable enclave of all social ills, is far from being a place where people can flourish. The inhabitants, who are often marginalised, live in conditions of extreme poverty, which limits their access to education, employment and healthcare. Social stigma and economic exclusion exacerbate their vulnerability.

Taking the environment and health into account in the local management of the city of Constantine is an asset for its future development. Integrated, participatory policies aimed at improving infrastructure, promoting urban regeneration and strengthening social services can transform these precarious areas into viable neighborhoods. The inclusion of slum residents in decision-making processes is essential to ensure equitable and sustainable urban development.

References

1) Faruqui N, Asit K, Bino M (2005) la gestion de l'eau selon l'islam. Karthala, Paris.

2) Anadón M, (2019) Les méthodes mixtes: implications pour la recherche dite qualitative. Recherches qualita-tives 38 (1): 88-104. https://doi.org/10.7202/1059650ar.

3) Cote M, (1994) Constantine. Encyclopédie berbère 14: 2069-2081.

https://doi.org/10.4000/encyclopedieberbere.2330

4) Dépelteau F (2000) La démarche d'une recherche en sciences humaines: de la question de départ à la com-munication des résultats. 2nd. De Boeck Supérieur, Laval.

5) Keddari D, Smatti-Hamza I, Mehennaoui S, Sahli L, Afri-Mehennaoui FZ (2021). Occurrence and distribu-tion of heavy metals in the tissues of Physa acuta (D.) in relation to the contamination level of sediments from Boumerzoug wadi

6) (Algeria). Environmental Forensics 24 (3-4): 96-111.

https://doi.org/10.1080/15275922.2021.1976313.

7) Keddari D, Afri-Mehennaoui FZ, Smatti-Hamza I, Djeddi H, Sahli L, Mehennaoui S (2019). Assessment of the contamination level by trace metal (cadmium, copper, nickel and zinc) of sediments in the Boumerzoug wadi and its tributaries, and their transfer to the Chenopodiaceae Spinacia oleracea (L.). Journal of Water Science 32 (3): 255-273(2019). https://doi.org/10.7202/1067308ar.

8) Mike D (2005) La planète bidonville: involution urbaine et prolétariat informel. Mouvements (39-40): 9-24.

Volume 63 | Issue 08 | August 2024
DOI: 10.5281/zenodo.13373928

9) Nait-Amar N (2015) L'habitat et l'habiter dans les bidonvilles de Constantine. Conditions et évolution. PhD thésis in science, université des frères Mentouri Constantine.

10) Pétonnet C (1982) L'Observation flottante. L'exemple d'un cimetière parisien. Persée 22 (4): 37-47.

11) Benzagouta Y (2021) Mécanismes de production et stratégies d'appropriation dans les opérations de reloge-ment en ville nouvelle: le cas d'Ali Mendjeli (Constantine) en Algérie. PhD thésis, ULB - Université libre de Bruxelles.

12) Direction de l'Urbanisme DUC (2011). http://www.wilayaconstantine.dz/. Accessed 2018/09/01.

13) Direction de la Santé Constantine DSP (2020). https://www.sante.gov.dz/. Accessed 2020/11/10.