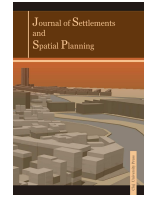




Centre for Research on Settlements and Urbanism

**Journal of Settlements and Spatial Planning**

Journal homepage: <http://jssp.reviste.ubbcluj.ro/eng/index.html>





# The Periphery – the Keystone of Rehousing in Algeria. The Case of Constantine City

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DOI: 10.24193/JSSP.2021.1.04

<https://doi.org/10.24193/JSSP.2021.1.04>

**Keywords:** *precarious neighborhood, rehousing, periphery, new city, households, Algeria*

## ABSTRACT

Rehousing is a practical measure to reduce the housing crisis in metropolitan areas that do not have land resources. The periphery corresponds to the spaces dependent on the center, which the Algerian public authorities have used to build collective housing estates. According to the townspeople of Constantine, these processes were followed by many social effects. This study presents the survey results with the heads of households in Boudhraà Saleh precarious neighbourhood, near Constantine city center in eastern Algeria, who were rehoused from the precarious housing towards the new city Massinissa at the periphery of Constantine. Using a descriptive approach, we analyze the effects of rehousing operations and the periphery's choice as a transfer place. Our survey results show the social effects of rehousing and the reflections of relocated households related to their social environment, whereas the periphery has become uninhabitable. The difficulty in obtaining a habitat forced them to face these difficult circumstances. Given the unfavorable social and environmental conditions prevailing in the new city of Massinissa, prompt intervention is imperative to identify and implement drastic measures to address the harsh realities experienced by its rehousing households and provide them with suitable habitats and outdoor spaces in compliance with the fundamental tenets of sustainable development.

## 1. INTRODUCTION

Housing is a strategic sector favouring the implementation of health conditions for the economic and social development of a well-defined territory. *Housing is not only accommodation (housing); it is also and above all the production of coherent living spaces (jobs, provision of public services, social conviviality); it is the framework of integration and physical, economic and social anchoring of cities* (Intercommunal Development and Town Planning (PDAU) Master Plan, 2017). The analysis of residential densities reveals disparities between the various land uses.

Rehousing is a present topic in the current research. Investigations have been focused predominantly on the rehousing operations after the urban renewal processes, including the Resorption of Precarious Housing (RHP) policy or emergency rehousing operations following natural disasters (earthquakes, floods, floods, etc.). Several studies have been conducted on the topic of rehousing in periurban areas, for example, in France (Poincloux, 2011), in England (Pooley, 1985), in Turkey (Erman, 2019), Vietnam (Ngô-Thanh, 2006), Morocco (Hauw, 2004), etc. For Algeria, the works of Safar-Zitoun and Hafiane, who compared the case of the city of Annaba and the city of Algiers (Safar-Zitoun and Hafiane, 2003) and the

*urban modernization and dislodgement of informal settlements* (Bergel and Benlakhlef, 2014) are of reference.

The difference between rehousing operations in Algeria and those carried out in France or in the two neighboring Maghreb countries (Tunisia and Morocco) is that in these countries rehousing operations are always followed by urban renewal projects and implemented by public organizations specialized in this type of projects. *...There were too many inhabitants involved in this chaotic process. However, not considering their opinions seems to be the leading cause for the failure. ... They have moved away from the city center, which they could previously access on foot. They were displaced to the new city, now far from their jobs and frequented businesses* (Bergel and Benlakhlef, 2014). Besides, the processes of eliminating the precarious housing and the damage occurring after natural disasters, as well as the landslides that lead to the demolition of habitats, are accompanied by the process of rehousing the affected citizens, and the state supports all these groups. The difficulties of developing an acceptable rehousing policy for a rapidly changing metropolis have had a significant impact (Ngô-Thanh, 2006). It recently imposed the Algerian State to search for another approach by broadening housing production programmes, including social housing, rental housing, participatory, hire-purchase, and public promotional housing, etc. *The image of the whole city ... included the development of the periphery, via the structure of popular housing sites* (Hauw, 2004). These operations include rehousing the disadvantaged populations from chaotic neighborhoods and precarious housing. According to Safar-Zitoun and Hafiane (2003), *the rehoused people thus seem to have exchanged their residential precariousness for an even more threatening precariousness: the symbolic precariousness.*

In Algeria, the rehousing process must be studied in the long term to assess the response to the basic needs of citizens of the middle and poor classes. It has affected the relations between inhabitants and their daily life because of an abstract distribution without proper preparation in advance. Besides, what is proposed and programmed in the papers (intervention reports) does not apply in the field, which determines a series of adverse reactions from the rehoused families. *Rehousing potentially generates new routines, that is to say, a social "distancing" from certain social networks and a time of acclimatization to a new neighborhood network, but also new routes, new landmarks and representations of mental areas or new modes of transport modifying the levels and conditions of accessibility to jobs and amenities* (Meissonnier, 2015). After submitting a request for assistance from the World Bank (the global agreement with the Algerian government in Washington on

07/09/1998) to absorb the inappropriate housing (RHP) by providing 1,500 dwellings (called evolutionary dwelling) in which the Algerian state contributes with 70%, and 30% being supported by the beneficiary citizens, this type of housing was officially adopted in 2002 (Safar-Zitoun and Hafiane, 2003). At first, this agreement included just the three main metropolises of the country (Constantine, Oran, and Algiers), afterwards 12 other states being added, according to priority.

Rehousing is one of the principles of the program (RHP) and is the preferred option in many developing countries. Public authorities programmed and constructed neighborhoods without proper urban planning and without providing basic facilities; even public transport was not available. As the program targeted to rehouse families and social groups in collective social housing completed or under development, it required the availability of significant funding sources necessary for this procedure. The program announced its failure in 2002. Thus, rehousing in peripheral areas poses many social and local integration problems because it involves constructing collective housing in areas that need more equipment and preparations for the population to live a decent daily life. This is an approach that Lelévrier (2014) debated on and named "*approach by trajectories*", focusing on the distance between the original residence and the new residence to which the family was rehoused. *This approach by trajectories takes into account, on the one hand, the heterogeneity of the working classes living in these neighborhoods and can, in this sense, constitute a framework for analyzing the population of these territories and not just the trajectories of the rehoused individuals* (Lelévrier, 2014). Recommended approaches to ease the pressure on large cities are numerous. The creation of the new city of Massinissa in the peripheral area of El Khroub has experienced an accelerated increase due to the carryovers of surpluses from the metropolis of Constantine and to the preservation of agricultural land located to the west. Indeed, a significant imbalance is visible between what is produced and what is programmed. All this prompted us to ask the main question: *What are the effects of the rehousing process on the households relocated in the new city of Massinissa?* and several other related questions: *What is the impact of the new social environment on the households that have been rehoused? Does the current form of the proposed housing and the peri-urban space effectively fulfill the genuine needs of the population?*

For this, we aim to analyse the effect of off-site rehousing on the rehoused households by taking the case of the precarious neighborhood Boudhraâ Salah, one of the neighborhoods of Constantine city, located close to the city center, which has witnessed the rehousing process to the new city of Massinissa.

## 2. THEORY AND METHODOLOGY

### 2.1. Description of study area

El Khroub is the capital city of the municipality and the district of the same name (Fig. 1), located about 20 kilometers southeast of Constantine, with an administrative territory of 24,465ha. It borders with Constantine’s municipality to the north, with Ouled Rahmoun municipality to northeast, and with Oued Seguin municipality to the south (Mila State).

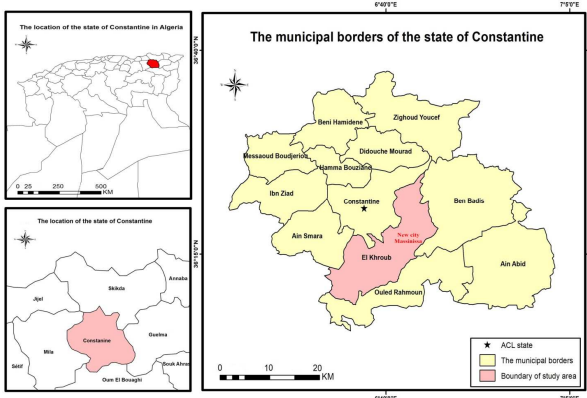


Fig.1. Location of the study area.

The new city of Massinissa was created to accommodate 463 hectares and more than 100,000 inhabitants, located about 15 km south of Constantine City. The aim was to build habitats at the periphery because of the housing crisis in El Khroub and in Constantine, in general, after designing a program to allocate a proportion of social housing of different models, including rehousing operations (Department of Town Planning and Construction, 2009). The creation of the new city of Massinissa was carried out in three stages, which are summarized in Figure 2.

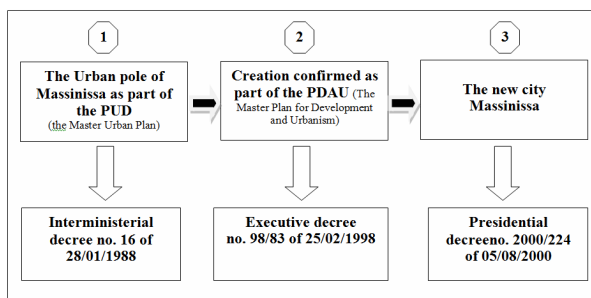


Fig. 2. Steps for creating the new city Massinissa. (source: authors based on the Technical sheet of the new city of Massinissa).

The urban pole of Massinissa was created within the framework of the Master Plan of the Constantine group (PUD) approved under the Interministerial Decree no. 16 of 01/28/1988. Then, the Master Plan for Development and Urbanism (PDAU) of the Constantine group, approved under the Executive Decree No. 98/83 of 25/02/98, confirmed this creation.

Finally, by the Presidential Decree no. 2000/224 of 05/08/2000, it was decided that Massinissa would become a new city.

### 2.2. Research methodology

To obtain the necessary data for this study, four collection methods were employed: documentary review, interviews with municipal authorities, interviews with heads of households, and field surveys. The documentary review gave us a first overview of the rehousing policy in the world and Algeria, and related themes that come close to the subject. Then, literature review was supplemented by interviews with the municipal authorities, particularly the heads of the technical service of the local administration responsible for housing and rehousing. We conducted interviews with heads of households, and a survey with 280 heads of households, i.e., about 40% of the total number of rehoused households from the precarious neighborhood of Boudhraà Salah in 2013. The aim was to identify the social effects of rehousing, the reflections of households rehoused to their social environment, and the problems encountered by the households relocated to the new city of Massinissa and then determine the causes and effects of rehousing operations.

The households surveyed were sampled using a descriptive approach based on an empirical method, depending on the distance between the precarious neighborhood and the relocation area (the city of Massinissa), the socio-economic characteristics of the rehoused households, and the quality of life before and after rehousing. The survey included 67 closed and open questions with 280 heads of households. Gender wise, the group of respondents included 78% men and 22% women. The number of respondents account for about 40% of the 719 relocated families settled in 2013 in Massinissa in POS no. 1. The technical service of El Khroub estimated he population of the new city of Massinissa at around 30,000 inhabitants in 2014. Also, interviews were carried out with the heads of households, and semi-structured interviews were submitted to eight employees holding administrative and technical positions in the new city of Massinissa.

The quantitative data were processed statistically. The results obtained are presented in tables and figures. After the interviews were transcribed, a comprehensive examination of the provided information was conducted to draw preliminary conclusions and ultimately present our findings.

### 2.3. Precarious housing and periphery: various definitions and nomenclatures

There are many definitions and designations for the concept of precarious housing. It differs mainly due to the place and the nature of the materials that

were used for construction, so the definition is relative. Although the name differs, it only refers to the same element, which is precarious housing. According to Ngô-Thanh, *there are various names for the dilapidated forms of housing: slums, shanty towns, sium, squatters' quarters, or shanty town (in the United States), favela (in Brazil), barriada (in Peru), colonias proletarias (in Mexico) [...]. Likewise, several qualifiers are used to describe them, such as precarious, spontaneous, under-integrated, clandestine, irregular, marginal, uncontrolled, informal, unplanned, unregulated, illicit, etc.* (Ngô-Thanh, 2006).

In developing countries and Western Europe (1976, in France), the term frequently used is *slums*, which is describing non-integrated housing: unsanitary housing, poorly integrated into its environment. According to Gabriel Wackermann in the Dictionary of Geography, the definition of the term is *the set of dwellings considered precarious and made from materials of recovery and/or bought at low prices [...]. Over time, they tend to be structured: legalization of the occupation, if it was not made, the establishment of a rental market [...] consolidation (hard walls ...), various connections (water ...)* (Wackermann, 2005).

On the one hand, in Algeria, there is “the Khaima” of nomads and demi-nomads (aunts), and the “gourbis”, another kind of precarious housing (Augustin et al., 1931), which are found in Tunisia and Morocco, as well. On the other hand, we find a large number of unsettled dwellings in North Africa, in a cramped habitat (Bradel, 1988). There are also non-integrated habitats, given the significant lack of facilities and services of various types (education, health, security, etc.) and the injustice that exists between the different neighborhoods in relation to urban development (Ngô-Thanh, 2006). There are two types of rehousing, each of them with its peculiarities, effects, and social, economic, and environmental dimensions.

*On-site rehousing* represents rehousing in collective housing in the same place, after urban intervention (renovation, restructuring, etc.). *Off-site rehousing* means rehousing to collective housing in a location different from the original place, at a certain distance from the original neighborhood. It can reach the adjoining neighborhood, on the outskirts, or it can even reach another area belonging to another municipality. (Poincloux, 2011).

Residential trajectories are a multiplicity of changes that can occur for the residents of neighborhoods who witnessed rehousing operations. According to Christine Lelévrier, *the inhabitants of these neighborhoods could see their residential and social trajectory change in at least three ways: by moving on site, but by benefiting or not from the “residential opportunities” of the renovation (new housing, relocations, etc.); by being relocated*

*elsewhere, but in more or less mixed social environment; by benefiting, through social interactions, from the spatial proximity of the new middle classes, bearers of standards and values supposed to be more inclusive or from the improvement of the living environment* (Lelévrier, 2014).

Peri-urban residential trajectories result from a complex articulation between residential socialization, social trajectory and the representations of social mobility (Debroux, 2011). There is a significant difference in standards among cities, according to their size, whether they are metropolitan or medium. For instance, residents living in peri-urban areas of large cities have freedom of choice and have different quality criteria regarding the living environment, proximity to family and friendship networks, housing, depending on their social situation and household size (Berroir et al., 2016). According to Alain Reynaud, the periphery is the suburbs related to the big cities on which they depend; *in some developing countries, contrasts in the level of agriculture can play a role in the same way as cities in the affirmation of the center and the relative decline of the periphery* (Reynaud, 1980). Suburbanization, periurbanization, rurbanization, and urban sprawl are mainly defined depending on the extension of the vacant land and the distance to it, especially since urban growth patterns imply using a private car for transportation. While in the case of developed countries, owning a private car is not always an issue, the situation in developing countries is different because the number of individuals owning a car is reduced (Moschella, 2018).

Periurbanization is a global phenomenon that has increased considerably in developed countries compared to developing countries (Brück, 2002). It consists in the migration of a part of population from the center to the periphery (“commuting immigration”). The notion of “peri urbanization”, already ancient, occurred among the Anglo-Saxons in the 1940s (Bertrand and Marcelpoil, 1999). Moreover, among the Franco-Saxons in 1970, taking the case of France, *this urban growth, measured in quantitative terms (increase in the number of people and jobs in urban areas) is not a new phenomenon; the suburbs of the end of the last century and the suburbs of the 1970s testify to this. However, new forms of spatial enlargement of urban units appeared in the 1960s, favored by the democratization of individual transport, helping to establish new city/countryside relationships* (Bertrand and Marcelpoil, 1999).

#### **2.4. Habitat production (housing and rehousing): the Algerian experience**

Algeria has gone through two crucial phases, namely a socialist system after independence, and an



opening to the market economy since 1990. The first stage witnessed the Constantine plan's issuance in 1958, after the outbreak of the liberation revolution. *It involved the rehousing of a million people in townships and cities, in five years; it was insisted more on the rehousing than the housing, which was considered the best way of social and cultural integration* (Hafiane, 1989). This resulted in the emergence of numerous development and town planning tools such as the urbanization and restructuring plans.

During this period, France carried out housing construction operations, many of which were destroyed by the war, resulting in high housing demand. The difficult economic and security conditions forced people from rural areas to move to large cities, searching for work and stability. The above indicates that Algeria could not adopt a clear housing self-policy under French colonialism, and all interventions only served France.

After independence, the public authorities settled for an urban policy, mainly focused on large cities. With a socialist political line, great voluntarism, and the availability of sufficient income from fuel revenues, the Algerian state relied on development plans, namely the three-year plan (1967-1969) and the first four-year plan (1970-1973), based on its heavy industries and manufacturing program in the first place.

Beyond that, aspects of housing crisis began to emerge in light of the lack of adequate housing, which led to the emergence of chaotic and spontaneous housing in large cities like Constantine. However, the state could not achieve a spatial and functional balance because housing was based on the same development and town planning tools, which have not changed since 1958 (the Master Urban Plan (PUD)), detailed plans, urbanization and restructuring plan, equipment and modernization, and areas to be urbanized as a priority.

To create a balance between urban space and the countryside, the state encouraged investments in rural areas and agricultural land. As a result, the state took an important step by promulgating Ordinance no. 71-73 of 08/11/1971, on the agrarian revolution (Official Journal of the Algerian Republic no. 49 of 30/11/1971), through which public authorities planned numerous housing programs for rural residents to provide them with a favorable environment, *this constituting the first stage in the transformation of land tenure structures, particularly in rural areas* (Hafiane, 1989). These programs provided for farmers to stay close to their land. As a result, the state benefited, on the one hand, from the income of this agricultural sector and on the other hand, it put into practice the proposal to build 40,000 rural dwellings during this period for an estimated value of 300 billion dinars.

Moreover, significant imbalances between the regions appeared; the cities were programmed to be

industrial poles without putting preparation plans in place. They neglected the housing sector and focused more on the industrial sector at the expense of other sectors, and without coordination between the different ministries, as *a sectoral approach to planning* (Laaha-Tarache, 2009), despite the fact the total housing production was of 22,000 dwellings per year, a derisory figure (about one dwelling per 20 new inhabitants (Chaline, 1996)).

Housing policy was based entirely on the legacy left by the French colonialism, which was never sufficient, given the industrial policy followed and the tremendous demographic growth that Algeria experienced after the independence (as shown by the 1966 and 1977 censuses) (RGPH, 2008), which subsequently led to significant urban management problems. What was programmed through the two previous development plans should have addressed several essential sectors, including housing. Therefore, the second quadrennial plan (1974-1977) was the real start for the development of the housing sector through housing programs, while the state allocated a considerable amount of funds to finance these housing projects.

However, the central authority found a significant obstacle: the lack of land base necessary for constructing these programmed projects because of the high needs of more land properties. To remove the ambiguity, the state promulgated the ordinance of Land Reserves no. 26-74 of 19/02/1974, which enabled the state to carry out numerous programs, including social projects, collective housing, the ZHUN (New Urban Housing Zone) in 1975 and the creation of new housing estates. Also, this second quadrennial plan came to achieve spatial balance between coastal and inland cities. Among the measures taken by the central authority, was the administrative decision in 1974 to set up new territorial subdivisions (wilayat).

Through the ZHUN, the state announced its desire to provide as many housing units as possible in the shortest possible time, relying on industrial building materials and systems, given the large deficit in this sector. The ZHUN was inspired by the ZUP (An area to be urbanized as a priority), a concept *established in France in 1958, but not systematically extended to Algeria* (Hafiane, 1989), which was used in the peri-urban areas and suburbs of France; it was approved by the central authority and applied in Algeria. Despite all the shortcomings of ZUP that emerged after the implementation of housing projects in France in terms of economic, social, urban, and environmental aspects, the Algerian state insisted on applying the same program in almost the entire Algerian territory.

This table shows the evolution of urban housing according to demographic statistics made by the Algerian State. There has been a continuous increase in the number of urban dwellings since it was

estimated at 28,323 urban dwellings in 1966, and the total number of 953,347 urban dwellings reached in 1990, which shows that there were many residential

projects were implemented. All that has been achieved during this period proved yet insufficient to meet the housing needs of all citizens.

Table.1. The evolution of the housing stock from 1962 to 1989 (source: Boulahbel, 2008; Taleb and Aknin-Suidi, 2017).

Period (year)	Beginning of the period (no. of dwellings)	End of the period (no. of dwellings)	Total number
1962/1966 (4 years)	11,453	16,870	28,323
1976/1977 (10 years)	60,210	82,400	142,606
1978/1989 (11 years)	448,875	333,539	782,414
Total	520,538	432,809	953,374

This table shows the evolution of urban housing according to demographic statistics made by the Algerian State. There has been a continuous increase in the number of urban dwellings since it was estimated at 28,323 urban dwellings in 1966, and the total number of 953,347 urban dwellings reached in 1990, which shows that there were many residential projects were implemented. All that has been achieved during this period proved yet insufficient to meet the housing needs of all citizens.

### 2.5. The adoption of a new policy - the market economy (1990-1999)

The Algerian State decided to proceed with a fundamental change of the system by choosing to adopt a new policy (market economy). After the publication of the constitution of 1989, many new laws followed this decision because it was necessary to exploit the land rationally. The Land Orientation Law no. 25/90 of 18/11/1990 was promulgated. One of its most important objectives was to divide and regulate the status of the land, each according to its profitability ratio, and grant the right to private property. After the state was the determinant, the executor and the observer, together, the roles of the state were reduced, and the space for private investments was opened up and accompanied by the emergence of new actors (land agencies, private agencies, Housing Improvement and Development Agency -AADL-). Also, the town planning tools previously used were now replaced by new instruments, namely: the Master Plan for Development and Urbanism (PDAU) and the Land Use Plan (POS) (Law no. 29/90, 1990).

However, since 1990, the dangerous security circumstances in Algeria have harmed the housing situation. More than 50% of the projects have been stopped, especially in light of the economic crisis. Although some housing projects have been implemented, the housing crisis continued to increase.

We also note that the number of collective dwellings was much lower than the percentage of individual dwellings. It explains the high occupancy rate of dwellings (7.14%) compared to the number of residents in 1998 (National Office of Statistics (ONS),

1998) and the will of the state to implement projects and collective social housing; in these challenging conditions, the state was only able to build around 800,000 housing units, while sharing the expenses with the citizens.

### 2.6. Utilizing enhanced security conditions: the advancement of the housing sector during the 2000-2019 period

At this stage, the security situation in Algeria became stable and the state decided to design a new strategy to carry out previously scheduled projects that still needed to be completed. In addition to allocating a significant budget to the housing and construction sector, it adopted the new cities, as an alternative solution (the case of the new city of Massinissa in Constantine).

The five-year plan (2005-2009) was a fresh start by announcing the one million housing project, to which 1.5 billion Algerian dinars were allocated. This budget was intended for projects to build housing and support other urban development projects. The state also accepted the proposal to let real estate developers invest in the housing sector.

The launch of new housing and rehousing programs was also marked by the issuance of new housing programs: Rural Housing (L.R), Social Rental Housing (L.S.L), Participatory Social Housing (L.S.P), Housing Rent-to-own (L.L.V) and Promotional Housing (L.P). It included rehousing operations in the entire state. All these decisions aimed to eliminate the housing crisis, coinciding with the availability of all financial and material capacities.

The principle of the quota for social housing has been put in place in each program to achieve a final solution to rehousing the households from chaotic and precarious neighbourhoods. About 250,000 housing units were completed, including 77,000 social housing units in 2013; this aligned with the second five-year plan (2010-2014), which planned to build one million housing units. Thus, at the end of 2014, the housing occupancy rate between the number of inhabitants in Algeria and the number of housing units reached 4.55% (Taleb and Aknine-Suidi, 2017).

The five-year plan (2015-2019) was adopted to complete the process of eliminating precarious and chaotic habitats, in particular to reduce the severity of the housing crisis by programming 1.6 million housing units, distributed as follows: 800,000 public rental housing, 400,000 rental-purchase housing, and 400,000 rural housing. Despite this, they could not eliminate the housing problem in Algeria due to the high population growth and the bureaucracy that controls the housing sector. These circumstances made things more complicated, required a deliberate program in place and an increased sector supervision.

### 3. RESULTS AND DISCUSSION

#### 3.1. Housing in Massinissa

The volume of housing production in Massinissa increased exponentially according to the rhythm of the demographic evolution from 2004 until August 2019 (Fig. 3), and it includes the off-site rehousing operations (from Constantine to the new city of Massinissa) in the case of Boudhraà Salah precarious neighborhood. Until August 2019, there were 12,557 dwellings built in the new city of Massinissa, distributed within the zones of the city.

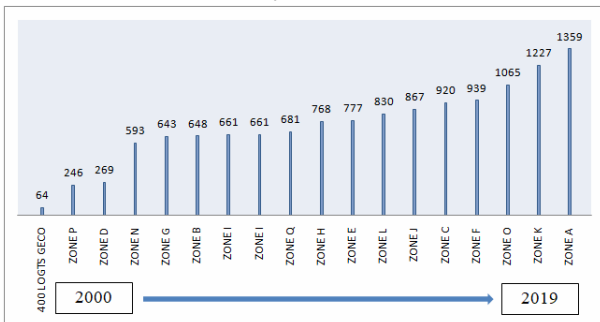


Fig. 3. Number of social dwellings built in each zone of Massinissa from 2004 to 2019 (source: authors elaboration based on data from OPGI Constantine, August 2019).

Note that the new city of Massinissa consists of 17 zones, each with particular features and a certain number of dwellings, varying from one zone to another. There is a high-density area (zones A, K, and O, each with more than 1000 social houses built). Medium density is recorded in the zones B, C, E, F, G, H I, J, L, N, Q (each with more than 500 social houses built) and a very low-density area (zones P and D). It also appears that there is no homogeneity between the zones. This is because of the lack of coordination between public and private actors, and also because of the multiplicity of housing plans, and the legal nature of the land on which they are programmed for construction. Thus, real estate developers implement housing projects based on the lands granted for construction. According to the development program proposed and the Town Planning Master Plan the government uses state-owned land to

implement other programs, including rehousing projects for citizens evacuated from precarious housing. The objectives of urban planning tools (PDAU, POS) are to define the direction of urban expansion, the location of services and activities, and the nature and location of major facilities and infrastructures (Ministry of Housing, Urban Planning and City, 2019). However, we can say that there is a difference between what was programmed and what has been implemented in the field. According to the head of the housing department of the Real Estate Promotions and Management Office (OPGI) of the city of Constantine, the reason for the inconsistency between the different zones of the new city of Massinissa is the multiplicity of housing programs, the multiplicity of housing actors and also the pressure on the housing sector. These conditions created severe difficulties in the coordination between the various local administrations, particularly in relation to the private actors represented by real estate developers. Then, many imbalances occurred in applying what the land use plan (POS) proposed. However, in the end, the Master Plan of Development and Town Planning (PDAU) is reviewed. These plans date back to the 1990s, and they should be updated to include the current urban and peri-urban characteristics.

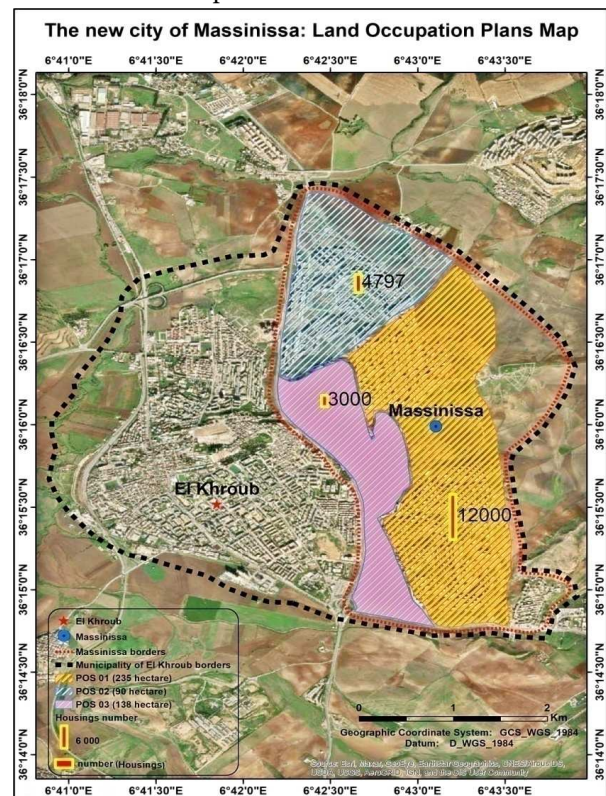


Fig. 4. The new city of Massinissa. Land Occupation Plans (source: authors elaboration based on data from APC of El Khroub, August 2019).

Information was collected from the technical services of the Municipality of El Khroub and analysed by extracting the number of POS in the new city of Massinissa. The number of dwellings was computed



and the limits of each POS were determined on the map. ArcGIS software was used to draw the Land Occupation Plans (POS) map based on the base map (Open Street Map) (Fig. 4). We can conclude that there is an inability to control the peri-urban space, and therefore the emergence of many adverse effects directly affecting the population, due to the diversity and large number of land divisions in the new town of Massinissa, which makes the management process difficult.

### 3.2. The rehousing program: the case of the precarious neighborhood Boudhraà Salah

#### 3.2.1. The new city Massinissa - the reception area

The lack of sufficient land is one of the most significant obstacles the city of Constantine faces in terms of its extension and urban planning. For this reason, it was decided to establish the new city of Massinissa in the municipality of El Khroub, as a new

residential area for social housing. Table 2 shows the total number of housing units, completed and under construction, and the various housing programs until July 2019. The total number of housing units completed in Massinissa was of 19,692.

Consequently, the projects of rehousing and population transfer from precarious neighbourhoods of Constantine city were made according to the Habitat Reduction Program RHP (FR: *Programme de Resorption de l'Habitat Précaire*). A census was made by the Society of Architecture and Urbanism (SAU) (FR: *Société d'Architecture et d'Urbanisme*). As part of the Precarious Habitat Reduction Program (RHP), the Wali of Constantine himself supervised the implementation of the project from its start and the monitoring of the housing and rehousing program. At the end of 2010, a call for tenders was opened to carry out a global census of chaotic neighbourhoods and precarious housing in general. Subsequently, the Society of Architecture and Urbanism in Constantine, Algeria, was responsible for carrying out the census in 2011.

Table 2. The housing situation of the new city of Massinissa (source: The housing directorate of the State of Constantine, July 2019).

SITE	Program		Housingsnumber	Physical state	
				Achieved	In progress
New city of MASSINISSA	LSP	PEC (a housing program)	45	45	0
		FIVE-YEAR 2005-2009	1,180	980	200
		COMP 5500 (a neighborhood)	651	651	0
	LPA	LPA 2018	150	0	150
	<b>LSP total</b>		<b>2,026</b>	<b>1,676</b>	<b>350</b>
	AADL		981	0	981
	LPP		620	620	0
	<b>AADL + LPP</b>		<b>1,601</b>	<b>620</b>	<b>981</b>
	<b>LPL</b>		<b>16,065</b>	<b>14,457</b>	<b>1,608</b>
<b>Total</b>			<b>19,692</b>	<b>16,753</b>	<b>2,939</b>

All the chaotic and fragile neighbourhoods that contained precarious habitats were counted, namely the neighbourhoods of Casbah, Boudhraa Salah, Souiquah, old City, etc. According to the census of chaotic and precarious housing of the department of Constantine Society of Architecture and Urbanism (SAU) (2011), which includes the complete census of precarious neighbourhoods, about 6,135 slums and 719 precarious social dwellings were recorded. It was estimated that 9,375 families were living there, in a total area of 1,508,229 square meters. Starting from 2013, many families were rehoused in the new town of Massinissa, relocated especially from the precarious neighborhood of Boudhraà Salah. This process started in 2013, when 719 families were rehoused in POS no. 1 (the periphery of El Khroub and Constantine), which is the area under study. The rehousing operations were carried out under the supervision and control of the highest state authority of the State of Constantine (Bergel and Benlakhlef, 2014).

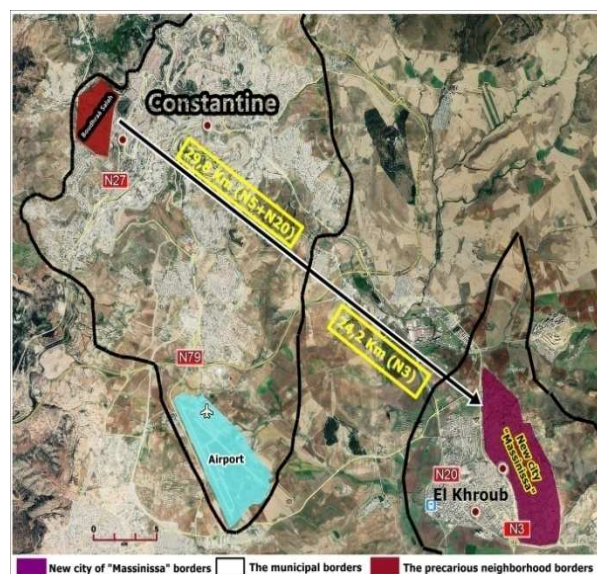


Fig. 5. The residential trajectory of households rehoused to Massinissa (source: Google Earth, with modifications).



This operation was an off-site rehousing from a precarious neighbourhood of the city of Constantine to the periphery of the municipality of El Khroub, residents being displaced to a new residential area at an about 24 kilometre distance (Fig. 5).

### 3.3. Off-site rehousing and its effects

#### 3.3.1. Social insecurity and feelings of injustice

Through our interviews conducted with heads of households, we concluded that, at the beginning, there were problems with (the owners of the land) -*El Shawiya*- as recognized by many households, because they consider themselves the owners of the land and the original inhabitants of the area in particular, and in Massinissa in general. However, soon these initial problems ceased to develop. The isolation issues arose, especially the lack of security, the gathering of strangers in the semi-finished and abandoned buildings (unfinished projects) and the improper and reckless behaviour of other residents. This increased the degree of insecurity, which subsequently led to changes in the behaviour of the new residents.

The answers related to the question on how comfortable the population feels after rehousing revealed a strong negative reaction (about 60% of opinions) in relation to the lack of facilities, urban and suburban transport, and the high level of insecurity. All opinions were delivered by comparing the city of Massinissa with the city of Ali Mendjeli, which, according to all of them, benefited from most of the development projects and received more attention. Although both of them were established in the year 2000, to serve as poles for the relocation of families who approved to be rehoused (Nait-Amar, 2015), the growth of the new city of Ali Mendjeli is quite extensive compared to that of the city of Massinissa.

Moreover, the sample answered the following question: *After living in their new neighbourhood, if they had the right to choose the rehousing site, what would they choose, the new city of Massinissa or Ali Mendjeli?* As the two sites were where the deportation and relocation took place, the answers were more in favour of Ali Mendjeli (65%), as compare to Massinissa (18%); there were also respondents who did not choose any of the options, not being satisfied with any of the sites. The justifications given by those who chose the new city of Ali Mendjeli was based on the feeling of inferiority regarding the availability of equipment and facilities in Massinissa. Public authorities did not give adequate attention to the new city of Masinissa. There have not yet been any notable projects scheduled for development here. After receiving negative answers to the following question: *Are there places for rest and entertainment for different age groups?*, we can conclude that rehousing neighbourhoods appear to lack places for rest and meeting as essential elements to

achieve quality and social mix through exchange and communication between community members (about 90% of the respondents answered “no” to this question). The result is that 81.25% of the total number of heads of households rehoused confirmed that a cafeteria is a unique place of rest and meeting for men and children to play on the roads and sidewalks, as shown in Figures 6 and 7, without spaces for children to play. New the residential area therefore urgently needs such facilities.



Fig. 6. Children's place of rest in Massinissa (source: the authors, August 2019).



Fig. 7. The isolation of the reception area in Massinissa (source: the authors, August 2019).

#### 3.3.2. Unveiling the post-rehousing landscape: household accessibility in Massinissa

Accessibility is essential for the proper functioning of the entire city system. On the one hand, it is necessary to ensure an adequate travel time from home to work, and to enable access to the various facilities and institutions of the city, on the other hand. Communication would be enhanced by public transport system (The city Massinissa's revision POS no. 1, 2016). The seamless ease of accessibility within the area will be greatly facilitated and expedited, owing to the extensive and well-organized network of buses, along with the provision of robust and comprehensive public

transportation options. This integrated system would ensure that individuals can conveniently cross the region, enabling efficient connectivity between various destinations and offering a user-friendly experience for both commuters and residents.

One of the questions in the survey was *What kind of work did they do before the rehousing process?* The answers show a variety of occupations the residents as displayed in Figure 8.

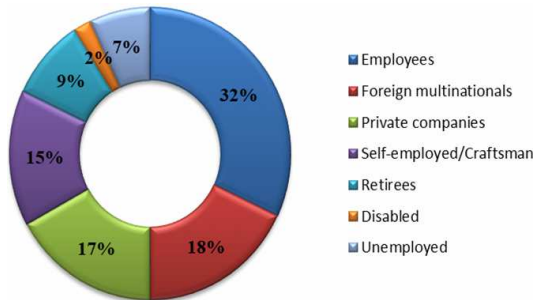


Fig. 8. Breakdown of the heads of the households by sector of work (source: *fieldwork*, 2019).

Most of the respondents (32%) were employed in the Constantine city centre. Another third of them were either working foreign multinationals (18%) or used to own shops and worked as craftsmen in the city centre of Constantine. The results also show that 17% of the respondents worked in private companies. Retirees represented only 9%, about 7% were unemployed, and a small share (2%) were heads of households with disabilities, who were unable to work, and who were the most affected by the difficulties encountered in the new periphery area.

In this context, some of them quit their jobs and faced unemployment because they could not go to work every day, due to lack of transport, especially in winter. In their answers, most of the respondents frequently used the term *isolation*, or even *prison*. This indicates the exact meanings of isolation resulting from the policy of rehousing and transferring citizens to a peri-urban area, devoiding them of minimum living conditions (Fig. 9, Fig. 10).



Fig. 9. Inaccessible neighborhood and unfavorable environment in Massinissa (source: *the authors*, August 2019).



Fig. 10. Isolation and lack of bus stop in Massinissa (source: *the authors*, August 2019).

To this end, it should be imperative to set up efficient transportation systems intricately woven into the urban fabric, providing residents access to the myriad of resources and opportunities scattered throughout the city as a whole, in terms of employment, training, education, culture and leisure (Poincloux, 2011).

### 3.3.3. The environmental dimension

There appears to be no waste management plan and no clear division of sectors in the new city of Massinissa, particularly in the relocation area where residents from the precarious neighbourhood of Boudhraà Salah were rehoused. According to the technical chief, two institutions were created within the framework of the project (White Algeria) and started cleaning up neighbourhoods and removing weeds, while also addressing the issue of animal proliferation. According to the technical department of the municipal authorities, efforts are underway to establish coordination among the pertinent authorities to tackle the issue of scattered waste on the roads, which attracts cats, mice, and even cows. However, until now, a conclusive resolution remains elusive, leaving the problem unresolved. Complaints continue to be received from the households who demand radical solutions, allowing them to live in ordinary conditions.

In this sense, one of the proposed solutions entails implementing a systematic schedule for waste collection operations overseen by the relevant authorities. This process should occur at regular intervals, taking into account the resident population, sector distribution, and waste categorization. Additionally, citizen involvement is advocated, whereby their input and suggestions are sought to identify practical measures addressing environmental concerns. This includes the provision of appropriate urban furniture, such as waste bins that align with the local population and regional requirements, as well as the thoughtful implementation of waste sorting procedures.

Lastly, organizing awareness campaigns focused on environmental issues is recommended to engage and educate the community.

### **3.3.4. The neighborhood environment: illegal trade**

As for the new neighbourhood environment, there are practices that households complain about, mainly related to illegal trade, which has become a worrisome matter for the neighborhood's residents. The households rehoused know each other because they lived in the same old (precarious neighbourhood) neighbourhood. The question asked to the heads of households in the survey was: *Are the people who practice this illegal trade, neighbours or strangers?* According to the survey results, 81% of those who practice this illegal activity are strangers to the neighbourhood. Many clashes and skirmishes have occurred between neighbourhood residents and street vendors.

Despite the security force's intervention, they always returned to the same practices, mainly because illegal vendors frequently neglect to clean up their premises after leaving, resulting in unclean areas. Illegal trade increased the environmental crisis in the new city of Massinissa in general, and the residential space in particular. According to one of the heads of households, there are retail stores, but they are closed and unused for unknown reasons. Consequently, citizens are pushed to travel long distances to buy their necessary goods.

For this reason, these illegal vendors take advantage of the place to sell their products. The new city of Massinissa benefits from only one market, which is not sufficient to meet the needs of the entire population. Thus, closed shops must be exploited and used to sell various products. Accordingly, we suggest that the concerned authorities to design a program and establish commercial centers in different places in the new city of Massinissa so that the residents do not have to go to the city of El Khroub and Constantine to buy foodstuffs and other necessary materials. Adding to this, we suggest legalizing the work of street vendors by giving them commercial registers.

### **3.3.5. The effect of not having the necessary equipment**

Based on the revised report of the Land Use Plan POS no. 1, elaborated by URBACO Constantine, it came to our attention that a pronounced deficit persists with regard to equipment and facilities in the study area. Subsequent to field surveys and data recorded, our findings substantiate the prevailing condition of societal seclusion experienced by the rehoused households.

One of the heads of the households expressed his displeasure and wished they would not transfer them to the new city of Massinissa, which he called an isolated area. The rehousing process of families prior to the establishment of essential amenities (such as educational, sports, religious facilities, etc.) has posed challenges in the new neighborhood. Notably, the absence of a mosque in the vicinity was highlighted by one household leader, who mentioned that a benevolent donor funded the construction of the mosque, using personal funds. Among the proposed solutions is that the responsible authorities should take care of the rehousing process and of the transfer of residents to outer spaces. Our recommendation entails pre-planning and provisioning a comprehensive range of amenities suitable for residents of all ages, encompassing educational, service-oriented, commercial, security, religious, and other relevant facilities. By implementing this proactive plan before the rehousing process, it would be sure that residents find themselves relocated in well-equipped neighborhoods that cater to their diverse needs effectively.

## **4. CONCLUSIONS**

Collective social housing was found by the state as the solution to reduce the enormous shortage in the housing sector, especially for low and middle-income homeowners, given the country's difficult economic circumstances, including real estate speculation, bureaucracy, and unemployment. These factors resulted in housing production without considering the population's social and cultural traits. Subsequently, they suffer from the absence of the fundamental necessities for sustainable livelihood, fact confirmed by the director of the magazine *Vie de Ville*. The research results show the reality of the periurban area of Massinissa, which reflects the degree of failure of the adopted housing policy, in relation to what has been achieved compared to what was programmed. The urgency of rehousing did not necessarily translate into the possibility of implementing genuine rehousing strategies (Lelévrier, 2008). The choice of periphery was not a coincidence.

However, the process of rehousing families from precarious neighborhoods to social housing took place without considering the social aspect. This was stated by the families of the precarious neighborhood of Boudraà Salah. The social and environmental situation of the new city of Massinissa is far from brilliant. Therefore, it is urgent to intervene and apply radical solutions to the periurban space in which households were relocated. In accordance with the principles of sustainable development, the objective is to provide them with an optimal living environment that meets their needs and aspirations. Public authorities can use the results of this study by conducting repopulation



processes in peripheral areas in more suitable ways. Also, this study opens up other horizons for us to research using other methodologies and tools, such as geographic information systems and remote sensing, to reach complementary results.

Notwithstanding these challenges, our persistent visits to the departments, associated with our unwavering determination to procure information, enabled us to establish contact with certain experts and personnel within these establishments. Consequently, they extended their support and graciously furnished us with the indispensable data we sought. Furthermore, as we forged closer connections with the heads of households and gained a deeper understanding of their circumstances, interactions and interviews with them became more effortless to conduct.

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