

An analytical and critical study of the new urban residential areas policy in Algeria.

A case study of Block 332 in the New Urban Residential Area 02 in the city of Khenshela.

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Introduction:

The Algerian government enacted an urban residential development policy to promptly tackle the housing crisis and alleviate the high demand-low supply housing dilemma. Initially successful, this policy was later discontinued for reasons unknown.

In recent years, the city of Khenshela has witnessed substantial demographic expansion due to various factors, notably its elevation to provincial capital city status. Consequently, Khenshela has drawn residents from both within and outside the province for diverse reasons, prompting many to settle in the area and join housing waiting lists. Despite its inability to meet the high housing demand, the city has benefited from two new urban residential zones (01 ZHUN) and (02 ZHUN) as part of the comprehensive new urban residential zone policy implemented by the government.

This paper centers its analysis on Block 332 of New Urban Residential Zone 02 as a prototype of the collective residential neighborhoods developed under this policy. Following a thorough assessment, an objective evaluation will be provided regarding the success or failure of this policy.

1. Research Methodology:

This research is grounded in a collection of quantitative data and satellite images that were processed using ArcMap and Global Mapper. The goal is to gain a comprehensive understanding of all data related to the study area, specifically New Urban Residential Zone 02 in the city of Khenshela. Block 332 was chosen as representative model and thoroughly examined to grasp its actual situation, as well as the deficiencies and challenges it encounters in terms of urban, urbanistic, and demographic aspects. This investigation poses a

fundamental question: has Algeria's policy of new urban residential zones demonstrated success, or has it fallen short?

Regarding the research methodology, we employed a descriptive-analytical approach, which entails describing the phenomenon as it exists in reality, followed by a thorough analysis aimed at identifying and rectifying shortcomings.

2. .New Urban Residential Areas:

2.1.Legal Reference for the Policy of New Urban Residential Areas:

Ministerial Decision no. 335, issued on February 19, 1975, which established new urban residential zones under the supervision of the Planning and Urban Development Department of the Ministry of Public Works and Construction, serves as the legal basis for implementing the new urban residential zones policy in Algeria. This decision is significant as:

- It has been a fundamental urban planning and development tool since its introduction in 1975.
- It represents a collective housing development mechanism aligned with the social vision of the Algerian government.

It is worth noting that the practical implementation of this policy commenced following the establishment of the Property Promotion and Management Offices (OPGI) as the owners and overseers of these housing units and their associated areas, as outlined in guideline no. 93/76 issued on October 23, 1976.

2.2.Reasons for Adopting the Policy of New Urban Residential Areas:

The implementation of the new urban residential zones policy by the Algerian government was driven by several key factors, including:

- The significant population influx into the city of Khenshela, which is considered a young city and has become a hub of attraction for residents due to the dynamic development accompanying its elevation as a provincial capital. (El Anani, Fathi, 2012, p. 57)
- The socialist orientation of the Algerian state necessitated the adoption of the new residential urban zones model, a practice observed in many socialist countries. (Ben Messa, Hassan, 1998, p. 106)

2.3. Planning Criteria for New Urban Residential Areas:

According to Zuchelli (1982, p. 150), any planned or registered residential project that exceeds a threshold of 1,000 housing units falls under the legal designation of a new urban residential zone, particularly social housing projects aimed at low-income groups and financed by the government as part of specific city's national development plans. The main planning criteria that differentiate these zones from other housing projects include:

- Exceeding a threshold of 1,000 housing units.
- Maintaining an average housing density of approximately 29 units per hectare.
- Identifying multiple planning levels, including the basic unit (BU), the neighborhood unit (SU), and the district (Q) (Zuchelli, 1982; p. 162).

- Incorporating various facilities such as sanitary, educational, administrative, sports, recreational, and commercial amenities.
- Including landscaped outdoor areas such as green spaces, playgrounds, roads, and parking lots.

2.3.The objectives of establishing new urban residential areas

New urban residential zones are designed to achieve the following objectives (Zuchelli, 1982, p. 150):

- Enhance the ability of Algerian cities to meet the high demand for housing, which is currently reported as insufficient.
- Utilize innovative construction methods, such as prefabricated construction, to decrease construction durations and expenses.
- Establish new urban areas that adhere to stringent urban planning criteria..

2.4.The launch of the new urban residential areas

This policy was formally initiated with the commencement of the second Four-Year Plan (1974-1977) as a component of the government's strategy to reduce regional inequalities and manage urban expansion to alleviate rapid demographic pressures (as outlined in MUHC Circular no. 335 dated 19/02/1975 establishing the ZHUN).

2.5.Numbers and Statistics:

A total of 254 new urban residential areas were planned, with an estimated total of around 669,000 housing units, covering approximately 23,000 hectares (CNERU, 1987, p. 36). By 1989, construction work in these areas had been halted, with 138 new urban residential areas completed (representing 54% of the planned areas), while the remaining 116 new urban residential areas had not yet commenced construction.

The coastal and hilly regions benefitted the most, receiving over half of the planned housing units (55%) and encompassing nearly half of the planned areas (49%). This allocation aimed to address the significant demographic pressure faced by Algeria's major cities, primarily concentrated in these regions. Additionally, the High Plateaux region claimed a 39% share, reflecting the strategic focus on developing small and medium-sized towns in this area to support the local population and drive Algerian urban development. Finally, the desert region (southern Algeria) accounted for approximately 6% of the total planned new urban residential areas (Tejani, Bashir, 2000, p. 71).

Table 01: Distribution of New Urban Residential Areas across Geographical Regions

Geographical Regions	Number of Housing Units	Number of New Urban Residential Areas	Number of Cities Benefiting from Them
Coastal and Hill	369,376	125	89
Highlands	261,925	108	73
Desert	37,503	21	18
Total for Algeria	668,844	254	180

SOURCE: CNERU .Bilan des ZHUN .Alger 1987 .P.38

3. Study area (city of Khenchela) :

a. Geographic coordinates :

The city of Khenchela is located between the following coordinates:

Between longitudes: 7° and 10', and 7° and 17' east of the Greenwich meridian and latitudes: 35° and 40', and 35° and 46' north of the equator.

b. Geographical location :

The municipality and town of Khenchela are located at the intersection of national roads (32), linking it to the province of Tébessa, (80) linking it to the province of Biskra, and (88) linking it to the province of Batna (Statistical Guide of Khenchela Province, 2008, p 6).

c. Administrative setting :

Khenchela municipality is one of the municipalities of Khenchela province, formed following the administrative division of 1984. It is administratively bounded to the northeast by the Bghai municipality, to the northwest and west by the El Hamma municipality, and to the south by the Aïn Touila municipality (see Figure 01)

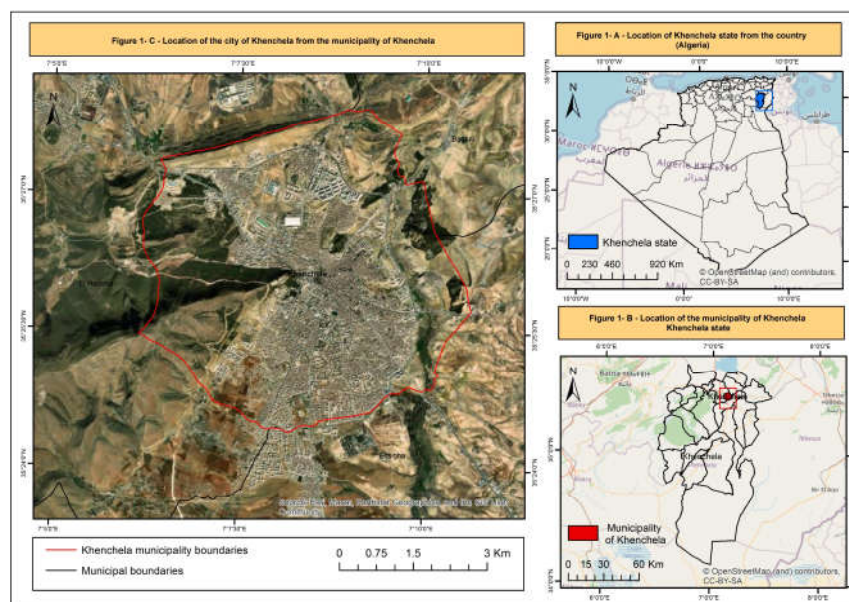


Figure 01: Administrative Location of the Province, Municipality, and City of Khenshela

(Source: Created by the researcher using ArcMap - March 2024)

4. The new urban residential areas in the city of Khenshela:

Khenshela, akin to numerous Algerian cities, has profited from two new urban residential zones, specifically ZHUN 01 and ZHUN 02, within the framework of the new urban residential zones policy. This research paper will concentrate on ZHUN 02.

4.1.New Urban Residential Area Second (ZHUN 02):

4.1.1. Location:

The new urban residential zone (ZHUN 02) is situated in the western part of Khenshela city, specifically in sector (07). It is delineated by national road N° 88 to the north, the University of Khenshela (Abbas Laghrour) to the east, a secondary road and a residential subdivision to the west, and wooded areas to the south. ZHUN 02 spans an approximate area of 36 hectares (DPAT, 2008, p. 53) within the city's estimated total area of 1,854 hectares, constituting 1.94% of the total surface area.

4.1.2. Topography of the Area:

The second urban residential zone (ZHUN 02) in the town of Khenshela is situated on a steep slope, varying from 5% to 13% (CTC, 1986, p. 13), and is outfitted with retaining walls to mitigate the risk of soil erosion (Image 03).

4.1.3. Obstructions:

The new urban residential zone (ZHUN 02) contains areas that are subject to several obstructive measures classified as artificial obstructions:

- A water supply canal that connects the water reservoir to the industrial zone, accompanied by a protective buffer zone of 2 meters on both sides.
- A medium-voltage power line traversing the southern and western parts of the study area, with an 18-meter protection zone on both sides. There is a proposal to convert this power line into an underground line to mitigate any potential risks.
- A main line of the natural gas network (PEO36) that supplies the study area with gas.

4.1.4. Neighborhoods of the New Urban Residential Area (ZHUN 02):

A notable characteristic of the residential sector in the study area is the predominance of collective housing units, encompassing approximately 32,450 square meters. These units exhibit varying architectural styles and storey numbers, and are comprised of the following neighborhoods: Neighborhood 350 (study area); Neighborhood 332; Neighborhood 84; Neighborhood 171; Neighborhood 179; Neighborhood 100 (Figure 02). Population: The population of ZHUN 02 is estimated at 7,056.

4.2.Neighborhood 332 Housing Study:

Neighborhood 332 is a residential area designated for real estate development. It was constructed by the National Savings and Reserve Bank (Caisse nationale d'épargne et de réserve - CNEP) after acquiring the district's real estate assets, which encompass an area of 4.59 hectares. The municipality finalized the project in 1986 as part of its new urban residential zones policy.

4.2.1. Study Area boundary:

Housing Area 332 is situated in the north-western region of the town of Khenchela, specifically within the northern part of the new residential urban zone (ZHUN 02). It is adjacent to national road N° 88, which connects the provinces of Batna and Khenchela. The neighborhood is bordered:

- To the north by national road N° 88 and the industrial zone,
- To the south by the 84 Habitat neighborhood, the 350 Habitat neighborhood, and the 100 Habitat neighborhood,
- To the east by the 171 Habitat neighborhood and the University of Khenchela,
- To the west by the 179 Habitat neighborhood (Figure 02).

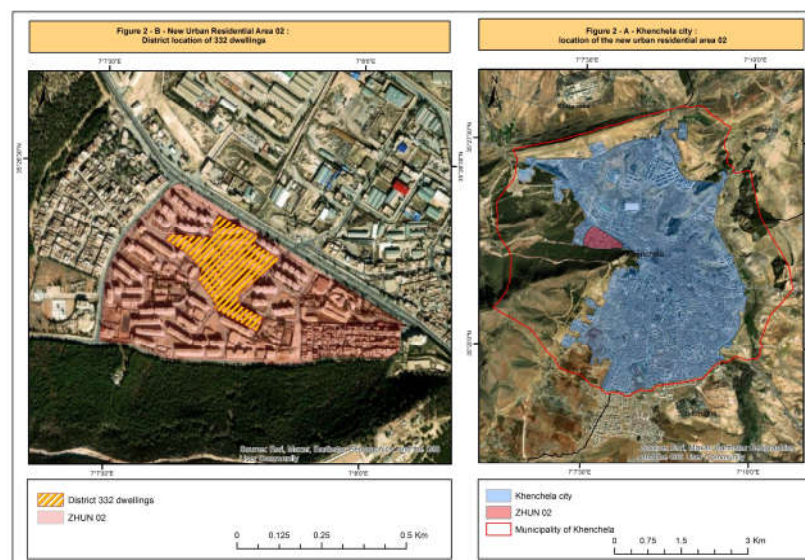


Figure 02: New Urban Residential Area 02 (Khenchela City) - Location of Neighborhood 332 Housing. (Source: Compiled by the researcher using Arc Map - March 2024)

3.2.2. The Importance of the Neighborhood Location:

The 332 Housing neighborhood benefits from a strategic location, thanks to the amenities and features in its surrounding environment:

- Its close proximity to the University of Khenchela (Abbas Laghrour) adds to its appeal and attractiveness.
- The nearby main road linking the provinces of Batna and Khenchela offers excellent transportation connectivity and accessibility.

4.2.2. Property Ownership Nature:

The 332 Housing neighborhood is owned by the municipality, with the National Pension and Savings Fund (Caisse Nationale d'Épargne et de Retraite - CNEP) of Khenchela province providing financing for the housing units. The CNEP purchased the real estate from the municipality and oversaw the completion of the housing units.

3.2.3. Urban Study of Neighborhood 332 Housing unit:

3.2.3.1. Built area:

Housing units in Neighborhood 332 consist of 29 buildings, including 26 six-storey (R+5) buildings and 3 four-storey (R+3) buildings (according to the neighborhood's plan). Each floor of these buildings contains two apartments facing each other. Additionally, the ground floor of 8 buildings is utilized for commercial stores.

A. Area: The total area (SF) of the neighborhood is estimated to be 45,903 square meters (4.5903 hectares), with a built-up area (SB) of 6,525 square meters, representing 14.21% of the total area. The remaining area is open space (OS), estimated at 39,378 square meters or 85.79% of the neighborhood's total surface area. This distribution is influenced by the area's topography, characterized by varying slopes (as per the Neighborhood Plan for 332 homes).

B. Residential density: The residential density in Neighborhood 332 is calculated to be 72.33 dwelling units per hectare.

C. Construction style: All buildings within the neighborhood are collective and upgraded, totaling 29 buildings.

Table 02: Neighborhood 332: Analytical criteria for the built up area

Land Area (ha)	Build-up Area (ha)	CES	COS	Number of Dwellings	Building Height	Residential Density (Dwellings/ha)
4.5903	0.6525	0.14	0.82	332	R+5 (26) and 3+R	72.33

Source: Compiled by the researcher - March 2024.

D. Facades:

The building facades exhibit simplicity, featuring windows and balconies of uniform shape and size. However, they lack architectural intricacy and urban depth (refer to Image 05).

Buildings facing the main road have facades oriented towards the road, while the front facades of continuously arranged buildings directly oppose the blank facades of the first buildings. Other buildings within the study area have varying orientations.

E. Building orientation in Neighborhood 332 is characterized by two primary considerations:

- **Sunlight:** Field observations indicate that 80% of properties receive inadequate sunlight, while 20% receive sufficient sunlight.
- **Ventilation:** Similarly, field observations show that 40% of buildings have adequate ventilation, while 60% have poor ventilation. This is mainly due to the distribution and positioning of the buildings, as well as the contiguous nature of some structures.

F. The main entrance of the building serves as a shared facility for residents and is supported by an iron gate. Due to its age, it has deteriorated and is considered a gathering place for children residing in the building (refer to Image 02).

G. General organization of buildings: The layout appears haphazard and disorganized, influenced by the site's topography, which encompasses slopes ranging from 5 to 13%. This results in significant unused spaces within the area.

H. Staircase enclosure: This area serves as the connection between different levels of the building, covering an estimated surface area of 20 m². It includes lighting, various technical cabinets for each dwelling, and a few openings for adequate sunlight and ventilation. Vandalism is prevalent in most buildings (see image 01).

I. Color and building materials: The choice of colors significantly impacts the overall impression of the neighborhood. In the study area, multiple colors were used, predominantly dark hues, which have deteriorated over time due to external factors. Modern building materials like cement, iron, and bricks are utilized.

J. External shape: Buildings within Housing Block 332 exhibit a uniform and organized appearance distinct from neighboring areas. They are closely arranged, with shared walls between every two buildings and sometimes three interconnected structures, creating massive building blocks.

K. Condition of the built-up area:

- Building Condition: Concerning the buildings facing National Road No. 88, they are in decent condition, although their maintenance remains sporadic and has not had a significant impact (considering revising color usage, etc.). On the other hand, other buildings show significant deterioration in all aspects. Overall, there is a notable lack of maintenance operations.
- Dwelling Condition: Through field observation of Housing Block 332, we have determined that the condition of dwellings can be classified as equally divided between good and moderately structured conditions.

F. Facilities: Housing Block 332 lacks essential amenities for its residents, with only a few commercial shops (8 shops) situated on the ground floors of some buildings.

4.2.3.2. Unbuilt area: represent the area around the block that is not built.

a. Green Spaces: Despite the availability of designated spaces in the block and the layout plans for the neighborhood, there are no green spaces present. We recognize their significance in fostering community bonds, offering areas for relaxation and peace, enhancing air quality, providing shade, and mitigating noise. The lack of green spaces denies the neighborhood these mentioned advantages.

b. Parking Spaces: Field observations reveal a notable shortage of parking spaces in the neighborhood, leading residents to park their vehicles on sidewalks, in green areas, and in front of building entrances.

c. Vacant Spaces: Although there are vacant spaces, they remain undeveloped, presenting a notable challenge for pedestrians, particularly during winter. Some residents have repurposed these spaces as informal parking areas for cars (Image 04).

d. Road Network: The road network within any city serves as the lifeline of transportation and the foundation of economic activity. In the study area, we observe:

- **Main Roads:** These encompass National Road No. 88, linking the provinces of Batna and Khenchela and providing direct access to the center of Khenchela city, serving as a primary entrance. This road consists of dual lanes, with a width of approximately 31 meters. It runs along the northern border of Housing Block 332 and is in good condition.
- **Secondary Roads:** These roads are exemplified by the secondary route bordering the study area from the east, establishing a direct connection to National Road No. 88 and intersecting the study area. The width of this road measures about 8 meters.
- **Tertiary Roads:** Housing Block 332 is crisscrossed by a network of tertiary roads, each with a width of 4 meters. However, most of these roads remain underdeveloped (Image 09).

e. Public Lighting Network: Through our field observation, we discovered that streetlights are only present along the main roads, leaving a considerable absence of lighting within the neighborhood. This deficiency impacts various aspects, particularly security, especially during nighttime hours.

f. Environmental Aspect: During our field observation, we noted that the northern part of the neighborhood receives attention from local authorities through cleaning campaigns and repainting facades. However, we also observed a significant presence of garbage throughout the neighborhood. Residents attribute this issue to the lack of garbage collection points and the absence of containers.

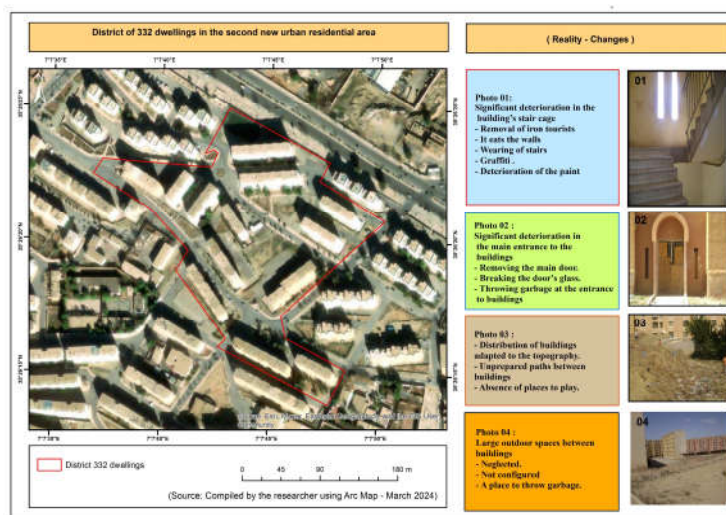


Figure 03: Housing Block 332 (ZHUN 02) - Status of Common Spaces

(Source: Compiled by the researcher using ArcMap - March 2024)

4.2.4. Population:

4.2.4.1. Population Density: The population of the neighborhood was estimated at 2,253 inhabitants based on the General Census of Housing and Population (RGPH) for the year 2022 (DPAT December 2023). They are distributed throughout the neighborhood at a density of approximately 465 inhabitants per hectare, which is considered high due to the presence of multi-story buildings reaching up to five floors (R+5).

4.2.4.3. Household Size (Occupancy Rate TOL): The average household size in the neighborhood is estimated at 6.78 individuals per dwelling, slightly exceeding the ideal rate of 6 individuals per dwelling.

4.2.5. Change analysis:

4.2.5.1 Changes Introduced to Dwellings (Apartments): Field observations have uncovered that a significant number of residents in Housing Block 332 have implemented various changes to their dwellings after moving in. These alterations encompass renewal and repainting, wall removal, re-tiling, kitchen modifications, balcony closure, and replacements of doors and windows, among others.

4.2.5.2. Changes Introduced to Facades: The alterations impacting building facades primarily revolve around modifying or entirely closing dwelling balconies and installing iron grills on balconies and windows. These changes to the original building facades have led to distorted appearances characterized by inconsistencies in size, shape, colors, etc., which we refer to as visual distortion (Image 06).

4.2.5.3. Reasons for Changes (Modifications): Based on field observation and discussions with neighborhood residents, the primary reason cited for these modifications is the prevalent issue of theft, accounting for approximately 54%. Additionally, reasons related to customs and traditions, particularly privacy concerns, were mentioned at 20%. The remaining percentage is attributed to various factors such as inappropriate facades and climatic considerations.

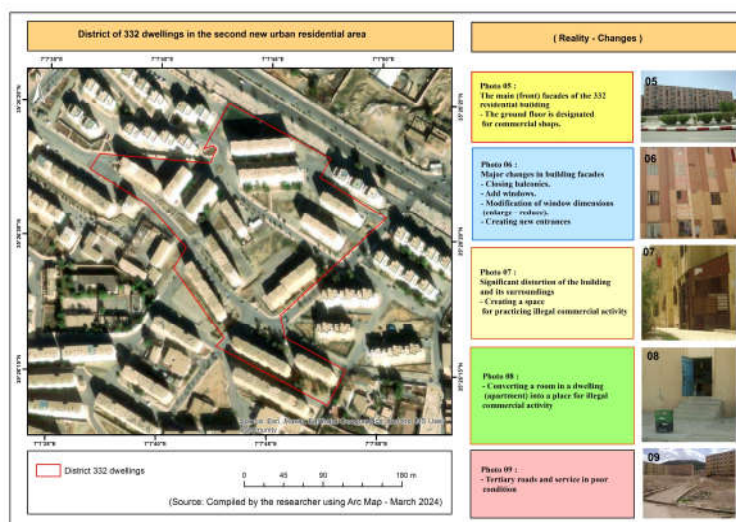


Figure 04: Housing Block 332 (ZHUN 02) - Current Situation and Changes

(Source: Compiled by the researcher using ArcMap - March 2024)

4.3.Important Conclusions:

From the analytical and detailed study of Housing Block 332 as a sample representing the neighborhoods of the New Urban Housing Zone (ZHUN 02) in Khenchela city, we have noted the following:

Urban Study:

- Housing Block 332 holds a significant position within ZHUN 02.
- There's a notable uniformity in the neighborhood's overall appearance, including facades, sizes, and urban shapes.
- The physical condition of buildings is average, with limited deterioration.
- Building placement prioritized topography over planning, leading to large unused spaces.
- Lack of facilities forces residents to seek amenities in adjacent areas.
- Outdoor spaces lack urban development.
- Climate considerations were overlooked in the planning process.

Population Study:

- Household sizes exceed dwelling capacities.
- Majority of residents belong to the middle-income bracket.

Changes Study:

- Changes in dwellings and buildings vary widely, driven by the failure to meet planning, social, and cultural standards.
- Housing Block 332 is primarily seen as a place of residence, lacking broader appeal or functionality for many residents.

5. Generalization of Housing Block 332 Reality in Khenchela City:

In summary, the observations made in Housing Block 332 in Khenchela city, within the Second New Urban Housing Zone, can be generalized to all collective residential neighborhoods established under the new urban housing zone policy across Algerian cities. This includes provincial capitals, where similar negative aspects and drawbacks are universally observed without exception.

6. New Urban Housing Zones in Algeria: "High Hopes and Limited Success"

The policy of new urban housing zones has faced considerable criticism, with experts noting that it has not achieved its intended objectives. The following observations can be made:

- Areas lacking identity and featuring significant spaces within major cities are now simply identified by numbers, such as Housing Block 332, Housing Block 350, Housing Block 200, solely known by their numerical labels like 332, 350, 200, etc.
- Neighborhoods within these zones lack strong community relations, effectively becoming residential areas with limited social cohesion.
- The diverse geographic backgrounds of residents in these neighborhoods have resulted in substantial disparities at all levels, making these areas fertile grounds for organized crime (neighborhood gangs, drug activities, etc.) (Mohammed Al-Amin, 2001, 38).
- The policy overlooked climate and environmental data for various geographic regions (coastal areas, highlands, the southern region), instead opting to replicate the same architectural style and amenities across all regions, leading to the construction of identical neighborhoods with identical details.
- The policy neglected urban standards by not incorporating green spaces, recreational areas, entertainment facilities, and necessary amenities associated with housing, which has had a detrimental impact on the quality of life in these areas.

While many experts acknowledge the shortcomings of this policy, we argue that it should not be deemed a complete failure but rather a limited success, as it did not fully realize its intended goals and objectives. Nevertheless, despite its challenges, we can identify several successes, including:

- Mitigating the substantial disparity between housing demand and supply in Algeria (high demand - low supply).
- Fulfilling the state's objective of achieving balanced development and reducing regional disparities across the country.
- Tackling the housing issue and playing a role in renewing Algeria's housing stock, thereby meeting the crucial demand for housing among Algerians.

Conclusion:

Addressing the housing equation is undeniably challenging, and the Algerian state has made significant efforts to tackle this issue. Various visions and policies, including the new urban residential areas policy, were implemented to meet the high demand for housing. While initially showing promising results, what is the current reality of these areas 35 years since their inception?

In the city of Khenshela, two urban residential areas were established, with our focus on the second one. We specifically studied neighborhood 332 as a model to comprehend its reality and the challenges it faces, particularly regarding the numerous external changes made to its housing units, leading to distorted facades or visual pollution. Additionally, several deficiencies were identified, including the absence of green spaces, recreational areas, declining public lighting, inadequate road networks within neighborhoods, parking shortages, and more.

In conclusion, while the new urban residential areas policy achieved satisfactory quantitative results, it fell short of qualitative success. The policy's implementation highlights the need for a more comprehensive approach that considers both quantitative and qualitative aspects of housing development.

Keywords:

Housing policy, new urban residential areas, housing crisis, collective housing, changes, built environment, non-built environment, neighborhood 332, Khenshela city.

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